ARIZONA PUBLIC SERVICE COMPANY

# Four Corners Power Plant

# ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT FOR 2024

## COAL COMBUSTION RESIDUALS RULE GROUNDWATER MONITORING SYSTEM COMPLIANCE

JANUARY 31, 2025



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## ARIZONA PUBLIC SERVICE COMPANY

FRUITLAND, NEW MEXICO

PROJECT NO.: US0023513.6155
DATE: JANUARY 31, 2025

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## ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| § | section |
| ACM | Assessment of Corrective Measures |
| AECOM | AECOM Technical Services, Inc. |
| Annual Report | Annual Groundwater Monitoring and Corrective Action Report for 2024 |
| amsl | above mean sea level |
| APS | Arizona Public Service Company |
| ASD | Alternative Source Demonstration |
| BTV(s) | background threshold value(s) |
| CCR | coal combustion residuals |
| CCR Rule | 40 CFR Part 257 |
| CCR units | CCR landfills and surface impoundments |
| CFR | Code of Federal Regulations |
| CSM | Conceptual Site Model |
| COC | contaminant of concern |
| CWTP | Combined Waste Treatment Pond |
| DFADA | Dry Fly Ash Disposal Area |
| Eurofins | Eurofins TestAmerica Laboratories, Inc. |
| FCPP | Four Corners Power Plant |
| ft | foot, feet |
| ft/ft | feet per foot |
| ft/d | feet per day |
| gpd | gallons per day |
| GWPS(s) | groundwater protection standard(s) |
| LAI | Lined Ash Impoundment |
| lbs | pounds |
| LDWP | Lined Decant Water Pond |
| MDL | method detection limit |
| mg/L | milligrams per liter |
| Multiunit 1 | CCR Multiunit comprised of LAI and LDWP |
| N/A | not applicable |

| | |
|---|---|
| NIT | Northern Intercept Trench |
| Pace | Pace Analytical Laboratories |
| Radiation Safety | Radiation Safety Engineering, Inc. |
| the reporting period | the calendar year preceding the "annual groundwater monitoring and corrective action report" prepared by January 31 |
| RL | reporting limit |
| RWP | Return Water Pond |
| SA1 2024 | the first semi-annual groundwater monitoring event on May 14 through 23, 2024 |
| SA2 2024 | the second semi-annual groundwater monitoring event on October 17 through November 16, 2024, and December 12, 2024 |
| SAP | Sampling and Analysis Plan |
| SDAWP | Statistical Data Analysis Work Plan |
| SIT | Southern Intercept Trench |
| Site | Four Corners Power Plant |
| SSI(s) | statistically significant increase(s) |
| SSL(s) | statistically significant level(s) |
| URS | Upper Retention Sump |
| URT | Upper Retention Tank |
| USEPA | U.S. Environmental Protection Agency |
| WSP | WSP USA Inc. |

# GROUNDWATER MONITORING AND CORRECTIVE ACTION PROGRAM OVERVIEW

| | | | |
|---|---|---|---|
| FACILITY NAME: | ARIZONA PUBLIC SERVICE COMPANY FOUR CORNERS POWER PLANT | ANNUAL REPORT DATE: | 1/31/2025 |
| Location: | Fruitland, New Mexico | Reporting Period: | 1/1/2024 – 12/31/2024 |

**Groundwater Monitoring Program Status**

| CCR Unit | Status at Beginning of Reporting Period | Status at End of Reporting Period | Date(s) of Any Program Transitions | Comments |
|---|---|---|---|---|
| Combined Waste Treatment Pond (CWTP) | Assessment Monitoring | Assessment Monitoring | 4/10/2023 | Initial Assessment Monitoring conducted in June 2023 |
| Dry Fly Ash Disposal Area (DFADA) | Detection Monitoring | Detection Monitoring | N/A | - |
| Return Water Pond (RWP) | Detection Monitoring | Detection Monitoring | N/A | - |
| Multiunit 1 | Assessment Monitoring | Assessment Monitoring | 2/12/2018 | Progressing Activities Supporting Remedy Selection |
| Upper Retention Sump (URS) | Assessment Monitoring | Assessment Monitoring | 2/12/2018 | Progressing Activities Supporting Remedy Selection |

**Groundwater Monitoring Statistical Analysis Summary**

| CCR Unit | Appendix III Constituent(s) with SSIs over Background | Monitoring Wells where SSIs over Background have been Observed‡ | Appendix IV Constituent(s) Present at SSL(s) above GWPSs | Monitoring Wells where SSLs above GWPSs have been Observed‡ |
|---|---|---|---|---|
| Combined Waste Treatment Pond (CWTP) | B, Ca | MW-62 | None | None |
| Dry Fly Ash Disposal Area (DFADA) | None | None | N/A | N/A |
| Return Water Pond (RWP) | None | None | N/A | N/A |
| Multiunit 1 | B, Ca, Cl, F | MW-7, MW-8, MW-61, MW-75 | Co, Mo | MW-61, MW-75 |
| Upper Retention Sump (URS) | B, Ca, Cl, F, pH | MW-66, MW-67, MW-68, MW-69, MW-70 | F | MW-66, MW-67, MW-68, MW-69 |

**Corrective Action Summary**

| CCR Unit | Dates when the ACM was Initiated and Completed | Date of Public Meeting Discussing the ACM | Date when Remedy was Selected | Dates when Remedy was Initiated and Completed |
|---|---|---|---|---|
| Multiunit 1 | 2/13/2019; 6/14/2019 | 8/15/2022 and 8/16/2022 | N/A | N/A |
| Upper Retention Sump (URS) | 2/13/2019; 6/14/2019 | 8/15/2022 and 8/16/2022 | N/A | N/A |

Abbreviations:
ACM – Assessment of Corrective Measures
CCR – Coal Combustion Residuals
GWPS – Groundwater Protection Standard
N/A – Not Applicable
SSI – statistically significant increase
SSL – statistically significant level

‡ Only includes wells where statistical analyses have been performed (i.e., Downgradient CCR Monitoring System Wells)

# 1 INTRODUCTION

This Annual Groundwater Monitoring and Corrective Action Report for 2024 (Annual Report) was prepared on behalf of Arizona Public Service Company (APS) by WSP USA Inc. (WSP), for the Four Corners Power Plant (FCPP or the Site) located in Fruitland, New Mexico. The Annual Report summarizes groundwater monitoring and corrective action activities conducted in 2024 to support compliance with coal combustion residuals (CCR) groundwater monitoring and corrective action requirements detailed in 40 Code of Federal Regulations (CFR) Part 257 (herein referred to as the CCR Rule) (Federal Register, 2020).

The CCR Rule became effective on October 19, 2015, and established standards for the disposal of CCR in landfills and surface impoundments (CCR units). In particular, the CCR Rule set forth groundwater monitoring and corrective action requirements for CCR units. The CCR Rule includes the requirement that an "annual groundwater monitoring and corrective action report" be prepared by January 31 for the preceding calendar year (the reporting period). This Annual Report prepared for the 2024 calendar year is intended to document the status of the groundwater monitoring and corrective action programs for each CCR unit, summarize key actions completed, and forecast key activities for 2025. APS additionally considers this report to meet the semi-annual reporting requirements of 40 CFR §257.97(a) for selecting and designing remedies pursuant to the CCR Rule during the last half of 2024.

The remainder of Section 1 provides a summary description of the power generating facility, the CCR units present at the facility, the facility's environmental setting that forms the basis for assessment of underlying groundwater conditions, and an overview of the CCR groundwater monitoring system. Section 2 presents key groundwater monitoring and corrective action activities performed during the reporting period. Sections 3 and 4 summarize in further detail the activities performed for the groundwater monitoring and corrective action programs respectively during the reporting period. Key activities identified for the upcoming year are presented in Section 5.

## 1.1 SITE BACKGROUND

### *1.1.1 FACILITY AND CCR UNIT DESCRIPTION*

**Facility Description.** FCPP is an operating power plant owned by APS and four other utilities. The plant burns low sulfur coal in two electrical generating units (Units 4 and 5) and has a net generating capacity of 1,540 megawatts. FCPP formerly had five generating units and a capacity of 2,040 megawatts; Units 1, 2, and 3 were retired in December 2013 and decommissioned between 2014 and 2016. Coal burned at the plant is generally sourced from the nearby Navajo Mine (Navajo Transitional Energy Company, 2025).

**Facility Location.** The plant and associated infrastructure are located approximately 20 miles southwest of the city of Farmington in the Colorado Plateau physiographic province of northwestern New Mexico (**Figure 1-1**). The land on which the plant resides is leased from the Navajo Nation and is primarily located in Section 36, Township 29 North, and Range 16 West of the northwest quadrant of the New Mexico Principal Meridian and Base Line.

**CCR Unit Description.** Plant infrastructure includes three single CCR units in the main plant area where the generating units are located (i.e., the Upper Retention Sump [URS], Combined Waste Treatment Pond [CWTP], and Return Water Pond [RWP]) and one single CCR unit (the Dry Fly Ash Disposal Area [DFADA]) and one CCR multiunit (referred to as Multiunit 1 comprised of the Lined Ash Impoundment [LAI] and Lined Decant Water Pond [LDWP]) to the west of the main plant area within the FCPP lease boundary (also known as the disposal area where CCR is currently and has historically been placed) (**Figure 1-2**). **Table 1-1** summarizes the location, function, operation, size/construction, and history of each regulated unit. The boundaries of CCR units depicted in **Figure 1-2** are based on available historical plans for the units.

## 1.1.2 ENVIRONMENTAL SETTING

Unless otherwise noted, the following information is abstracted from the *CCR Monitoring Well Network Report and Certification* by AECOM Technical Services, Inc. (AECOM, 2017).

**Climate.** The plant is located in a semi-arid climate on the western flank of the San Juan Basin. The area receives an average of 8.6 inches of precipitation and 12.6 inches of snow per year.

**Topography.** The main plant area of the FCPP is located at an elevation of approximately 5,340 to 5,360 feet (ft) above mean sea level (amsl). The topography of the FCPP area is characterized by rolling terrain, steep escarpments, and incised drainages/arroyos. In the vicinity of the plant, the ground surface is relatively flat, sloping to the west at approximately 20 ft per mile; however, surface drainage immediately near Morgan Lake flows towards the lake. About one mile west of the plant, the level ground surface drops rapidly to 5,200 ft amsl. Chaco Wash (also known as Chaco River) is located west of the abrupt change in elevation and ephemerally flows north to the San Juan River.

**Surface Water Hydrology.** FCPP is situated on the southern bank of Morgan Lake, an approximately 1,300-acre manufactured lake that has a maximum storage capacity of 39,000 acre-ft of water and supplies cooling water to the plant. Morgan Lake was formed by damming a westerly flowing stream (now known as 'No Name Wash') and is replenished by an underground pipeline (i.e., aqueduct) that routes flow from the San Juan River located approximately 3 miles north of the FCPP. The typical water surface elevation of the lake is approximately 5,330 ft amsl. Morgan Dam intermittently discharges in accordance with National Pollutant Discharge Elimination System (NPDES) Permit No. NN0000019 to 'No Name Wash,' which flows west of the lake to Chaco Wash.

**Site Geology.** The San Juan Basin is a structural depression that lies at the eastern edge of the Colorado Plateau (Dames & Moore, 1988). The dominant geographic feature in the vicinity of FCPP is the Hogback Monocline located to the west of Chaco Wash; this monocline is a steep (38 degree) eastward-dipping flank composed of Cretaceous sedimentary rock (Dames & Moore, 1988).

There are two 'uppermost geologic units' that underlie the FCPP Site and immediate vicinity. These units are expected to influence groundwater flow and result in variations in naturally occurring constituent concentrations across the Site. The units are as follows:

- **Pictured Cliffs Sandstone:** The Pictured Cliffs Sandstone is the uppermost geologic unit beneath the plant and the CCR units located in this vicinity (i.e., the URS, the CWTP, and the RWP as depicted in **Figure 1-2**). This unit is a fine- to medium-grained marine sandstone. The lower portions of the Pictured Cliffs Sandstone represent a transitional sequence between this formation and the underlying Lewis Shale as indicated by alternating thin beds of very fine-grained sandstone and silty shale. The Pictured Cliffs Sandstone forms a capstone on an exposed cliff face located between the main plant site and the CCR units located to the west (i.e., LAI, LDWP, and the DFADA).
- **Lewis Shale:** The Lewis Shale is a marine shale that contains evaporite deposits resulting in naturally occurring saline groundwater conditions. The Lewis Shale is the uppermost geologic unit that underlies the LAI, LDWP, and DFADA and spans west of the Pictured Cliffs Sandstone cliff face approximately 1.5 miles westward to the base of the Hogback Monocline. The regional thickness of the Lewis Shale is approximately 500 ft and is underlain by the Cliff House Sandstone. The Lewis Shale consists of a weathered shale subunit overlying a hard, unweathered shale subunit. The thickness of the weathered shale varies between 11 and 47 ft with an average thickness of 30 ft within the vicinity of the Site (Dames & Moore, 1988). The weathered shale is not as thick when overlain by the Pictured Cliffs Sandstone in the vicinity of the plant site. At the RWP, subsurface investigations did not identify weathered Lewis Shale. The unweathered shale below the RWP dips to the northeast, towards Morgan Lake (Wood, 2020a). The Lewis Shale subunit contains thin sandstone lenses that vary in thickness from 1 to 7 ft; the sandstone is fine to very fine grained and cemented by calcium carbonate (Dames & Moore, 1988). The unweathered shale is significantly less permeable than the weathered shale. The unweathered shale is very fine grained to silty and contains periodic siltstone and sandstone lenses (Dames & Moore, 1988). The surface of the unweathered shale slopes towards the Chaco Wash in the disposal area at approximately the same slope as land surface (Dames & Moore, 1988) but displays some irregularity resulting in varying levels of saturated thickness in the weathered shale. The

weathered Lewis Shale is variably saturated and hydraulically interconnected with alluvial deposits of Chaco Wash. The low-permeability unweathered shale underlying the Pictured Cliffs Sandstone results in a perched saturated zone in this region.

**Applicable Hydrostratigraphy.** Three general hydrostratigraphic units are conceptualized beneath the FCPP and associated CCR units. These units form the basis for the Conceptual Site Model (CSM) developed by AECOM (AECOM, 2017) for the purpose of designing the Site CCR groundwater monitoring system and establishing the working basis for statistically evaluating groundwater conditions underlying the Site.

The first hydrostratigraphic unit (Pictured Cliffs Sandstone) is dominant under the plant area, which is located in an elevated area south of Morgan Lake (**Figure 1-2**). Three CCR units (the URS, CWTP, and RWP) reside within this area. The Pictured Cliffs Sandstone is saturated below the URS and the CWTP and thus serves as the uppermost water-bearing unit for these surface impoundments. While the Pictured Cliffs Sandstone is unsaturated beneath the RWP, this hydrostratigraphic unit is the uppermost water-bearing unit should a leak from the RWP occur (the underlying Unweathered Lewis Shale prevents appreciable vertical migration of groundwater). The Pictured Cliffs Sandstone extends from ground surface (between approximately 5,340 to 5,360 ft amsl) to approximately 5,300 ft amsl in the plant area. Groundwater underlying the URS and CWTP is strongly influenced by Morgan Lake (at a surface elevation of approximately 5,330 ft amsl) and generally flows northward towards the lake. However, construction and operations of the plant have resulted in disturbed ground conditions and associated impacts are not well understood.

The second hydrostratigraphic unit (Weathered Lewis Shale/Alluvium) underlies the Pictured Cliffs Sandstone in the plant area and the Multiunit 1/DFADA CCR units in the disposal area, approximately 1 mile west of the plant (**Figure 1-2**). The Weathered Lewis Shale and the hydraulically connected alluvial deposits along Chaco Wash are designated as the uppermost water-bearing unit in the disposal area. Although the Weathered Lewis Shale is geologically continuous in this area, it is unsaturated in the vicinity of the DFADA. The water table in the Weathered Lewis Shale can exhibit local seasonal fluctuations that are attributed to interactions between rates of groundwater recharge and discharge (Dames & Moore, 1988) from/to Morgan Lake (based on proximity), historical unlined ponds, and Chaco Wash. Groundwater flow underlying the disposal area CCR units generally follows the surface topography and descends to the west-southwest in the disposal area, mainly in the weathered shale and in local alluvial channels that drain toward the Chaco Wash (APS, 2013).

The third hydrostratigraphic unit (Unweathered Lewis Shale) consists of the Unweathered Lewis Shale geologic unit and is a regionally extensive confining unit that forms the base of the uppermost aquifers in the plant and disposal areas. The Unweathered Lewis Shale is not capable of yielding usable quantities of water and thus is not an aquifer.

## 1.2 CCR GROUNDWATER MONITORING SYSTEM

Multiple monitoring wells are in place at FCPP to monitor groundwater conditions beneath the five Site CCR units to meet the requirements of CCR rules. **Table 1-2** identifies each well with associated CCR unit information, the date of well installation, and summary well construction details. **Figure 1-2** presents a map of the well locations.

Installation of the FCPP CCR groundwater monitoring system is summarized in the *CCR Monitoring Well Network Report and Certification* (AECOM, 2017) and the *Groundwater Monitoring Network Certification Report for the Return Water Pond* (Wood, 2020a). Per the CCR Rule, Site monitoring systems are required to evaluate groundwater quality that is representative of background (i.e., groundwater that has not been affected by leakage from a CCR unit) and groundwater passing the downgradient boundary of each CCR unit, in the uppermost water-bearing hydrostratigraphic unit underlying the CCR unit.

In addition to the CCR groundwater monitoring system wells, there are many non-CCR supplementary monitoring wells and extraction wells at the Site that are not part of the CCR groundwater monitoring systems but may provide useful information to the program. Groundwater extraction at the Site predates implementation of the CCR Rule. Although some extraction wells have been installed as part of interim response measures (see Section 4.3), many older extraction wells are inactive in terms of extraction operations, but the well can be

monitored to assess groundwater conditions. **Table 1-2** and **Figure 1-2** identify the supplemental and extraction wells.

## 1.2.1 MONITORING SYSTEM DESCRIPTION

### 1.2.1.1 BACKGROUND GROUNDWATER MONITORING WELLS

Background water quality at the Site can be established by a single monitoring well or a group of monitoring wells. If a group of monitoring wells is used, these wells should be screened within the same lithologic unit and be supported by the CSM. The grouping and adequacy of background wells identified for FCPP to assess background water are adequate based on the current understanding of the geological and hydrostratigraphic conditions.

The processes used to evaluate and select the CCR unit background monitoring wells are documented in the *CCR Monitoring Well Network Report and Certification* (AECOM, 2017) and the *Groundwater Monitoring Network Certification Report for the Return Water Pond* (Wood, 2020a). The selected background monitoring wells and the rationales in selecting them are summarized below by hydrostratigraphic unit.

**Background Wells for the Pictured Cliffs Sandstone.** Three wells (MW-71, MW-72, and MW-73) are used to determine background groundwater quality for the URS, the CWTP, and the RWP in the Pictured Cliffs Sandstone (**Table 1-2** and **Figure 1-2**).

MW-71, MW-72, and MW-73 are considered representative of unimpacted groundwater even though they are not located upgradient of the RWP. Exploratory borings advanced during the design of the RWP CCR Monitoring System indicated that the Pictured Cliffs Sandstone upgradient of the RWP is unsaturated.

**Background Wells for the Weathered Lewis Shale/Alluvium.** Water in the Weathered Lewis Shale/Alluvium is perched and sourced by localized surface water infiltration. The hydrogeological regime, as well as the fractured nature of weathered shale, contributes to difficulties in reliably locating saturated sediments in the subsurface. On that basis, seven wells upgradient of Multiunit 1 and the DFADA, including MW-12R1, MW-43, MW-49A, MW-51, MW-50A, MW-55R, and MW-74, are designated to assess background groundwater quality for the Weathered Lewis Shale/Alluvium (**Table 1-2** and **Figure 1-2**). Background well, MW-12R1 has been dry for the last four years and no groundwater samples have been collected from this location in recent years. Many of these wells are routinely either dry or have a limited saturated thickness that precludes sampling; the wells are included in the program should conditions change in the future.

The FCPP SDAWP (WSP, 2023a) suggested that M-49A is susceptible to contamination and further evaluation and site investigations should be considered to determine if current background well designations are appropriate for the Multiunit. The adequacy of designated background monitoring wells is assessed on an ongoing basis.

### 1.2.1.2 DOWNGRADIENT CCR MONITORING WELL NETWORKS

A total of 27 CCR compliance wells are used to monitor groundwater conditions downgradient of each CCR unit (**Table 1-2** and **Figure 1-2**). Downgradient waste boundary wells assess for leakage from each CCR unit, and the remaining downgradient wells evaluate the nature and extent of groundwater conditions associated with identified releases from CCR units. Of the 27 downgradient or downgradient boundary wells, 16 are installed in the Pictured Cliffs Sandstone. The remaining 11 downgradient or downgradient boundary wells are completed in the Weathered Lewis Shale/Alluvium. The grouping of monitoring wells, spatial density, and coverage of the monitoring well network is adequate based on the current understanding of the geological and hydrostratigraphic conditions. These wells are identified by respective CCR unit, as described below:

**URS Downgradient Wells (Pictured Cliffs Sandstone).** Before the URS was demolished and replaced with the Upper Retention Tank (URT), the groundwater flow direction underlying the URS was radially outward from the CCR unit. On that basis, five downgradient boundary wells, MW-66, MW-67, MW-68, MW-69, MW-70, and four downgradient wells, MW-83, MW-84, MW-85, and MW-86, were installed around the perimeter and downgradient of the URS to evaluate leakage and the extent of groundwater impacts, respectively. The URS downgradient wells are screened within the Pictured Cliffs Sandstone hydrostratigraphic unit.

**CWTP Downgradient Wells (Pictured Cliffs Sandstone).** Similar to the URS, the groundwater flow direction underlying the CWTP was inferred to be radially outward from the CCR unit at the time the monitoring system was designed. Four downgradient boundary wells, MW-62, MW-63, MW-64, and MW-65 were installed around the perimeter of the CWTP. The *CCR Monitoring Well Network Report and Certification* (AECOM, 2017) identifies these wells as screened within the Pictured Cliffs Sandstone hydrostratigraphic unit. However, additional review of boring logs conducted as part of an Alternative Source Demonstration (ASD) in 2019 for the CWTP (Wood, 2020b) indicates that MW-62 and MW-63 are screened in non-native embankment fill materials, including Weathered Lewis Shale and bottom ash, that appear to influence the water quality of samples collected from these wells.

**RWP Downgradient Wells (Pictured Cliffs Sandstone).** Three downgradient boundary monitoring wells are installed within the Pictured Cliffs Sandstone hydrostratigraphic unit on the northeastern edge of the RWP – MW-88, MW-89, and MW-90. The Pictured Cliffs Sandstone is unsaturated beneath the RWP, and the wells are installed directly above the aquitard created by the underlying Unweathered Lewis Shale, which dips towards the northeast beneath the RWP. The groundwater monitoring system is designed to detect releases from the RWP, as a release would likely migrate vertically downward through the relatively permeable Pictured Cliffs Sandstone to the underlying Unweathered Lewis Shale, then migrate laterally along the surface of the aquitard. The next underlying aquifer (in the Cliff House Sandstone) is separated from the CCR unit by several hundred feet of the Unweathered Lewis Shale.

**Multiunit 1 Downgradient Wells (Weathered Lewis Shale/Alluvium).** Six downgradient boundary monitoring wells are in place along the toe of the western to southwestern edge of Multiunit 1 – MW-07, MW-08, MW-40R, MW-61, MW-75, and MW-76. In 2018, to characterize the nature and extent of impacts from the unit, downgradient monitoring well MW-87 was installed at the western lease boundary near the Chaco Wash. Monitoring data collected during both events are discussed further in Section 3.2. The screened interval for each Multiunit 1 downgradient well resides within the Weathered Lewis Shale/Alluvium hydrostratigraphic unit.

**DFADA Downgradient Wells (Weathered Lewis Shale/Alluvium).** Four downgradient boundary monitoring wells are identified downgradient of the DFADA: MW-10, MW-13, MW-44, and MW-48. Each well, except MW-48, is screened within the Weathered Lewis Shale/Alluvium hydrostratigraphic unit. The screened interval for MW-48 resides within the Unweathered Lewis Shale hydrostratigraphic unit. The groundwater monitoring system was designed to detect releases because the next underlying aquifer (in the Cliff House Sandstone) is separated from the CCR unit by several hundred ft of Lewis Shale. The downgradient DFADA wells are generally dry; however, insignificant amounts of condensate are known to sometimes accumulate in the wells. Excluding condensate, the wells were dry in 2024. Monitoring data collected during both events are discussed further in Section 3.2.

### 1.2.2 IMPLEMENTED CHANGES TO MONITORING SYSTEM

No changes to the current certified monitoring systems occurred during the 2024 reporting period.

# 2 SUMMARY OF KEY ACTIONS COMPLETED

A summary of key actions conducted at the Site during 2024 to address CCR Rule requirements is as follows:

- *Documentation of Groundwater Monitoring Activities Conducted in 2023* – 40 CFR §257.90(e) requires that an Annual Groundwater Monitoring and Corrective Action Report for applicable sites be prepared for existing CCR units annually on January 31 of the following year. During the reporting period, the *Annual Groundwater Monitoring and Corrective Action Report for 2023* (WSP, 2024) was prepared, placed in the facility's operating record, and posted to the APS's CCR information webpage in accordance with 40 CFR §257.105(h)(1) and 40 CFR §257.106(h)(1).
- *Continuation of the Detection Monitoring Program at the DFADA and RWP* – 40 CFR §257.94(b) requires the continuation of detection monitoring at a semi-annual frequency for Appendix III constituents at CCR units where statistical analysis of Appendix III constituent data do not indicate a statistically significant increase (SSI) over background. Section 3.2 presents the results of detection monitoring data collected on a semi-annual basis from the DFADA and RWP in 2024.
- *Continuation of the Assessment Monitoring Program at the CWTP* – 40 CFR §257.95 requires the continuation of assessment monitoring at a semi-annual frequency for Appendix IV constituents. Section 3.3 presents the results of assessment monitoring data collected on a semi-annual basis from the CWTP in 2024.
- *Statistical Analyses of Appendix IV Constituents at the CWTP* – 40 CFR §257.93(h) requires routine statistical analysis of Appendix IV constituent data from the CCR units in assessment monitoring. During the reporting period, two statistical analyses were performed using updated Appendix IV constituent data collected from CWTP monitoring wells. The statistical analyses are summarized in Section 3.3.
- *Statistical Analyses to Evaluate Background Threshold Values (BTVs)* - In accordance with the Statistical Data Analysis Work Plan (SDAWP; WSP, 2023a) background limits should be updated periodically to account for intrinsic temporal variations in groundwater conditions and maintain an adequate statistical power. The statistical analyses are summarized in Section 3.3.2 for the Multiunit and URS.
- *Preparation of a Semi-annual Progress Report on Remedy Selection for Multiunit 1 and the URS* – 40 CFR §257.97(a) requires the preparation of semi-annual reports, which document the progress of remedy selection for CCR units that have impacted groundwater. The ninth semi-annual report was prepared to fulfill that requirement in July 2024 of the reporting period (Section 4.5). Activities supporting remedy selection conducted during the second semi-annual reporting period of 2024 are summarized in Section 4.4.
- *Completion of a Fluoride Split-Sampling Laboratory Analysis* – A split method analysis was performed on data collected during the November 2023 monitoring event and the results were reported during the 2024 reporting period. The precision and accuracy of the split sampling data is presented in a Technical Memorandum including recommendations based on the results of the evaluation. The split method analysis is summarized in Section 3.1.1. and included as an appendix to this report.
- *Interim Response Measures at the URS* – Startup of groundwater extraction from CM-01 and CM-02 began in February 2022 and APS continued to operate the seepage extraction system throughout the reporting period. The extracted groundwater is discharged into a plant sump for reuse in plant operations. The 2024 URS extraction well operations are summarized in Section 4.3
- *Interim Response Measures at the Multiunit 1* – APS operated the Northern Intercept Trench (NIT) and Southern Intercept Trench (SIT) throughout the reporting period to intercept and collect seepage from Multiunit 1 and closed surface impoundments. The extracted groundwater is reused in plant operations. The 2024 NIT and SIT operations are summarized in Section 4.3.
- *Continuation of the CWTP Dredging Program* – APS completed removal of CCR from the CWTP through mechanical excavation and hydraulic dredging. Documentation of the removal will be completed in 2025.
- *Well Construction at URS*. APS installed four wells north of the URT, including two supplementary monitoring wells (URS-05 and URS-08) and two inactive extraction wells (URS-06 and URS-07). The installation began in

December 2023 and development was completed in January 2024. A technical report documenting that work, dated March 27, 2024, with an addendum dated April 4, 2024 is included in **Appendix A**.

— *Chaco Wash Flow Measurement Station* – The Chaco Wash flow measurement station was evaluated and maintenance performed in June 2024. The maintenance report is included in **Appendix B**.

# 3 GROUNDWATER MONITORING PROGRAM

The groundwater monitoring and corrective action process defined in the CCR Rule includes a phased approach to groundwater monitoring, leading (if applicable) to the establishment of groundwater protection standards (GWPSs) for each CCR unit. Exceedances of the GWPSs that are determined to be statistically significant can trigger requirements for additional groundwater characterization and corrective measures assessment followed by implementation of a corrective action program.

The first phase of groundwater monitoring is the detection monitoring phase. Detection monitoring focuses on a set of CCR constituents (listed in Appendix III of the CCR Rule) that are more mobile and generally present at higher concentrations. These attributes can contribute to making constituents readily quantified and early indicators of a potential release from a CCR unit to groundwater. If SSIs are detected for Appendix III constituent over established background levels, otherwise known as background threshold values (BTVs), in downgradient waste boundary wells and cannot be demonstrated to be associated with a source other than the CCR unit, the groundwater monitoring moves into the second phase, assessment monitoring. **Table 3-1** and **3-2** summarizes the BTVs for Site CCR units.

The second phase of groundwater monitoring focuses on the constituents listed in Appendix IV of the CCR Rule. The Appendix IV constituents are generally less mobile and typically occur at lower concentrations in groundwater than the Appendix III constituents. Concentrations of Appendix IV constituents in downgradient wells are compared to established GWPSs. The GWPSs, established for Appendix IV constituents only, are the higher of either the federal Safe Drinking Water Act Maximum Contaminant Level, alternative human health risk-based GWPSs established in the CCR Rule, or the BTV calculated for each constituent. **Table 3-1** summarizes the GWPSs for Site CCR units.

## 3.1 PROGRAM STATUS

Based on available Appendix III and Appendix IV concentrations and statistical analyses completed as of the end of the 2024 reporting period, the DFADA and RWP are currently in detection groundwater monitoring and the CWTP is currently in assessment groundwater monitoring. During the 2024 reporting period, all DFADA and RWP downgradient compliance wells continued to be dry and, therefore, precluded groundwater sampling and groundwater quality evaluation. The URS and Multiunit 1 (the LAI/LDWP) are in corrective action and continue to be monitored as part of the assessment groundwater monitoring program.

Summaries of groundwater monitoring program activities performed during the reporting period are presented in the following sections.

### *3.1.1 PROBLEMS ENCOUNTERED AND RESOLUTIONS TO PROBLEMS*

The following problems and associated resolutions were encountered during the reporting period:

— During the first semi-annual 2024 event, Eurofins TestAmerica Laboratories (Eurofins) demonstrated issues with inconsistent sample dilution factors (DFs) and reporting limits (RLs), similar to those experienced in recent years (Wood 2021, 2022, WSP 2023, 2024). Following the first semi-annual 2023 monitoring event, during which fluoride analyses exceeded BTVs, WSP and APS met extensively with Eurofins to seek a resolution. This resolution included updating the project notes with the maximum allowable DFs and RLs and conducting an evaluation during the second semi-annual 2024 event of an alternative analytical method recommended by Eurofins, United States Environmental Protection Agency (USEPA) Method 9056A.

The second semi-annual 2023 monitoring event evaluation, conducted by WSP, included a split-sample analysis to compare the performance of the groundwater monitoring program's fluoride method, USEPA Method 300.0, to the alternative method, USEPA Method 9056A. The evaluation, completed in 2024 and detailed in **Appendix C**, concluded that the recent DF and RL issues were not caused by the selected analytical method but by over-dilution of the samples by the Eurofins analyst. WSP recommended continuing the use of USEPA Method 300.0 and considering a change in the contracted laboratory if Eurofins continued to demonstrate performance errors.

In the first semi-annual 2024 monitoring event, fluoride was reported at a concentration of 8.7 milligrams per liter (mg/L) at MW-83, exceeding the project specific criteria of 4.0 mg/L. This intermediate detection raises concerns about its reliability, as it is inconsistent with historical data at this location and the result in second semi-annual 2024 monitoring event (1.58 mg/L). The data was deemed useable based on the Stage 2A validation but appears to be anomalous which was confirmed by the second semi-annual 2024 monitoring event. The fluoride results at MW-83, along with the recurrence of DF and RL issues during the first semi-annual 2024 monitoring event coupled with significant delays in laboratory report delivery, prompted APS to transition to an alternative laboratory. As of the second semi-annual 2024 monitoring event, Pace Analytical Laboratories (Pace) will perform the required analysis for CCR groundwater monitoring.

### 3.1.2 GROUNDWATER MONITORING PROGRAM TRANSITIONS

No CCR unit monitoring program transitions occurred during the reporting period.

### 3.1.3 ALTERNATIVE SOURCE DEMONSTRATIONS

No ASDs were conducted during the 2024 reporting period.

## 3.2 MONITORING DATA COLLECTED

CCR groundwater monitoring was conducted at FCPP during the 2024 reporting period in accordance with the updated *Site Sampling and Analysis Plan* (SAP) (Wood, 2022a). The SAP documents the methods and procedures used to conduct groundwater sampling, analyze collected samples for CCR constituents, and assess associated analytical data for quality assurance purposes.

The first semi-annual groundwater monitoring event took place in May 14 through 23, 2024 (SA1 2024) and the second semi-annual monitoring event took place in October 17 through November 16, 2024 and December 12, 2024 (SA2 2024). The following sections summarize groundwater monitoring activities conducted in 2024. **Table 3-2** identifies when monitoring occurred, and which units were monitored. Unless otherwise noted, detection monitoring included evaluation of samples for Appendix III constituents on a semi-annual basis (40 CFR §257.94[b]) and at a minimum, assessment monitoring included evaluation of samples for all Appendix IV constituents on an annual basis (40 CFR §257.95[b]) and detected Appendix IV constituents, as well as all Appendix III constituents on a semi-annual basis (40 CFR §257.95[d][1]). To simplify groundwater monitoring logistics, CCR compliance wells in assessment monitoring were evaluated for all Appendix IV constituents on a semi-annual basis in 2024.

The DFADA wells are completed in either the Weathered Lewis Shale/Alluvium or Unweathered Lewis Shale while the RWP wells are completed in the Pictured Cliffs Sandstone. These hydrostratigraphic units are known to be dry downgradient of the DFADA and the RWP. Thus, the DFADA and RWP groundwater monitoring systems are designed to detect releases by the presence of water (although insignificant amounts of condensate can accumulate in wells). During the SA1 and SA2 2024 monitoring events, these wells were found to be dry, which is consistent with previous readings and indicates that releases from the DFADA and RWP did not occur in 2024.

Supplementary and extraction well water samples were also collected as part of characterization, pre-design and corrective measures evaluations conducted during the reporting period, which include:

- Seepage intercept system (i.e., interim response measures) samples collected from sumps.
- Groundwater samples collected downgradient of seepage intercept systems.
- Surface water samples from the CWTP, Morgan Lake, and the cooling water canal adjacent to the CWTP.

As with the CCR groundwater samples, the supplementary samples were collected and analyzed using industry-standard procedures and in accordance with the SAP.

### 3.2.1 WATER LEVEL MONITORING

**Figure 3-1** presents a potentiometric surface contour map created using water-level measurements collected from May 14 through 18, 2024 (SA1 2024). **Figure 3-2** presents a potentiometric surface map created using water-level measurements collected from October 17 through November 14, 2024 (SA2 2024). **Appendix D** presents hydrographs depicting groundwater elevations measured at downgradient CCR monitoring system wells over time. Groundwater elevations in the Pictured Cliffs Sandstone (i.e., plant area) and the Weathered Lewis Shale/Alluvium (i.e., disposal area) are graphed independently based on assessment of the data during initial CSM development; review of the data suggests that the two groundwater systems are likely not in direct communication. Unless otherwise noted below or within the hydrographs of **Appendix D**, hydrographs are based on water level measurements collected semi-annually during the groundwater monitoring events; therefore, the significant trends discussed below may be somewhat limited.

**Downgradient and downgradient boundary wells for Multiunit 1 (MW-07, MW-08, MW-40R, MW-61, MW-75, MW-76, and MW-87):** Trends indicated slowly declining groundwater elevations at MW-61, MW-75, and MW-76. All other wells (MW-07, MW-40R, MW-87 and MW-08) downgradient of the Multiunit 1 indicate minor trend fluctuations with an overall stable groundwater level. The minor trend fluctuations observed at MW-08 and MW-87 are likely attributable to seasonal fluctuations in the groundwater table and interactions with stream flow within the Chaco Wash (at MW-87). The increasing water level trend noted in 2023 in MW-07 has reversed and the trend in this well in 2024 was decreasing, indicating that the slight rise noted in 2023 was part of the long-term trend of minor fluctuations in the well. Groundwater flow in the Weathered Lewis Shale is dominated by preferential flow paths due to the fractured flow regime and therefore it would not be unusual for fluctuation trends to vary in small areas (AECOM 2017).

MW-40R and MW-76 did not contain enough groundwater within the well casing to support the collection of groundwater samples during both the SA1 and SA2 2024 semi-annual sampling events. Due to minimal groundwater and/or poor recovery rates, groundwater samples have not been collected from these wells since April 2021 per the SAP (Wood, 2022a).

**Background wells for Multiunit 1 (MW-43, MW-49A, MW-50A, MW-51, and MW-74):** Water levels in background wells MW-43, MW-49A, MW-50A, and MW-51 remained stable. Seasonal variations in groundwater elevations continue to be apparent at MW-74 (background well for Multiunit 1, and located downstream of Morgan Lake Dam), with the higher elevations occurring in early spring and the lower elevation occurring in late summer to late fall. Water level fluctuations at MW-74 (located just south of 'No Name Wash') may be influenced by discharges from Morgan Lake into 'No Name Wash'. The water level in Morgan Lake is managed by FCPP as part of its operation. Typical seasonal patterns appear to have continued during the 2024 reporting period.

MW-51 and MW-74 contained insufficient amounts of groundwater within their respective well casing during the SA1 and SA2 2024 semi-annual sampling events. As a result, groundwater samples were not collected from these locations in 2024 in accordance with the SAP (Wood, 2022a). These wells have not been sampled since April 2021 due to minimal groundwater and/or poor recovery rates. In contrast, MW-43 and MW-50A were affected by low water levels during SA2 2024 but were able to be sampled using modified methods, as discussed in Section 3.2.3.

**Downgradient and downgradient boundary wells for URS (MW-66, MW-67, MW-68, MW-69, MW-70, MW-83, MW-84, MW-85, and MW-86):** In contrast to the steadily declining trend observed since July 2016, groundwater elevations downgradient of the URS generally increased between November 2023 and May 2024, before declining in October 2024. MW-66 shows a large drop in water level (1.71 ft) from November 2023 to May 2024 before returning to the trend in October 2024, indicating that the May 2024 water level is anomalous. The minor fluctuations observed in 2024 are likely attributable to operation of the extraction wells at the URS, dredging activities in the CWTP, and operation of Morgan Lake. The overall decline in water levels since 2016 is

attributed to the decommissioning of the URS between June and December 2018 and pumping at the URS extraction wells CM-01 and CM-02 beginning in February 2022.

**Downgradient boundary wells for the CWTP (MW-62, MW-63, MW-64, and MW-65):** Groundwater elevations at MW-62, MW-63, MW-64 and MW-65 generally show a declining trend beginning in November 2020 which coincides with discharges to the unit ceasing in November 2020 and water levels in the surface impoundment have been maintained at lower elevations since that time to prevent discharges from the unit to the adjacent canal during dredging (Section 4.5.2). Groundwater elevations declined at all wells however the elevations each year show an increase in the spring followed by a decreased level in the fall attributed to seasonal variations.

**Background wells for URS and CWTP (MW-71, MW-72, and MW-73):** Groundwater elevations at MW-71 and MW-72 generally continued to decrease during 2024, with minor trend fluctuations attributed to seasonal variations. Groundwater elevation at MW-73 increased in 2024. MW-73 is located near Morgan Lake and is likely influenced by fluctuations of the water elevation at the lake.

**Figures 3-1** and **3-2** present potentiometric surface maps that are representative of groundwater elevations prior to groundwater sampling for SA1 and SA2 in 2024, respectively. The estimated direction and gradient of groundwater flow derived from collected groundwater elevation data are noted in the figures.

### 3.2.2 GROUNDWATER FLOW ESTIMATION

The CCR Rule requires that groundwater flow rates beneath CCR units be estimated during each monitoring event. To meet the requirement, water levels measured at the time of sampling events were used to calculate the direction and magnitude of the hydraulic gradient in the vicinity of each unit using a spreadsheet tool available on the USEPA website (USEPA, 2014). Darcy's Equation for flow through porous media was then used with Site data (where available) and/or literature-based hydraulic conductivity and effective porosity values for hydrogeologic units to estimate groundwater flow rates. Groundwater flow rates and gradient magnitudes were calculated separately for the Pictured Cliffs Sandstone underlying the URS and CWTP, respectively, in 2024, to evaluate the influence pumping at the URS extraction well system had at the units. **Table 3-3** summarizes the results of these calculations.

The data collected during the reporting period suggest that the water table in the plant area is relatively flat (as compared to other areas) and in hydraulic communication with Morgan Lake. The hydraulic gradients and groundwater flows observed in the Pictured Cliffs Sandstone at the former URS and CWTP during the 2024 reporting period are discussed below:

- **For the Pictured Cliffs Sandstone underlying the former URS**, the magnitude of the hydraulic gradient was 0.0003 and 0.0007 ft per ft (ft/ft), for measurements taken in SA1 and SA2 2024, respectively. The direction of groundwater flow (collectively for all wells) was north-northwest towards Morgan Lake for both sampling events. The directions calculated were 346 and 348 degrees from north for measurements collected in SA1 and SA2 2024, respectively. Corresponding groundwater flow rates were 0.01 and 0.02 ft per day (ft/d) for measurements collected during SA1 and SA2 2024, respectively. The URS extraction well pump operation appears to still have an impact on the groundwater flow direction in the area of the URS, which remains directed in a northerly direction with some localized flow towards the extraction well system.
- **For the Pictured Cliffs Sandstone underlying the CWTP**, the magnitude of the hydraulic gradient was 0.0006 and 0.0007 ft/ft for measurements taken in SA1 and SA2 2024, respectively. The direction of groundwater flow at the CWTP was changed between SA1 and SA2 2024 from the southwest (199 degrees) to the southeast (122 degrees). Corresponding groundwater flow rates were 0.01 and 0.02 ft/d for measurements collected in SA1 and SA2 2024, respectively. Because the CWTP is being dredged, the water level in this unit is maintained by pumping water from the cooling water canal into the unit. The changes in groundwater flow directions observed in downgradient CWTP wells may be impacted by lower Morgan Lake levels and the dredging activity conducted in the CWTP during the reporting period.

The hydraulic gradients and flow directions in the Lewis Shale underlying Multiunit 1 at the disposal area were relatively stable. The magnitude of the hydraulic gradient was 0.03 (ft/ft) during each monitoring round and the direction of groundwater flow was southwest towards Chaco Wash (257 and 256 degrees from north for SA1 and

SA2 2024 measurements, respectively), which is comparable to historical gradient and direction values. The corresponding groundwater flow rate for SA1 and SA2 2024 was 0.0002 (ft/d), which is also comparable to historical flow rates.

### 3.2.3 SAMPLE COLLECTION

During the 2024 reporting period, groundwater samples were collected from CCR monitoring wells during SA1 and SA2 2024. Groundwater samples were collected, labeled, preserved, and shipped in accordance with the SAP (Wood, 2022a). In some instances, the wells were observed to be dry upon monitoring or did not have enough water and could not be sampled (**Table 3-2**). As noted in Section 3.2.1, MW-43 and MW-50A contained insufficient groundwater during SA2 2024 for traditional sampling methods. However, both wells contained enough water to allow for a modified sampling method, which involved purging the well and then allowing time for the well to recharge before sampling with a low flow sampling pump. These locations were bailed to remove water on October 17, 2024 and sampled on November 15, 2024. MW-43 yielded sufficient water to collect samples for all Appendix III and IV constituents, whereas MW-50A, with a recharge of only 0.64 ft, yielded only enough sample volume for the analysis of total recoverable cobalt and molybdenum.

In accordance with 40 CFR §257.93(i), which requires the measurement of total recoverable metals, collected groundwater samples were not field filtered prior to analysis. Pursuant to the SAP, quality control samples (i.e., field duplicates, field blanks, and extra sample volume for matrix spike samples) were collected during each groundwater monitoring event. These samples are noted on associated chain-of-custody documentation.

### 3.2.4 SAMPLE ANALYSIS AND DATA VALIDATION

Groundwater samples collected during the SA1 2024 sampling event were submitted to Eurofins and Radiation Safety Engineering, Inc. (Radiation Safety) located in Phoenix, Arizona, for required analysis. Eurofins evaluated samples for all constituents excluding radium. Radiation Safety performed the radium analyses. Both Eurofins and Radiation Safety are Arizona Department of Health Services-licensed laboratories (AZ0728 and AZ0462, respectively). Groundwater samples collected during the SA2 2024 sampling event were submitted to Pace and Radiation Safety located in Phoenix, Arizona, for required analysis. Pace evaluated samples for all constituents excluding radium. Radiation Safety performed the radium analyses. Pace is an Arizona Department of Health Services-licensed laboratory (AZ0612). **Appendix E** presents the associated laboratory reports of analysis organized by CCR unit.

**Table 3-1** and **3-2** identifies the analytes evaluated during each monitoring event. Analytes varied based on the monitoring program (i.e., detection versus assessment monitoring) or field investigation. The SAP identifies Appendix III and Appendix IV constituents with associated analytical methods.

Following receipt of final laboratory reports of analysis, the reports and associated sample data collected during detection and assessment monitoring were evaluated for quality assurance purposes. The scope of the review was an USEPA Stage 2A validation (USEPA, 2009). **Appendix F** presents the *2024 Data Validation Report* which documents the reviews. No data was deemed unusable in 2024. The following are key observations related to data usability:

— Some samples were diluted to the point that the RL was not able to meet the GWPS (antimony, beryllium, cobalt, and molybdenum in the SA1 2024 event and fluoride in the SA2 2024 event). To demonstrate compliance with the applicable regulatory limits, those sample results were estimated at a concentration between the method detection limits (MDLs) and the RL (flagged with a 'J' data qualifier). RLs are preferred over MDLs for establishing a sample's detection status (i.e., detect or non-detect) in statistical evaluations because RLs represent the concentration at which an analyte can be reliably quantified with confidence.

  Modifications to the laboratory detection limits (RL and MDL) are not uncommon but will require evaluation on a case-by-case basis during statistical analysis. If the MDL must consistently be used as the limit of detection in Appendix III or Appendix IV statistical analyses to maintain compliance with applicable standards, it may indicate that the BTV is not achievable with the laboratory's current analytical capabilities and based on site samples. In such cases, a re-evaluation of the BTV may be warranted.

— In some instances, the SA2 2024 final laboratory reports were issued with analyses unnecessarily reported to the MDL, even when the RL was able to achieve the required detection limit. To ensure timely submittal of this report, results were modified by the WSP chemist, where appropriate, using the RL as the detection limit. The modified results are captured in the data validation report and tabulated data (**Appendix F**).

Data qualifiers and reason codes are included in the *2024 Data Validation Report* in **Appendix F**.

### 3.2.5 SAMPLE RESULTS

**Appendix G** presents the groundwater sampling results for 2024 along with historical groundwater quality data for the Site. The groundwater quality data collected during the reporting period are discussed further in Section 4.2.

## 3.3 STATISTICAL ANALYSIS OF MONITORING DATA

Statistical analysis of Appendix III and Appendix IV constituent data was conducted during the reporting period as required by the CCR Rule to evaluate whether collected monitoring data indicate Site CCR units have adversely impacted underlying groundwater. The analyses were conducted in accordance with the SDAWP (WSP, 2023a).

### 3.3.1 BTV UPDATES

Routine updates of the BTVs at the URS and Multiunit 1 were performed during the 2024 reporting period in accordance with the SDAWP (WSP, 2023a) to ensure BTVs represent current background conditions.

A statistical evaluation to update the BTVs for the URS for the Appendix IV constituents was completed in January 2025 and is included in **Appendix H**. The BTV update utilizes constituent data through November 2023 from background wells, MW-71, MW-72, and MW-73. The updated BTVs were used to evaluate and update the applicable GWPS, as necessary. The URS is currently in corrective action and the statistical evaluation was performed in accordance with the SDAWP (WSP, 2023a). The GWPS selection changed for antimony, cobalt, fluoride, lithium, and selenium and the BTVs were updated for all constituents excluding barium, mercury, and molybdenum (**Appendix H**). Updated BTVs were used for comparison of SA2 2024 data and are presented in **Table 3-2**. The updates include BTV increases for fluoride, beryllium, lithium and selenium and decreases for antimony, chromium, cobalt, lead, thallium, combined radium, and cadmium (**Table 3-2**). The GWPS selection for antimony and combined radium was changed to the USEPA maximum contaminant level. The GWPS selection for fluoride was updated to the BTV.

A statistical evaluation to update the BTVs calculated for the Multiunit 1 for each Appendix IV constituent was completed in January 2025 and is included in **Appendix I**. A statistical evaluation was performed for the Multiunit 1 to update the BTVs incorporating Appendix IV constituent data through May 2024 from background wells, MW-12R1, MW-43, MW-49A, MW-51, MW-50A, MW-55R, and MW-74. The analysis was only performed using only background wells, MW-49A and MW-74, as the remaining background wells have historically been dry or yielded low water volumes, limiting sample collection. The updated BTVs were used to evaluate and update the applicable GWPS, as necessary. The Multiunit 1 is currently in corrective action and the statistical evaluation was performed in accordance with the SDAWP (WSP, 2023a). The statistical evaluation of the BTVs associated with the Multiunit 1 is included in **Appendix I**. The updated BTVs were used as the GWPS for lithium and selenium. For lithium, the BTV decreased and the selenium BTV increased. Based on the BTV updates, the GWPS selection for antimony, fluoride, and thallium was updated to the USEPA maximum contaminant level. The GWPS selection for cobalt and molybdenum was updated to the alternative risk-based GWPS. All updated BTVs were used for comparison of SA2 2024 data and are presented in **Table 3-2**.

### 3.3.2 EVALUATION OF APPENDIX III CONSTITUENT DATA

Two CCR units remained in detection monitoring as of the end of 2024, the DFADA and the RWP. There were no groundwater samples collected from the DFADA or the RWP CCR compliance wells during the reporting period due to insufficient groundwater availability in the respective monitoring wells, and thus no statistical analyses were performed using data collected from these units.

### 3.3.3 EVALUATION OF APPENDIX IV CONSTITUENT DATA

Statistical analysis of assessment monitoring data occurred for one CCR unit, the CWTP, during 2024. Assessment monitoring rounds corresponding to these analyses were conducted in November 2023 and May 2024 (per 40 CFR §257.95[d][1]) at the CWTP. A statistical analysis of assessment monitoring data collected at the CWTP through November 2023 was completed in April 2024 and is presented in **Appendix J**. The statistical analysis indicated no Appendix IV constituents were detected at concentrations exceeding their respective GWPSs during the November 2023 groundwater sampling event. A statistical analysis of assessment monitoring data collected at the CWTP through May 2024 was completed in November 2024 and is presented in **Appendix K**. The statistical evaluation declared that there are no SSLs of Appendix IV constituents above their respective GWPSs at the CWTP during the May 2024 groundwater sampling event.

Review of Appendix IV monitoring results at the URS and Multiunit 1 indicates data collected in 2024 are consistent with historical findings. No new exceedances of constituents not otherwise in corrective action above the GWPSs are reported during 2024. As such, no changes to the assessment of corrective measures and remedy selection are warranted at this time.

# 4 CORRECTIVE ACTION PROGRAM

A corrective action program is required under 40 CFR §257.96 when one or more Appendix IV constituents are present at SSLs above GWPSs or immediately upon detection of a release from a CCR unit. The program begins with an assessment of corrective measures to evaluate potential remedies for preventing further release, mitigating impacts, and restoring groundwater quality. Following this assessment, a remedy is selected and implemented, with interim measures taken if necessary. Assessment groundwater monitoring continues throughout corrective action.

## 4.1 PROGRAM STATUS

Based on the declaration that one or more Appendix IV constituents are present at SSLs above GWPSs downgradient of Multiunit 1 and the URS, these units are currently in the corrective action program. Notification of the exceedances occurred on November 14, 2018, and were documented in the 2018 Annual Groundwater Monitoring and Corrective Action Report (Wood, 2019a).

A summary of corrective action program activities conducted during the reporting period is presented in the following sections.

## 4.2 CHARACTERIZATION OF POTENTIAL RELEASES FROM CCR UNITS

To characterize releases from CCR units, 40 CFR §257.95(g)(1) requires: (i) the installation of wells to define the extent of contaminant plumes, (ii) collection of data on the nature and estimated quantity of material released, (iii) installation of at least one well at the facility boundary in the direction of contaminant migration, and (iv) sampling of these wells to characterize the nature and extent of the release.

Initial efforts to address the requirements of 40 CFR §257.95(g)(1) were documented in the *Hydrogeologic Investigation of Multiunit 1 and the Upper Retention Sump* (Wood, 2020c). However, due to the duration required to adequately characterize complex groundwater impacts, work supporting characterization of potential releases from CCR units is ongoing.

During the reporting period, activities conducted to address CCR Rule release characterization requirements downgradient of Multiunit 1 and the URS included:

- The collection of groundwater quality data from an expanded network of existing groundwater wells (Section 3.2);
- Delineation of the nature and extent of the release from Multiunit 1 and the URS in the form of plume maps (**Figures 4-1** through **4-6**). **Figures 4-1, 4-3,** and **4-5** delineate the data collected in SA1 2024 and **Figures 4-2, 4-4, 4-6** delineate the data collected in SA2 2024.

Findings from these characterization activities are summarized as follows and further discussed in Section 4.4.

**Multiunit 1:** Molybdenum and cobalt are present at concentrations above their respective GWPSs in groundwater downgradient of Multiunit 1, including a region upgradient of MW-60, which is a past CCR conveyance corridor to former ash ponds. The use of this region for CCR management prior to the construction of Multiunit 1 makes it difficult to distinguish whether impacts are associated with the LAI or previous Site activities.

Assuming the LAI contributed to impacts upgradient of MW-60, the extent of molybdenum impacts associated with Multiunit 1 appear to be limited generally to the area directly downgradient of the LDWP and downgradient of the LAI along the northern edge of the LDWP (**Figures 4-1** and **4-2**).

The extent of cobalt concentrations that exceed the GWPS generally extend from Multiunit 1 to the SIT (**Figures 4-3** and **4-4**). During the reporting period, cobalt exceeded the GWPS (0.01 mg/L in SA1 2024, 0.006 mg/L in SA2 2024) at the following wells located upgradient of the SIT: MW-11, MW-16, MW-17R, MW-36R, MW-38R, MW-52, MW-60, MW-61, and MW-75. The maximum cobalt concentration observed during the reporting period was 0.21 mg/L at MW-36R.

Offsite migration of cobalt downgradient of the Multiunit 1 is controlled by the operation of the SIT and NIT. Cobalt and other Appendix IV constituents were detected at concentrations marginally exceeding the GWPS at multiple wells located downgradient of the SIT in SA1 and SA2 2024. Cobalt was detected in downgradient CCR well MW-87 and supplementary wells MW-18, DMX-04 (SA1 2024 only), and MW-57 (SA2 2024 only). Historically, intermittent exceedances of cobalt at levels slightly above the GWSP have been observed at wells downgradient of the SIT, including MW-18, DMX-03, DMX-04, MW-57, MW-56, and MW-87. An evaluation of groundwater conditions downgradient of the SIT, summarized in a technical memorandum dated January 20, 2023 (WSP, 2023b), concluded that past exceedances were likely attributable to a variety of potential causes. Past cobalt exceedances at wells MW-18 and MW-87 were attributed to one or more of the following factors: naturally occurring inorganic compounds present as fines in the aquifer due to inadequate well development or disuse; evapoconcentration of metals caused by dewatering of the aquifer during trench operations; and contributions of cobalt and molybdenum from Chaco Wash. Based on stream monitoring and nearby groundwater level data, Chaco Wash appears to be a losing reach along the Site boundary, particularly near MW-87. The operation of the trenches continues to effectively prevent the migration of CCR constituents downgradient of the trenches.

**URS:** Fluoride is present at concentrations above the GWPS (4 mg/L in SA1 2024, 4.2 mg/L in SA2 2024) in groundwater in the vicinity of the URS. During the reporting period, the maximum concentration of fluoride observed was 14.0 mg/L and 18.2 mg/L at MW-66, located north of the former footprint of the URS. Fluoride also exceeded the GWPS at downgradient boundary wells MW-67 (8.27 mg/L [SA2 2024 only]), MW-68 (12.5 mg/L [SA2 2024 only]), and MW-69 (9.40 mg/L [SA1 2024 only]). Concentrations have declined in these wells since initial characterization of impacts and the demolition of the URS (the highest historical fluoride concentration observed downgradient of the URS was 32.0 mg/L).

Fluoride concentrations in CM-01 and CM-02 were below the GWPS for both sampling events in 2024 as further evidence of overall reduction in concentrations around the URS. The extraction and supplementary wells installed downgradient of the URS in 2023 have fluoride concentrations exceeding the fluoride GWPS at URS-05, URS-07, and URS-08 with the highest concentration of 8.69 mg/l in URS-05 (**Figures 4-5 and 4-6**).

**DFADA:** Although there was not enough water present in downgradient boundary DFADA wells to sample (Section 3.2), groundwater samples were collected during the reporting period from MW-11 and MW-16, which are both supplementary wells located more than 2,000 ft downgradient of the DFADA near surface drainage channels and upgradient of the SIT. As supplementary wells, MW-11 and MW-16 are not part of the certified CCR monitoring system for either the DFADA or Multiunit 1. Because MW-11 and MW-16 are completed in the Weathered Lewis Shale, the BTVs and GWPSs identified for Multiunit 1 (which are based on data collected from MW-49A and MW-74) in **Table 3-1** are the most applicable.

Cobalt concentrations at MW-11 in SA1 and SA2 2024 were 0.019 and 0.021 mg/L, respectively, which exceed the Multiunit 1 GWPS of 0.010 mg/L effective in SA1 2024 and 0.006 mg/L in SA2 2024. Cobalt concentrations at MW-11 have exceeded the Multiunit 1 GWPS since November 2021 when monitoring of the well for CCR constituents began. At MW-16, which is located approximately 650 ft downgradient of MW-11, cobalt was measured exceeding the GWPS for the first time in SA2 2024 at a concentration of 0.0091 mg/L in SA2 2024. While the concentration observed at MW-16 represents a new maximum, the concentration observed in SA2 is within the same order of magnitude as previous detections and would not have led to a GWPS exceedance prior to the GWPS update in SA2. Molybdenum concentrations in samples collected from MW-11 and MW-16 during the 2024 sampling events were less than reporting levels.

The cobalt exceedances observed at MW-11 cannot be correlated with any identifiable factor at this time. Boron, typically an indicator of CCR-impacted groundwater, has been detected at low concentrations at MW-11 and has remained relatively stable since CCR constituent monitoring began at this well, ranging from 0.50 to 0.54 mg/L (**Appendix G**). There has been more variability in sulfate concentrations at MW-11, which could be associated with surface water interactions with the Weathered Lewis Shale. Sulfate concentrations at MW-11 in SA1 and SA2

2024 were 3,000 and 60,000 mg/L, respectively, but the maximum sulfate concentration observed at the well was 140,000 mg/L in November 2021 (**Appendix G**).

At this time, elevated cobalt concentrations at MW-11 and MW-16 do not appear to be associated with a release from the DFADA and the certified downgradient boundary wells are located and installed appropriately to monitor for leakage from the DFADA. APS will continue to monitor the presence of cobalt in monitoring wells MW-11 and MW-16 during subsequent monitoring events.

## 4.3 INTERIM RESPONSE MEASURES

While remedy selection progressed during the reporting period (Section 4.4), APS implemented several interim response measures at Multiunit 1 and the URS to limit impacts to groundwater. The interim response measures will also help to evaluate the effectiveness of potential remedial technologies. The interim response measures implemented during the reporting period and planned for continued implementation in 2025 are summarized below.

**Operation of the Northern Intercept Trench and Southern Intercept Trench.** APS currently operates a 7,600-ft-long seepage intercept trench system that was installed in two interconnected sections (the NIT and SIT) along the western boundary of the Site lease boundary. The purpose of the intercept trench system is to intercept and collect seepage from the closed and existing CCR units as it flows westward towards Chaco Wash, thus preventing any potential groundwater contamination from impacting the wash (Wood, 2019a). The NIT was constructed and placed into service in 2011, and the SIT was constructed and placed into service in 2013. The trench system replaced an extraction well system that was assessed as ineffective. The extraction well system has not been fully decommissioned but does not contribute appreciable amounts of extracted groundwater to seepage collection system operations. In 2021, two new extraction wells were added to seepage collection system operations upgradient of the NIT (MW-82S and EW-17); only EW-17 remained operable in 2024.

In 2024, 2,365,053 gallons were pumped from the NIT with a daily average of 6,427 gallons per day (gpd) and 11,194,238 gallons were pumped from the SIT for a daily average of 30,419 gpd.

The estimated contaminant of concern (COC) mass removed from the groundwater by these systems in 2024 is based on the totalized annual flow extracted in intercept trench operations and average constituent concentrations measured at each associated sump. There is currently flow metering equipment available to estimate flow rates at the NIT seepage collection systems (i.e., Sump-7, Sump-8, and EW-17) and at the SIT seepage collection systems (i.e., Sump-9, Sump-10, Sump-11, Sump-12, Sump-13, Sump-14-1, Sump-15-1, Sump-16-1, Sump-17, and Sump-18). **Tables 4-1** and **4-2** display the results of the calculation. The total estimated mass removed at the NIT was 0.64 pounds (lbs) and at the SIT was 7.29 lbs for a total removal of 7.93 lbs of cobalt and molybdenum in 2024.

**Operation of Extraction Wells at the URS.** The URS extraction well system became operational in February 2022, following the installation of pumps, piping, and an electrical control system at URS extraction wells CM-01 and CM-02.

Approximately 743,931 gallons were pumped from the URS extraction wells in 2024 for a daily average of 2,022 gpd. The estimated COC mass removed from the groundwater by these systems is based on the totalized annual extracted flow and the constituent concentration measured at each extraction well during the SA1 and SA2 2024. The results of the mass removed calculation are included in **Table 4-3**. The total estimated mass of fluoride removed from wells in the vicinity of the former URS was 9.39 lbs in 2024.

## 4.4 PROGRESS ON REMEDY SELECTION FOR MULTIUNIT 1 AND THE URS

In response to GWPS exceedances at Multiunit 1 and the URS and pursuant to 40 CFR §257.96(a), an Assessment of Corrective Measures (ACM) was prepared in 2019 (Wood, 2019b) to evaluate the performance of several combined

corrective measures to address groundwater impacts resulting from Multiunit 1 and the URS. Since completing the ACM, various evaluations and pre-design studies necessary to support the selection and design of remedies for Multiunit 1 and the URS have been conducted (Wood, 2020b; Wood, 2021). Updates on the status of these studies and progress on remedy selection are presented below.

### 4.4.1 CORRECTIVE MEASURES PRE-DESIGN STUDIES

Evaluations and pre-design studies completed during the 2024 reporting period are described below.

**Continued Additional Monitoring at Multiunit 1.** An expanded list of supplementary wells and constituents across the Site were monitored during the reporting period. The water quality data from these wells helps to refine the delineation of elevated concentrations of cobalt and molybdenum in groundwater downgradient of Multiunit 1 and the SIT. Spatially and temporally heterogeneous concentrations of cobalt and molybdenum around the Multiunit 1 are discussed in Section 4.2 and supported with updated plume maps (**Figures 4-1** through **4-4**).

Transducers were installed in wells upgradient and downgradient of SIT to record water level changes in the area at a greater frequency than twice a year. Water level data collected from wells located downgradient of the SIT are compared to the water level data collected from wells located upgradient of the SIT to evaluate the performance of the SIT in collecting seepage migrating downgradient from the Multiunit 1. Wells equipped with transducers to monitor water levels are identified in **Table 1-2** and hydrographs of the groundwater elevations recorded at these locations are included in **Appendix L**. Water levels in wells upgradient of the SIT are 10 to 30 ft higher than water levels at wells downgradient of the SIT, which suggests the SIT is performing as designed and preventing contaminated groundwater from migrating toward downgradient receptors, such as the Chaco Wash. MW-57 and MW-87 had equipment failures in the transducer connection and data was not collected the second half of the year. MW-06R and MW-05 equipment failures have resulted in no data collected for those sites since January 2024 and November 2022, respectively.

Data collected from the flow monitoring station installed within Chaco Wash is compared to water levels downgradient of the SIT to evaluate the relationship between water in the Chaco Wash and groundwater located downgradient of the SIT. Water levels in Chaco Wash measured in 2024 were higher than water levels in several adjacent wells. The water levels support the CSM and indicate that Chaco Wash is a losing reach along the Site boundary during select periods of the year and that surface water infiltration could influence groundwater quality in these wells.

**Additional Monitoring and Extraction wells at the URS.** APS completed the installation of four wells north of the URT that included two supplementary monitoring wells (URS-05 and URS-08) and two inactive extraction wells (URS-06 and URS-07). Installation of the wells began in December 2023 and development was completed in January 2024. A technical report documenting that work, dated March 27, 2024, with an addendum dated April 4, 2024 is included in **Appendix A**.

**Exposure Assessment and Risk Evaluation at Multiunit 1 and the URS.** During the 2024 reporting period, APS initiated an evaluation of human health and environmental risk associated with URS and Multiunit 1 COCs at levels above the GWPS to support an assessment of remedy protectiveness. A site-specific conceptual exposure model and step wise risk screening analysis will be developed and recommendations will be presented in a technical memorandum in 2025.

### 4.4.2 REMEDY SELECTION REPORTS FOR MULTIUNIT 1 AND THE URS

During the reporting period, APS further progressed selection of remedies for Multiunit 1 and the URS that meet the requirements of 40 CFR §257.97(b) while considering the evaluation factors of 40 CFR §257.97(c). Preparation of a remedy selection report began in 2023 and is planned to be completed in 2025.

## 4.5 SEMI-ANNUAL PROGRESS REPORT ON REMEDY SELECTION FOR MULTIUNIT 1 AND THE URS

40 CFR §257.97(a) requires the preparation of semi-annual reports, which document the progress of remedy selection for CCR units that have potentially impacted groundwater until the remedy is selected. Accordingly, a semi-annual report was prepared during the reporting period on July 15, 2024, which describes the progress of remedy selection for Multiunit 1 and the URS. This semi-annual report is included as **Appendix M**.

The GMCAR for 2024 fulfills the requirements of 40 CFR §257.97(a) for a subsequent semi-annual progress report by providing updates on remedy selection (Section 4) and future planned activities (Section 5) for the Multiunit 1 and the URS.

## 4.6 CCR UNIT CLOSURE ACTIVITIES

During the reporting period, APS progressed CCR unit closure activities as outlined in the following sections.

### *4.6.1 URS CLOSURE*

As documented in previous annual reports, APS provided notice of its intent to close the URS on December 10, 2018, pursuant to 40 CFR §257.101(a)(1) and §257.101(b)(1). The unit is currently in the closure process per the unit's closure plan (AECOM, 2016), which states the URS will be closed by removal. The URS has been demolished and both CCR and visually impacted soil underlying the unit were removed as of December 14, 2018. A new concrete tank (referred to as the URT) was constructed to serve the function of the URS and was placed in service on December 10, 2018. Until May 2024 when 40 CFR §257.102(c) was revised to allow groundwater corrective action during the post-closure care period, closure of the URS was not considered complete until concentrations of fluoride in groundwater downgradient of the unit decline to less than the GWPS for the constituent. An update of the URS closure plan will be prepared in 2025 to address the regulatory change.

Interim response measures (Section 4.3) have been implemented to address elevated concentrations of fluoride in the vicinity of the former URS while a formal remedy selection process progresses. The SDAWP update prepared during the 2022 reporting period specifically addresses unit closure statistical evaluation procedure to be used once concentrations decline to a level supporting analysis.

### *4.6.2 CWTP CLOSURE*

APS provided notice of its intent to close the CWTP on November 23, 2020, pursuant to 40 CFR §257.101(a)(1) and §257.101(b)(1). The unit had not triggered corrective action and was in detection monitoring at the time discharges to the unit ceased; however, the unit transitioned into assessment monitoring in April 2023. Upon suspension of discharges to the CWTP, flows were directed to a new sedimentation tank system constructed to serve the function of the CWTP (i.e., treatment of ash-impacted wastewater).

The CWTP is being closed in accordance with its closure plan (AECOM, 2016), which includes closure by removal of CCR solids through mechanical excavation and hydraulic dredging. APS completed dredging of the CWTP during the reporting period and will complete the documentation of closure activities related to the work in 2025.

### *4.6.3 MULTIUNIT 1 CLOSURE*

APS provided notice of its intent to close the LAI/LDWP (Multiunit 1) on April 10, 2021, pursuant to 40 CFR §257.101(a)(1). Discharges to the LAI (principally flue gas desulfurization waste) were suspended at that time and have since been blended with ash and placed in the DFADA.

The closure plans for the LAI (AECOM, 2016) and LDWP (AECOM, 2016) state that CCR in these units will be closed in place and capped with an evapotranspiration cover. Dewatering of the units must occur prior to capping to safely construct the final cover system. During the reporting period, geotechnical assessment of the deposits in the LAI continued to support cover system design with placement of lightweight aggregate material in multiple test roads. The test roads have been constructed on the LAI surface to provide access for the installation of new dewatering and observation wells into the CCR above the liner. A pilot dewatering well study was completed in July 2023. Two additional phases of dewatering wells were installed in 2024, with documentation planned for completion in 2025. Declining surface water levels in the LDWP indicate that flows into the LDWP from the LAI have significantly decreased; ponded water covers less than a quarter of the LDWP footprint as of the end of 2024.

Planned activities for 2025 include continuing to construct access roads onto the LAI and install more extraction wells, completion of cover system design, rerouting of LAI discharges (i.e., decant tower and toe drain seepage) from the LDWP to the RWP, and initiation of stormwater improvements supporting unit closure. Design drawings were developed in anticipation of contractor procurement activities scheduled for early 2025.

# 5 KEY ACTIVITIES FOR 2025

During 2025, the following key activities will likely be conducted to support CCR groundwater monitoring and corrective action compliance at the Site:

- *Preparation of an Annual Groundwater Monitoring and Corrective Action Report for 2025* – Per 40 CFR §257.90€, an annual report must be prepared no later than January 31 of the year following the calendar year documented in the report.
- *Continued Detection Monitoring at the DFADA and RWP with Evaluation for SSIs over Background* – Per 40 CFR §257.94(b), detection monitoring (including analysis of collected samples for Appendix III constituents) must continue on a semi-annual basis. On an ongoing basis, it will be determined whether there has been an SSI over background at the CCR units undergoing detection monitoring within 90 days of sampling and analysis (40 CFR §257.93[h][2]).
- *Initiation of Assessment Monitoring for CCR Units with an SSI over Background (as applicable)* – Per 40 CFR §257.94(e)(1), within 90 days of detecting an SSI over background levels for any Appendix III constituent, an assessment monitoring program must be established.
- *Continued Assessment Monitoring at CWTP, Multiunit 1, and the URS* – While corrective action evaluation progresses, assessment monitoring (including analysis of collected samples for Appendix III and Appendix IV constituents) must be conducted on a semi-annual basis at the Multiunit 1 and the URS per 40 CFR §257.95(b) and (d)(1). At the CWTP, assessment monitoring will be conducted until concentrations of Appendix III constituents no longer exceed background values per 40 CFR §257.95(f) and closure of the unit has been certified.
- *Preparation of Report Documenting the Dredging of the CWTP* – Hydraulic dredging was completed in 2024 and a report documenting the work will be prepared in 2025. Groundwater monitoring will continue through the closure process.
- *LAI and LDWP Closure Activities* – Closure activities for 2025 include continuing construction of access roads onto the LAI, the installation of more extraction wells, completion of cover system design, rerouting of LAI discharges (i.e., decant tower and toe drain seepage) from the LDWP to the RWP, and initiation of stormwater improvements supporting unit closure.
- *Preparation of Remedy Selection Report* – APS will select remedies for Multiunit 1 and the URS that meet the requirements of 40 CFR §257.97(b) and document the selection process in a remedy selection report prepared for each unit per 40 CFR §257.97(a).
- *Initiation of Remedial Activities* – Per 40 CFR §257.91(f), remedial activities at Multiunit 1 and the URS will begin within 90 days of selecting a remedy for each unit.
- *Pump Installation at URS-06 and URS-07* – APS will design and construct pumping systems in URS-06 and URS-07 that will pipe the extracted seepage water to the URT.
- *Installation of an Additional Multiunit 1 Weathered Lewis Shale/Alluvium Background Well* – To support the ongoing evaluation of the adequacy of background wells in the Weathered Lewis Shale/Alluvium, APS will conduct an investigation to identify additional background monitoring wells in 2025.

Because the nature of corrective actions is implemented in phases based on analysis of data collected on an ongoing basis, the foregoing list of activities to be completed in 2025 only includes reasonably probable activities that will occur in 2025; APS will adapt as necessary based on available data, daily operations and changes in regulation.

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# TABLES

**Table 1-1**

**Description of Coal Combustion Residuals Units**

| CCR Unit | Location | Function | Operation | Size/Construction | History |
|---|---|---|---|---|---|
| Upper Retention Sump (URS)<br><br>*Closure Initiated* | *Plant Area*<br><br>NW 1/4 of Section 36, T29N, R16W | *Single CCR unit* . Impoundment. Surge pond for FGD system. | FGD system discharge was discharged into the sump via 10 plus controlled/monitored lines. Pond contents were recirculated back into the FGD process via a pump chamber located on the south end of the pond. Solids were periodically removed from the sump. | - 1.07 acres in areal extent<br>- Soil-cement liner on bottom and inside slopes | Placed in service around 1983.<br><br>Discharges to the unit ceased as of December 10, 2018 and were thereafter directed to a new concrete tank (i.e., the Upper Retention Tank) that is located within the former footprint of the URS and serves the function of the former unit. Closure activities conducted in 2018 included removal of CCR and associated impacted materials from the URS with placement in the DFADA prior to backfilling the area with clean fill. |
| Combined Waste Treatment Pond (CWTP)<br><br>*Closure Initiated* | *East of Plant, Adjacent to Morgan Lake*<br><br>SE 1/4 of Section 25, T29N, R16W | *Single CCR Unit* . Impoundment. Detention pond used for NPDES treatment; settling and stabilization basin for ash-impacted and other Plant wastewater flows prior to discharge to Morgan Lake in accordance with an NPDES permit. | The primary source of water to the CWTP was from hydrobins which separated transport water from bottom ash generated in plant Units 4 and 5. Seven earthen basins in the western edge of the CWTP promoted sediment settling prior to the water decanting into the main portion of the CWTP and then overflowing into the cooling water discharge canal at the northeast corner of the pond. | - 13.4 acres in areal extent | Constructed in 1978.<br><br>Discharges to the unit ceased as of November 23, 2020 and were thereafter directed to a new concrete tank (i.e., the Bottom Ash Sluice Water Recycle Tank) that is located northeast of the coal storage area.<br>CCR removal from the unit was initiated in 2022. |
| Lined Ash Impoundment (LAI)<br><br>*Closure Initiated* | *Disposal Area*<br><br>E 1/2 of Section 34, T29N, R16W | *Part of a CCR multiunit with the LDWP* that received fly ash, flue gas desulfurization (FGD) waste and associated residuals as a slurry from the plant. | Waste was discharged into the pond in the northeast portion of the pond. Decanted flow discharged via a vertical drop inlet structure and through a toe drain into the LDWP. | - 126.8 acres in areal extent (high water line)<br>- 60 mil HDPE liner<br>- 5,364 acre-ft design capacity<br>- 5,275.2 ft AMSL maximum working level | Constructed on top of closed Ash Ponds 4 and 5 and placed in service in 2004.<br><br>Discharges to the unit ceased as of April 10, 2021 and were thereafter blended with dry fly ash and placed in the DFADA. |
| Lined Decant Water Pond (LDWP)<br><br>*Closure Initiated* | *Disposal Area*<br><br>E 1/2 of Section 34, T29N, R16W | *Part of a CCR multiunit with the LAI* that received decanted water from the LAI. Impoundment. | Decanted water was discharged into the pond from the LAI via gravity; the water was pumped from the LDWP back to the plant for reuse in operations. | - 45 acres in areal extent<br>- Two 60 mil HDPE liners separated by a leak detection layer<br>- 435 acre-ft design capacity<br>- 5,213.2 ft AMSL maximum working level | Constructed on top of closed Ash Pond 3 and placed in service in 2004.<br><br>Notice of intent to close provided on April 10, 2021. |

**Table 1-1**

**Description of Coal Combustion Residuals Units**

| CCR Unit | Location | Function | Operation | Size/Construction | History |
|---|---|---|---|---|---|
| Dry Fly Ash Disposal Area (DFADA)<br><br>*Active* | *Disposal Area*<br><br>SE 1/4 of Section 34, T29N, R16W | *Single CCR unit* . Landfill. Disposal of dry fly ash, bottom ash, FGD (blended with CCR solids), and construction debris. | The DFADA is filled in general accordance with a stacking plan. Leachate generated from the DFADA cells is pumped into trucks and used for dust control. | - 4 conjoined cells (DFADA 1, 2, 3 and 4) with an areal extent of 137.7 acres total<br>- 8,028 acre-ft design capacity<br>- DFADA 1: compacted clay overlain by 60 mil HDPE liner and drainage layer<br>- DFADA 2, 3 and 4: geosynthetic clay liner overlain by 60 mil HDPE liner and drainage layer<br>- Leachate collection system drains each DFADA cell | Constructed in 2007 (DFADA 1), 2012 (DFADA 2), 2014 (DFADA 3) and 2021 (DFADA 4). |
| Return Water Pond (RWP)<br><br>*Active* | *Plant Area*<br><br>NW 1/4 of Section 36, T29N, R16W | *Single CCR unit.* Lined impoundment for the temporary storage of FGD system waste, drain down from the LAI, treated sewage wastewater flow, and water pumped from the site seepage collection system. | The RWP consists of two cells; FGD system waste generated at the plant can be discharged into an FGD cell while all other liquids are discharged into a liquid cell. A spillway between the two cells allows liquid in the FGD system waste to decant into the liquid cell. Liquids from the liquid cell are pumped back to the plant for reuse in plant operations. | - 5.1 acres in areal extent<br>- Composite liner system and associated LCRS comprised of a primary 60 mil HDPE liner, a geosynthetic drainage layer, a secondary 60 mil HDPE liner, and an underlying geosynthetic clay liner<br>- 38.6 acre-ft design capacity<br>- 5379 ft AMSL maximum working level | Constructed in 2019 and placed into service November 2020. |

**Abbreviations:**

*AMSL - above mean sea level*
*CCR - Coal combustion residuals*
*CWTP - Combined Waste Treatment Pond*
*DFADA - Dry Fly Ash Disposal Area*
*FGD - flue gas desulfurization*
*ft - feet*
*HDPE - high density polyethylene*
*LAI - Lined Ash Impoundment*
*LCRS - leak collection and removal system*
*LDWP - Lined Decant Water Pond*
*NPDES - National Pollutant Discharge Elimination System*
*RWP - Return Water Pond*
*URS - Upper Retention Sump*

**Table 1-2**

**CCR Groundwater Monitoring Network Summary**

| Well | CCR Compliance Well | CCR Unit | Well Designation | Hydrogeologic Unit | Date Installed | Borehole Depth [ft bgs] | Top of Casing Elevation [ft AMSL] | Ground Surface Elevation [ft AMSL] | Top of Screen [ft bgs] | Bottom of Screen [ft bgs] | Screen Length [ft] | Top Screen Elevation [ft AMSL] | Bottom Screen Elevation [ft AMSL] | Bottom Borehole Elevation [ft AMSL] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-12R1 | Yes | DFADA | Background | Weathered Lewis Shale | 4/10/2018 | 40 | 5,270.12 | 5,268.23 | 22 | 32 | 10 | 5,246.20 | 5,236.20 | 5,228.23 |
| MW-55R | Yes | DFADA | Background | Unweathered Lewis Shale | 9/13/2015 | 95 | 5,243.96 | 5,241.36 | 73 | 93 | 20 | 5,168.46 | 5,148.46 | 5,146.36 |
| MW-10 | Yes | DFADA | Downgradient Boundary | Weathered Lewis Shale | 3/12/1987 | 35 | 5,150.71 | 5,149.65 | 13 | 33 | 20 | 5,136.65 | 5,116.65 | 5,114.65 |
| MW-13 | Yes | DFADA | Downgradient Boundary | Weathered Lewis Shale | 8/31/1987 | 60 | 5,150.75 | 5,149.52 | 35 | 55 | 20 | 5,114.62 | 5,094.62 | 5,089.52 |
| MW-44 | Yes | DFADA | Downgradient Boundary | Weathered Lewis Shale | 3/28/2012 | 40 | 5,146.89 | 5,145.15 | 14 | 24 | 10 | 5,131.65 | 5,121.65 | 5,105.15 |
| MW-48 | Yes | DFADA | Downgradient Boundary | Unweathered Lewis Shale | 5/14/2013 | 60 | 5,165.96 | 5,163.43 | 35 | 60 | 25 | 5,128.43 | 5,103.43 | 5,103.43 |
| MW-11 | No | DFADA | Supplementary | Weathered Lewis Shale | 3/13/1987 | 50 | 5,111.96 | 5,110.48 | 30 | 50 | 20 | 5,080.58 | 5,060.58 | 5,060.58 |
| MW-16 | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 9/2/1987 | 55 | 5,101.32 | 5,100.42 | 36 | 55 | 19 | 5,064.92 | 5,045.62 | 5,045.62 |
| MW-43 | Yes | Multiunit 1 | Background | Weathered Lewis Shale | 3/24/2012 | 60 | 5,271.58 | 5,269.42 | 16 | 26 | 10 | 5,253.42 | 5,243.42 | 5,209.42 |
| MW-49A | Yes | Multiunit 1 | Background | Weathered Lewis Shale | 5/18/2013 | 68 | 5,288.62 | 5,285.3 | 50 | 65 | 15 | 5,231.38 | 5,216.38 | 5,213.38 |
| MW-50A | Yes | Multiunit 1 | Background | Weathered Lewis Shale | 5/7/2013 | 63 | 5,335.67 | 5,333.20 | 28 | 43 | 15 | 5,305.20 | 5,290.20 | 5,270.20 |
| MW-51 | Yes | Multiunit 1 | Background | Weathered Lewis Shale | 4/28/2013 | 80 | 5,288.14 | 5,285.14 | 20 | 30 | 10 | 5,265.14 | 5,255.14 | 5,205.14 |
| MW-74 | Yes | Multiunit 1 | Background | Weathered Lewis Shale | 1/18/2017 | 40 | 5,219.09 | 5,216.70 | 8 | 18 | 10 | 5,208.60 | 5,198.60 | 5,176.70 |
| MW-07 | Yes | Multiunit 1 | Downgradient Boundary | Weathered Lewis Shale | 3/11/1987[2] | 60 | 5,149.32 | 5,148.29 | 15 | 35 | 20 | 5,133.59 | 5,113.59 | 5,088.29 |
| MW-08 | Yes | Multiunit 1 | Downgradient Boundary | Weathered Lewis Shale | 3/11/1987[2] | 74 | 5,122.56 | 5,120.85 | 28 | 48 | 20 | 5,093.15 | 5,073.15 | 5,046.85 |
| MW-40R | Yes | Multiunit 1 | Downgradient Boundary | Weathered Lewis Shale | 9/17/2015 | 25 | 5,137.43 | 5,134.83 | 14 | 24 | 10 | 5,120.53 | 5,110.53 | 5,109.83 |
| MW-61 | Yes | Multiunit 1 | Downgradient Boundary | Weathered Lewis Shale | 9/16/2015 | 35 | 5,129.19 | 5,126.59 | 24 | 34 | 10 | 5,102.39 | 5,092.39 | 5,091.59 |
| MW-75 | Yes | Multiunit 1 | Downgradient Boundary | Weathered Lewis Shale | 3/15/2017 | 41 | 5,126.80 | 5,124.80 | 29 | 39 | 10 | 5,095.80 | 5,085.80 | 5,083.80 |
| MW-76 | Yes | Multiunit 1 | Downgradient Boundary | Weathered Lewis Shale | 3/16/2017 | 33 | 5,116.23 | 5,114.30 | 12 | 27 | 15 | 5,102.50 | 5,087.50 | 5,081.30 |
| MW-87[1] | Yes | Multiunit 1 | Downgradient | Weathered Lewis Shale | 11/28/2018 | 50 | 5,076.53 | 5,074.29 | 15 | 45 | 30 | 5,059.29 | 5,029.29 | 5,024.29 |
| DMX-03 | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 4/14/1992 | 38 | 5,085.50 | 5,084.85 | 18 | 38 | 20 | 5,066.85 | 5,046.85 | 5,046.85 |
| DMX-04[1] | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 4/15/1992 | 51 | 5,073.00 | 5,072.11 | 31 | 51 | 20 | 5,041.11 | 5,021.11 | 5,021.11 |
| DMX-05 | No | Multiunit 1 | Extraction (Inactive) | Weathered Lewis Shale | 4/15/1992 | 42 | 5,083.23 | 5,081.42 | 22 | 42 | 20 | 5,059.42 | 5,039.42 | 5,039.42 |
| DMX-05R | No | Multiunit 1 | Extraction (Inactive) | Weathered Lewis Shale | 6/25/2023 | 55 | NM[4] | NM[4] | 20 | 50 | 30 | NM[4] | NM[4] | NM[4] |
| DMX-06 | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 4/16/1992 | 35 | 5,077.40 | 5,076.42 | 15 | 35 | 20 | 5,061.42 | 5,041.42 | 5,041.42 |
| MW-05[1] | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 3/12/1987 | 49 | 5,088.50 | 5,087.31 | 29 | 49 | 20 | 5,058.21 | 5,038.21 | 5,038.21 |
| MW-06 | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 3/12/1987 | 49 | 5082.71 | 5,080.19 | 29 | 49 | 20 | 5,051.39 | 5,031.39 | 5,031.39 |
| MW-06R[1] | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 6/26/2023 | 45 | NM[4] | NM[4] | 25 | 40 | 15 | NM[4] | NM[4] | NM[4] |
| MW-15 | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 9/1/1987 | 53 | 5,093.93 | 5,092.28 | 22 | 52 | 30 | 5,070.08 | 5,040.08 | 5,039.58 |
| MW-17R[1] | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 12/12/2013 | 32 | 5,093.09 | 5,090.43 | 17 | 32 | 15 | 5,073.93 | 5,058.93 | 5,058.43 |
| MW-18[1] | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 9/3/1987 | 55 | 5,089.10 | 5,088.06 | 26 | 55 | 30 | 5,062.56 | 5,033.06 | 5,033.06 |
| MW-23R | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 12/6/2013 | 42 | 5,101.53 | 5,099.08 | 21 | 41 | 20 | 5,078.08 | 5,058.08 | 5,057.58 |
| MW-24 | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 9/05/1987 | 70 | 5,081.65 | 5,080.41 | 60 | 70 | 10 | 5,020.71 | 5,010.71 | 5,010.71 |
| MW-36R[1] | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 12/12/2013 | 34 | 5,093.33 | 5,090.76 | 14 | 34 | 20 | 5,077.26 | 5,057.26 | 5,056.76 |
| MW-38R[1] | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 12/13/2013 | 39 | 5,094.12 | 5,091.41 | 14 | 39 | 25 | 5,077.91 | 5,052.91 | 5,052.41 |
| MW-45 | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 5/19/2013 | 39 | 5,089.56 | 5,087.13 | 24 | 39 | 15 | 5,063.13 | 5,048.13 | 5,048.13 |
| MW-46[1] | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 4/26/2013 | 26 | 5,064.30 | 5,061.91 | 16 | 26 | 10 | 5,045.91 | 5,035.91 | 5,035.91 |
| MW-52 | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 5/10/2013 | 82 | 5,210.41 | 5,208.06 | 67 | 82 | 15 | 5,141.06 | 5,126.06 | 5,126.06 |
| MW-54 | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 5/20/2013 | 91 | 5,217.82 | 5,218.38 | 76 | 91 | 15 | 5,142.38 | 5,127.38 | 5,127.38 |
| MW-56[1] | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 12/4/2013 | 37 | 5,091.49 | 5,089.14 | 26 | 36 | 10 | 5,063.14 | 5,053.14 | 5,052.64 |

**Table 1-2**

**CCR Groundwater Monitoring Network Summary**

| Well | CCR Compliance Well | CCR Unit | Well Designation | Hydrogeologic Unit | Date Installed | Borehole Depth [ft bgs] | Top of Casing Elevation [ft AMSL] | Ground Surface Elevation [ft AMSL] | Top of Screen [ft bgs] | Bottom of Screen [ft bgs] | Screen Length [ft] | Top Screen Elevation [ft AMSL] | Bottom Screen Elevation [ft AMSL] | Bottom Borehole Elevation [ft AMSL] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-57[1] | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 12/8/2013 | 43 | 5,088.30 | 5,085.70 | 22 | 42 | 20 | 5,063.70 | 5,043.70 | 5,043.20 |
| MW-60 | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 9/16/2015 | 25 | 5144.10 | 5141.50 | 14 | 24 | 10 | 5,127.16 | 5,117.16 | 5,116.50 |
| EW-14[1] | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 10/26/2010 | 48 | 5079.65 | 5,078.85 | 18 | 48 | 30 | 5,060.85 | 5,030.85 | 5,030.65 |
| EW-15 | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 10/26/2010 | 50 | 5077.73 | 5,076.82 | 19 | 49 | 30 | 5,057.82 | 5,027.82 | 5,027.20 |
| EW-17 | No | Multiunit 1 | Extraction | Weathered Lewis Shale | 10/08/2020 | 50 | 5097.55 | 5,095.73 | 20 | 40 | 20 | 5,075.73 | 5,055.73 | 5,045.73 |
| MW-34[5] | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | 6/9/2010 | 49 | 5078.33 | 5,077.34 | 24 | 49 | 25 | 5,053.34 | 5,028.34 | 5,028.34 |
| IP-02 | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | December 2013 | 28 | 5,090.79 | 5,088.27 | 17 | 27 | 10 | 5,071.27 | 5,061.27 | 5,060.77 |
| IP-03 | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | December 2013 | 35 | 5,091.08 | 5,088.68 | 24 | 34 | 10 | 5,064.68 | 5,054.68 | 5,054.18 |
| IP-04 | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | December 2013 | 33 | 5,095.92 | 5,093.46 | 22 | 32 | 10 | 5,071.46 | 5,061.46 | 5,060.96 |
| IP-05 | No | Multiunit 1 | Supplementary | Weathered Lewis Shale | December 2013 | 41 | 5,094.43 | 5,091.88 | 21 | 41 | 20 | 5,071.38 | 5,051.38 | 5,050.88 |
| MW-62 | Yes | CWTP | Downgradient Boundary | Pictured Cliffs Sandstone | 9/28/2015 | 20 | 5,341.87 | 5,339.37 | 10 | 20 | 10 | 5,329.37 | 5,319.37 | 5,319.37 |
| MW-63 | Yes | CWTP | Downgradient Boundary | Pictured Cliffs Sandstone | 9/25/2015 | 20 | 5,337.02 | 5,337.02 | 9 | 19 | 10 | 5,328.02 | 5,318.02 | 5,317.02 |
| MW-64 | Yes | CWTP | Downgradient Boundary | Pictured Cliffs Sandstone | 9/26/2015 | 25 | 5,337.66 | 5,337.66 | 10 | 20 | 10 | 5,327.66 | 5,317.66 | 5,312.66 |
| MW-65 | Yes | CWTP | Downgradient Boundary | Pictured Cliffs Sandstone | 9/27/2015 | 20 | 5,339.74 | 5,337.24 | 8 | 18 | 10 | 5,329.24 | 5,319.24 | 5,317.24 |
| MW-66[1] | Yes | URS | Downgradient Boundary | Pictured Cliffs Sandstone | 9/27/2015 | 33 | 5,344.69 | 5,344.70 | 15 | 25 | 10 | 5,329.70 | 5,319.70 | 5,311.70 |
| MW-67[1] | Yes | URS | Downgradient Boundary | Pictured Cliffs Sandstone | 9/11/2015 | 31 | 5352.76[3] | 5,353.80[3] | 20 | 30 | 10 | 5,334.42 | 5,324.42 | 5,323.02 |
| MW-68[1] | Yes | URS | Downgradient Boundary | Pictured Cliffs Sandstone | 9/10/2015 | 30 | 5,353.58 | 5,353.95 | 19 | 29 | 10 | 5,334.95 | 5,324.95 | 5,323.95 |
| MW-69 | Yes | URS | Downgradient Boundary | Pictured Cliffs Sandstone | 9/9/2015 | 35 | 5,357.66 | 5,355.26 | 24 | 34 | 10 | 5,330.96 | 5,320.96 | 5,320.26 |
| MW-70 | Yes | URS | Downgradient Boundary | Pictured Cliffs Sandstone | 9/30/2015 | 53 | 5,371.12 | 5,368.62 | 40 | 50 | 10 | 5,328.62 | 5,318.62 | 5,315.62 |
| MW-83 | Yes | URS | Downgradient | Pictured Cliffs Sandstone | 11/29/2018 | 35 | 5,343.15 | 5,341.51 | 14 | 29 | 15 | 5,327.51 | 5,312.51 | 5,306.51 |
| MW-84[1] | Yes | URS | Downgradient | Pictured Cliffs Sandstone | 11/18/2018 | 35 | 5,338.23 | 5,339.34 | 10 | 30 | 20 | 5,329.34 | 5,309.34 | 5,304.34 |
| MW-85[1] | Yes | URS | Downgradient | Pictured Cliffs Sandstone | 11/18/2018 | 35 | 5,352.78 | 5,353.69 | 15 | 30 | 15 | 5,338.69 | 5,323.69 | 5,318.69 |
| MW-86 | Yes | URS | Downgradient | Pictured Cliffs Sandstone | 11/17/2018 | 35 | 5,338.76 | 5,338.74 | 10 | 30 | 20 | 5,328.74 | 5,308.74 | 5,303.74 |
| CM-01[1] | No | URS | Extraction | Pictured Cliffs Sandstone | 12/13/2019 | 37 | 5,353.42 | 5,351.19 | 20 | 30 | 10 | 5,331.19 | 5,321.19 | 5,314.19 |
| CM-02[1] | No | URS | Extraction | Pictured Cliffs Sandstone | 12/13/2019 | 37 | 5,348.50 | 5,346.54 | 20 | 30 | 10 | 5,326.54 | 5,316.54 | 5,309.54 |
| CM-03[1] | No | URS | Supplementary | Pictured Cliffs Sandstone | 12/12/2019 | 37 | 5,354.85 | 5,352.32 | 20 | 30 | 10 | 5,332.32 | 5,322.32 | 5,315.32 |
| CM-04[1] | No | URS | Supplementary | Pictured Cliffs Sandstone | 12/12/2019 | 36 | 5,353.94 | 5,351.81 | 20 | 30 | 10 | 5,331.81 | 5,321.81 | 5,315.81 |
| URS-05 | No | URS | Supplementary | Pictured Cliffs Sandstone | 12/13/2023 | 50 | NM[4] | NM[4] | 30 | 40 | 10 | NM[4] | NM[4] | NM[4] |
| URS-06 | No | URS | Extraction (Inactive) | Pictured Cliffs Sandstone | 12/15/2023 | 50 | NM[4] | NM[4] | 20 | 40 | 20 | NM[4] | NM[4] | NM[4] |
| URS-07 | No | URS | Extraction (Inactive) | Pictured Cliffs Sandstone | 12/12/2023 | 50 | NM[4] | NM[4] | 25 | 45 | 20 | NM[4] | NM[4] | NM[4] |
| URS-08 | No | URS | Supplementary | Pictured Cliffs Sandstone | 12/19/2023 | 50 | NM[4] | NM[4] | 30 | 40 | 10 | NM[4] | NM[4] | NM[4] |
| MW-71 | Yes | URS/CWTP/RWP | Background | Pictured Cliffs Sandstone | 3/1/2016 | 50 | 5,362.91 | 5,363.62 | 23 | 43 | 20 | 5,341.12 | 5,321.12 | 5,313.62 |
| MW-72 | Yes | URS/CWTP/RWP | Background | Pictured Cliffs Sandstone | 3/2/2016 | 61 | 5,381.62 | 5,379.09 | 51 | 61 | 10 | 5,328.39 | 5,318.39 | 5,318.09 |
| MW-73 | Yes | URS/CWTP/RWP | Background | Pictured Cliffs Sandstone | 1/18/2017 | 45 | 5,353.95 | 5,351.90 | 29 | 44 | 15 | 5,323.00 | 5,308.00 | 5,306.90 |
| MW-88 | Yes | RWP | Downgradient Boundary | Pictured Cliffs Sandstone | 12/6/2019 | 31 | 5365.25 | 5362.71 | 20 | 30 | 10 | 5,342.71 | 5,332.71 | 5,331.71 |
| MW-89 | Yes | RWP | Downgradient Boundary | Pictured Cliffs Sandstone | 12/6/2019 | 35 | 5370.21 | 5367.51 | 24 | 34 | 10 | 5,343.51 | 5,333.51 | 5,332.51 |
| MW-90 | Yes | RWP | Downgradient Boundary | Pictured Cliffs Sandstone | 12/7/2019 | 40 | 5374.08 | 5372.93 | 29 | 39 | 10 | 5,343.93 | 5,333.93 | 5,332.93 |
| DMX-01 | No | --- | Supplementary | Weathered Lewis Shale | 4/15/1992 | 39 | 5,098.02 | 5,097.49 | 19 | 39 | 20 | 5,078.49 | 5,058.49 | 5,058.49 |
| IP-01 | No | --- | Supplementary | Weathered Lewis Shale | 12/3/2013 | 39 | 5,101.81 | 5,099.39 | 14 | 39 | 20 | 5,085.89 | 5,060.89 | 5,060.89 |
| MW-01 | No | --- | Supplementary | Weathered Lewis Shale | 9/06/1987 | 22 | 5,140.43 | 5,138.48 | 12 | 22 | 10 | 5,126.88 | 5,116.88 | 5,116.88 |
| MW-03 | No | --- | Supplementary | Weathered Lewis Shale | 3/13/1987 | 44 | 5,126.73 | 5,125.52 | 14 | 44 | 30 | 5,111.27 | 5,081.27 | 5,081.27 |

**Table 1-2**

**CCR Groundwater Monitoring Network Summary**

| Well | CCR Compliance Well | CCR Unit | Well Designation | Hydrogeologic Unit | Date Installed | Borehole Depth [ft bgs] | Top of Casing Elevation [ft AMSL] | Ground Surface Elevation [ft AMSL] | Top of Screen [ft bgs] | Bottom of Screen [ft bgs] | Screen Length [ft] | Top Screen Elevation [ft AMSL] | Bottom Screen Elevation [ft AMSL] | Bottom Borehole Elevation [ft AMSL] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-19 | No | --- | Supplementary | Weathered Lewis Shale | 9/3/1987 | 50 | 5,127.40 | 5,126.34 | 29 | 50 | 21 | 5,097.14 | 5,076.64 | 5,076.64 |
| MW-21 | No | --- | Supplementary | Weathered Lewis Shale | 9/4/1987 | 30 | 5,155.04 | 5,154.47 | 11 | 30 | 19 | 5,143.87 | 5,124.47 | 5,124.47 |
| MW-22 | No | --- | Supplementary | Weathered Lewis Shale | 9/4/1987 | 30 | 5,156.51 | 5,156.30 | 10 | 30 | 20 | 5,145.90 | 5,125.90 | 5,125.90 |
| MW-26 | No | --- | Supplementary | Weathered Lewis Shale | 9/06/1987 | 51 | 5,139.26 | 5,138.36 | 41 | 51 | 10 | 5,097.86 | 5,087.86 | 5,087.86 |
| MW-30 | No | --- | Supplementary | Weathered Lewis Shale | 6/7/2010 | 23 | 5,091.67 | 5,092.06 | 13 | 23 | 10 | 5,079.06 | 5,069.06 | 5,069.06 |
| MW-31 | No | --- | Supplementary | Weathered Lewis Shale | 6/7/2010 | 24 | 5,092.59 | 5,089.96 | 14 | 24 | 10 | 5,075.96 | 5,065.96 | 5,065.96 |
| MW-32 | No | --- | Supplementary | Weathered Lewis Shale | 6/7/2010 | 20 | 5,087.65 | 5,084.94 | 10 | 20 | 10 | 5,074.94 | 5,064.94 | 5,064.94 |
| MW-77S | No | --- | Supplementary | Weathered Lewis Shale | 11/8/2018 | 80 | 5094.94 | 5092.35 | 24 | 44 | 20 | 5,068.35 | 5,048.35 | 5,012.35 |
| MW-78S | No | --- | Supplementary | Weathered Lewis Shale | 11/13/2018 | 80 | 5,088.79 | 5,086.51 | 24 | 44 | 20 | 5,062.51 | 5,042.51 | 5,006.51 |
| MW-79S | No | --- | Supplementary | Weathered Lewis Shale | 11/20/2018 | 58 | 5,086.90 | 5,084.35 | 16 | 36 | 20 | 5,068.35 | 5,048.35 | 5,026.35 |
| MW-80S | No | --- | Supplementary | Weathered Lewis Shale | 11/16/2018 | 81 | 5,086.80 | 5,084.29 | 35 | 55 | 20 | 5,049.29 | 5,029.29 | 5,003.29 |
| MW-81 | No | --- | Supplementary | Weathered Lewis Shale | 11/26/2018 | 36 | 5,086.41 | 5,084.07 | 13 | 33 | 20 | 5,071.07 | 5,051.07 | 5,048.07 |
| MW-82S | No | --- | Supplementary | Weathered Lewis Shale | 11/27/2018 | 65 | 5,093.37 | 5,091.02 | 17 | 37 | 20 | 5,074.02 | 5,054.02 | 5,026.02 |
| EW-11 | No | --- | Extraction (Inactive) | Weathered Lewis Shale | NA | 50 | 5,043.60 | 5,043.85 | 12 | 50 | 38 | 5,031.90 | 4,993.80 | 4,993.75 |
| EW-11R | No | --- | Extraction (Inactive) | Weathered Lewis Shale | 6/23/2023 | 43 | NM[4] | NM[4] | 12 | 42 | 30 | NM[4] | NM[4] | NM[4] |
| EW-12 | No | --- | Extraction (Inactive) | Weathered Lewis Shale | NA | 51 | 5038.1 | 5039.05 | NA | NA | NA | NA | NA | 4988.05 |
| EW-12R | No | --- | Extraction (Inactive) | Weathered Lewis Shale | 6/24/2023 | 38 | NM[4] | NM[4] | 12.5 | 37.5 | 25 | NM[4] | NM[4] | NM[4] |

**Notes and Abbreviations:**

*Source of presented information is AECOM, 2017 and Sakura Engineering & Surveying, 2017, 2019, and 2020.*

*Vertical datum is NAVD 88*

[1] - Water level monitored via transdcuer

[2] - Estimated

[3] - New surveyed elevation after wellhead modifications

[4] - Well has not been surveyed as of January 31, 2024

[5] - MW-34 is also designated EW-34 on previous reports

Wells highlighted gray were abandoned

AMSL - Above mean sea level

bgs - below ground surface

CCR - coal combustion residual(s)

CWTP - Combined Waste Treatment Pond

DFADA - Dry Fly Ash Disposal Area

ft - feet

NA - Data Not Available

NM - Not Measured as of January 31, 2024

RWP - Return Water Pond

URS - Upper Retention Sump

**Well Designation Descriptions:**

Background - Monitoring location used to determine background groundwater quality that has not been affected by the CCR unit under investigation (40 CFR §257.91)

Downgradient - Monitoring location used to evaluate the nature and extent of groundwater conditions associated with each CCR unit

Downgradient Boundary - Monitoring location used to assess the groundwater conditions at the boundary of each CCR unit

Extraction - Well location that currently supports the hydraulic containment system with the extraction of groundwater located downgradient of a CCR unit

Extraction (Inactive) - Well location installed to assist with the extraction of groundwater that does not actively support the current hydraulic containment system

Supplementary - Monitoring location intended to further support interpretations of both immediate CCR Unit-area conditions and Site-wide conditions

**Table 3-1**

**Appendix III and Appendix IV Constituent BTVs and/or GWPSs for Four Corners CCR Units**

**Semiannual 1 Event 2024**

| | CCR Unit | CWTP [A, B] | | URS [C, D] | | Multiunit 1 [C, E] | | DFADA [3 E] |
|---|---|---|---|---|---|---|---|---|
| | Constituent | BTV [mg/L] | GWPS [mg/L] | BTV [mg/L] | GWPS [mg/L] | BTV [mg/L] | GWPS [mg/L] | BTV [mg/L] |
| Appendix III Constituents | Boron | 2.0 (MW-62, MW-63)<br>0.73 (MW-64, MW-65) | | 1.9 | | 1.3 | | 1.3 |
| | Calcium | 536 (MW-62, MW-63)<br>486 (MW-64, MW-65) | | 540 | | 740 | | 740 |
| | Chloride | 631 | | 710 | | 5,700 | | 5,700 |
| | Fluoride | 1.8 (MW-62)<br>2.3 (MW-63)<br>1.6 (MW-64)<br>2.1 (MW-65) | N/A | >RL | N/A | 0.8 | N/A | 0.8 |
| | pH[1] | 6.50 - 6.90 (MW-62, MW-63)<br>7.23 - 7.66 (MW-64)<br>7.00 - 7.44 (MW-65) | | <LPL or >UPL | | 7.4 | | 7.4 |
| | Sulfate | 13,000 | | 13,000 | | 5,100 | | 5,100 |
| | TDS | 20,000 | | 20,000 | | 15,000 | | 15,000 |
| Appendix IV Constituents | Antimony | 0.00027 | 0.006 | 0.01 | 0.01 | 0.01 | 0.01 | |
| | Arsenic | 0.013 | 0.013 | 0.013 | 0.013 | 0.0086 | 0.01 | |
| | Barium | 0.51 | 2 | 0.05 | 2 | 0.04 | 2 | |
| | Beryllium | 0.0022 | 0.004 | 0.001 | 0.004 | 0.001 | 0.004 | |
| | Cadmium | 0.00021 | 0.005 | 0.001 | 0.005 | 0.002 | 0.005 | |
| | Chromium | 0.0014 | 0.1 | 0.01 | 0.1 | 0.02 | 0.1 | |
| | Cobalt | 0.014 | 0.014 | 0.016 | 0.016 | 0.01 | 0.01 | |
| | Fluoride | 4.2 | 4.2 | 4 | 4 | 5 | 5 | N/A |
| | Lead | 0.0011 | 0.015 | 0.005 | 0.015 | 0.01 | 0.015 | |
| | Lithium | 0.89 | 0.89 | 0.8 | 0.8 | 1.8 | 1.8 | |
| | Mercury | 0.0002 | 0.002 | 0.0002 | 0.002 | 0.0002 | 0.002 | |
| | Molybdenum | 0.011 | 0.1 | 0.011 | 0.1 | 0.12 | 0.1 | |
| | Selenium | 0.47 | 0.47 | 0.45 | 0.45 | 0.092 | 0.092 | |
| | Thallium | 0.0012 | 0.002 | 0.0014 | 0.002 | 0.017 | 0.017 | |
| | Combined Radium[2] | 4.16 | 5 | 5.4 | 5.4 | 4.4 | 5 | |

**Notes:**

[1] Units are standard units

[2] Units are picocuries per liter

[3] BTVs identified for the DFADA used background wells, MW-49A and MW-74, as presented in the CCR Monitoring Well Network Report and Certification (AECOM, 2017)

**Abbreviations:**

BTV - Background Threshold Value

CWTP - Combined Waste Treatment Pond

**Table 3-1**

**Appendix III and Appendix IV Constituent BTVs and/or GWPSs for Four Corners CCR Units**

**Semiannual 1 Event 2024**

GWPS - Groundwater Protection Standard
LPL - lower prediction limit
mg/L - milligrams per liter
N/A - not applicable RL - reporting limit
UPL - upper prediction limit URS - Upper Retention Sump

**References:**

[A] - BTVs were updated for appendix III constituents at the CWTP in 2023. [WSP, USA Inc. (WSP) CCR Groundwater Detection Monitoring. Statistical Analysis and Results for the CWTP. Appendix III constituent Data Collected Through January 2023. Arizona Public Service Four Corners Power Plant - Fruitland, New Mexico.April 10, 2023.]

[B] - BTVs and GWPSs were established for appendix IV constituents at the CWTP in 2023. [CCR Groundwater Detection Monitoring. Statistical Analysis and Results for the CWTP. Appendix IV constituent Data Collected Through June 2023. Arizona Public Service Four Corners Power Plant - Fruitland, New Mexico. October 09, 2023.]

[C] - BTVs were established for appendix III constituents at the CWTP, URS, and Multiunit 1 in 2018. [Statistical Analysis of Initial Detection Monitoring Appendix III Constituent Data. Arizona Public Service Four Corners Power Plant - Fruitland, New Mexico. Wood Technical Memorandum dated January 12, 2018 and revised August 20, 2018.]

[D] - BTVS and GWPSs were established for appendix IV constituents at the URS in 2018. [CCR Groundwater Assessment Monitoring Statistical Analysis and Results for the Upper Retention Sump. Arizona Public Service Four Corners Power Plant - Fruitland, New Mexico. Wood Technical Memorandum dated October 15, 2018.]

[E] - BTVS and GWPSs were established for appendix IV constituents at the Multiunit 1 in 2018. [CCR Groundwater Assessment Monitoring Statistical Analysis and Results for Multiunit 1. Arizona Public Service Four Corners Power Plant - Fruitland, New Mexico. Wood Technical Memorandum dated October 15, 2018.]

**Table 3-2**

**Appendix III and Appendix IV Constituent BTVs and/or GWPSs for Four Corners CCR Units**

**Semiannual 2 Event 2024**

| | CCR Unit | CWTP [A, B] | | URS [C,D] | | Multiunit 1 [C,E] | | DFADA [3 E] |
|---|---|---|---|---|---|---|---|---|
| | Constituent | BTV [mg/L] | GWPS [mg/L] | BTV [mg/L] | GWPS [mg/L] | BTV [mg/L] | GWPS [mg/L] | BTV [mg/L] |
| Appendix III Constituents | Boron | 2.0 (MW-62, MW-63)<br>0.73 (MW-64, MW-65) | N/A | 1.9 | N/A | 1.3 | N/A | 1.3 |
| | Calcium | 536 (MW-62, MW-63)<br>486 (MW-64, MW-65) | | 540 | | 740 | | 740 |
| | Chloride | 631 | | 710 | | 5,700 | | 5,700 |
| | Fluoride | 1.8 (MW-62)<br>2.3 (MW-63)<br>1.6 (MW-64)<br>2.1 (MW-65) | | >RL | | 0.8 | | 0.8 |
| | pH[1] | 6.50 - 6.90 (MW-62, MW-63)<br>7.23 - 7.66 (MW-64)<br>7.00 - 7.44 (MW-65) | | <LPL or >UPL | | 7.4 | | 7.4 |
| | Sulfate | 13,000 | | 13,000 | | 5,100 | | 5,100 |
| | TDS | 20,000 | | 20,000 | | 15,000 | | 15,000 |
| Appendix IV Constituents | Antimony | 0.00027 | 0.006 | 0.00027 | 0.006 | 0.002 | 0.006 | N/A |
| | Arsenic | 0.013 | 0.013 | 0.013 | 0.013 | 0.0065 | 0.01 | |
| | Barium | 0.51 | 2 | 0.51 | 2 | 0.029 | 2 | |
| | Beryllium | 0.0022 | 0.004 | 0.0022 | 0.004 | 0.00075 | 0.004 | |
| | Cadmium | 0.00021 | 0.005 | 0.00021 | 0.005 | 0.00031 | 0.005 | |
| | Chromium | 0.0014 | 0.1 | 0.0014 | 0.1 | 0.0063 | 0.1 | |
| | Cobalt | 0.014 | 0.014 | 0.014 | 0.014 | 0.0045 | 0.006 | |
| | Fluoride | 4.2 | 4.2 | 4.2 | 4.2 | 2.4 | 4 | |
| | Lead | 0.0011 | 0.015 | 0.0011 | 0.015 | 0.01 | 0.015 | |
| | Lithium | 0.89 | 0.89 | 0.89 | 0.89 | 1.54 | 1.54 | |
| | Mercury | 0.0002 | 0.002 | 0.0002 | 0.002 | 0.0004 | 0.002 | |
| | Molybdenum | 0.011 | 0.1 | 0.011 | 0.1 | 0.1 | 0.1 | |
| | Selenium | 0.47 | 0.47 | 0.47 | 0.47 | 0.12 | 0.12 | |
| | Thallium | 0.0012 | 0.002 | 0.0012 | 0.002 | 0.0017 | 0.002 | |
| | Combined Radium[2] | 4.16 | 5 | 4.2 | 5 | 3.6 | 5 | |

**Notes:**

[1] Units are standard units

[2] Units are picocuries per liter

[3] BTVs identified for the DFADA used background wells, MW-49A and MW-74, as presented in the CCR Monitoring Well Network Report and Certification (AECOM, 2017)

**Abbreviations:**

BTV - Background Threshold Value

CWTP - Combined Waste Treatment Pond

**Table 3-2**

**Appendix III and Appendix IV Constituent BTVs and/or GWPSs for Four Corners CCR Units**

**Semiannual 2 Event 2024**

GWPS - Groundwater Protection Standard
LPL - lower prediction limit
mg/L - milligrams per liter
N/A - not applicable RL - reporting limit
UPL - upper prediction limit URS - Upper Retention Sump

**References:**

[A] - BTVs were updated for appendix III constituents at the CWTP in 2023. [WSP, USA Inc. (WSP) CCR Groundwater Detection Monitoring. Statistical Analysis and Results for the CWTP. Appendix III constituent Data Collected Through January 2023. Arizona Public Service Four Corners Power Plant - Fruitland, New Mexico.April 10, 2023.]

[B] - BTVs and GWPSs were established for appendix IV constituents at the CWTP in 2023. [WSP CCR Groundwater Detection Monitoring. Statistical Analysis and Results for the CWTP. Appendix IV constituent Data Collected Through June 2023. Arizona Public Service Four Corners Power Plant - Fruitland, New Mexico. October 09, 2023.]

[C] - BTVs were established for appendix III constituents at the CWTP, URS, and Multiunit 1 in 2018. [Statistical Analysis of Initial Detection Monitoring Appendix III Constituent Data. Arizona Public Service Four Corners Power Plant - Fruitland, New Mexico. Wood Technical Memorandum dated January 12, 2018 and revised August 20, 2018.]

[D] - BTVS and GWPSs were updated for appendix IV constituents at the URS in 2025. [WSP CCR Groundwater Assessment Monitoring Statistical Analysis for the Upper Retention Sump. Background Threshold Value Update. Arizona Public Service Four Corners Power Plant - Fruitland, New Mexico. January 17, 2025.]

[E] - BTVS and GWPSs were updated for appendix IV constituents at the Multiunit 1 in 2025. [WSP CCR Groundwater Assessment Monitoring Statistical Analysis for Multiunit 1. Background Threshold Value Update. Arizona Public Service Four Corners Power Plant - Fruitland, New Mexico. January 31, 2025.]

**Table 3-3**

**CCR Groundwater Monitoring Event Summary for 2024**

| CCR UNIT | Monitoring Location | CCR Compliance Well | Monitoring Point Designation | SA1 2024 (Detection Sampling) | SA1 2024 (Assessment Sampling) | SA2 2024 (Detection Sampling) | SA2 2024 (Assessment Sampling) | Number of Field Original Samples Collected in 2024[(b)] |
|---|---|---|---|---|---|---|---|---|
| CWTP | MW-62 | Yes | Downgradient Boundary | --- | X | --- | X | 2 |
| | MW-63 | Yes | Downgradient Boundary | --- | X | --- | X | 2 |
| | MW-64 | Yes | Downgradient Boundary | --- | X | --- | X | 2 |
| | MW-65 | Yes | Downgradient Boundary | --- | X | --- | X | 2 |
| | Morgan Lake | No | Surface Water | --- | X | --- | X | 2 |
| | CWTP | No | Surface Water | --- | X | --- | X | 2 |
| | Cooling Canal | No | Surface Water | --- | X | --- | X | 2 |
| DFADA | MW-10 | Yes | Downgradient Boundary | NS[5] | --- | NS[5] | --- | 0 |
| | MW-11 | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-12R1 | Yes | Background | NS[5] | --- | NS[5] | --- | 0 |
| | MW-13 | Yes | Downgradient Boundary | NS[5] | --- | NS[5] | --- | 0 |
| | MW-16 | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-44 | Yes | Downgradient Boundary | NS[5] | --- | NS[5] | --- | 0 |
| | MW-48 | Yes | Downgradient Boundary | NS[5] | --- | NS[5] | --- | 0 |
| | MW-55R | Yes | Background | NS[5] | --- | NS[5] | --- | 0 |
| Multiunit 1 | MW-01 | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-03 | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-05 | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-06 | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-06R | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-07 | Yes | Downgradient Boundary | --- | X | --- | X | 2 |
| | MW-08 | Yes | Downgradient Boundary | --- | X | --- | X | 2 |
| | MW-15 | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-17R | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-18 | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-19 | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-21 | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-23R | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-24 | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-30 | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-32 | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-34 | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-36R | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-38R | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-40R | Yes | Downgradient Boundary | --- | X | --- | X | 2 |
| | MW-43 | Yes | Background | --- | NS[5] | --- | NS[5] | 0 |
| | MW-49A | Yes | Background | --- | X | --- | X | 2 |
| | MW-50A | Yes | Background | --- | X | --- | NS[5] | 1 |
| | MW-51 | Yes | Background | --- | X | --- | NS[5] | 1 |

**Table 3-3**

**CCR Groundwater Monitoring Event Summary for 2024**

| CCR UNIT | Monitoring Location | CCR Compliance Well | Monitoring Point Designation | SA1 2024 (Detection Sampling) | SA1 2024 (Assessment Sampling) | SA2 2024 (Detection Sampling) | SA2 2024 (Assessment Sampling) | Number of Field Original Samples Collected in 2024[(b)] |
|---|---|---|---|---|---|---|---|---|
| Multiunit 1 | MW-52 | No | Supplementary | --- | X | --- | X | 2 |
| | MW-56 | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-57 | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-60 | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-61 | Yes | Downgradient Boundary | --- | X | --- | X | 2 |
| | MW-74 | Yes | Background | --- | X | --- | X | 2 |
| | MW-75 | Yes | Downgradient Boundary | --- | X | --- | X | 2 |
| | MW-76 | Yes | Downgradient Boundary | --- | X | --- | X | 2 |
| | MW-77S | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-78S | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-79S | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-80S | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-81 | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-82S | No | Supplementary | --- | --- | --- | --- | 0 |
| | MW-87 | Yes | Downgradient | --- | X | --- | X | 2 |
| | EW-11R | No | Extraction (Inactive) | --- | --- | --- | --- | 0 |
| | EW-12R | No | Extraction (Inactive) | --- | --- | --- | --- | 0 |
| | EW-14 | No | Supplementary | --- | --- | --- | --- | 0 |
| | EW-15 | No | Supplementary | --- | --- | --- | --- | 0 |
| | EW-17 | No | Extraction | --- | --- | --- | --- | 0 |
| | DMX-01 | No | Supplementary | --- | --- | --- | --- | 0 |
| | DMX-03 | No | Supplementary | --- | --- | --- | --- | 0 |
| | DMX-04 | No | Supplementary | --- | --- | --- | --- | 0 |
| | DMX-05R | No | Extraction (Inactive) | --- | --- | --- | --- | 0 |
| | DMX-06 | No | Supplementary | --- | --- | --- | --- | 0 |
| | SUMP-1 | No | Extraction | --- | --- | --- | --- | 0 |
| | SUMP-2 | No | Extraction | --- | --- | --- | --- | 0 |
| | SUMP-3 | No | Extraction | --- | --- | --- | --- | 0 |
| | SUMP-7 | No | Extraction | --- | --- | --- | --- | 0 |
| | SUMP-8 | No | Extraction | --- | --- | --- | --- | 0 |
| | SUMP-9 | No | Extraction | --- | --- | --- | --- | 0 |
| | SUMP-10 | No | Extraction | --- | --- | --- | --- | 0 |
| | SUMP-11 | No | Extraction | --- | --- | --- | --- | 0 |
| | SUMP-12 | No | Extraction | --- | --- | --- | --- | 0 |
| | SUMP-13 | No | Extraction | --- | --- | --- | --- | 0 |
| | SUMP-14 | No | Extraction | --- | --- | --- | --- | 0 |
| | SUMP-15 | No | Extraction | --- | --- | --- | --- | 0 |
| | SUMP-16 | No | Extraction | --- | --- | --- | --- | 0 |
| | SUMP-17 | No | Extraction | --- | --- | --- | --- | 0 |

**Table 3-3**

**CCR Groundwater Monitoring Event Summary for 2024**

| CCR UNIT | Monitoring Location | CCR Compliance Well | Monitoring Point Designation | SA1 2024 (Detection Sampling) | SA1 2024 (Assessment Sampling) | SA2 2024 (Detection Sampling) | SA2 2024 (Assessment Sampling) | Number of Field Original Samples Collected in 2024[(b)] |
|---|---|---|---|---|---|---|---|---|
| **Multiunit 1** | SUMP-18 | No | Extraction | --- | --- | --- | --- | 0 |
| | Ash Pond Vault 6 | No | Extraction | --- | --- | --- | --- | 0 |
| **RWP** | MW-88 | Yes | Downgradient Boundary | NS[5] | --- | NS[5] | --- | 0 |
| | MW-89 | Yes | Downgradient Boundary | X | --- | NS[5] | --- | 0 |
| | MW-90 | Yes | Downgradient Boundary | NS[5] | --- | NS[5] | --- | 0 |
| **URS** | MW-66 | Yes | Downgradient Boundary | --- | X | --- | X | 2 |
| | MW-67 | Yes | Downgradient Boundary | --- | X | --- | X | 2 |
| | MW-68 | Yes | Downgradient Boundary | --- | X | --- | X | 2 |
| | MW-69 | Yes | Downgradient Boundary | --- | X | --- | X | 2 |
| | MW-70 | Yes | Downgradient Boundary | --- | X | --- | X | 2 |
| | MW-71[(a)] | Yes | Background | --- | X | --- | X | 2 |
| | MW-72[(a)] | Yes | Background | --- | X | --- | X | 2 |
| | MW-73[(a)] | Yes | Background | --- | X | --- | X | 2 |
| | MW-83 | Yes | Downgradient | --- | X | --- | X | 2 |
| | MW-84 | Yes | Downgradient | --- | X | --- | X | 2 |
| **URS** | MW-85 | Yes | Downgradient | --- | X | --- | X | 2 |
| | MW-86 | Yes | Downgradient | --- | X | --- | X | 2 |
| | CM-01 | No | Extraction | --- | X | --- | X | 2 |
| | CM-02 | No | Extraction | --- | X | --- | X | 2 |
| *Analyzed Constituents* | | | | App III Constituents | *App III, App IV, and Additional Constituents* | App III Constituents | *App III, App IV, and Additional Constituents* | 64 |

**Notes:**

[(a)] Background wells for the CWTP, RWP, and URS.

[(b)] Totals exclude field duplicate samples.

X - Well Monitored

--- - Well Not Monitored

[1]Well contained no groundwater and was measured dry during the sampling event

[2]Well was abandoned in June 2023

[3]Well installed in June 2023

[4]Well was not configured for sampling

[5]Well contained an insufficient amount of groundwater to support sample collection

[6]Obstruction present in the well prevented sample collection

**Abbreviations:**

App - Appendix

CCR - coal combustion residuals

CWTP - Combined Waste Treatment Pond

DFADA - Dry Fly Ash Disposal Area

**Monitoring Point Type Descriptions:**

Background - Monitoring location used to determine background groundwater quality that has not been affected by the CCR unit under investigation (40 CFR §257.91)

Downgradient - Monitoring location used to evaluate the nature and extent of groundwater conditions associated with each CCR unit

Downgradient Boundary - Monitoring location used to assess the groundwater conditions at the boundary of each CCR unit

**Table 3-3**

**CCR Groundwater Monitoring Event Summary for 2024**

SA - Semi-annual

RWP - Return Water Pond

URS - Upper Retention Sump

Extraction - Well location that currently supports the hydraulic containment system with the extraction of groundwater located downgradient of a CCR unit

Extraction (Inactive) - Well location installed to assist with the extraction of groundwater that does not actively support the current hydraulic containment system

Supplementary - Monitoring location intended to further support interpretations of both immediate CCR Unit-area conditions and Site-wide conditions

## Table 3-4

## Aquifer Properties and Groundwater Flow Calculations

| Hydrogeologic Unit (CCR Unit) | Estimated Hydraulic Conductivity [ft/d] | Estimated Effective Porosity [Vol/Vol] | Sampling Event | Calculated Hydraulic Gradient [ft/ft] | Calculated Groundwater Flow Direction [degrees from North] | Estimated Groundwater Flow Rate [ft/d] |
|---|---|---|---|---|---|---|
| Pictured Cliffs Sandstone (URS ) | 6.0[a] | 0.25[b] | May 2024 | 0.0003 | 346 | 0.01 |
| | | | October 2024 | 0.0007 | 348 | 0.02 |
| Pictured Cliffs Sandstone (CWTP ) | | | May 2024 | 0.0006 | 199 | 0.01 |
| | | | October 2024 | 0.0007 | 122 | 0.02 |
| Lewis Shale (Multiunit 1) | 0.00028[b] | 0.05[b] | May 2024 | 0.03 | 257 | 0.0002 |
| | | | October 2024 | 0.03 | 256 | 0.0002 |

**Notes:**

Wells used in Pictured Cliffs Sandstone URS calculations: MW-66, MW-67, MW-68, MW-69, MW-70, MW-71, MW-72, MW-73, MW-83, MW-84, MW-85, MW-86

Wells used in Pictured Cliffs Sandstone CWTP calculations: MW-62, MW-63, MW-64, MW-65

Wells used in Lewis Shale calculations: MW-07, MW-08, MW-17R, MW-38R, MW-40R, MW-49A, MW-61, MW-75, MW-76, MW-60, MW-16, MW-15, MW-87, MW-44, MW-56, MW-06, MW-57, DMX-04, DMX-06

CCR - Coal Combustion Residuals

CWTP - Combined Waste Treatment Pond

d - day

ft - feet

URS - Upper Retention Sump

Vol/Vol - volume per volume

**References:**

[a] AECOM, 2017

[b] Freeze, R.A. and Cherry, J.A., 1979.

## Table 4-1

## Total COC Mass Removed from Intercept Trench Operations in 2024

| | | | |
|---|---|---|---|
| **Total Mass Removed (lbs)** | | | **7.93** |
| **Average Volume Pumped per Day (gpd)** | | | **36,846** |
| **Total Volume Pumped (gal)** | | | **13,559,291** |
| **Year** | **2024** | | |
| **Constituent** | **NIT (lbs/yr)** | **SIT (lbs/yr)** | **Total (lbs/yr)** |
| Cobalt | 0.56 | 6.74 | 7.29 |
| Molybdenum | 0.08 | 0.55 | 0.63 |
| Total (lb/yr) | **0.64** | **7.29** | **7.93** |

**Abbreviations:**

gal - gallons

gpd - gallons per day

lbs - pounds

yr - year

NIT - Northern Intercept Trench

SIT - Southern Intercept Trench

**Table 4-2**

**Individual Site Chemistry and Flow Volumes**

| Source Area | | NIT | | | | | | | | SIT | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well/Seep | | S7 | | | S8 | | | EW-17 | | | S-9 | | | S-10 | |
| Daily Average Flow (gpd) | | 1,527 | | | 4,886 | | | 14 | | | 2,538 | | | 4,188 | |
| Total Annual Flow (gal)[1] | | 561,964 | | | 1,797,899 | | | 5,190 | | | 933,928 | | | 1,541,128 | |
| Analyte | | mg/L | lb/day | lb/yr | mg/L | lb/day | lb/yr | mg/L | lb/day | lb/yr | mg/L | lb/day | lb/yr | mg/L | lb/day | lb/yr |
| Appendix IV | Antimony | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Arsenic | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Barium | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Beryllium | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Cadmium | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Chromium | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Cobalt | 0.0614 | 0.0008 | 0.29 | 0.0181 | 0.0007 | 0.27 | 0.0170 | 0.0000 | 0.00 | 0.0198 | 0.0004 | 0.15 | 0.1485 | 0.0052 | 1.90 |
| | Fluoride | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Lead | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Lithium | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Mercury | NM | -- | -- | NM | -- | -- | 0.0002 | 0.0000 | 0.00 | NM | -- | -- | NM | -- | -- |
| | Molybdenum | 0.004 | 0.0000 | 0.02 | 0.0045 | 0.0002 | 0.07 | 0.0050 | 0.0000 | 0.00 | 0.0031 | 0.0001 | 0.02 | 0.0031 | 0.00011 | 0.04 |
| | Selenium | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Thallium | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Total (lbs) | | | ***0.3*** | | | ***0.3*** | | | ***0.0*** | | | ***0.2*** | | | ***1.9*** |

**Notes:**

[1] December 29, 2023-December 31, 2024

**Abbreviations:**

gal - gallons

gpd - gallons per day

lbs - pound

mg/L - milligrams per liter

yr - year

**Table 4-2**

**Individual Site Chemistry and Flow Volumes**

| Source Area | | SIT | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well/Seep | | S-11 | | | S-12 | | | S-13 | | | S-14-1 | | | S-15-1 | | |
| Daily Average Flow (gpd) | | 1,631 | | | 2,206 | | | 2,579 | | | 9,816 | | | 4,019 | | |
| Total Annual Flow (gal)[1] | | 600,374 | | | 811,647 | | | 949,194 | | | 3,612,332 | | | 1,479,137 | | |
| Analyte | | mg/L | lb/day | lb/yr | mg/L | lb/day | lb/yr | mg/L | lb/day | lb/yr | mg/L | lb/day | lb/yr | mg/L | lb/day | lb/yr |
| Appendix IV | Antimony | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Arsenic | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Barium | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Beryllium | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Cadmium | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Chromium | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Cobalt | 0.1255 | 0.0017 | 0.62 | 0.1300 | 0.0024 | 0.87 | 0.0851 | 0.0018 | 0.67 | 0.0550 | 0.0045 | 1.64 | 0.0627 | 0.0021 | 0.77 |
| | Fluoride | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Lead | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Lithium | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Mercury | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Molybdenum | 0.0029 | 0.00004 | 0.01 | 0.0029 | 0.00005 | 0.02 | 0.0038 | 0.0001 | 0.03 | 0.0116 | 0.0010 | 0.35 | 0.0031 | 0.0001 | 0.04 |
| | Selenium | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Thallium | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- | NM | -- | -- |
| | Total (lbs) | | | ***0.6*** | | | ***0.9*** | | | ***0.7*** | | | ***2.0*** | | | ***0.8*** |

**Notes:**

[1] December 29, 2023-December 31, 2024

**Abbreviations:**

gal - gallons

gpd - gallons per day

lbs - pound

mg/L - milligrams per liter

yr - year

**Table 4-2**

**Individual Site Chemistry and Flow Volumes**

| Source Area | | SIT | | | | | | | | | URS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well/Seep | | S-16-1 | | | S-17 | | | S-18 | | | CM-01/URS-01 (gpd) | | | CM-02/URS-02 (gpd) | | |
| Daily Average Flow (gpd) | | 686 | | | 356 | | | 2,400 | | | 493 | | | 1,528 | | |
| Total Annual Flow (gal)[1] | | 252,317 | | | 131,018 | | | 883,163 | | | 181,522 | | | 562,409 | | |
| Analyte | | mg/L | lb/day | lb/yr | mg/L | lb/day | lb/yr | mg/L | lb/day | lb/yr | mg/L | lb/day | lb/yr | mg/L | lb/day | lb/yr |
| Appendix IV | Antimony | NM | -- | -- | NM | -- | -- | NM | -- | -- | 0.007 | 0.00 | 0.01 | 0.007 | 0.00 | 0.03 |
| | Arsenic | NM | -- | -- | NM | -- | -- | NM | -- | -- | 0.004 | 0.00 | 0.01 | 0.004 | 0.00 | 0.02 |
| | Barium | NM | -- | -- | NM | -- | -- | NM | -- | -- | 0.014 | 0.00 | 0.02 | 0.014 | 0.00 | 0.07 |
| | Beryllium | NM | -- | -- | NM | -- | -- | NM | -- | -- | 0.003 | 0.00 | 0.00 | 0.003 | 0.00 | 0.01 |
| | Cadmium | NM | -- | -- | NM | -- | -- | NM | -- | -- | 0.001 | 0.00 | 0.00 | 0.001 | 0.00 | 0.00 |
| | Chromium | NM | -- | -- | NM | -- | -- | NM | -- | -- | 0.006 | 0.00 | 0.01 | 0.007 | 0.00 | 0.03 |
| | Cobalt | 0.0401 | 0.0002 | 0.08 | 0.0028 | 0.0000 | 0.00 | 0.0029 | 0.0001 | 0.02 | 0.008 | 0.00 | 0.01 | 0.006 | 0.00 | 0.03 |
| | Fluoride | NM | -- | -- | NM | -- | -- | NM | -- | -- | 1.07 | 0.00 | 1.61 | 1.67 | 0.02 | 7.78 |
| | Lead | NM | -- | -- | NM | -- | -- | NM | -- | -- | 0.003 | 0.00 | 0.00 | 0.003 | 0.00 | 0.01 |
| | Lithium | NM | -- | -- | NM | -- | -- | NM | -- | -- | 0.288 | 0.00 | 0.43 | 0.328 | 0.00 | 1.53 |
| | Mercury | NM | -- | -- | NM | -- | -- | NM | -- | -- | 0.0002 | 0.00 | 0.00 | 0.0002 | 0.00 | 0.00 |
| | Molybdenum | 0.0034 | 0.0000 | 0.01 | 0.0030 | 0.0000 | 0.00 | 0.0037 | 0.0001 | 0.03 | 0.005 | 0.00 | 0.01 | 0.004 | 0.00 | 0.02 |
| | Selenium | NM | -- | -- | NM | -- | -- | NM | -- | -- | 0.070 | 0.00 | 0.11 | 0.220 | 0.00 | 1.03 |
| | Thallium | NM | -- | -- | NM | -- | -- | NM | -- | -- | 0.001 | 0.00 | 0.00 | 0.001 | 0.00 | 0.00 |
| | Total (lbs) | | | ***0.1*** | | | ***0.0*** | | | ***0.0*** | | | ***2.2*** | | | ***10.6*** |

**Notes:**

[1] December 29, 2023-December 31, 2024

**Abbreviations:**

gal - gallons

gpd - gallons per day

lbs - pound

mg/L - milligrams per liter

yr - year

**Table 4-3**

**Total COC Mass Removed from the URS Extraction System Operation in 2024**

| | | |
|---|---|---|
| **Total Mass Removed (lbs)** | | **9.39** |
| **Average Volume Pumped per Day (gpd)** | | **2,022** |
| **Total Volume Pumped (gal)** | | **743,931** |
| **Year** | **2024** | |
| **Constituent** | **URS (lbs/yr)** | **Total (lbs/yr)** |
| Fluoride | 9.39 | 9.39 |
| Total (lb/yr) | **9.39** | **9.39** |

**Abbreviations:**

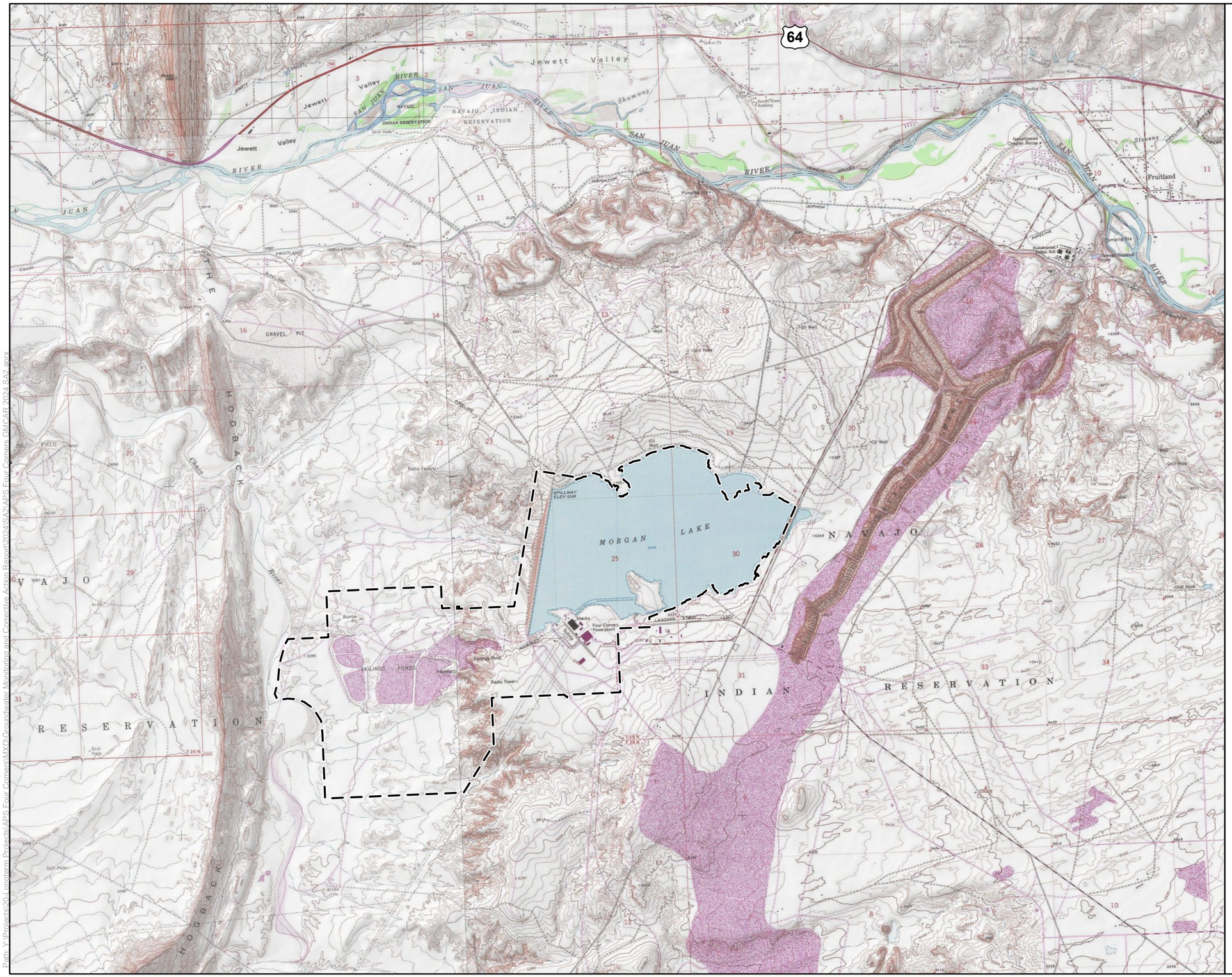
gal - gallons

gpd - gallons per day

lbs - pounds

yr - year

# FIGURES







**Area of Detail**

## Legend

Four Corners Power Plant Lease Boundary

0 0.4 0.8 Miles

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE **1-1**

**Site Location Map**

| | |
|---|---|
| Job No. | US0023513.6155 |
| PM: | MBH |
| Date: | 1/16/2025 |
| Scale: | 1"= 0.8 miles |

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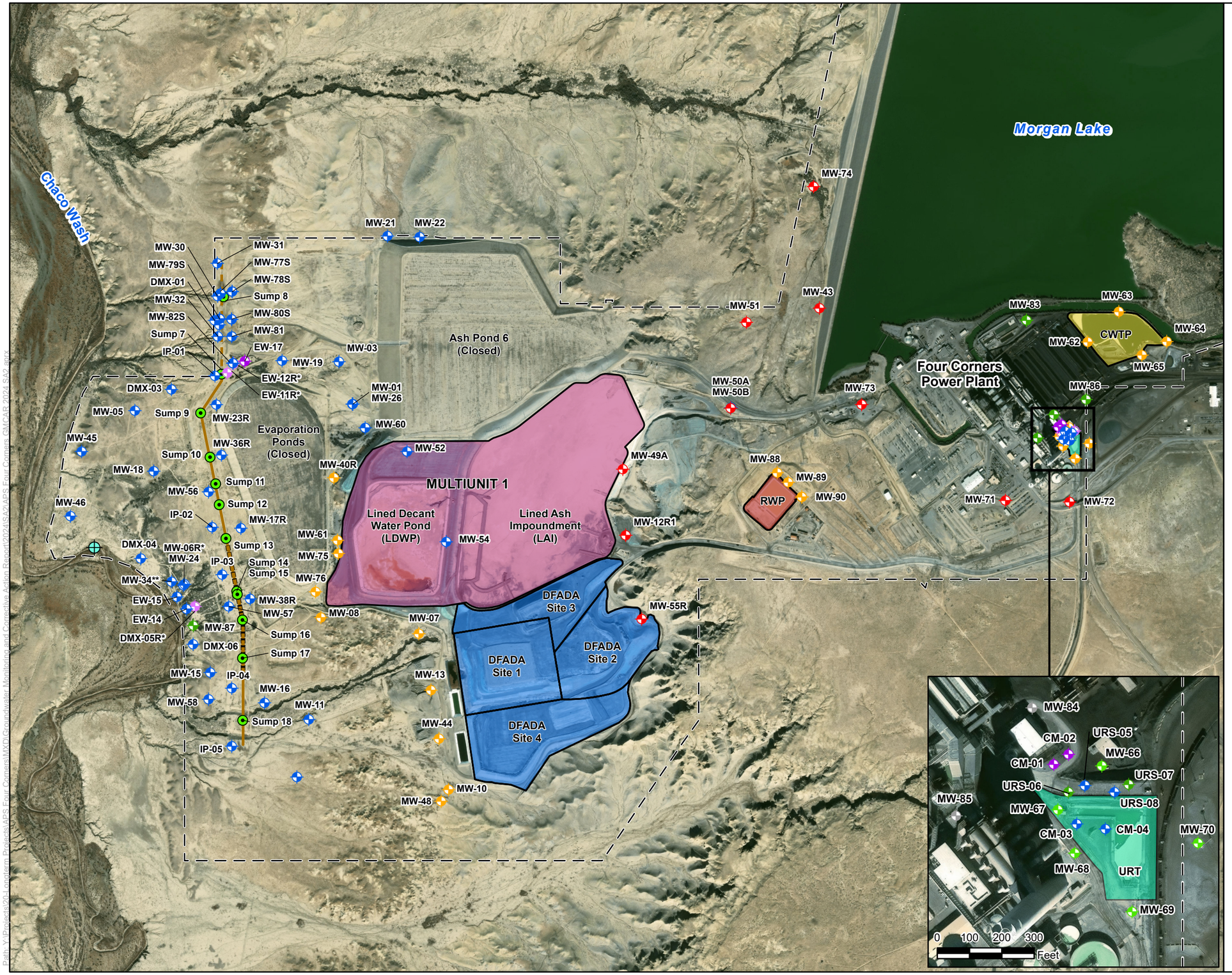


## Legend

- CCR Compliance - Background Well Location
- CCR Compliance - Downgradient Well Location
- CCR Compliance - Downgradient Waste Boundary Well Location
- Supplementary Site Monitoring Well Location
- Extraction Well Location
- Extraction (Inactive) Well Location
- Sump Locations
- Chaco Wash Stream Monitoring Station (Approximate Location)
- North Intercept Trench
- South Intercept Trench
- Approximate Extent of High Flow Zone
- Four Corners Power Plant Lease Boundary

**Notes and Abbreviations:**

| | |
|---|---|
| MW-83 | Well Identification |
| * | Approximate Well Location |
| ** | In previous reports MW-34 is also referred to as EW-34. |
| CCR | Coal Combustion Residuals |
| URT | Upper Retention Tank |

0 700 1,400
Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE **1-2**

**CCR Units and Groundwater Monitoring System Summary Map**

| | |
|---|---|
| Job No. | US0023513.6155 |
| PM: | MBH |
| Date: | 1/28/2025 |
| Scale: | 1" = 1,400 feet |

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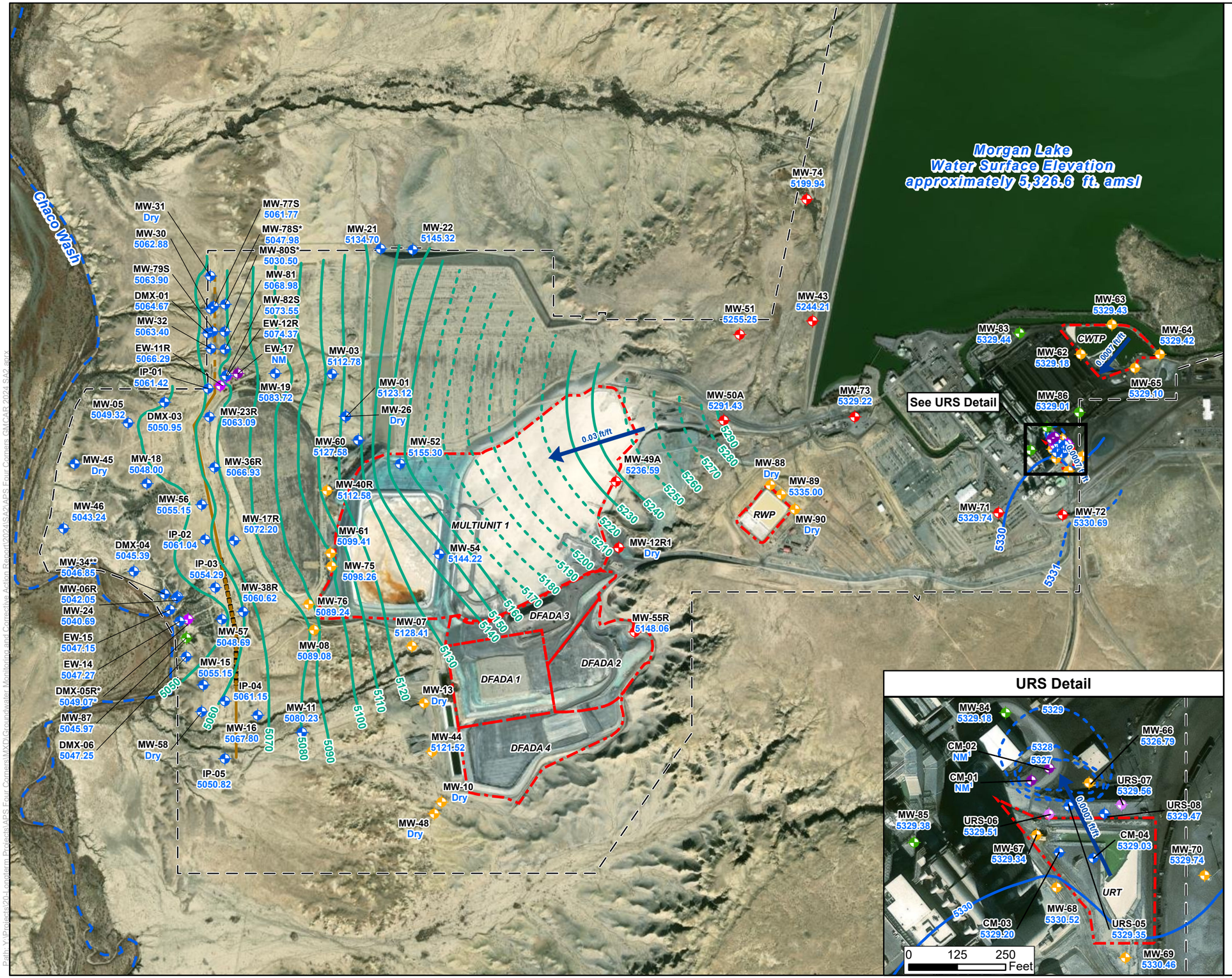





## Legend

- CCR Compliance - Background Well Location
- CCR Compliance - Downgradient Well Location
- CCR Compliance - Downgradient Waste Boundary Well Location
- Extraction Well Location
- Supplementary Site Monitoring Well Location
- Extraction (Inactive) Well Location
- Weathered Lewis Shale/Alluvium Aquifer Groundwater Elevation Contour (ft amsl) 10-Foot Contour Interval (Dashed Where Inferred)
- Pictured Cliffs Sandstone Aquifer Groundwater Elevation Contour (ft amsl) 1-Foot Contour Interval (Dashed Where Inferred)
- Groundwater Flow Direction with Gradient (ft/ft)
- CCR Unit Boundary
- Four Corners Power Plant Lease Boundary
- North Intercept Trench
- South Intercept Trench
- Approximate Extent of High Flow Zone
- Ephemeral Surface Water Feature

**Notes and Abbreviations:**

| | |
|---|---|
| MW-83 | Well Identification |
| 5329.44 | Groundwater Elevation (ft amsl) |
| NM | Not measured because pump and piping are present in well which prevent the collection of manual groundwater measurements |
| NM¹ | Not Measured¹: Inaccessible in May 2024 |
| * | Elevation measured in March 2024 |
| * | Well not used in potentiometric surface mapping |
| ** | In previous reports MW-34 is also referred to as EW-34. |
| ft amsl | Feet above mean sea level |
| CCR | Coal Combustion Residuals |

0 700 1,400 2,800 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE 3-1

**Potentiometric Surface Map Semi Annual Event 1 2024**

| | |
|---|---|
| Job No. | US0023513.6155 |
| PM: | MBH |
| Date: | 1/28/2025 |
| Scale: | 1" = 1,400 feet |

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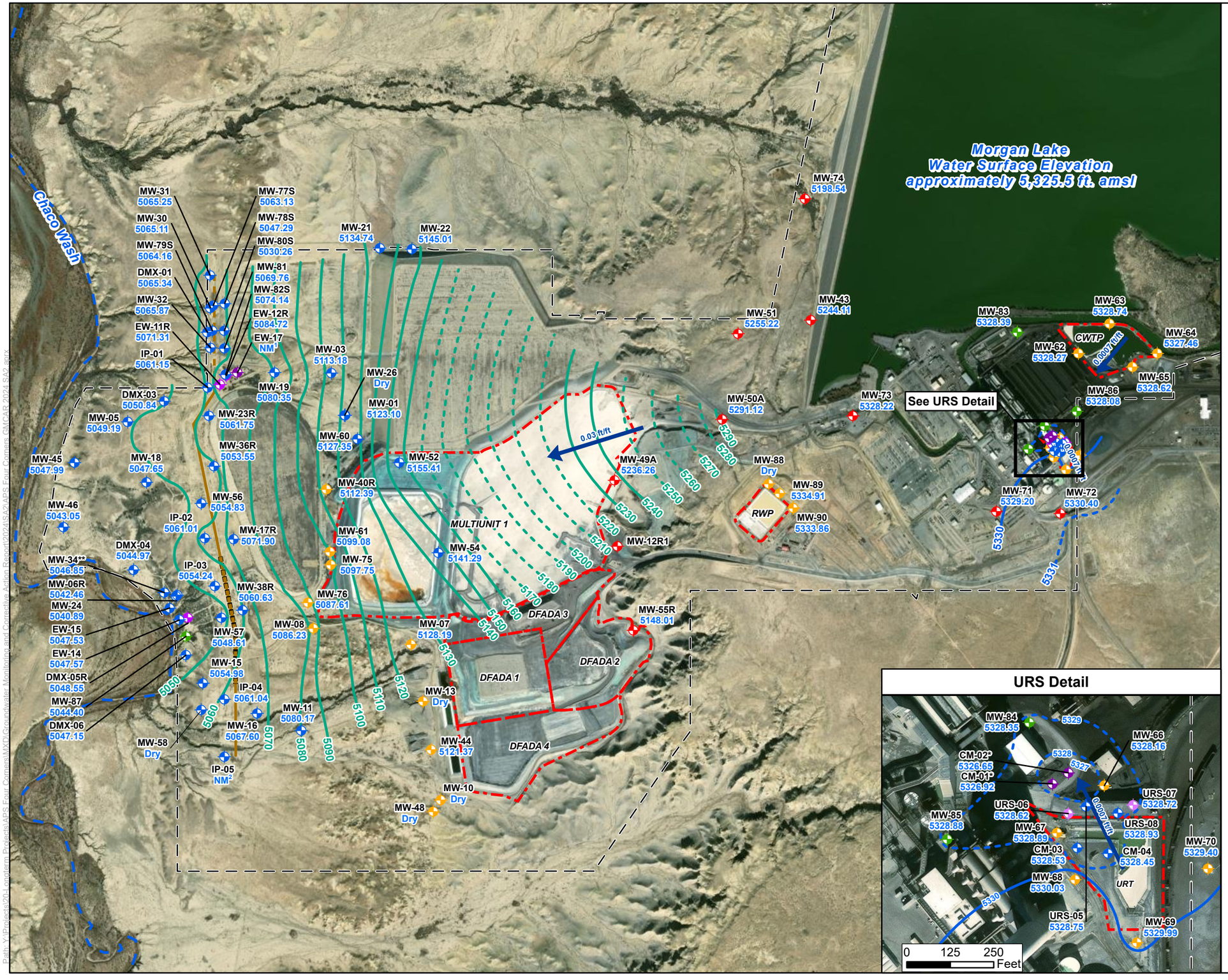


## Legend

- CCR Compliance - Background Well Location
- CCR Compliance - Downgradient Well Location
- CCR Compliance - Downgradient Waste Boundary Well Location
- Extraction Well Location
- Supplementary Site Monitoring Well Location
- Extraction (Inactive) Well Location
- Weathered Lewis Shale/Alluvium Aquifer Groundwater Elevation Contour (ft amsl) 10-Foot Contour Interval (Dashed Where Inferred)
- Pictured Cliffs Sandstone Aquifer Groundwater Elevation Contour (ft amsl) 1-Foot Contour Interval (Dashed Where Inferred)
- Groundwater Flow Direction with Gradient (ft/ft)
- CCR Unit Boundary
- Four Corners Power Plant Lease Boundary
- North Intercept Trench
- South Intercept Trench
- Approximate Extent of High Flow Zone
- Ephemeral Surface Water Feature

**Notes and Abbreviations:**

| | |
|---|---|
| MW-83 | Well Identification |
| 5328.39 | Groundwater Elevation (ft amsl) |
| NM[1] | No Measurement[1] because pump and piping are present in well which prevent the collection of manual groundwater measurements |
| NM[2] | No Measurement[2] due to well being inaccessible because of unsafe driving conditions. |
| * | Active groundwater extraction locations |
| ** | In previous reports MW-34 is also referred to as EW-34. |
| ft amsl | Feet above mean sea level |
| CCR | Coal Combustion Residuals |

Groundwater elevations collected throughout October and November 2024 because certain wells were inaccessible for short periods of time due to unsafe driving conditions.

0 700 1,400 2,800 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE 3-2

**Potentiometric Surface Map Semi Annual Event 2 2024**

| | |
|---|---|
| Job No. | US0023513.6155 |
| PM: | MBH |
| Date: | 1/28/2025 |
| Scale: | 1" = 1,400 feet |

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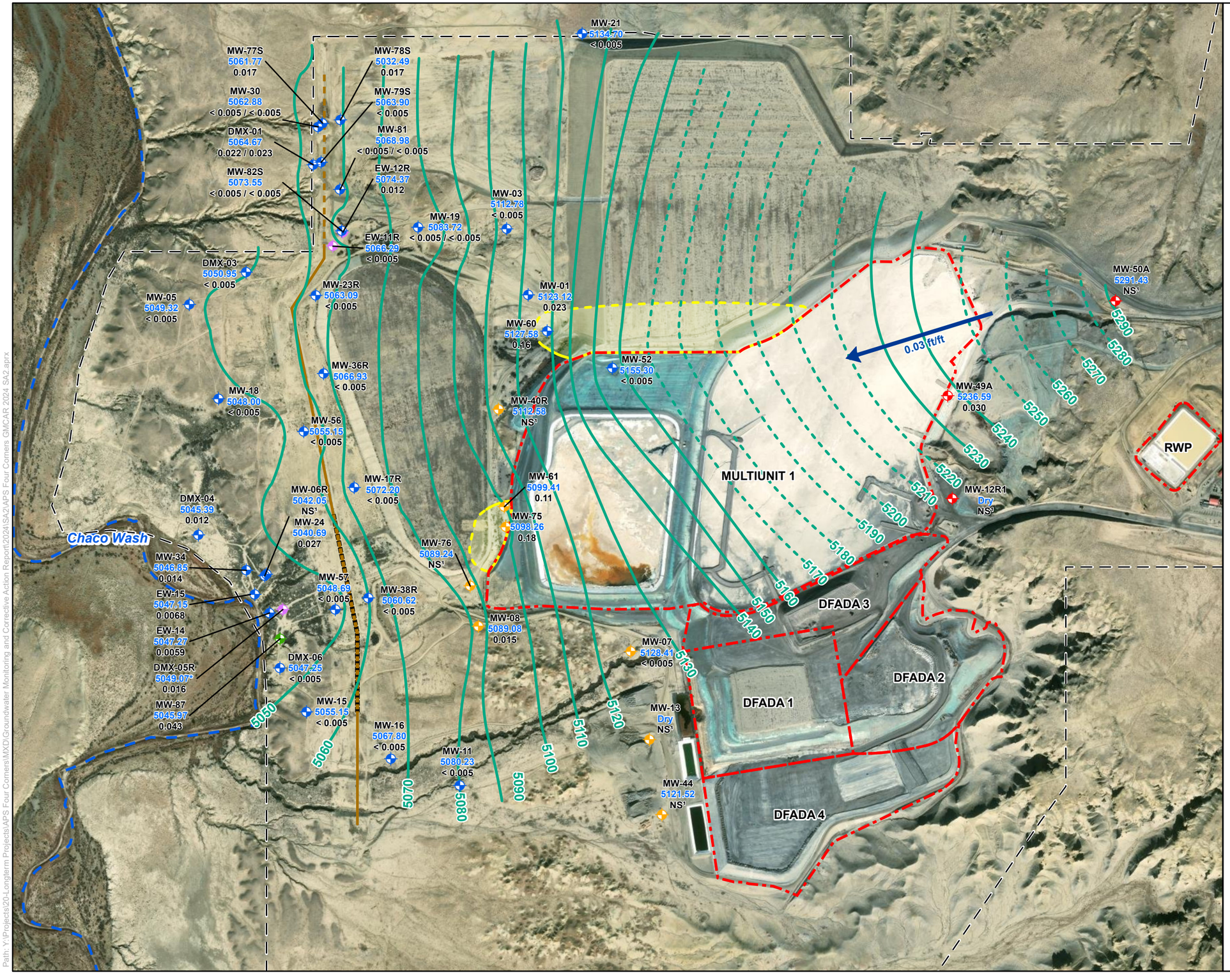


## Legend

- CCR Compliance - Background Well Location
- CCR Compliance - Downgradient Well Location
- CCR Compliance - Downgradient Waste Boundary Well Location
- Supplementary Site Monitoring Well Location
- Extraction (Inactive) Well Location
- CCR Unit Boundary
- Four Corners Power Plant Lease Boundary
- North Intercept Trench
- South Intercept Trench
- Approximate Extent of High Flow Zone
- Groundwater Elevation Contour (ft amsl) 10-Foot Contour Interval (Dashed Where Inferred)
- Flow Direction

**Molybdenum Concentration in Groundwater (May 2024)**

- 0.10 mg/L
- GWPS (0.10 mg/L; Dashed Where Inferred)

**Notes and Abbreviations:**

| | |
|---|---|
| MW-52 | Well Identification |
| 5155.30 | Groundwater Elevation (ft amsl) |
| <0.005 | Molybdenum concentration (mg/L) |
| 0.022 / 0.023 | Original / Duplicate Sample |
| NM | Not Measured |
| * | Elevation measured in March 2024 |
| * | In previous reports MW-34 is also referred to as EW-34 |
| NS¹ | Not Sampled¹: Not sampled, dry or very low water level |
| ft amsl | Feet above mean sea level |
| mg/L | Milligrams per Liter |
| CCR | Coal Combustion Residuals |
| GWPS | Groundwater Protection Standard |

0 450 900 1,800 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE 4-1

**Molybdenum Iso-Concentration Map for MultiUnit 1 - Semi Annual Event 1 2024**

| | |
|---|---|
| Job No. | US0023513.6155 |
| PM: | MBH |
| Date: | 1/28/2025 |
| Scale: | 1" = 900' |

wsp

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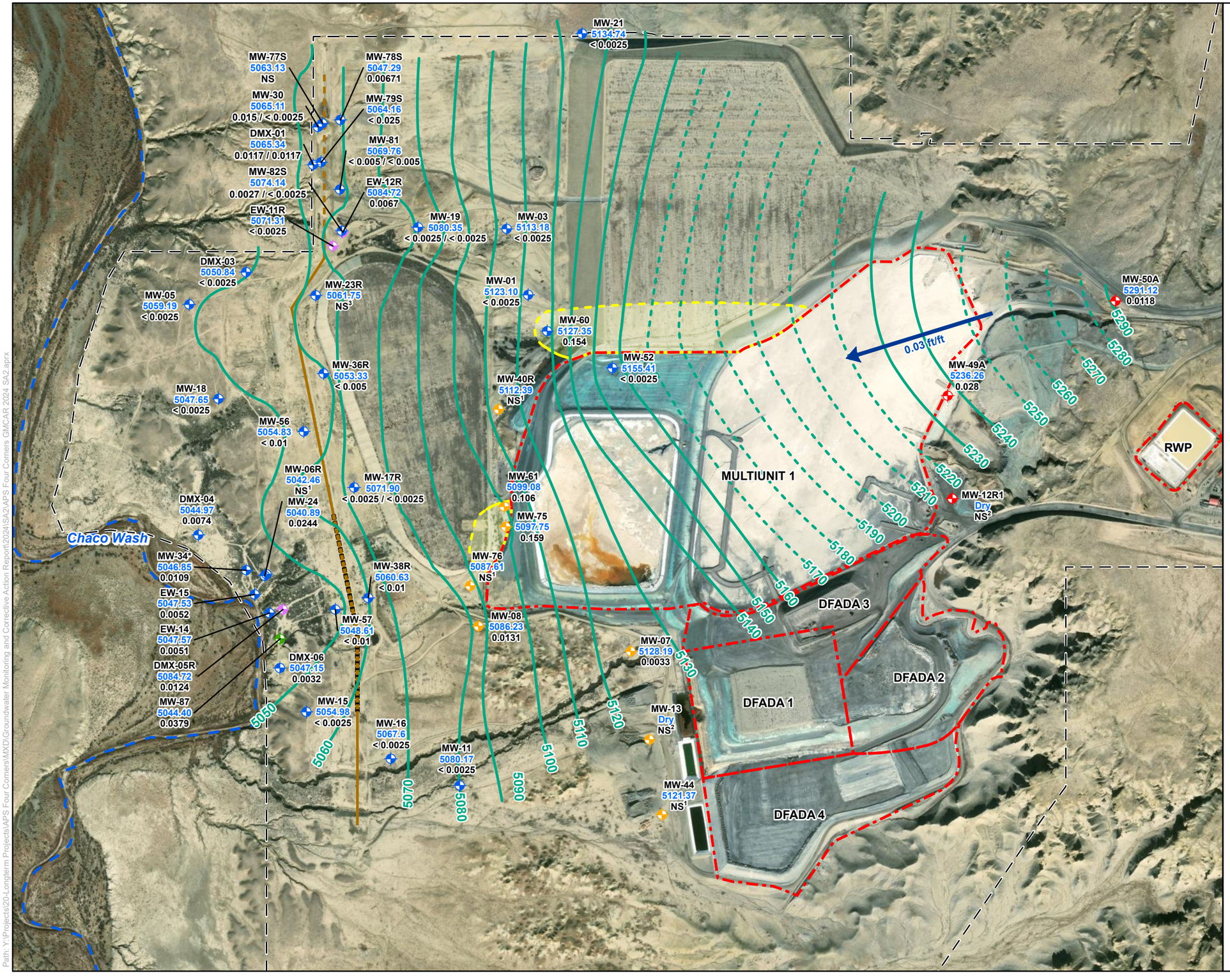


## Legend

- CCR Compliance - Background Well Location
- CCR Compliance - Downgradient Well Location
- CCR Compliance - Downgradient Waste Boundary Well Location
- Supplementary Site Monitoring Well Location
- Extraction (Inactive) Well Location
- CCR Unit Boundary
- Four Corners Power Plant Lease Boundary
- North Intercept Trench
- South Intercept Trench
- Approximate Extent of High Flow Zone
- Groundwater Elevation Contour (ft amsl) 10-Foot Contour Interval (Dashed Where Inferred)
- Flow Direction

**Molybdenum Concentration in Groundwater (November 2024)**

- 0.10 mg/L
- GWPS (0.10 mg/L; Dashed Where Inferred)

**Notes and Abbreviations:**

| | |
|---|---|
| MW-52 | Well Identification |
| 5155.41 | Groundwater Elevation (ft amsl) |
| < 0.0025 | Molybdenum concentration (mg/L) |
| < 0.0025 / < 0.0025 | Original / Duplicate Sample |
| NM | Not Measured |
| * | In previous reports MW-34 is also referred to as EW-34 |
| NS | Not Sampled |
| NS1 | No sample due to insufficient amount of water in well |
| NS2 | No sample because well is dry |
| NS3 | No sample, after purging and stabilizing the well, the pump intake was above the water level |
| ft amsl | Feet above mean sea level |
| mg/L | Milligrams per Liter |
| CCR | Coal Combustion Residuals |
| GWPS | Groundwater Protection Standard |

0 450 900 1,800 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE 4-2

**Molybdenum Iso-Concentration Map for MultiUnit 1 - Semi Annual Event 2 2024**

| | |
|---|---|
| Job No. | US0023513.6155 |
| PM: | MBH |
| Date: | 1/30/2025 |
| Scale: | 1" = 900' |

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MW-77S
5061.77
0.0069

MW-78S
5032.49
0.0084

MW-21
5134.70
0.0051

MW-30
5062.88
< 0.005 / < 0.005

MW-79S
5063.90
< 0.005

DMX-01
5064.67
< 0.005 / < 0.005

MW-81
5068.98
0.023 / 0.025

MW-82S
5073.55
0.11 / 0.10

EW-12R
5074.37
< 0.005

MW-19
5083.72
< 0.005 / <0.005

MW-03
5112.78
< 0.005

EW-11R
5066.29
0.01

DMX-03
5050.95
< 0.005

MW-23R
5063.09
< 0.005

MW-01
5123.12
0.043

MW-05
5049.32
< 0.005

MW-60
5127.58
0.18

MW-50A
5291.43
NS[1]

MW-52
515513
0.11 / 0.11

MW-36R
5066.93
0.21

MW-49A
5236.59
< 0.005

MW-18
5048.00
0.013

MW-40R
5112.58
NS[1]

MW-56
5055.15
< 0.005

MW-61
5099.41
0.030

DMX-04
5045.39
0.011

MW-17R
5072.20
0.060

MW-06R
5042.05
NS[1]

MW-75
5098.26
0.064

MW-24
5040.69
< 0.005

MW-76
5089.24
NS[1]

MW-12R1
Dry
NS[1]

MW-34
5046.85
< 0.005

MW-57
5048.69
< 0.005

MW-38R
5060.62
0.028

EW-15
5047.15
< 0.005

MW-08
5089.08
< 0.005

EW-14
5047.27
< 0.005

MW-07
5128.41
< 0.005

DMX-06
5047.25
< 0.005

DMX-05R
5049.07*
< 0.005

MW-87
5045.97
0.014

MW-15
5055.15
< 0.005

MW-13
Dry
NS[1]

MW-16
5067.80
0.010

MW-11
5080.23
0.019

MW-44
5121.52
NS[1]

MULTIUNIT 1

DFADA 1

DFADA 2

DFADA 3

DFADA 4

RWP

0.03 ft/ft

5290
5280
5270
5260
5250
5240
5230
5220
5210
5200
5190
5180
5170
5160
5150
5140
5130
5120
5110
5100
5090
5080
5070
5060
5050

## Legend

- CCR Compliance - Background Well Location
- CCR Compliance - Downgradient Well Location
- CCR Compliance - Downgradient Waste Boundary Well Location
- Supplementary Site Monitoring Well Location
- Extraction (Inactive) Well Location
- CCR Unit Boundary
- Four Corners Power Plant Lease Boundary
- North Intercept Trench
- South Intercept Trench
- Approximate Extent of High Flow Zone
- Groundwater Elevation Contour (ft amsl) 10-Foot Contour Interval (Dashed Where Inferred)
- Flow Direction

**Cobalt Concentration in Groundwater (May 2024)**

- 0.010 mg/L
- GWPS (0.010 mg/L; Dashed Where Inferred)

**Notes and Abbreviations:**

| | |
|---|---|
| MW-60 | Well Identification |
| 5127.58 | Groundwater Elevation (ft amsl) |
| 0.18 | Cobalt concentration (mg/L) |
| 0.11 / 0.11 | Original / Duplicate Sample |
| * | Elevation measured in March 2024 |
| NS[1] | Not Sampled[1]: Not sampled, dry or very low water level |
| ft amsl | Feet above mean sea level |
| mg/L | Milligrams per Liter |
| CCR | Coal Combustion Residuals |
| GWPS | Groundwater Protection Standard |

0 450 900 1,800 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE 4-3

**Cobalt Iso-Concentration Map for Multiunit 1- Semi Annual Event 1 2024**

| | |
|---|---|
| Job No. | US0023513.6155 |
| PM: | MBH |
| Date: | 1/28/2025 |
| Scale: | 1" = 900' |

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MW-21
5134.74
0.0043

MW-77S
5063.13
NS

MW-78S
5047.29
< 0.002

MW-30
5065.11
0.0289 / < 0.0025

MW-79S
5064.16
< 0.01

DMX-01
5065.34
< 0.0025 / < 0.0025

MW-81
5069.76
0.0179 / 0.0172

MW-82S
5074.14
0.0909 / 0.0873

EW-12R
5084.72
< 0.0025

EW-11R
5071.31
0.0096

MW-03
5113.18
< 0.0025

MW-19
5080.35
< 0.0025 / < 0.0025

DMX-03
5050.84
< 0.0025

MW-23R
5061.75
NS[3]

MW-01
5123.10
< 0.0025

MW-05
5059.19
< 0.0025

MW-60
5127.35
0.161

MW-50A
5291.12
0.0038

0.03 ft/ft

MW-36R
5053.33
0.184

MW-52
5155.41
0.11

MW-49A
5236.26
< 0.0025

MW-18
5047.65
0.010

MW-40R
5112.39
NS[1]

MW-56
5054.83
< 0.004

RWP

MULTIUNIT 1

MW-17R
5071.90
0.063 / 0.063

MW-61
5099.08
0.032

MW-12R[1]
Dry
NS[2]

DMX-04
5044.97
< 0.0025

MW-06R
5042.46
NS[1]

MW-75
5097.75
0.0654

MW-24
5040.89
< 0.0025

MW-34
5046.85
0.0032

MW-57
5048.61
0.00631

MW-38R
5060.63
0.012

MW-76
5087.61
NS[1]

EW-15
5047.53
0.0026

MW-08
5086.23
< 0.0025

EW-14
5047.57
0.0038

DFADA 3

DFADA 2

DMX-06
5047.15
< 0.0025

MW-07
5128.19
< 0.0025

DMX-05R
5084.72
< 0.0025

DFADA 1

MW-15
5054.98
< 0.0025

MW-87
5044.40
0.0087

MW-13
Dry
NS[2]

MW-16
5067.6
0.0091

MW-11
5080.17
0.0211

MW-44
5121.37
NS[1]

DFADA 4

5290 5280 5270 5260 5250 5240 5230 5220 5210 5200 5190 5180 5170 5160 5150 5140 5130 5120 5110 5100 5090 5080 5070 5060 5050

## Legend

- CCR Compliance - Background Well Location
- CCR Compliance - Downgradient Well Location
- CCR Compliance - Downgradient Waste Boundary Well Location
- Supplementary Site Monitoring Well Location
- Extraction (Inactive) Well Location
- CCR Unit Boundary
- Four Corners Power Plant Lease Boundary
- North Intercept Trench
- South Intercept Trench
- Approximate Extent of High Flow Zone
- Groundwater Elevation Contour (ft amsl) 10-Foot Contour Interval (Dashed Where Inferred)
- Flow Direction

**Cobalt Concentration in Groundwater (November 2024)**

- 0.006 mg/L
- GWPS (0.006 mg/L; Dashed Where Inferred)

**Notes and Abbreviations:**

| | |
|---|---|
| MW-52 | Well Identification |
| 5155.41 | Groundwater Elevation (ft amsl) |
| 0.11 | Cobalt concentration (mg/L) |
| < 0.0025 / < 0.0025 | Original / Duplicate Sample |
| * | Elevation measured in March 2024 |
| NS | Not Sampled |
| NS[1] | No sample due to insufficient amount of water in well |
| NS[2] | No sample because well is dry |
| NS[3] | No sample, after purging and stabilizing the well, the pump intake was above the water level |
| ft amsl | Feet above mean sea level |
| mg/L | Milligrams per Liter |
| CCR | Coal Combustion Residuals |
| GWPS | Groundwater Protection Standard |

0 450 900 1,800 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE 4-4

**Cobalt Iso-Concentration Map for Multiunit 1- Semi Annual Event 2 2024**

| | |
|---|---|
| Job No. | US0023513.6155 |
| PM: | MBH |
| Date: | 1/28/2025 |
| Scale: | 1" = 900' |

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Path: Y:\Projects\20-Longterm Projects\APS Four Corners\MXD\Groundwater Monitoring and Corrective Action Report\2024\SA2\APS Four Corners GMCAR 2024 SA2.aprx




## Legend

- CCR Compliance - Background Well Location
- CCR Compliance - Downgradient Well Location
- CCR Compliance - Downgradient Waste Boundary Well Location
- Supplementary Site Monitoring Well Location
- Extraction Well Location
- Extraction (Inactive) Well
- CCR Unit Boundary
- Four Corners Power Plant Lease Boundary
- Groundwater Elevation Contour (ft amsl) 1-Foot Contour Interval (Dashed Where Inferred)
- Flow Direction

**Fluoride Concentration in Groundwater (November 2023)**

- 4.0 mg/L
- GWPS (4.0 mg/L; Dashed Where Inferred)

**Notes and Abbreviations:**

| | |
|---|---|
| MW-64 | Well Identification |
| 5329.42 | Groundwater Elevation (ft amsl) |
| NM[1] | Not Measured[1]: Inaccessible in May 2024 |
| 1.0 | Fluoride concentration (mg/L) |
| 2.9 / 1.7 | Original / Duplicate Results |
| J | Result is estimated quantity |
| ft amsl | Feet above mean sea level |
| mg/L | Milligrams per Liter |
| CCR | Coal Combustion Residuals |
| GWPS | Groundwater Protection Standard |

0 200 400 800 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE **4-5**

**URS Fluoride Iso-Concentration Map for Semi Annual Event 1 2024**

Job No. US0023513.6155
PM: MBH
Date: 1/30/2025
Scale: 1" = 400'

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Path: Y:\Projects\20-Longterm Projects\APS Four Corners\MXD\Groundwater Monitoring and Corrective Action Report\2024\SA2\APS Four Corners GMCAR 2024 SA2 aprx




## Legend

- CCR Compliance - Background Well Location
- CCR Compliance - Downgradient Well Location
- CCR Compliance - Downgradient Waste Boundary Well Location
- Supplementary Site Monitoring Well Location
- Extraction Well Location
- Extraction (Inactive) Well
- CCR Unit Boundary
- Four Corners Power Plant Lease Boundary
- Groundwater Elevation Contour (ft amsl) 1-Foot Contour Interval (Dashed Where Inferred)
- Flow Direction

**Fluoride Concentration in Groundwater (October 2024)**

- 4.2 mg/L
- GWPS (4.2 mg/L; Dashed Where Inferred)

**Notes and Abbreviations:**

| | |
|---|---|
| MW-64 | Well Identification |
| 5327.46 | Groundwater Elevation (ft amsl) |
| 0.76 | Fluoride concentration (mg/L) |
| 8.69 / 8.45 | Original / Duplicate Sample |
| ** | Sample was tested in lab twice; the second value was used. |
| J | Result is estimated quantity |
| ft amsl | Feet above mean sea level |
| mg/L | Milligrams per Liter |
| CCR | Coal Combustion Residuals |
| GWPS | Groundwater Protection Standard |

0 200 400 800 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE 4-6

# URS Fluoride Iso-Concentration Map for Semi Annual Event 2 2024

| | |
|---|---|
| Job No. | US0023513.6155 |
| PM: | MBH |
| Date: | 1/28/2025 |
| Scale: | 1" = 400' |

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Path: Y:\Projects\20-Longterm Projects\APS Four Corners\MXD\Groundwater Monitoring and Corrective Action Report\2024\SA2\APS Four Corners GMCAR 2024 SA2 aprx

# APPENDIX

# A

## URS05-URS-06, URS-07, AND URS-08 WELL COMPLETION REPORT; ADDENDUM 1

ARIZONA PUBLIC SERVICE COMPANY

# FOUR CORNERS POWER PLANT

## URS-05, URS-06, URS-07, AND URS-08 WELL COMPLETION REPORT

MARCH 27, 2024

# URS-05, URS-06, URS-07, AND URS-08 WELL COMPLETION REPORT

## FOUR CORNERS POWER PLANT

## ARIZONA PUBLIC SERVICE COMPANY

FOUR CORNERS POWER PLANT
FRUITLAND, NEW MEXICO

PROJECT NO.: 1420222030
DATE: MARCH 27, 2024

WSP USA ENVIRONMENT & INFRASTRUCTURE INC.
4600 E WASHINGTON STREET SUITE 600
PHOENIX, AZ 85034

T: 602-733-6000

WSP.COM

# CERTIFICATION STATEMENT

I, Rebecca A. Weaver, as a qualified groundwater scientist and professional engineer have reviewed this report titled URS-05, URS-06, URS-07, and URS-08 Well Completion Report, Four Corners Power Plant, Fruitland, New Mexico, Project # 14-2018-2030 dated March 27, 2024. I certify that the groundwater monitoring system components that are documented in this report have been designed and constructed for the Arizona Public Service Company Four Corners Power Plant as required for compliance with coal combustion residuals (CCR) groundwater monitoring and corrective action requirements detailed in 40 Code of Federal Regulations (CFR) Part 257.

Signed:




Dated: March 27, 2024

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## LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| % | Percent |
| amsl | above mean sea level |
| APS | Arizona Public Service Company |
| bgs | below ground surface |
| Cascade | Cascade Environmental |
| CCR | coal combustion residuals |
| CFR | Code of Federal Regulations |
| CWTP | Combined Waste Treatment Pond |
| ft | foot, feet |
| FGD | flue gas desulfurization |
| gpm | gallons per minute |
| gps | global positioning unit |
| GWPS | Groundwater Protection Standard |
| HASP | Health and Safety Plan |
| IDW | Investigation-Derived Waste |
| mg/L | milligrams per liter |
| NDWR | Navajo Department of Water Resources |
| NTEC | Navajo Transitional Energy Company |
| NTUs | Nephelometric Turbidity Units |
| PVC | polyvinyl chloride |
| SCH | schedule |
| URS | Upper Retention Sump |
| URT | Upper Retention Tank |
| Wood | Wood Environment & Infrastructure Solutions, Inc. |
| WSP | WSP USA Environment & Infrastructure |

# 1 INTRODUCTION

On behalf of Arizona Public Service Company (APS), WSP USA Environment & Infrastructure (WSP) prepared this Well Completion Report to document the siting, drilling, installation, and development of two new extraction wells and two new monitoring wells at the Four Corners Power Plant (the Plant or the Site) in Fruitland, New Mexico. This report documents well installation activities required by 40 Code of Federal Regulations (CFR) Part 257 and Subpart D - Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments (herein referred to as the Coal Combustion Residuals (CCR) Rule [Federal Register, 2020]) and as part of the interim corrective measures at the Upper Retention Sump (URS). The new extraction wells, URS-06 and URS-07, and new monitoring wells, URS-05 and URS-08, were installed to augment the current URS seepage extraction system and the monitoring well network north of the Upper Retention Tank (URT).

## 1.1 SITE DESCRIPTION

A description of the setting of the Site and its impact on the wells installed for the project are included in the following subsections. **Figure 1** presents an overview of the Site location and the locations of the wells in relation to other Site features are included on **Figure 2**.

### *1.1.1 FACILITY DESCRIPTION*

The Site is an operating power plant located approximately 20 miles southwest of the city of Farmington, New Mexico. The plant burns low sulfur coal in two electrical generating units (Units 4 and 5) and has a net generating capacity of 1,540 megawatts. The Plant formerly had five generating units and a capacity of 2,040 megawatts; Units 1, 2, and 3 were retired in December 2013 and decommissioned between 2014 and 2016. Coal burned at the plant is generally sourced from the nearby Navajo Mine (**Figure 1**) (Navajo Transitional Energy Company, 2016).

The URS was an approximate 1-acre surge pond for process water associated with the Plant's flue-gas desulfurization (FGD) system, which contained elevated levels of fluoride. The URS was placed into service around 1983. The URS was dewatered and demolished between June and December 2018 and subsequently replaced by the URT in 2018.

### *1.1.2 ENVIRONMENTAL SETTING*

Unless otherwise noted, the following information is abstracted from AECOM, 2017.

*Climate.* The plant is located in a semi-arid climate on the western flank of the San Juan Basin. The area receives an average of 8.6 inches of precipitation and 12.6 inches of snow per year.

*Topography.* The main plant area of the Site is located at an elevation of approximately 5,340 to 5,360 feet (ft) above mean sea level (amsl). The topography of the Site area is characterized by rolling terrain, steep escarpments, and incised drainages/arroyos. In the vicinity of the Plant, the ground surface is relatively flat, sloping to the west at approximately 20 feet per mile with the exception of surface drainage immediately near Morgan Lake, which flows towards the lake. About one mile west of the plant, the level ground surface drops rapidly to 5,200 ft amsl. Chaco Wash (sometimes referred to as the Chaco River) is located west of this abrupt change in elevation and ephemerally flows north to the San Juan River.

*Surface Water Hydrology.* The Site is situated on the southern bank of Morgan Lake, an approximately 1,300-acre man-made lake that has a maximum storage capacity of 39,000 acre-ft of water and supplies cooling water to the plant. Morgan Lake was formed by damming a westerly flowing stream (now known as 'No Name Wash') and is replenished by an underground pipeline (i.e., aqueduct) that routes flow from the San Juan River located approximately 3 miles north of the Site. The typical water surface elevation of the lake is 5,330 ft amsl. Morgan

Dam discharges to 'No Name Wash' which flows west of the lake to Chaco Wash. Chaco Wash is a northward-flowing tributary of the San Juan River and is located west and hydraulically downgradient of the Site.

*Site Geology.* The Site is located in the northwestern boundary of the San Juan Basin, which is a structural depression that lies at the eastern edge of the Colorado Plateau (Dames & Moore, 1988). The dominant geographic feature in the vicinity of the Site is the Hogback Monocline located to the west of the plant; this monocline is a steep (38 degree) eastward-dipping flank composed of Cretaceous sedimentary rock (Dames & Moore, 1988).

The geological units relevant to the new wells in the URS include (in descending stratigraphic order): the Pictured Cliffs Sandstone and the Lewis Shale. Detailed descriptions of these units are included in the *Annual Groundwater Monitoring and Corrective Action Report for 2023* (WSP, 2024). The Pictured Cliffs Sandstone is a fine- to medium-grained sandstone and is the uppermost geologic unit that underlies the URS. The Pictured Cliffs Sandstone is approximately 30 to 60 ft thick in the area of the URS. The lower portions of Pictured Cliffs Sandstone represent a transitional sequence between the unit and the underlying Lewis Shale as indicated by alternating beds of sandstone and shale. The Lewis Shale is a marine shale that contains weathered shale subunit (Weathered Lewis Shale) which overlies a hard, unweathered shale subunit (Unweathered Lewis Shale). The thickness of the weathered shale subunit varies between 11 and 47 ft within the vicinity of the Site. However, the weathered shale subunit is observed to be significantly thinner near the URS where it underlies the Pictured Cliffs Sandstone and the boundary between the Weathered Lewis Shale and the Unweathered Lewis Shale is less defined in the area of the URS compared to other areas at the Site. The Weathered Lewis Shale and the Unweathered Lewis Shale are considered one unit (Lewis Shale) for the purpose of this investigation.

*Applicable Hydrostratigraphy.* The Pictured Cliffs Sandstone and Lewis Shale constitute the two general hydrostratigraphic units which are conceptualized beneath the URS that have potential to interact with releases from the URS. The Pictured Cliffs Sandstone is the uppermost water-bearing unit at the URS. Groundwater in the Pictured Cliffs Sandstone is locally influenced by Morgan Lake (at a surface elevation of approximately 5,330 ft amsl) and operations at the Plant (e.g., the former URS and the Combined Waste Treatment Pond [CWTP]) and generally flows northward towards the lake. The Lewis Shale is a regionally extensive confining unit that forms the base of the uppermost aquifers at the URS. While moisture has been observed in the Lewis Shale in the area of the URS, it is generally observed to be dry. The base of the uppermost water-bearing unit beneath the URS is marked by a 0.5 to 1 ft thick limestone bed, which has been observed along the contact between the Pictured Cliffs Sandstone and the Lewis Shale in previous drilling projects at the URS (Wood, 2021).

Past investigations indicate the transmissivity of the water-bearing zone of the Pictured Cliffs Sandstone varies laterally across the area of the URS. For example, the screened intervals of CM-01 through CM-04 were installed at approximately the same elevation, in moisture zones located at the base of the Pictured Cliffs Sandstone (above the limestone bed at the base of the Pictured Cliffs Sandstone). However, sustainable pumping rates were only attainable at CM-01 and CM-02 during well development, while CM-03 and CM-04 were both unable to support development pumping due to low yield (Wood, 2021). The extent and connectivity of transmissive zones within the water-bearing portion of the Pictured Cliffs Sandstone is not defined.

## 1.2 BASIS FOR WELL INSTALLATION

A detailed description of the Site and background information is provided in the *Annual Groundwater Monitoring and Corrective Action Report for 2023* (WSP, 2024). Pursuant to CCR Rule requirements, APS currently operates a groundwater extraction system at the URS as part of corrective measures in response to fluoride groundwater protection standard (GWPS) exceedances detected at the URS. The groundwater extraction system currently consists of two groundwater extraction wells (CM-01 and CM-02), which remove groundwater at a combined extraction rate of approximately 2 gallons per minute (gpm).

The current extraction rate of the URS groundwater extraction system was utilized by WSP during the development of a calibrated flow and transport model, which forecast the fate and migration of fluoride at the URS for 30 years (WSP, 2023). At the 2 gpm extraction rate, fluoride concentrations at selected monitoring locations located around the URS were estimated to remain above 4 milligrams per liter (mg/L) (the current Groundwater Protection Standard [GWPS] for fluoride at the URS) for durations as short as 4.4 years (at MW-69), and as long as 18.3 years (at CM-04) (WSP, 2023). As indicated in the 2023 technical memorandum summarizing

the updates to the flow and transport model, the addition of two extraction wells located north of the URT operating at an additional combined extraction capacity of 2 gpm could improve the removal of groundwater in the area of elevated fluoride concentrations and significantly decrease the time to achieve the GWPS in the area near the URS (WSP, 2023). Two new groundwater extraction wells, URS-06 and URS-07, installed north of the URT, were installed for this purpose. Two additional monitoring wells, URS-05 and URS-08, were installed to supplement the existing groundwater monitoring network at the URS.

# 2 WELL INSTALLATION ACTIVITIES

The installation activities for URS-05, URS-06, URS-07, and URS-08 are summarized in the following sections. Lithologic logs and well construction diagrams are included in **Appendix A**. A photographic log showcasing well installation activities is included in **Appendix B**. A map with the location of the new wells is included as **Figure 2.**

## 2.1 PRE-MOBILIZATION ACTIVITIES

Prior to site mobilization, all required Notice of Intent to Drill permits were filed with the Navajo Department of Water Resources (NDWR). NDWR permits are included in **Appendix C**. WSP also prepared a Health and Safety Plan (HASP) for the field operations and ensured that all WSP field personnel and subcontractors received APS Fossil Generation Contractor Safety training. WSP contracted with a licensed New Mexico driller, Cascade Environmental (Cascade; license no. 1664) to conduct the well drilling activities.

## 2.2 WELL SITING

The four new wells were sited downgradient of the former URS footprint within the current extent of the fluoride plume at the URS to intercept groundwater containing concentrations of fluoride exceeding the GWPS for the URS (4.0 mg/L). Specifically, the wells were cited to be installed north of the northern boundary of the URT and south of existing well MW-66, within the north-central and north-eastern portion of the current extent of the fluoride plume, and downgradient of the URS (**Figure 3**). Extraction wells sited at this location will intercept groundwater within the central portion of the fluoride plume in an area downgradient of the former extent of the URS. Additionally, the extraction wells are located in the vicinity of the existing seepage extraction system to enable their future connection to the system, as applicable. Monitoring wells sited at the described location will supplement efforts to characterize the groundwater conditions within the northern portion of the fluoride plume at the URS. Specifically, the monitoring wells will characterize the extent of the northwestern portion of the fluoride plume between existing wells MW-66 and MW-70.

The land on which the wells are located is part of the Navajo Nation and is currently utilized by the Navajo Transitional Energy Company (NTEC) as the Navajo Mine. All wells are located within the boundary of a haul road located approximately 30 feet north of the URT. The haul road is an active road that services the Four Corners Power Plant and the Navajo Mine, so the wells were installed along the northern and southern boundaries of the road to not obstruct vehicular passage along the road. The approximate location of each well, which were measured with a handheld global positioning unit (gps) unit after well construction was completed, are included on **Figures 2 and 3**.

## 2.3 WELL DRILLING

Well drilling activities occurred between December 7 and December 19, 2023. Prior to drilling, utility clearance was performed by GPRS, LLC on December 5, 2023. Hydro-excavation was performed by Riley Industrial Services, Inc. on December 6 and 7, 2023, with assistance from Cascade to clear concrete and rebar associated with the haulage road. Boreholes were cleared to depths 6 ft below ground surface (bgs) or greater. Concrete thickness varied from 5 inches to 3.5 ft. Cascade performed onsite drilling using a 600-T Sonic Drill Rig. WSP field personnel observed and documented drilling activities, including lithologic logging, well construction, and pumping. Additionally, WSP field personnel monitored water level infiltration rates using a handheld water level meter once drilling was completed and prior to well construction at each borehole location. Infiltration rates are calculated in **Table 1**.

### 2.3.1 URS-05

Drilling of the URS-05 borehole began December 12, 2023. The borehole was completed to 50 ft bgs on December 13, 2023. The Pictured Cliffs Sandstone was present from below the hydro-excavated zone of 6 ft bgs to approximately 37 ft bgs. Gravels were present at approximately 11-12 ft bgs. Gypsum nodules were also encountered at 18-20 ft bgs. The contact between the Pictured Cliffs Sandstone and the Lewis Shale was observed at approximately 37 ft bgs and a limestone bed was observed at the top of the Lewis Shale from 38-42 ft bgs. Groundwater was identified at approximately 35 feet bgs and was present until reaching the limestone unit observed within the Lewis Shale at approximately 38 feet bgs for a total saturated thickness of 3 ft at the base of the Pictured Cliffs Sandstone.

After the borehole was drilled to a total depth of 50 ft bgs, the drill casing was retracted to above the top of the observed moisture zone at 30 ft bgs, to allow groundwater to infiltrate from the surrounding formation to the borehole. WSP field personnel recorded water levels every 10 minutes for approximately 60 minutes, during which time the measured depth of groundwater rose from 34.08 ft bgs to 33.38 ft bgs for an average infiltration rate of 0.0125 feet per minute (ft/min) (**Table 1**).

### 2.3.2 URS-06

Drilling of URS-06 borehole began December 14, 2023. The borehole was completed to 50 feet bgs the same day. Pictured Cliffs Sandstone was present from below the hydro-excavated zone of 6 ft bgs to approximately 35 ft bgs. Trace amounts of gravels were present at approximately 7.5-8.5 ft bgs. Small gypsum nodules were also encountered at 11-18 ft bgs and 21-22 ft bgs. The Lewis Shale contact was at approximately 35 ft bgs. Concretionary, fossiliferous limestone was present at the top of the Lewis Shale from 35-40 ft bgs. Groundwater was identified at approximately 32 ft bgs and was present until reaching the limestone unit observed within the Lewis Shale at approximately 35 ft bgs for a total saturated thickness of 3 ft at the base of the Pictured Cliffs Sandstone.

After Cascade had drilled the borehole to a total depth of 50 ft bgs, the bottom of the drill casing was pulled to above the top of the observed moisture zone at 30 ft bgs to allow groundwater to infiltrate from the surrounding formation to the borehole. Groundwater levels were monitored for approximately 35 minutes, during which time groundwater rose from 46.10 to 34.41 ft bgs for an average infiltration rate of 0.3340 ft/min (**Table 1)**.

### 2.3.3 URS-07

The drilling for the URS-07 borehole began December 7, 2023. The drill bit got stuck in limestone during drilling and required repairs as a result, which delayed completion of the borehole until December 11, 2023. The total depth of the borehole was measured at 51 ft bgs. The Pictured Cliffs Sandstone was observed between 10-30 ft bgs. Gravels and cobbles were observed at 18-19 ft bgs. The contact between the Pictured Cliffs Sandstone and the Lewis Shale was observed at approximately 30 ft bgs. However, the contact was observed to be gradational between 30-51 ft bgs and was marked by alternating layers of limestone, silt, and shale. The limestone layers were observed at the following intervals: 30-31 ft bgs, 35-36 ft bgs, 37-38 ft bgs, and 45-48 ft bgs. A moisture zone was observed above the contact between the Pictured Cliffs Sandstone and Lewis Shale between 27-30 ft bgs for a total saturated thickness of 3 feet at the base of the Pictured Cliffs Sandstone. Water was observed between the limestone layers within the Lewis Shale between 31-35 ft bgs. However, the water observed in the Lewis Shale was likely residual water which remained from efforts taken to free the drill from the limestone unit. The borehole was flooded December 11, 2023, in an effort to dislodge the drill bit from the limestone unit and water used in the effort likely impacted drill cuttings near the top of the Lewis Shale.

After Cascade completed drilling the borehole to a total depth of 51 ft bgs, the bottom of the drill casing was pulled to above the top of the observed moisture within the Pictured Cliffs Sandstone at 27 ft bgs. Groundwater levels were monitored every 10 minutes for approximately 2 hours and 20 minutes to assess the rate of groundwater infiltration. Groundwater rose from 53.20 ft bgs to 42.56 ft bgs at an average infiltration rate of 0.133 ft/min (**Table 1)**.

### 2.3.4 URS-08

The drilling for the URS-08 borehole began on December 15th, 2023. The borehole was completed to 50 ft bgs the following day, December 16th. The Pictured Cliffs Sandstone was present from 8 ft bgs, to approximately 43 ft bgs. Trace amounts of gypsum nodules were also encountered at 21 ft bgs. The contact between the Pictured Cliffs Sandstone was observed at approximately 43 ft bgs, however, a zone of interbedded layers of sandstone and clay/shale was observed between 30-43 ft bgs, indicating the contact between the two units is likely gradational in the location of URS-08. Intermittent zones of moisture were observed in the Pictured Cliffs Sandstone between 30-32 ft bgs, 37-37.5 ft bgs, 38-40 ft bgs, and 41-43 ft bgs. Concretionary, fossiliferous limestone was present in the Lewis Shale from 43-45 ft bgs.

After Cascade had drilled the borehole to a total depth of 50 feet bgs, the bottom of the drill casing was pulled to above the top of the observed moisture within the Pictured Cliffs Sandstone at 30 ft bgs. WSP obtained water levels for 30 minutes with the initial recording at 35.23 ft bgs and with the last measurement at 30.44 ft bgs for an infiltration rate of 0.1545 ft/min (**Table 1)**.

## 2.4 WELL CONSTRUCTION

Wells were constructed by Cascade using threaded, schedule (SCH) 80 PVC casing and screen materials. Well construction details can be found on **Table 2** and construction diagrams are included in **Appendix A**.

### 2.4.1 WELL CONSTRUCTION SELECTION

The decision regarding which boreholes would be constructed as extraction or monitoring wells was determined by several factors, including the well location, groundwater observed in the borings, and post-drilling measurements of groundwater infiltration rates, which is indicative of transmissivity. The groundwater infiltration rate in URS-06 was the highest measured (0.3340 ft/min) in the four new wells. URS-07, situated at the easternmost position among the new wells, afforded a wider lateral extent for maximizing groundwater capture and exhibited an acceptable groundwater infiltration rate of 0.1330 ft/min. The positions of the extraction wells and monitoring well screens were strategically located to intercept the water bearing portion of the Picture Cliffs Sandstone.

### 2.4.2 EXTRACTION WELLS

Extraction wells URS-06 and URS-07 are each constructed of 6-inch nominal size flush threaded SCH 80 PVC blank casing and screen with 0.020-horizontal slot openings. URS-06 was constructed to a total depth of 45 ft bgs and URS-07 was constructed to a total depth of 50 ft bgs. The extraction well casing and screen assemblies consist of 22 ft and 27 ft of blank casing above the screen (at URS-06 and URS-07, respectively) and a 5 ft blank casing sump below the screen, with a total screen length of 20 ft at both locations. Extraction well casing and screen assembly was centered in the borehole using three centralizers to provide a uniform annular space for installation of annular materials. Centralizers were placed no more than 20 ft apart.

URS-06 and URS-07 were completed with a bentonite chip seal from 41 ft bgs to total depth (TD) and 46 ft bgs to TD, respectively. A 12-20 filter pack sand extending from the top of the bentonite seal to 2 ft above the screened interval and followed by the installation of a 2 ft layer of 20-40 transition sand. Another bentonite seal 2 ft thick was installed on top of the transition sand and cement grout was installed from the top of the bentonite seal to ground surface. All annular materials were installed using a tremie pipe. Surface completions at each well consists of a 3-ft above grade 10-inch diameter steel vault placed within a 3 ft by 3 ft concrete pad.

### 2.4.3 MONITORING WELLS

Monitoring wells URS-05 and URS-08 are each constructed of 4-inch nominal size flush threaded SCH 80 PVC blank casing and screen with 0.020-horizontal slot openings. Each monitor well was constructed to total depths of 40 ft bgs. Each monitoring well casing and screen assembly consists of 30 ft of blank casing above the screen with a total screen length of 10 ft. Monitoring well casing and screen assembly was centered in the borehole using three centralizers to provide a uniform annular space for installation of annular materials. Centralizers were placed no more than 20 ft apart.

URS-05 and URS-08 were completed with a bentonite chip seal from 41 ft bgs to TD. A 12-20 filter pack sand extending from the top of the bentonite seal to 2 ft above the screened interval and followed by a 2 ft 20-40 transition sand was installed. Another bentonite seal 2 ft thick was installed on top of the transition sand and cement grout was installed from the top of the bentonite seal to ground surface. All annular materials were installed using a tremie pipe. Surface completions at each well consists of a 10-inch diameter flush-mount traffic rated vault.

## 2.5 WELL DEVELOPMENT

The URS wells were developed January 4 through January 6, 2023. Development techniques varied based on the amount of water produced at each well, but generally consisted of:

- Surging and bailing the well until the amount of sediment produced by each cycle was reduced to trace amounts; and
- Development pumping using a 12-volt Mega-Monsoon® pump.

Well development results are summarized in **Table 3** and well development field forms are included in **Appendix D**. Successful well development (which is typically defined by purging a well until water turbidity reaches less than 5 nephelometric units [NTUs] and field measurements of pH, temperature, and electrical conductivity have stabilized to 10 percent [%] or less deviation between subsequent measurements) was achieved at URS-05 and URS-06. Turbidity was not reduced to a value below 28 NTUs at URS-07. Turbidity is likely naturally elevated at wells URS-07 and URS-08 due to the presence of clay and fine-grained sediments at the water-bearing zones located within the gradational contacts between the Pictured Cliffs Sandstone and Lewis Shale at the wells. Field measurements of pH, temperature, and electrical conductivity all stabilized to 10% or less deviation between readings at URS-07, so WSP considers the well to be successfully developed. Development of URS-08 was unsuccessful due to low yield which prohibited sustained development pumping.

Average discharge rates sustained during pump development at URS-05, URS-06, and URS-07 are summarized on **Table 3**. URS-05 and URS-06 sustained the highest discharge rates, (3.0 gpm and between 1.5 and 2.0 gpm, respectively), and URS-07 sustained the lowest discharge rate (0.75 gpm), indicating the transmissivity of the water-bearing zone is greater in the western portion of the project area, near URS-05 and URS-06.

The high development discharge rate at URS-05 exceeded expectations given the low infiltration rate noted during drilling. This is likely due to the drill casing smearing clay and other fine sediments across the saturated interval (35 ft bgs to 38 ft bgs), which were subsequently cleared during development activities.

## 2.6 MANAGEMENT OF INVESTIGATION-DERIVED WASTE

Investigation-derived waste (IDW) consisted of soil cuttings produced during drilling, which were free of coal ash, and groundwater pumped during well development. Drill cuttings were transported by trailer from the drill site to a location near the closed Ash Ponds north of the Multiunit 1, where they were disposed. The drill cuttings disposal location is included on **Figure 2**. Groundwater pumped from development activities was collected in 55-gallon drums and transferred to the URT.

# 3 SUMMARY AND RECCOMMENDATIONS

The extraction and monitoring wells were installed within the Pictured Cliffs Sandstone hydrostratigraphic unit. The saturated thickness at the wells ranges between approximately 3 and 10 ft based on observations made during drilling and post installation water-level measurements.

Four boreholes were drilled to increase the possibility of intercepting a relatively higher transmissive zone of the water-bearing portion of the Pictured Cliffs Sandstone. Two boreholes were selected to be constructed as extraction wells based on location, total amount of groundwater observed in the borings, and groundwater infiltration rates, which were measured at each borehole location after drilling was completed and prior to well construction. Groundwater is primarily perched upon the limestone unit located at the top of the Lewis Shale, identified at depths ranging between 28 and 41 ft bgs. However, groundwater was observed to exist in multiple, layered zones throughout the gradational contact zone at URS-07 and URS-08. The contact between the two units was better-defined at URS-05 and URS-06, and groundwater was observed to reside in a better-defined zone located directly above the limestone unit at URS-05 and URS-06.

The four wells were installed as follows:

- URS-05; 4-inch diameter monitoring well with 10-inch diameter flush-mount traffic rated vault
- URS-06; 6-inch diameter extraction well with 10-inch diameter well vault with approximately 3 ft of stickup
- URS-07; 6-inch diameter extraction well with 10-inch diameter well vault with approximately 3 ft of stickup
- URS-08; 4-inch diameter monitoring well with 10-inch diameter flush-mount traffic rated vault

The wells achieved development criteria, with the exception of URS-08, which yielded too little groundwater to sustain successful pump development.

WSP recommends aquifer testing be performed at URS-06 and URS-07 prior to equipping the wells with pumps and appurtenances and connecting them to the URS seepage extraction system. Aquifer testing will provide more accurate pumping rates that can be used to select permanent pumps for the wells. Aquifer testing is also recommended at URS-05 to assess the potential suitability of the well for conversion into a groundwater extraction well, since the well sustained the highest discharge rate during development.

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# TABLES

# Table 1

## Groundwater Infiltration Rate Monitoring Summary

| Well ID | Total Well Depth (ft) | Groundwater Level Monitoring Start | | Groundwater Level Monitoring End | | Total Time (min) | Total Water Level Recovery (ft) | Average Infiltration Rate (ft/min) | Average Infiltration Rate (in/min) |
|---|---|---|---|---|---|---|---|---|---|
| | | Date/Time | Water Level (ft bgs) | Date/Time | Water Level (ft bgs) | | | | |
| URS-05 | 40 | 12/13/2023 11:39 | 34.08 | 12/13/2023 12:33 | 33.38 | 56 | 0.7 | 0.0125 | 0.150 |
| URS-06 | 50 | 12/14/2023 15:48 | 46.10 | 12/14/2023 16:23 | 34.41 | 35 | 11.69 | 0.3340 | 4.008 |
| URS-07 | 50 | 12/11/2023 11:54 | 53.20 | 12/11/2023 14:14 | 42.56 | 80 | 10.64 | 0.1330 | 1.596 |
| URS-08 | 40 | 12/18/2023 14:49 | 35.23 | 12/18/2023 15:20 | 30.44 | 31 | 4.79 | 0.1545 | 1.854 |

***Abbreviations***

bgs = below ground surface

ft = feet

ID = Identification

in = inch

min = minute

# Table 2

# Well Construction Summary

| Well ID | Well Designation | Hydrogeologic Unit | Location Property | Total Borehole Depth (ft bgs) | Borehole Size (in) | Well Diameter (in) | Total Well Depth (ft bgs) | Blank Casing Interval (ft bgs) | Screened Interval (ft bgs) | PVC Sump (ft bgs) | Bentonite Seal below Screened Interval (ft bgs) | Filter Pack Interval (ft bgs) | Transition Sand Interval (ft bgs) | Bentonite Seal Above Screened Interval (ft bgs) | Cement Grout Interval (ft bgs) | Well Monument Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **URS-05** | Supplementary | Pictured Cliffs Sandstone | Navajo Mine Site | 50 | 10 | 4 | 40.2 | 0-29.7 | 29.7-39.7 | N/A | 41-50 | 28-41 | 26-28 | 24-26 | 0-24 | Flush-Mount, 10-in Diameter |
| **URS-06** | Extraction | Pictured Cliffs Sandstone | Navajo Mine Site | 50 | 10 | 6 | 44.6 | 0-19.1 | 19.1-39.1 | 39.1-44.6 | 41-50 | 18-41 | 16-18 | 14-16 | 0-14 | 3 ft Tall, 10-in. Diameter Vault |
| **URS-07** | Extraction | Pictured Cliffs Sandstone | Navajo Mine Site | 50 | 10 | 6 | 49.8 | 0-24.3 | 24.3-44.3 | 44.3-49.8 | 46-50 | 23-46 | 21-23 | 19-21 | 0-19 | 3 ft Tall, 10-in. Diameter Vault |
| **URS-08** | Supplementary | Pictured Cliffs Sandstone | Navajo Mine Site | 50 | 10 | 4 | 40.1 | 0-29.6 | 29.6-39.6 | N/A | 41-50 | 28-41 | 26-28 | 24-26 | 0-24 | Flush-Mount, 10-in Diameter |

***Abbreviations:***
bgs = below gound surface
ft - feet
ID = Identification
in - inches
N/A = Not Applicable. Monitoring well construction does not include a PVC sump
PVC = Polyvinyl Chloride

# Table 3

# Well Development Summary

| Well ID | Date | Screened Interval (ft-bgs) | Total Development Time (minutes) | Color | Clarity | Odor | Sand Content (ml/L) | Turbidity (NTUs) | pH | Specific Conductance (µS/cm) | Temperature (˚C) | Estimated Volume Purged (gallons) | Discharge Rate During Development (gpm) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Swab & Bail | | | | | | | | | | | | | | |
| URS-05 | 1/4/2024 | 30-40 | 48 | brown | Murky | None | 500 | --- | --- | --- | --- | 60 | --- | Parameters at the start of swab and bail |
| | | | | brown | Murky | None | 500 | --- | --- | --- | --- | | | Parameters at the end of swab and bail |
| URS-06 | 1/4/2024 | 20-40 | 73 | brown | Opaque | None | NM | --- | --- | --- | --- | 55 | --- | Parameters at the start of swab and bail |
| | | | | brown | Opaque | None | 200 | --- | --- | --- | --- | | | Parameters at the end of swab and bail |
| URS-07 | 1/5/2024 | 30-40 | 73 | brown | Murky | None | 0.5 | --- | --- | --- | --- | 63 | --- | Parameters at the start of swab and bail |
| | | | | brown | Murky | None | NM | --- | --- | --- | --- | | | Parameters at the end of swab and bail |
| URS0-08 | 1/5/2024 | 25-45 | 10 | brown | Murky | None | 800 | --- | --- | --- | --- | 18 | --- | Parameters at the start of swab and bail |
| | | | | brown | Murky | None | 650 | --- | --- | --- | --- | | | Parameters at the end of swab and bail |
| Pump & Surge | | | | | | | | | | | | | | |
| URS-05 | 1/5/2024 | 30-40 | 148 | brown | Cloudy | None | 1.5 | 118 | 8.20 | 7150 | 16.80 | 420 | 3 | Parameters at the start of pump & surge |
| | | | | lt.yellow | NM | None | 0 | 3.75 | 9.3 | 11841 | 17.05 | | | Parameters at the end of pump & surge |
| URS-06 | 1/4/2024 | 20-40 | 351 | brown | Opaque | None | 150 | 1068 | 8.2 | 9819 | 15.10 | 654 | 1.5 - 2.0 | Parameters at the start of pump & surge |
| | | | | lt. yellow | Lt. Cloudy | None | 0 | 2.78 | 9.20 | 12223 | 16.40 | | | Parameters at the end of pump & surge |
| URS-07 | 1/5/2024-1/6/2024 | 30-40 | 309 | lt. brown | Cloudy | None | 0.5 | 706 | 8.8 | 10683 | 15.30 | 283 | 0.75 | Parameters at the start of pump & surge |
| | | | | yellow | Lt. Cloudy | None | 0 | 28 | 9.6 | 10760 | 15.28 | | | Parameters at the end of pump & surge |
| URS-08 | 1/5/2024 | 25-45 | 44 | lt. brown | Cloudy | None | NM | >800 | 9.3 | 11251 | 17.15 | 43 | NA | Unable to attain a sustainable pumping rates. During pump development, URS-08 was pumped dry approximately 11 times due to low yield. |
| | | | | brown | Cloudy | None | 0.1 | >800 | 9.47 | 11129 | 16.62 | | | |

***Abbreviations***

ft-bgs = feet below ground surface

ml/L = milliliters per liter

µS/cm = microseimens per centimeter

˚C = degrees celsius

gpm = gallons per minute

Lt = light

NA = Not attainable due to low yield

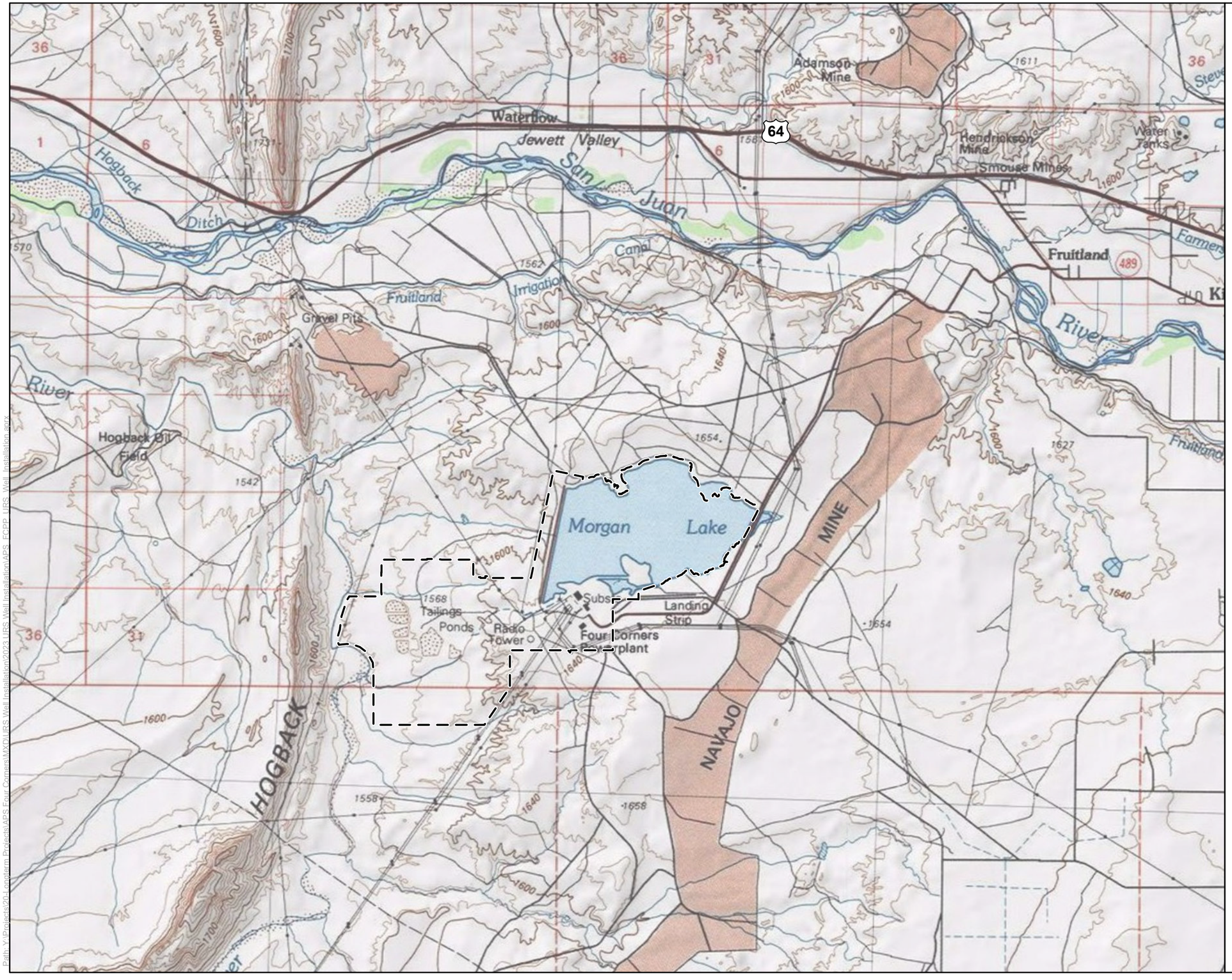
NM = Not Measured

NTUs = Nephelometric Units

> = greater than

--- = Parameters are not collected during Swab and Bail development

# FIGURES







**Area of Detail**

## Legend

Four Corners Power Plant Lease Boundary

0 0.5 1 Miles

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE **1**

**Site Location Map**

| | |
|---|---|
| Job No. | 14-2022-2030 |
| PM: | MBH |
| Date: | 2/7/2024 |
| Scale: | 1"= 1 mile |

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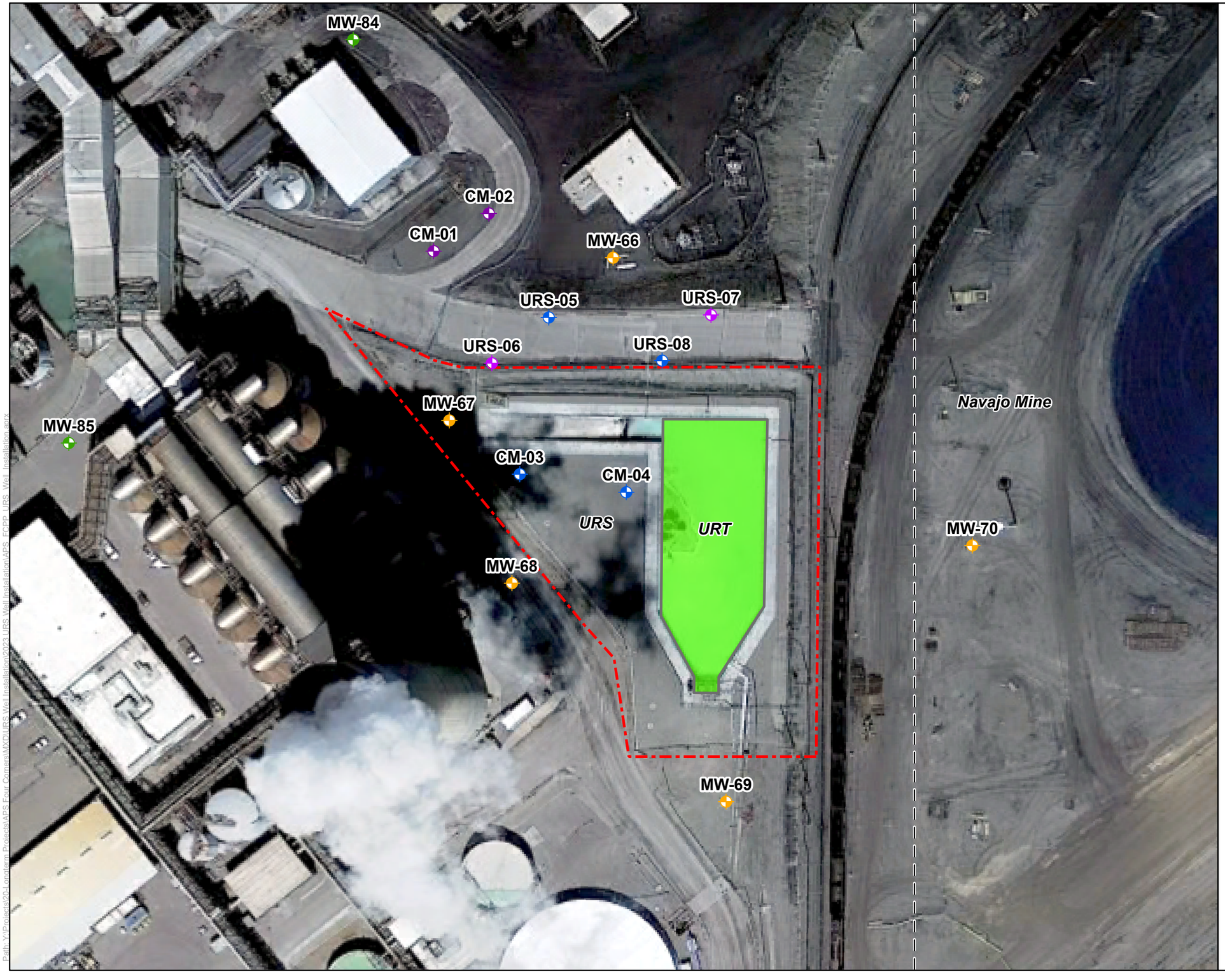


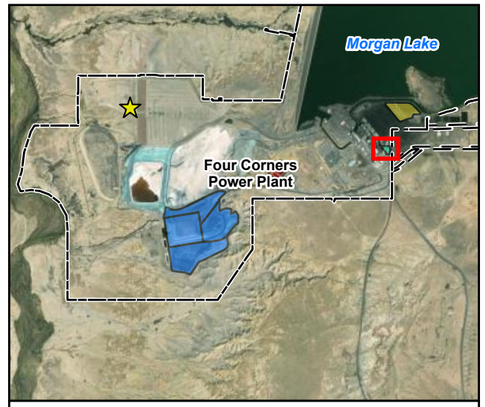


Vicinity Map

## Legend

- CCR Compliance - Downgradient Well Location
- CCR Compliance - Downgradient Boundary Well Location
- Supplementary Site Monitoring Well Location
- Extraction Well Location
- Extraction (Inactive) Well Location
- Disposal Location for Borehole Soil Cuttings
- Upper Retention Sump
- Upper Retention Tank
- Four Corners Power Plant Lease Boundary

0 40 80 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

Figure **2**

**URS Well Installation Site Map**

| | |
|---|---|
| Job No. | 14-2022-2030 |
| PM: | MBH |
| Date: | 2/14/2024 |
| Scale: | 1"= 80 feet |

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Path: Y:\Projects\20-Longterm Projects\APS Four Corners\MXD\URS Well Installation\2023 URS Well Installation\APS_FCPP_URS_Well_Installation.aprx




## Legend

- CCR Compliance - Downgradient Well Location
- CCR Compliance - Downgradient Boundary Well Location
- Supplementary Site Monitoring Well Location
- Extraction Well Location
- Extraction (Inactive) Well Location
- Upper Retention Sump
- Upper Retention Tank
- Four Corners Power Plant Lease Boundary
- Groundwater Elevation Contour (ft amsl) 1-Foot Contour Interval

**Fluoride Concentration in Groundwater (November 2023)**

- 4.0 mg/L
- 4.0 mg/L, Defined
- 4.0 mg/L, Inferred

**Notes and Abbreviations:**

| | |
|---|---|
| MW-66 | Well Identification |
| 5328.50 | Groundwater Elevation (ft amsl) November 2023 |
| NM | Not Measured |
| 19 | Fluoride concentration (mg/L) |
| J | Result is estimated quantity |
| NS | Not Sampled |
| * | Well Installed in December 2023 |
| ft amsl | Feet above mean sea level |
| mg/L | Milligrams per Liter |

0 40 80 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

Figure 3

**Comparison of URS Well Locations to November 2023 Flouride Iso-Concentration Contours**

| | |
|---|---|
| Job No. | 14-2022-2030 |
| PM: | MBH |
| Date: | 3/20/2024 |
| Scale: | 1"= 80 feet |

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# APPENDIX

# A

## LITHOLOGIC LOGS AND WELL CONSTRUCTION DIAGRAMS

Borehole Log ID

# URS-05

| | | | | | |
|---|---|---|---|---|---|
| | | | | **Coordinates*** | 36.687723, -108.477573 |
| | | | | **Coordinate System** | New Mexico West State Plane NAD83 |
| **CLIENT** | Arizona Public Service Company | **NDWR No.** | 23-103 | **Surface Elevation*** | 5358 ft amsl |
| **PROJECT LOCATION** | Four Corners Power Plant, Fruitland, New Mexico | | | **Measuring Point Elevation*** | 5358 ft amsl |

## LITHOLOGY / DESCRIPTION

Depth in feet

0

**0 to 6 ft bgs:** Hydro-excavated

**6 ft bgs to 7.5 ft bgs:** Sample lost by driller.

10

**7.5 ft bgs to 25 ft bgs: Pictured Cliffs Sandstone/Sandy Silt** VF to F Gr sandstone. Moist. Light brown to medium brown color. Low to medium PL. Low dry strength, and no odors.
Note: 11 ft bgs to 12 ft bgs: Gravels present, rounded to sub-angular, color is dark brown.
Note: 13 ft bgs to 14 ft bgs: Color is reddish-brown.

Note: 18 ft bgs to 20 ft bgs: Gypsum nodules.

20

Note: 20 ft bgs to 22.5 ft bgs: Sample lost by driller.

**25 ft bgs to 37 ft bgs: Pictured Cliffs Sandstone/Sandy Clay** VF to F Gr. Moist. Medium brown color. Medium PL. Low to medium dry strength, no odors.

30

Note: 35 ft bgs: Wet

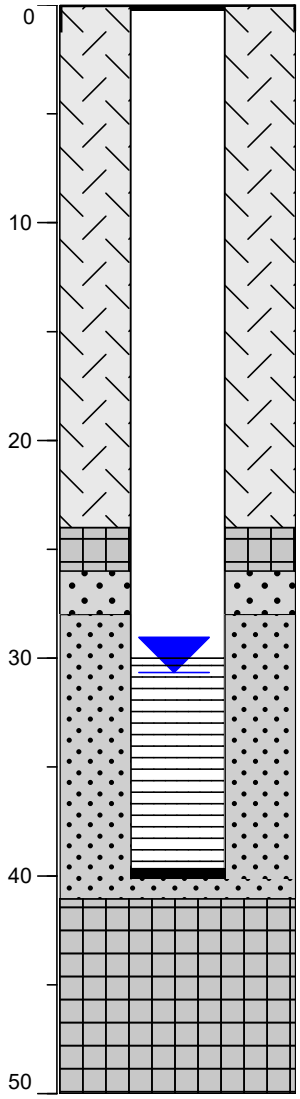
**37 ft bgs to 50 ft bgs: Lewis Shale** Microcrystalline to VF to F Gr, very thinly laminated (< 0.5 millimeter thick) to thick bedded (30 centimeter), stratified unit consisting of interbedded mudstone/siltstone (@ 37 ft bgs to 38 ft bgs and 42 ft bgs to 50 ft bgs), concretionary limestone (@ 38 ft bgs to 40 ft bgs), sandy limestone (@ 40 ft bgs to 42 ft bgs). Wet from 37 ft bgs to 38 ft bgs and dry 38 ft bgs to 50 ft bgs. Very dark grayish-yellowish-reddish-dull olive brown mudstone/siltstone; blue-gray-reddish-brown limestone; reddish-dull olive brown shale. No to low PL (except mudstone; medium to high PL). Low to very high dry strength (from softest to hardest: mudstone, siltstone, shale, and limestone) and no odors.

40

50

## WELL AS-BUILT DIAGRAM

Depth in feet




**Flush-mount, 10-in Diameter Vault**

**Borehole 10-in** (0 to 50 ft bgs)

**Cement Grout** (0 to 24 ft bgs)

**4-in SCH 80 PVC Blank Casing** (0 to 29.7 ft bgs)

**Bentonite Seal** (24 ft bgs to 26 ft bgs)
**Transition Sand (20-40 Silica Sand)** (26 ft bgs to 28 ft bgs)

Static Water Level = 30.7 ft bgs (01/04/24)
**4-in SCH 80 PVC Screen (0.020-in slots)** (29.7 ft bgs to 39.7 ft bgs)

**Filter Pack (10-20 Silica Sand)** (28 ft bgs to 41 ft bgs)

**Well Cap** (39.7 ft bgs to 40.2 ft bgs)
**Well Depth** 40.2 ft bgs

**Bentonite Seal** (41 ft bgs to 50 ft bgs)

| | | | |
|---|---|---|---|
| TOTAL DEPTH | 50 ft bgs | DESIGN | BM |
| DATE STARTED | 12-12-2023 | CHECK | BE |
| DATE FINISHED | 12-13-2023 | REVIEW | RW |
| LOGGED BY | Brad Hartman | PROJECT MANAGER | MH |
| DRILLING CONTRACTOR | Cascade Drilling | DATE | 02-16-2024 |
| DRILLING METHOD | Rotosonic | PROJECT No. | 14.2022.2030 |
| SCALE | AS SHOWN | | |

TITLE

**BOREHOLE LOG AND AS-BUILT DRAWING**

wsp

Notes: *Survey Pending; Coordinates Measured with GPS in Field
Abbreviations: @ = at; F = fine; ft bgs = feet below ground surface; ft amsl = feet above mean sea level; Gr = grained; in = inch
Abbreviations (continued): NDWR = Navajo Department of Water Resources; No. number; PL = plasticity; VF = very fine

Borehole Log ID

# URS-06

| | | | | | |
|---|---|---|---|---|---|
| | | | | **Coordinates*** | 36.687623, -108.477728 |
| | | | | **Coordinate System** | New Mexico West State Plane NAD83 |
| **CLIENT** | Arizona Public Service Company | **NDWR No.** | 23-102 | **Surface Elevation*** | 5359 ft asml |
| **PROJECT LOCATION** | Four Corners Power Plant, Fruitland, New Mexico | | | **Measuring Point Elevation*** | 5361.3 ft asml |

## LITHOLOGY / DESCRIPTION

Depth in feet

0

**0 to 6 ft bgs:** Hydro-excavated

**6 ft bgs to 7.5 ft bgs:** Sample lost by driller.

10

**7.5 ft bgs to 30 ft bgs: Silty Sand/Pictured Cliffs Sandstone**; VF to F Gr, Moist, Dark grayish brown-medium brown-dark brown color. Low to medium PL. Low to high dry strength, and no odors.
Note: 7.5 ft bgs to 8.5 ft bgs**:** Trace gypsum nodules.

Note: 11 ft bgs to 18 ft bgs: Trace gypsum nodules.

20

Note: 21 ft bgs to 22 ft bgs: Trace gypsum nodules.

30

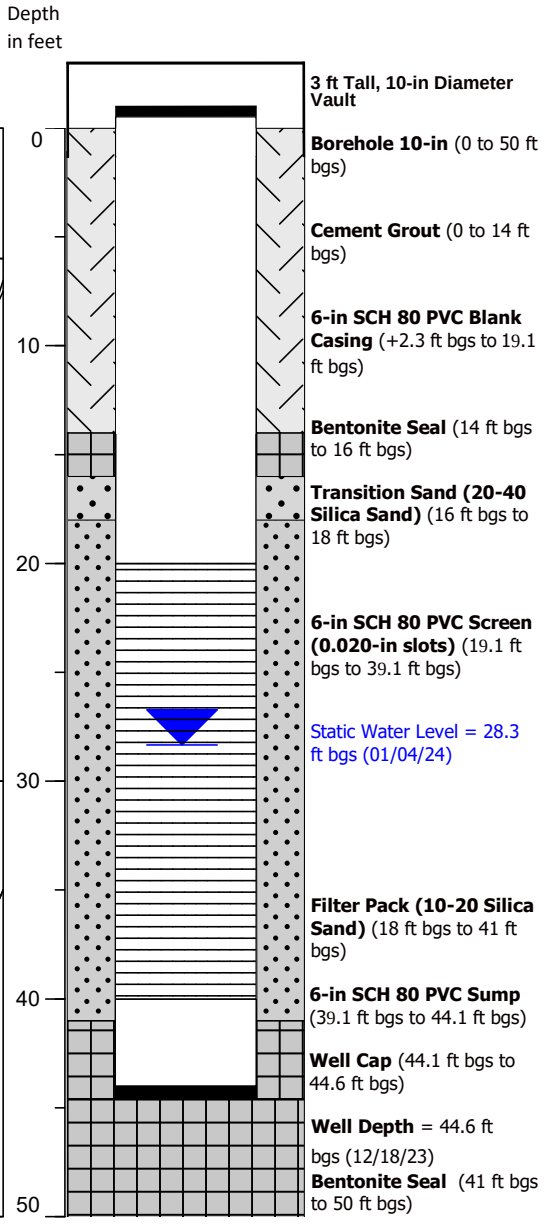
**30 ft bgs to 35 ft bgs:** Sandy Clay/Pictured Cliffs Sandstone; VF to F Gr, very thinly to thickly laminated (<0.5 to 6 millimeter thick), Moist. Dark brown-brown color. Medium to high PL. Low to medium dry strength, and no odors.
Note: Wet at 32 ft bgs.

40

**35 ft bgs to 50 ft bgs:** Lewis Shale; Microcrystalline to VF to F Gr, very thinly laminated (< 0.5 millimeter thick) to thick bedded (30 centimeter) stratified unit consisting of interbedded mudstone/siltstone (@ 40 ft bgs to 50 ft bgs), fossiliferous,concretionary limestone (@ 35 ft bgs to 38 ft bgs), sandy limestone (@ 38 ft bgs to 40 ft bgs). Dry. Very dark grayish-yellowish-reddish-dull olive brown mudstone/siltstone; blue-gray/reddish-brown limestone; reddish-dull olive brown shale; No to low PL (except mudstone; medium to high PL). Low to very high dry strength (from softest to hardest: mudstone, siltstone, shale, and limestone), and no odors.

50

## WELL AS-BUILT DIAGRAM




| | | | |
|---|---|---|---|
| TOTAL DEPTH | 50 ft bgs | DESIGN | BM |
| DATE STARTED | 12-14-2023 | CHECK | BM |
| DATE FINISHED | 12-14-2023 | REVIEW | BE |
| LOGGED BY | Brad Hartman | PROJECT MANAGER | RW |
| DRILLING CONTRACTOR | Cascade Drilling | DATE | 3-4-2023 |
| DRILLING METHOD | Rotosonic | PROJECT No. | 14.2022.2030 |
| SCALE | AS SHOWN | | |

TITLE

**BOREHOLE LOG AND AS-BUILT DRAWING**

wsp

Notes: *Survey Pending; Coordinates Measured with GPS in Field

Abbreviations: @ = at; F = fine; ft bgs = feet below ground surface; ft asml = feet above mean sea level; Gr = grained; in = inch

Abbreviations (continued): NDWR = Navajo Department of Water Resources; No. = number; PL = plasticity; VF = very fine

Borehole Log ID

# URS-07

| | | | | | |
|---|---|---|---|---|---|
| | | | | **Coordinates*** | 36.687741, -108.477104 |
| | | | | **Coordinate System** | New Mexico West State Plane NAD83 |
| **CLIENT** | Arizona Public Service Company | **NDWR No.** | 23-101 | **Surface Elevation*** | 5361 ft asml |
| **PROJECT LOCATION** | Four Corners Power Plant, Fruitland, New Mexico | | | **Measuring Point Elevation*** | 5363.3 ft asml |

## LITHOLOGY

## DESCRIPTION

Depth in feet

0

**0 to 10 ft bgs:** Hydro-excavated

10

**10 ft bgs to 30 ft bgs: Silty Sand/Pictured Cliffs Sandstone**; VF to F Gr sandstone. Moist. Light brown-medium yellowish brown color. Low to medium PL. Low to medium dry strength, and no odors.

Note: 18 ft bgs to 19 ft bgs: Semi-angular to rounded gravels, dark brown color.

20

Note: 27 ft bgs: Wet

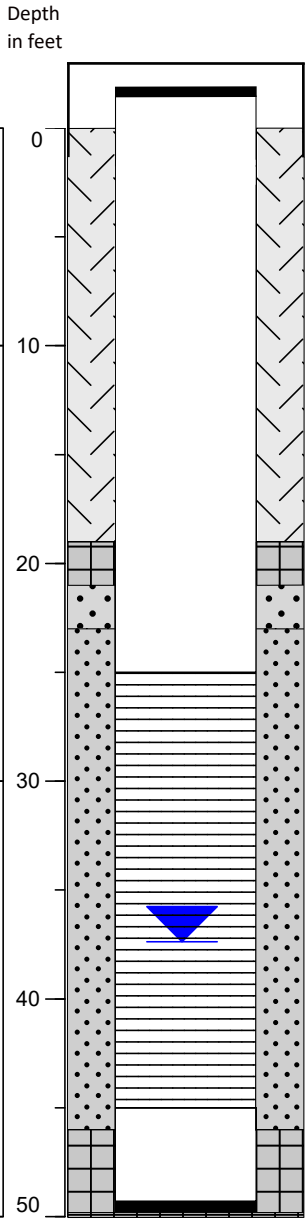
30

**30 ft bgs to 50 ft bgs: Lewis Shale**; Microcrystalline to VF to F Gr shale consisting of interbedded fossilferous, concretionary limestone (@ 30 ft bgs to 31 ft bgs, 35 ft bgs to 36 ft bgs, 37 ft bgs to 38 ft bgs, and 45 ft bgs to 48 ft bgs), mudstone/siltstone (@ 31 ft bgs to 35 ft bgs, and 40 ft bgs to 45 ft bgs), and sandy shale (@ 38 ft bgs to 40 ft bgs). Intermittent moisture zones observed between limestone layers between 31 ft bgs to 35 ft bgs. Dominantly dull olive and slightly reddish brown shale, blue-gray limestone w/tan, dark-dull olive-yellowish-reddish brown mudstone/siltstone. No to low PL (except mudstone; medium to high PL). Low to very high dry strength (from softest to hardest: mudstone, siltstone, shale, and limestone), and no odors.

40

50

## WELL AS-BUILT DIAGRAM




**3 ft Tall, 10-in Diameter Vault**

**Borehole 10-in** (0 to 50 ft bgs).

**Cement Grout** (0 to 19 ft bgs).

**6-in SCH 80 PVC Blank Casing** (+2.3 ft bgs to 24.3 ft bgs).

**Bentonite Seal** (19 ft bgs to 21 ft bgs).

**Transition Sand (20-40 Silica Sand)** (21 ft bgs to 23 ft bgs).

**6-in SCH 80 PVC Screen (0.020-in slots)** (24.3 ft bgs to 44.3 ft bgs).

**Filter Pack (10-20 Silica Sand)** (23 ft bgs to 46 ft bgs).

Static Water Level = 37.5 ft bgs (01/05/24)

**6-in SCH 80 PVC Sump** (44.3 ft bgs to 49.3 ft bgs)

**Bentonite Seal** (46 ft bgs to 50 ft bgs)

**Well Cap** (49.3 ft bgs to 49.8 ft bgs)

**Well Depth** = 49.8 ft bgs (12/18/23)

| | | | |
|---|---|---|---|
| TOTAL DEPTH | 50 ft bgs | DESIGN | BM |
| DATE STARTED | 12-7-2023 | CHECK | BM |
| DATE FINISHED | 12-11-2023 | REVIEW | BE |
| LOGGED BY | Brad Hartman | PROJECT MANAGER | RW |
| DRILLING CONTRACTOR | Cascade Drilling | DATE | 3-4-2024 |
| DRILLING METHOD | Rotosonic | PROJECT No. | 14.2022.2030 |
| SCALE | AS SHOWN | | |

TITLE

**BOREHOLE LOG AND AS-BUILT DRAWING**

wsp

Notes: *Survey Pending; Coordinates Measured with GPS in Field

Abbreviations: @ = at; F = fine; ft bgs = feet below ground surface; ft asml = feet above mean sea level; Gr = grained; in = inch

Abbreviations (continued): NDWR = Navajo Department of Water Resources; No. = number; PL = plasticity; VF = very fine

Borehole Log ID

# URS-08

| | | | | | |
|---|---|---|---|---|---|
| **CLIENT** | Arizona Public Service Company | **NDWR No.** | 23-104 | **Coordinates*** | 36.68763, -108.477242 |
| | | | | **Coordinate System** | New Mexico West State Plane NAD83 |
| **PROJECT LOCATION** | Four Corners Power Plant, Fruitland, New Mexico | | | **Surface Elevation*** | 5362 ft amsl |
| | | | | **Measuring Point Elevation** | 5362 ft amsl |

## LITHOLOGY / DESCRIPTION

Depth in feet

0

**0 to 6 ft bgs:** Hydro-excavated

**6 ft bgs to 7.5 ft bgs:** Sample was lost by the driller.

10

**7.5 ft bgs to 30 ft bgs: Pictured Cliffs Sandstone/ Silty Sand** VF to F Gr sandstone. Moist. Light brown-medium brown color. Low to medium PL. Low dry strength and no odors.

Note: 13 ft bgs to 17 ft bgs: Color is reddish-brown.

20

Note: 21 ft bgs: Trace gypsum nodules.

Note: 25 ft bgs to 26 ft bgs: Lense of light grey sandstone, dry, medium dry strength.

30

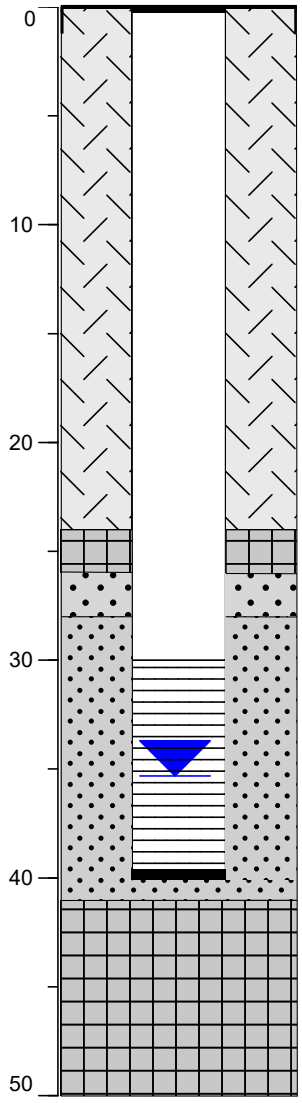
**30 ft bgs to 43 ft bgs: Pictured Cliffs Sandstone/ Clayey Sand** VF to F Gr sandstone with interbedded layers of silt/clay. Intermittent moisture zones observed between clay layers (@ 30 ft bgs to 32 ft bgs, 37 ft bgs to 37.5 ft bgs, 38 ft bgs to 40 ft bgs, and 41 ft bgs to 43 ft bgs). Very dark brown-brown-olive-brown-light brown. Medium to high PL. Low to medium dry strength, and no odors.

40

**43 ft bgs to 50 ft bgs: Lewis Shale** Microcrystalline to VF to F Gr, mudstone(@ 48 ft bgs to 50 ft bgs), concretionary limestone (@ 42 ft bgs to 45 ft bgs), sandy limestone (45 ft bgs to 48 ft bgs). Dry. Dark grayish-dull olive brown mudstone; blue-gray-reddish-brown limestone. No to low PL (except mudstone; medium to high PL). Low to very high dry strength (from softest to hardest: mudstone to limestone), and no odors.

50

## WELL AS-BUILT DIAGRAM




**Flush-mount, 10-in Diameter Vault**

**Borehole 10-in** (0 to 50 ft bgs)

**Cement Grout** (0 to 24 ft bgs)

**4-in SCH 80 PVC Blank Casing** (0 to 29.6 ft bgs)

**Bentonite Seal** (24 ft bgs to 26 ft bgs)

**Transition Sand (20-40 Silica Sand)** (26 ft bgs to 28 ft bgs)

**4-in SCH 80 PVC Screen (0.020-in slots)** (29.6 ft bgs to 39.6 ft bgs)

Static Water Level = 35.3 ft bgs (01/05/24)

**Filter Pack (10-20 Silica Sand)** (28 ft bgs to 41 ft bgs)

**Well Cap** (39.6 ft bgs to 40.1 ft bgs)

**Well Depth** = 40.1 ft bgs (12/18/23)

**Bentonite Seal** (41 ft bgs to 50 ft bgs)

| | | | |
|---|---|---|---|
| TOTAL DEPTH | 50 ft bgs | DESIGN | BM |
| DATE STARTED | 12-15-2023 | CHECK | BE |
| DATE FINISHED | 12-16-2023 | REVIEW | RW |
| LOGGED BY | Brad Hartman | PROJECT MANAGER | MH |
| DRILLING CONTRACTOR | Cascade Drilling | DATE | 03-04-2024 |
| DRILLING METHOD | Rotosonic | PROJECT No. | 14.2022.2030 |
| SCALE | AS SHOWN | | |

TITLE

# BOREHOLE LOG AND AS-BUILT DRAWING

wsp

Notes: * Survey Pending: Coordinates Measured with GPS in Field

Abbreviations: @ = at; F = fine; ft bgs = feet below ground surface; ft amsl = feet above mean sea level; Gr = grained; in = inch

Abbreviations (continued): NDWR = Navajo Department of Water Resources; No. = number; PL = Plasticity; VF = very fine

# APPENDIX

# B

## PHOTOGRAPHIC LOG

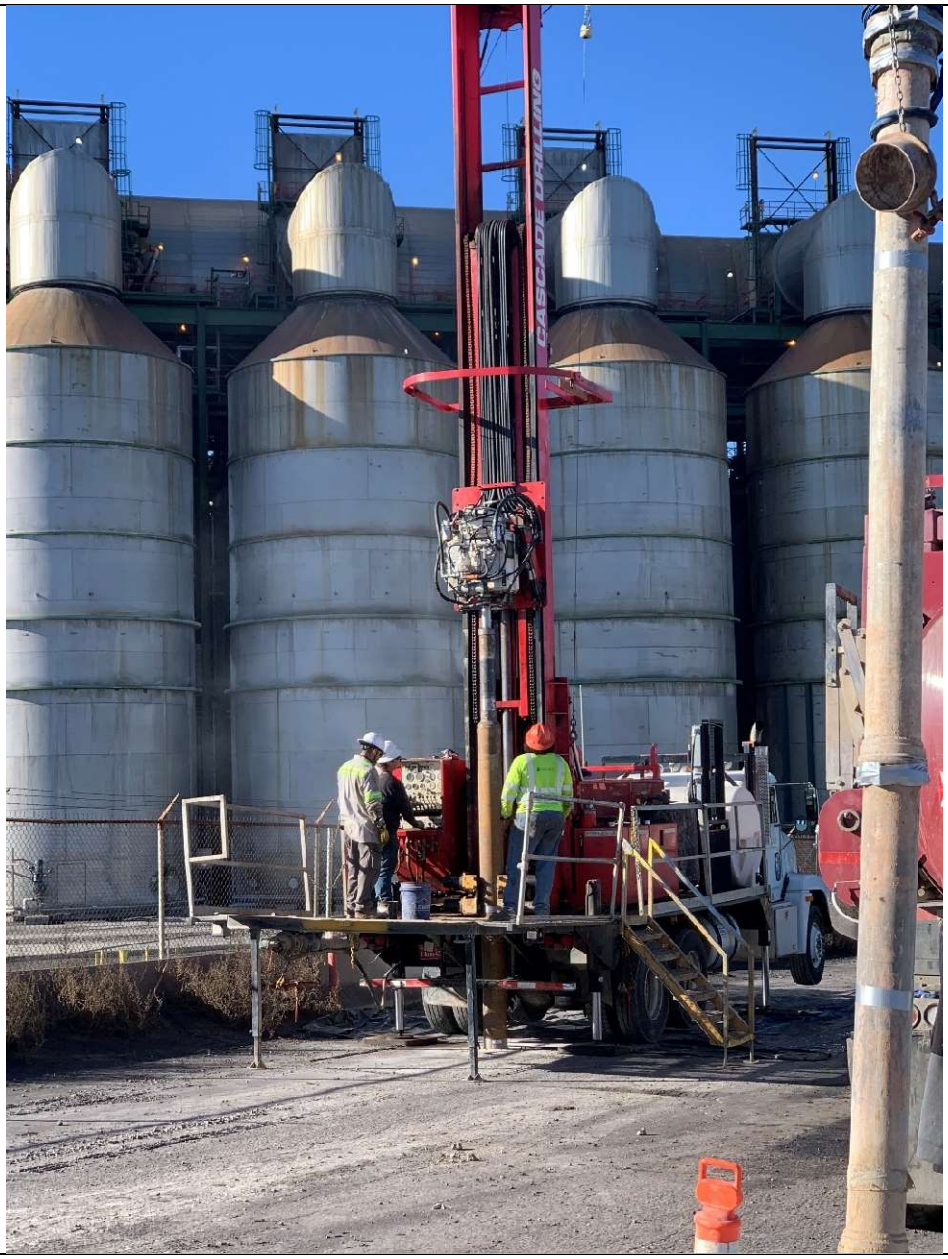
# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 1**<br><br>12/5/2023<br><br>Looking east. GPRS clears area around URS-05 |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 2**<br><br>12/6/2023<br><br>Looking southwest. Riley Industrial uses concrete saw around borehole site for URS-05. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | | |
|---|---|---|
| **Photograph 3**<br><br>12/7/2023<br><br>Looking southwest. Cascade clearing concrete layer at borehole URS-08. | |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 4**<br><br>12/7/2023<br><br>Looking south. Riley Industrial hydrovac on borehole URS-08. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico

| | |
|---|---|
| **Photograph 5**<br><br>12/7/2023<br><br>Looking west. Cascade set up to drill borehole URS-07. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 6**<br><br>12/7/2023<br><br>Borehole URS-07. 10-15 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 7**<br><br>12/7/2023<br><br>Borehole URS-07. Cuttings from 15-20 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 8**<br><br>12/7/2023<br><br>Borehole URS-07. Cuttings from 20-25 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 9**<br><br>12/7/2023<br><br>Borehole URS-07. Cuttings from 25-30 feet below ground surface. |  |

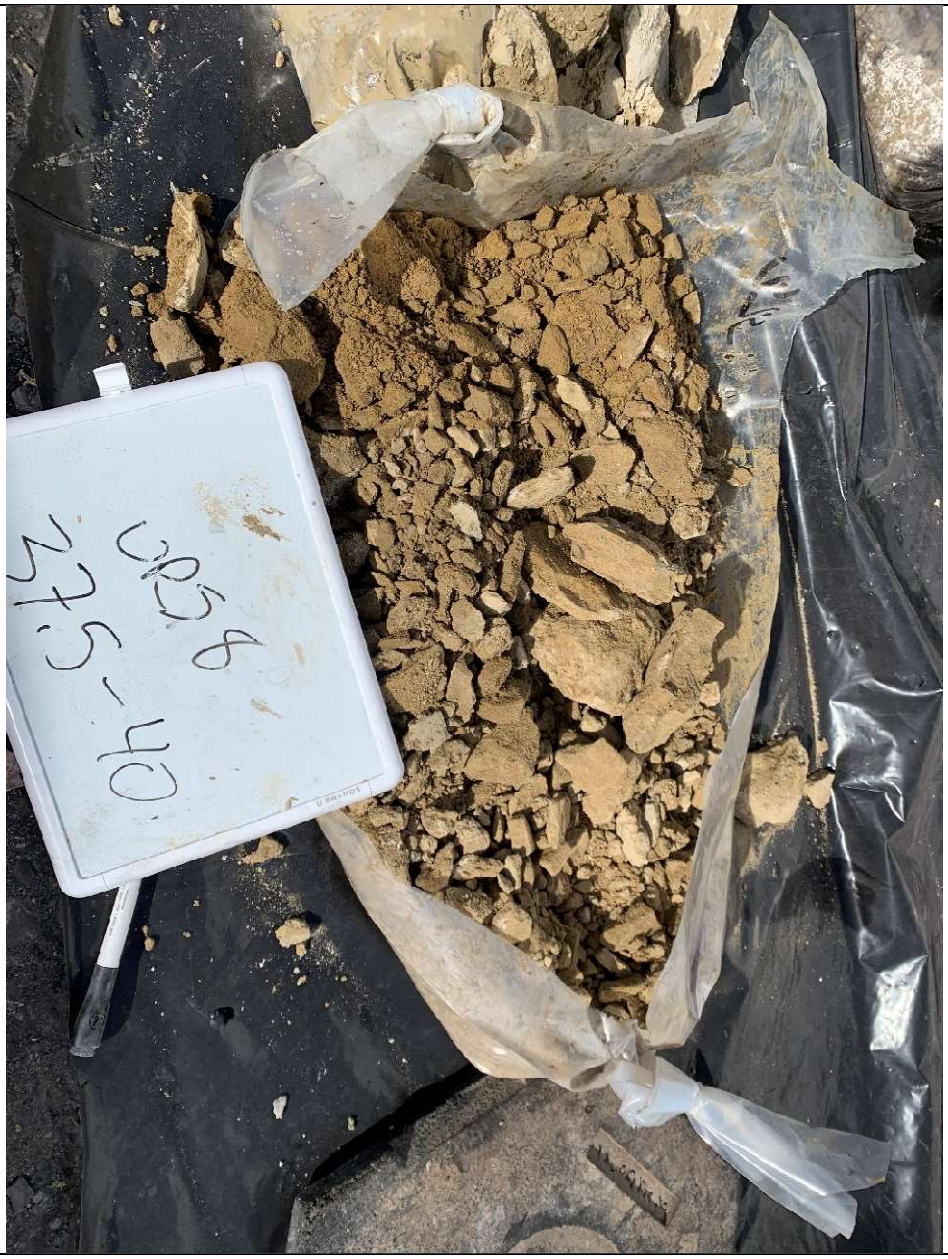
# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 10**<br><br>12/11/2023<br><br>Borehole URS-07. Cuttings from 30-35 feet below ground surface. Note: Borehole identifier is incorrect on whiteboard. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 11**<br><br>12/11/2023<br><br>Borehole URS-07. Cuttings from 35-37.5 feet below ground surface. Note: Borehole identifier is incorrect on whiteboard. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 12**<br><br>12/11/2023<br><br>Borehole URS-07. Cuttings from 37.5-40 feet below ground surface. Note: Borehole identifier is incorrect on whiteboard. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | | |
|---|---|---|
| **Photograph 13**<br><br>12/11/2023<br><br>Borehole URS-07. Cuttings from 40-45 feet below ground surface. Note: Borehole identifier is incorrect on whiteboard. | |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | | |
|---|---|---|
| **Photograph 14**<br><br>12/11/2023<br><br>Borehole URS-07. Cuttings from 45-47.5 feet below ground surface. Note: Borehole identifier is incorrect on whiteboard. | |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 15**<br><br>12/11/2023<br><br>Borehole URS-07. Cuttings from 47.5-50 below ground surface. Note: Borehole identifier is incorrect on whiteboard |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 16**<br><br>12/12/2023<br><br>Borehole URS-05. Cuttings from 7.5-10 feet below ground surface. |  |

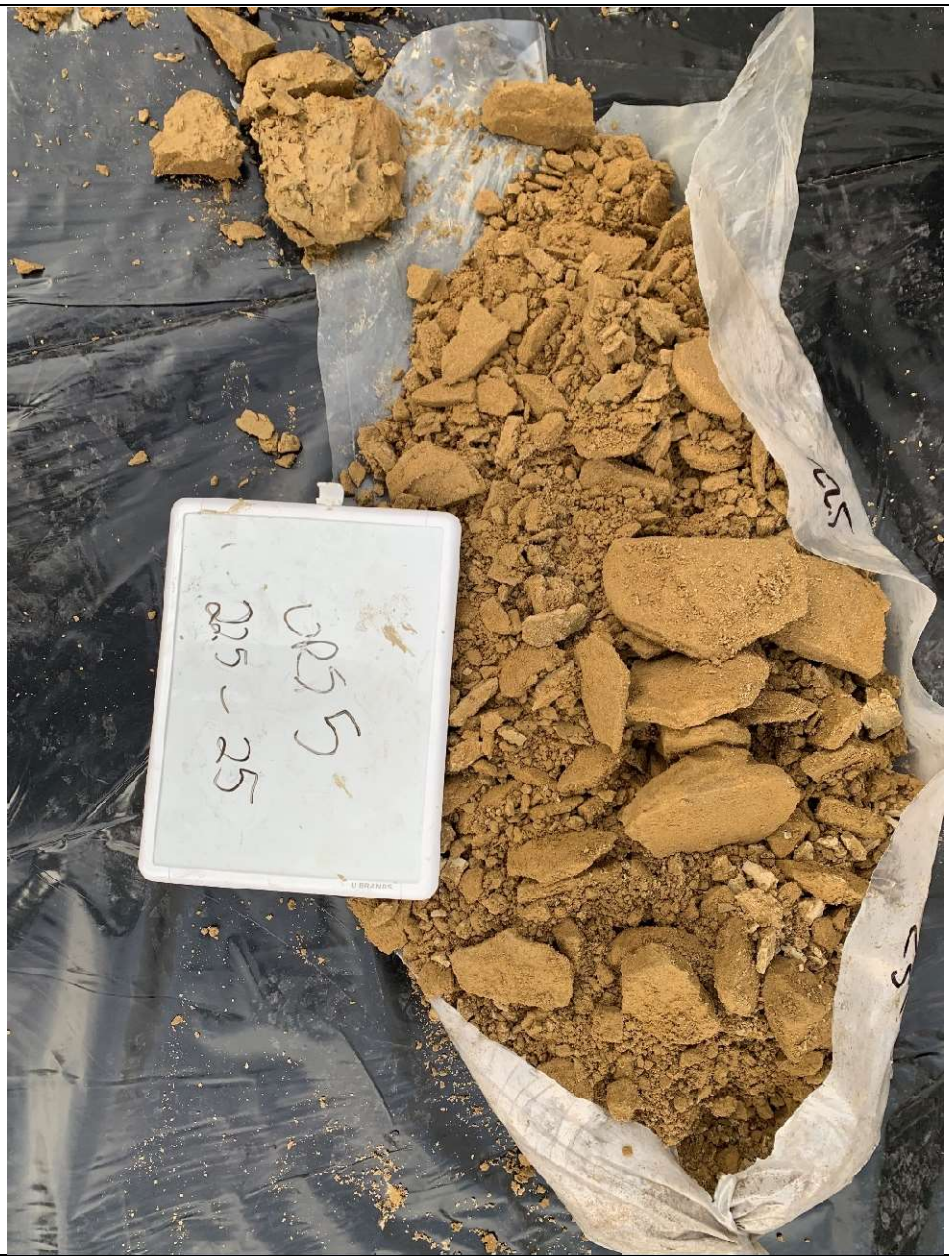
# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 17**<br><br>12/12/2023<br><br>Borehole URS-05. Cuttings from 10-15 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 18**<br><br>12/12/2023<br><br>Borehole URS-05. Cuttings from 15-20 feet below ground surface. |  |

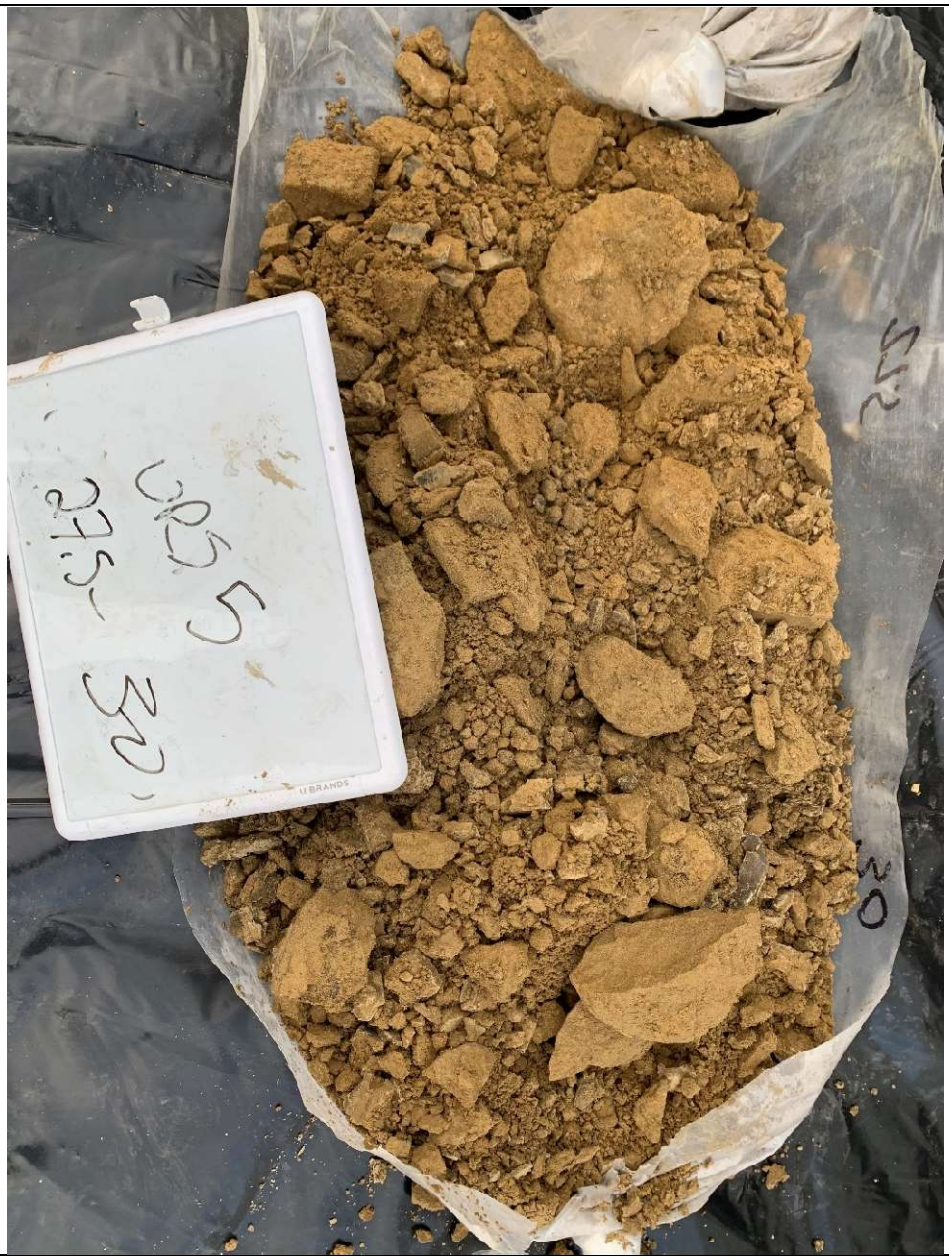
# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 19**<br><br>12/12/2023<br><br>Borehole URS-05. Cuttings from 22.5-25 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 20**<br><br>12/12/2023<br><br>Borehole URS-05. Cuttings from 25-27.5 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 21**<br><br>12/12/2023<br><br>Borehole URS-05. Cuttings from 27.5-30 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 22**<br><br>12/13/2023<br><br>Borehole URS-05. Cuttings from 30-32.5 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 23**<br><br>12/13/2023<br><br>Borehole URS-05. Cuttings from 32.5-35 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 24**<br><br>12/13/2023<br><br>Borehole URS-05. Cuttings from 35-37.5 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 25**<br><br>12/13/2023<br><br>Borehole URS-05. Cuttings from 37.5-40 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 26**<br><br>12/13/2023<br><br>Borehole URS-05. Cuttings from 40-42.5 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 27**<br><br>12/13/2023<br><br>Borehole URS-05. Cuttings from 42.5-45 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 28**<br><br>12/13/2023<br><br>Borehole URS-05. Cuttings from 47.5-50 feet below ground surface. |  |

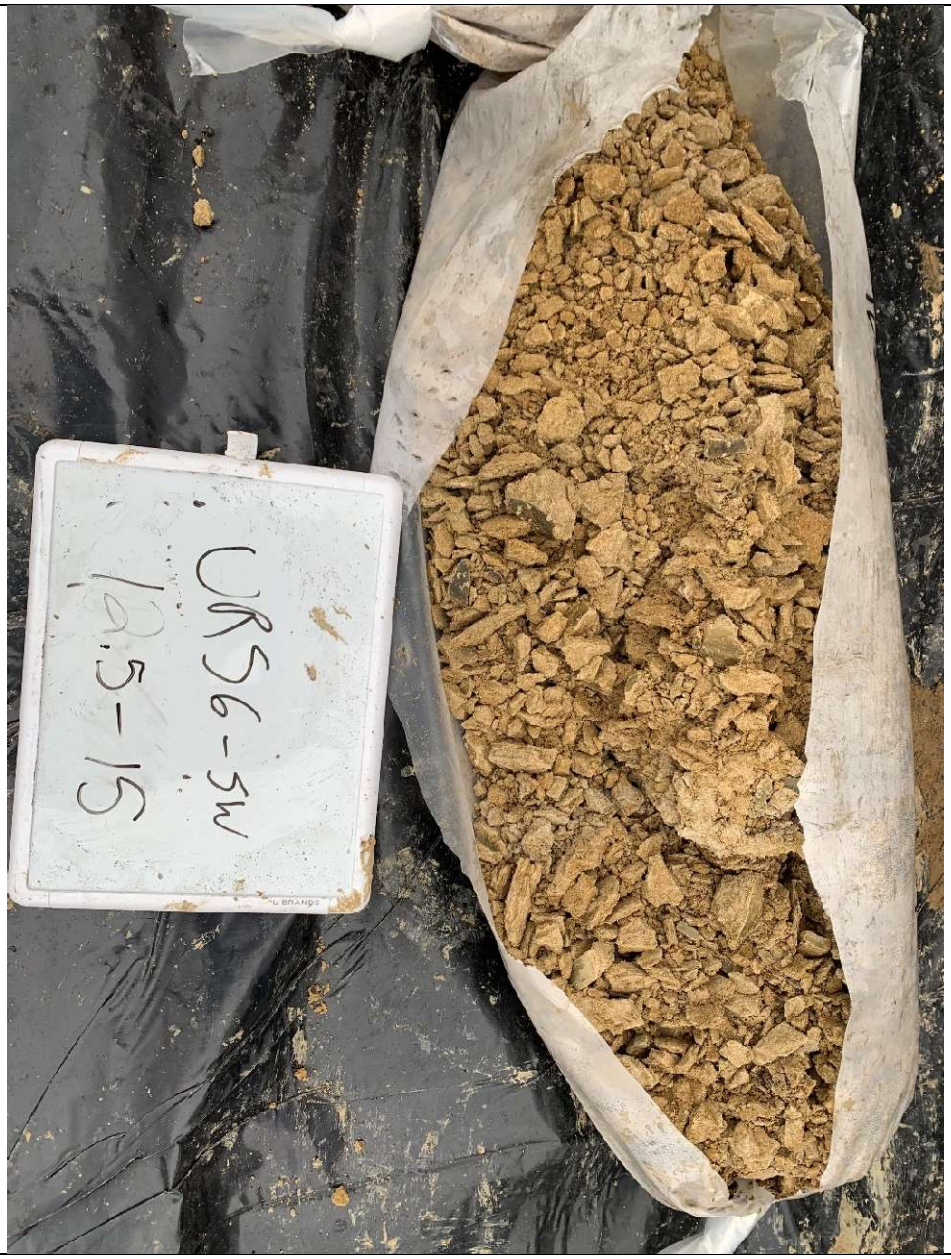
# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 29**<br><br>12/14/2023<br><br>Borehole URS-06. Cuttings from 7.5-10 feet below ground surface. |  |

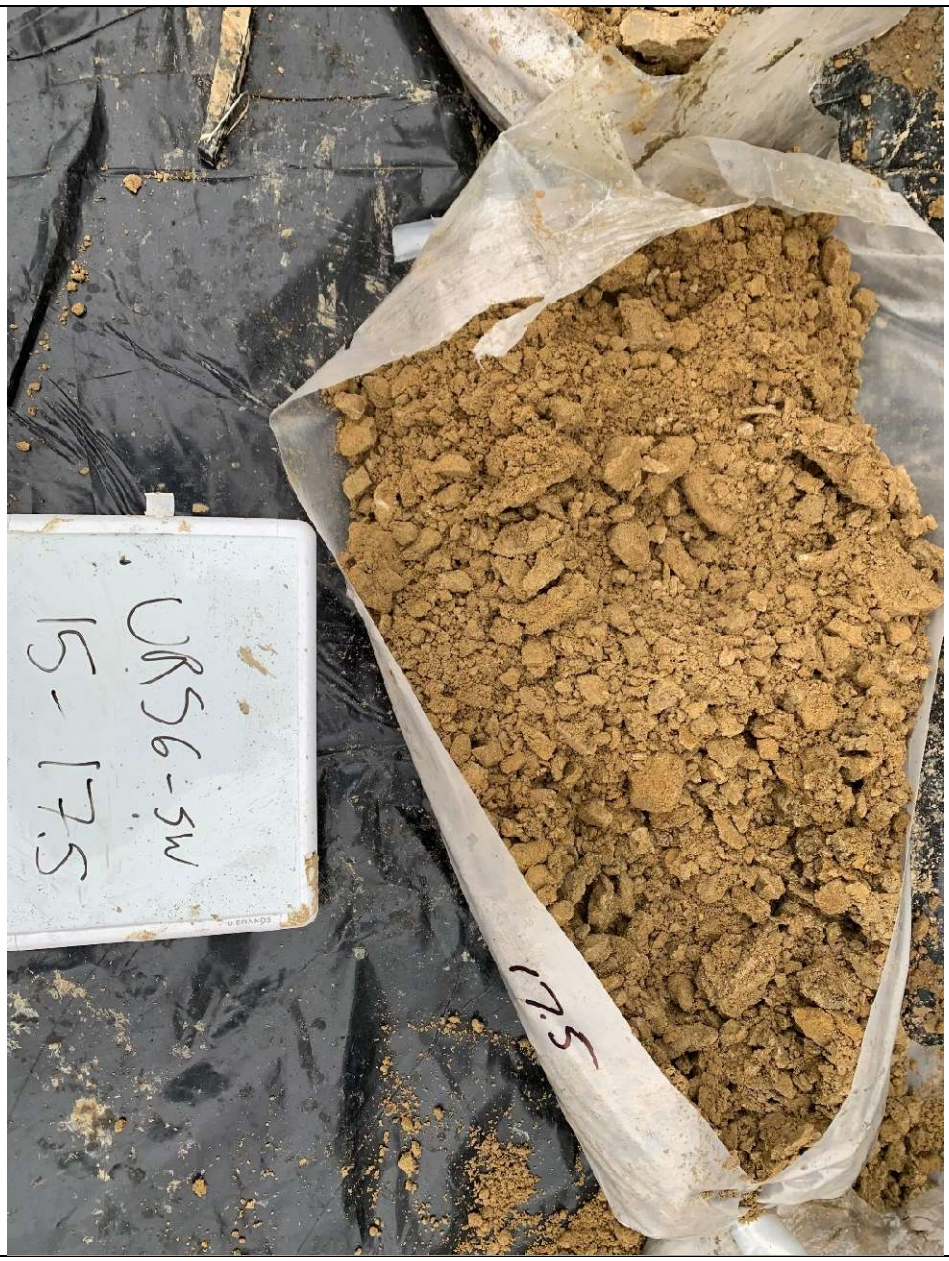
# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 30**<br><br>12/14/2023<br><br>Borehole URS-06. Cuttings from 10-12.5 feet below ground surface. |  |

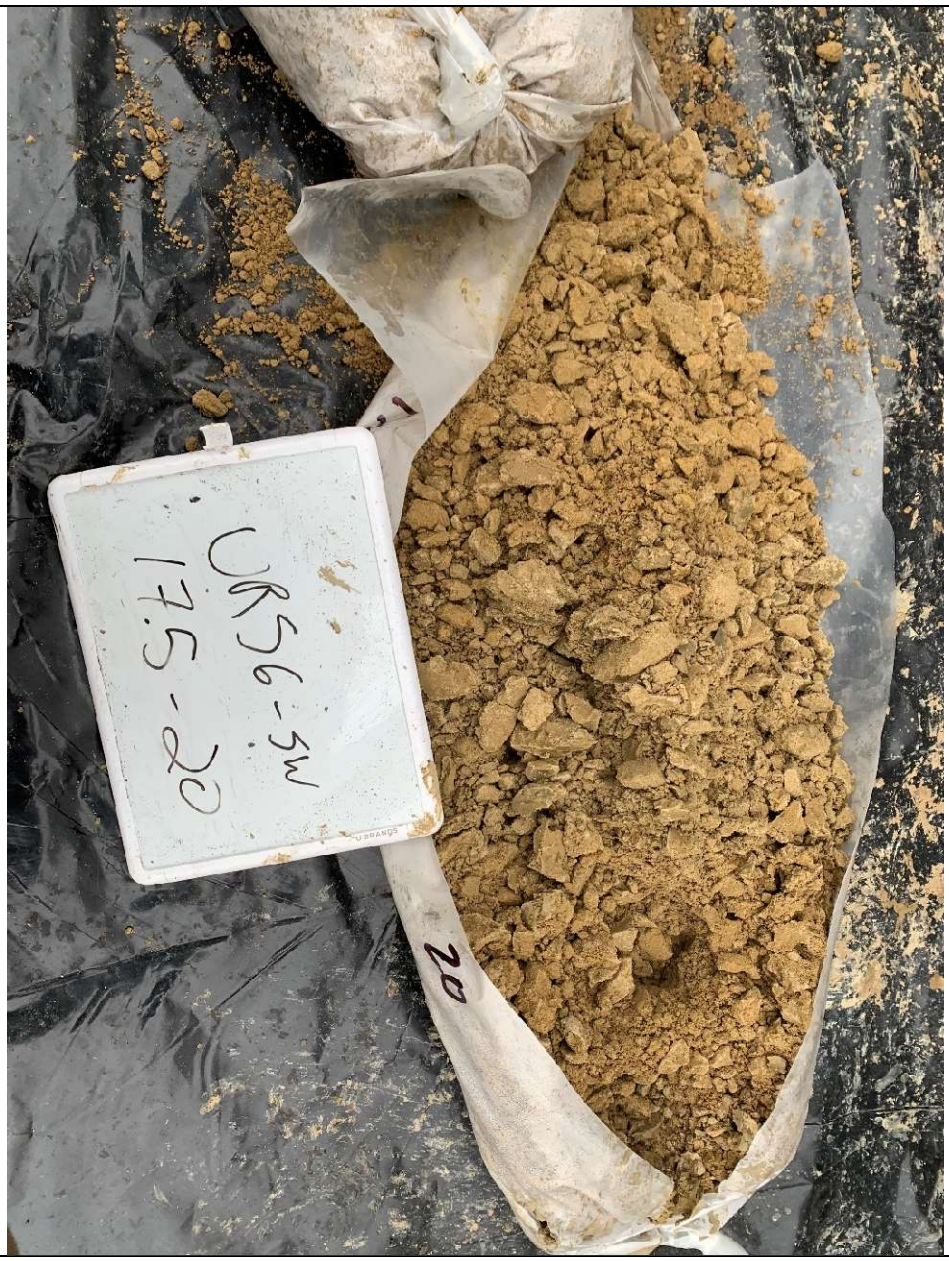
# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 31**<br><br>12/14/2023<br><br>Borehole URS-06. Cuttings from 12.5-15 feet below ground surface. |  |

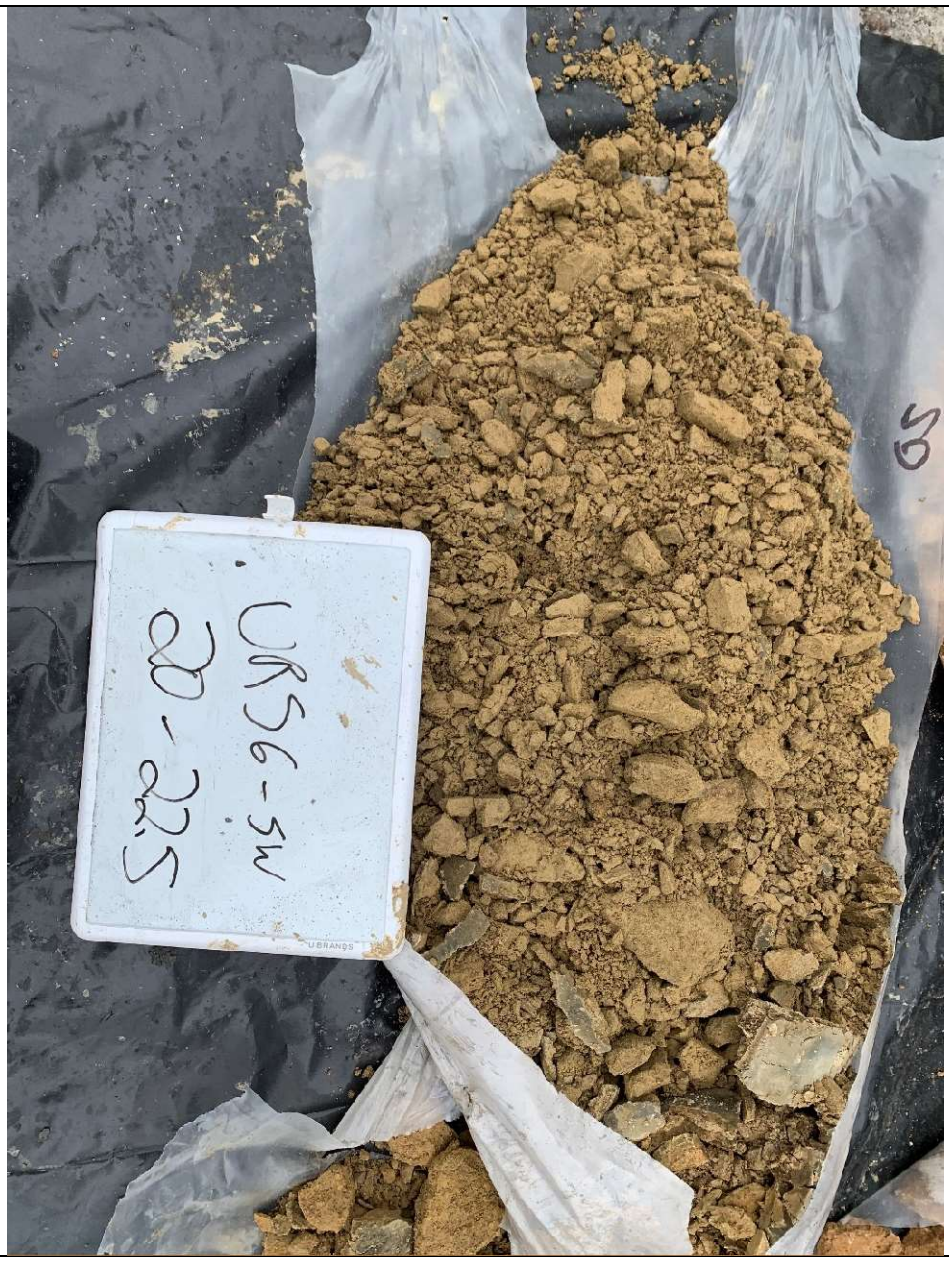
# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 32**<br><br>12/14/2023<br><br>Borehole URS-06. Cuttings from 15-17.5 feet below ground surface. |  |

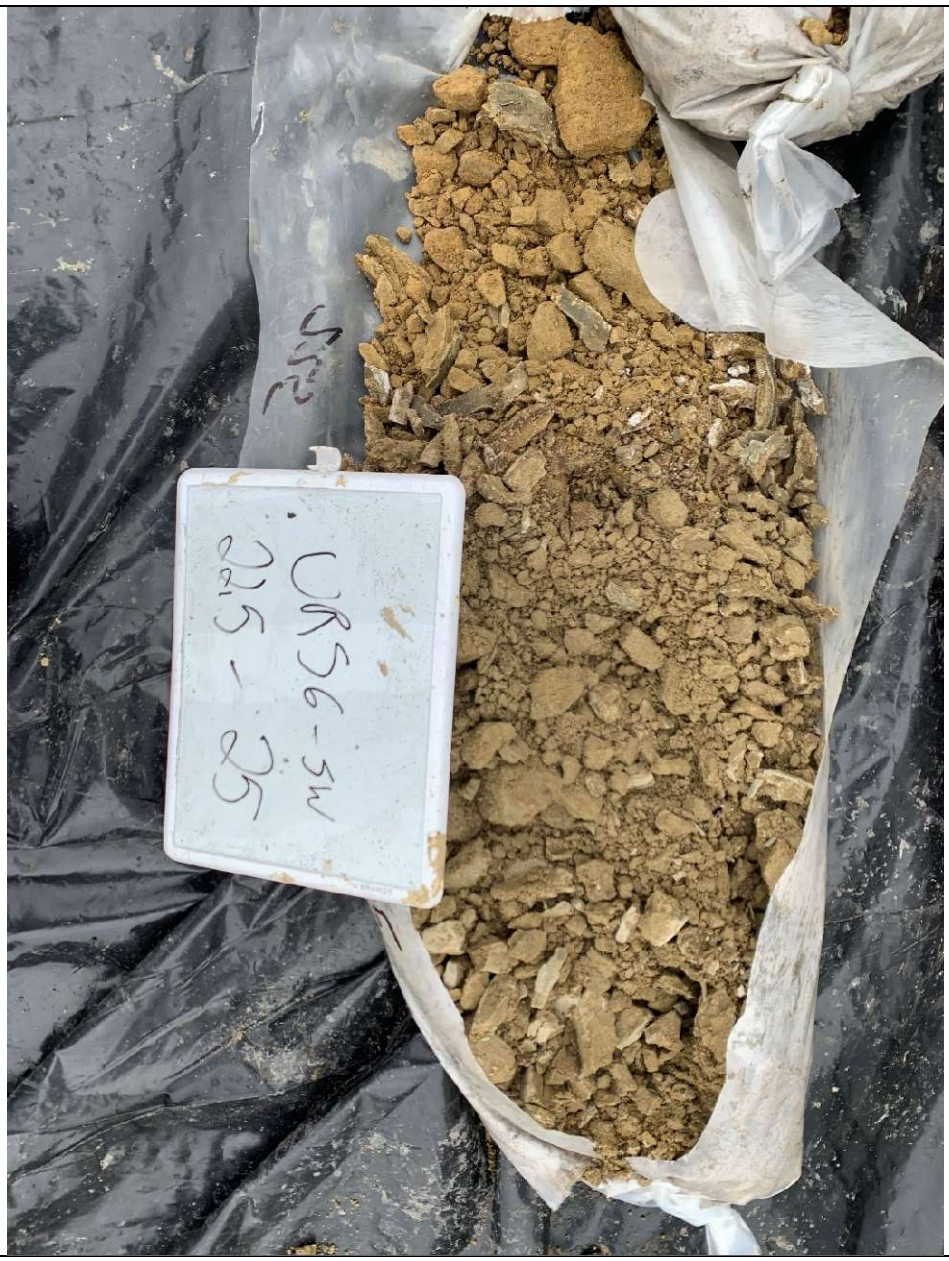
# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 33**<br><br>12/14/2023<br><br>Borehole URS-06. Cuttings from 17.5-20 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 34**<br><br>12/14/2023<br><br>Borehole URS-06. Cuttings from 20-22.5 feet below ground surface. |  |

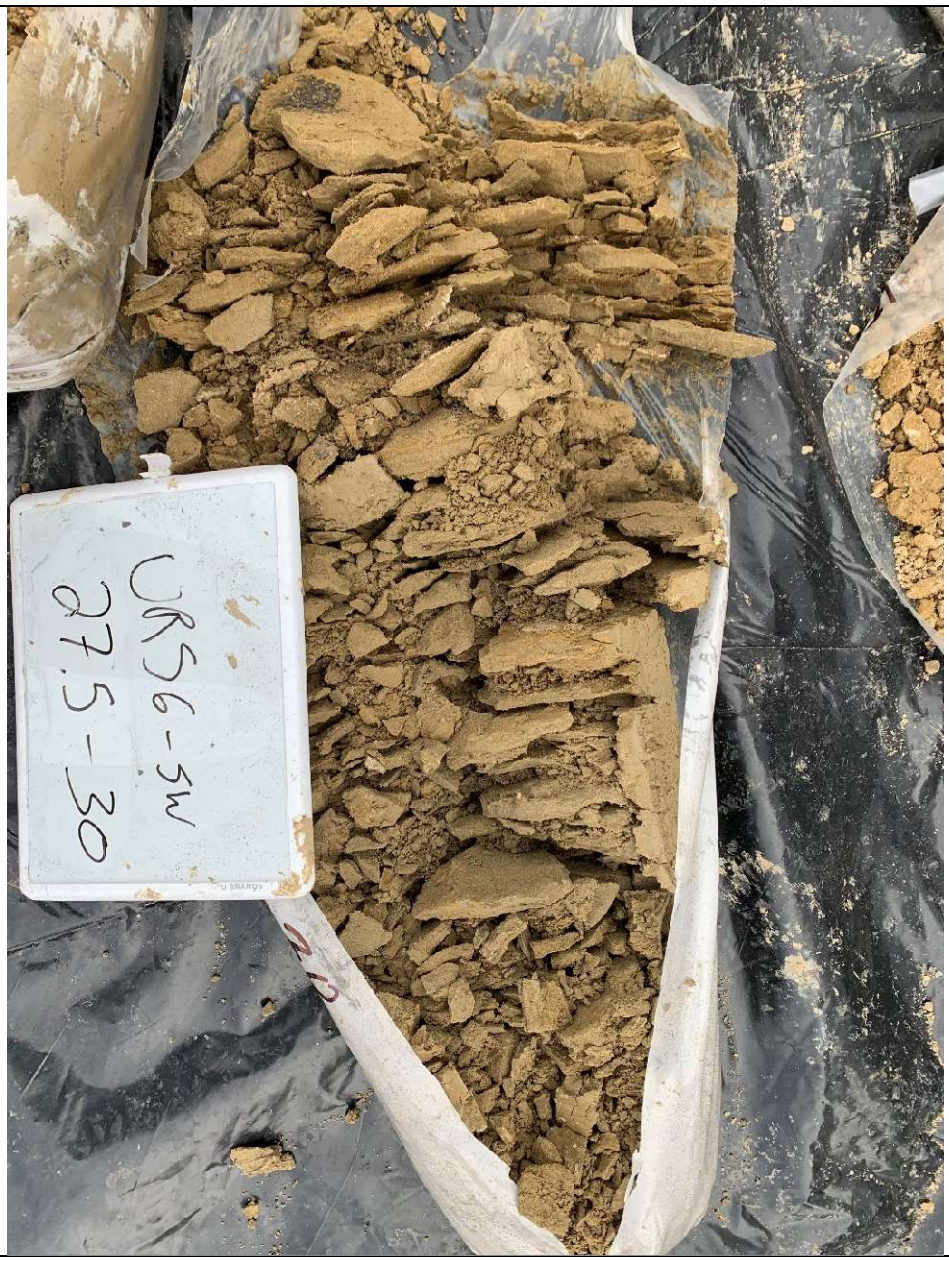
# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 35**<br><br>12/14/2023<br><br>Borehole URS-06. Cuttings from 22.5-25 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 36**<br><br>12/14/2023<br><br>Borehole URS-06. Cuttings from 25-27,5 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 37**<br><br>12/14/2023<br><br>Borehole URS-06. Cuttings from 27,5-30 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 38**<br><br>12/14/2023<br><br>Borehole URS-06. Cuttings from 30-32.5 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 39**<br><br>12/14/2023<br><br>Borehole URS-06. Cuttings from 32.5-35 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 40**<br><br>12/14/2023<br><br>Borehole URS-06. Cuttings from 35-37.5 feet below ground surface. |  |

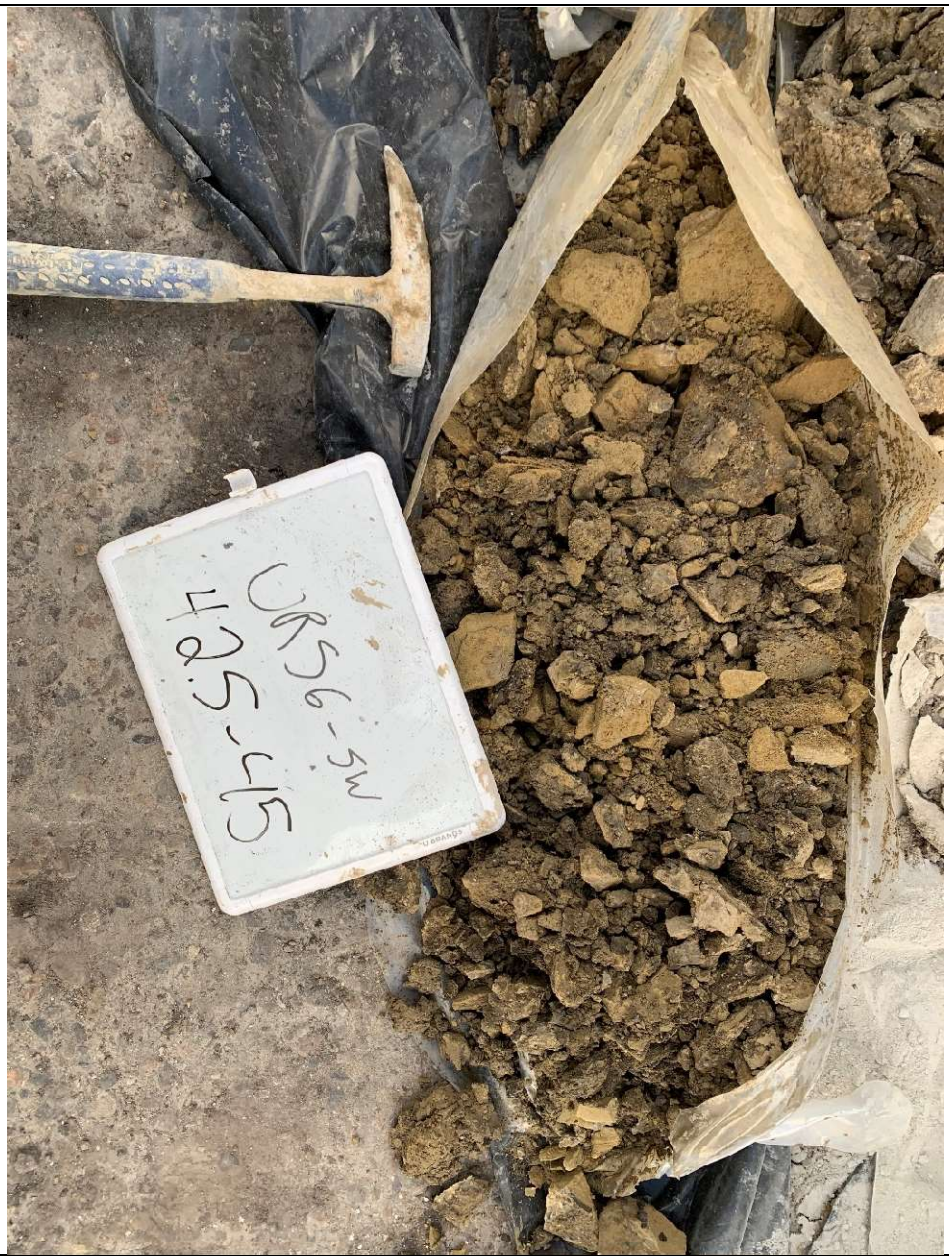
# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 41**<br><br>12/14/2023<br><br>Borehole URS-06. Cuttings from 37.5-40 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 42**<br><br>12/14/2023<br><br>Borehole URS-06. Cuttings from 40-42.5 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 43**<br><br>12/14/2023<br><br>Borehole URS-06. Cuttings from 42.5-45 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 44**<br><br>12/14/2023<br><br>Borehole URS-06. Cuttings from 45-47.5 feet below ground surface. |  |

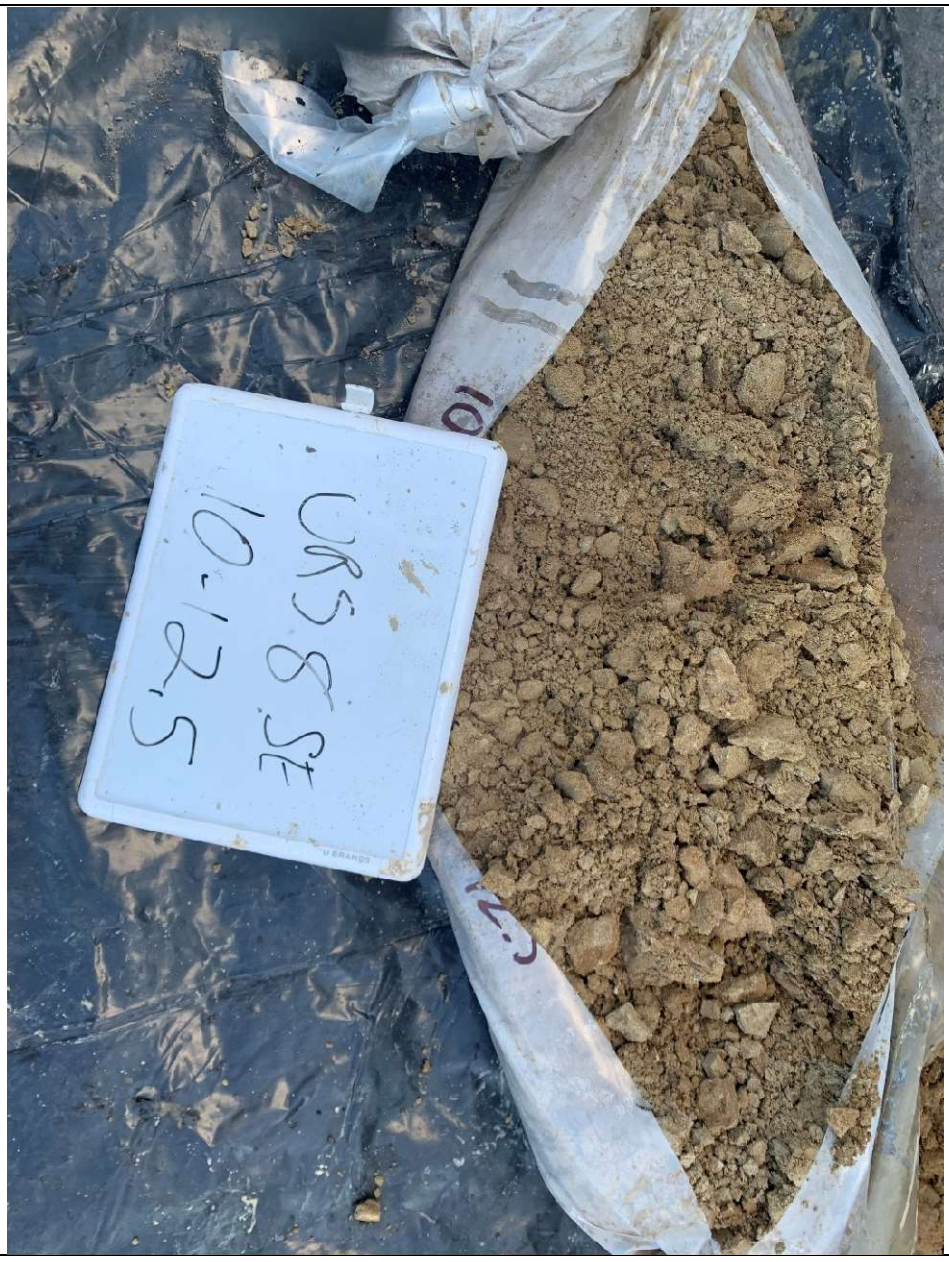
# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 45**<br><br>12/14/2023<br><br>Borehole URS-06. Cuttings from 47.5-50 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 46**<br><br>12/15/2023<br><br>Borehole URS-08. Cuttings from 7.5-10 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 47**<br><br>12/15/2023<br><br>Borehole URS-08. Cuttings from 10-12.5 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 48**<br><br>12/15/2023<br><br>Borehole URS-08. Cuttings from 12.5-15 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 49**<br><br>12/15/2023<br><br>Borehole URS-08. Cuttings from 15-17.5 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 50**<br><br>12/15/2023<br><br>Borehole URS-08. Cuttings from 17.5-20 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 51**<br><br>12/15/2023<br><br>Borehole URS-08. Cuttings from 20-22.5 feet below ground surface. |  |

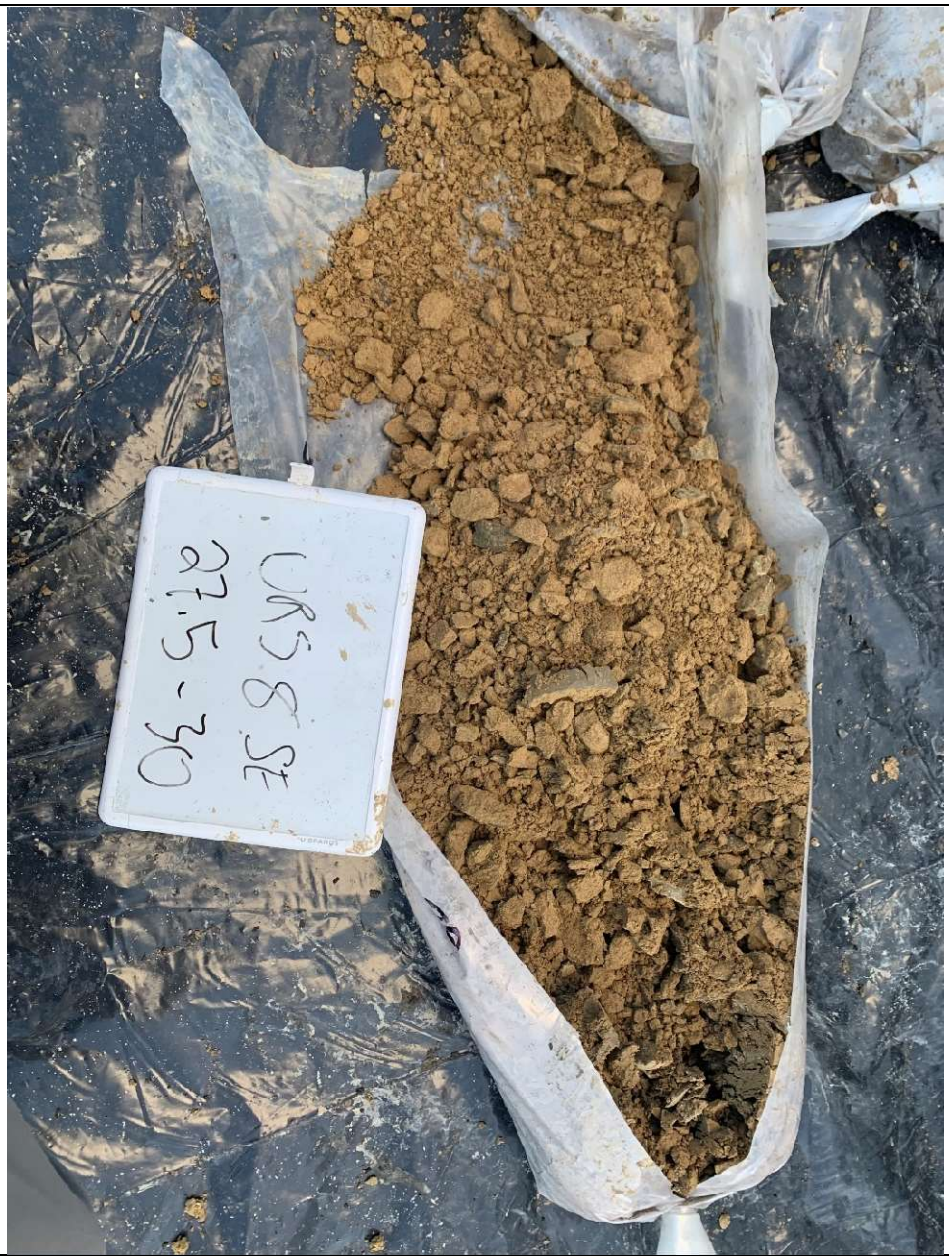
# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 52**<br><br>12/15/2023<br><br>Borehole URS-08. Cuttings from 22.5-25 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 53**<br><br>12/15/2023<br><br>Borehole URS-08. Cuttings from 25-27.5 feet below ground surface. |  |

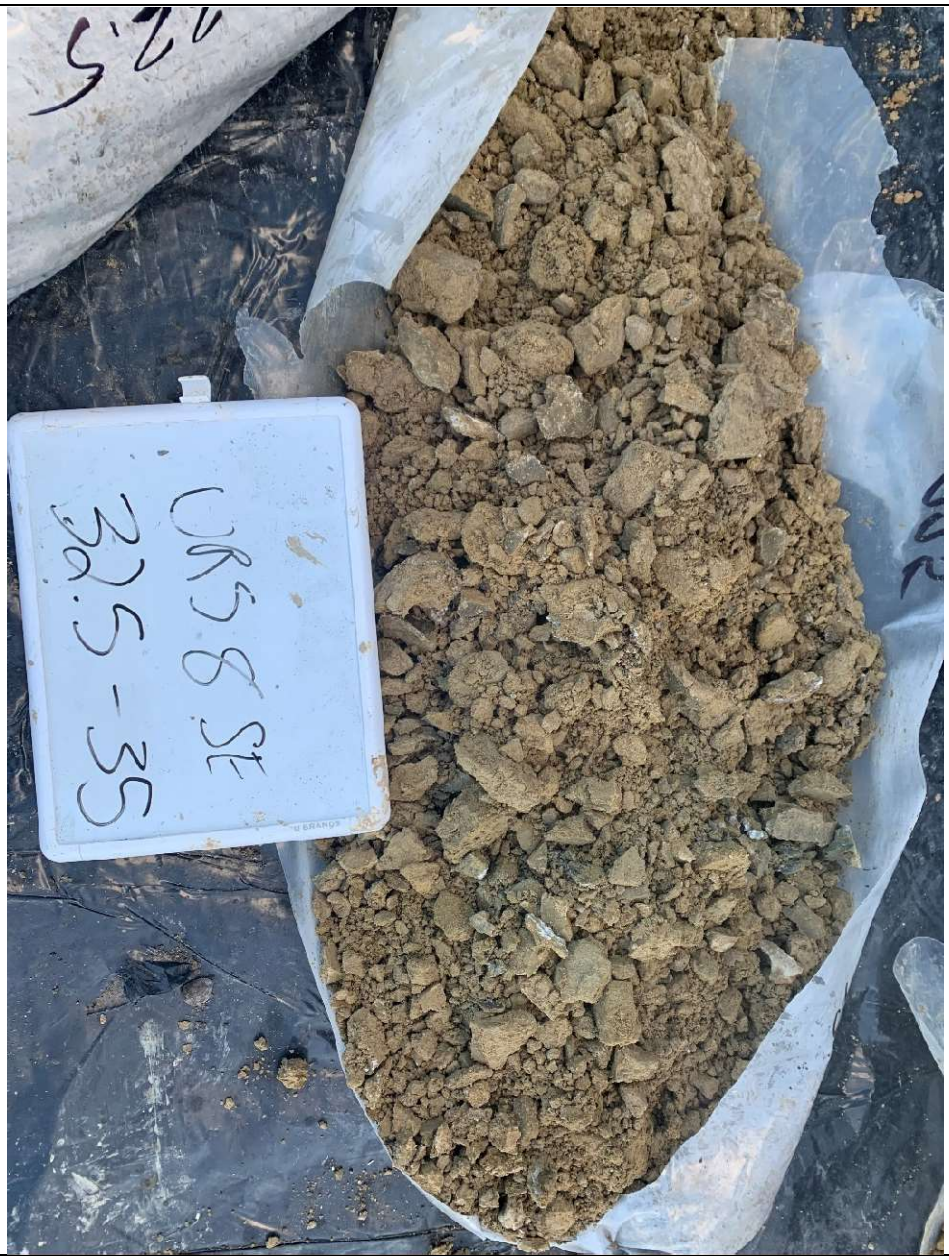
# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 54**<br><br>12/15/2023<br><br>Borehole URS-08. Cuttings from 27.5-30 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 55**<br><br>12/15/2023<br><br>Borehole URS-08. Cuttings from 30-32.5 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 56**<br><br>12/15/2023<br><br>Borehole URS-08. Cuttings from 32.5-35 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 57**<br><br>12/15/2023<br><br>Borehole URS-08. Cuttings from 35-37.5 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 58**<br><br>12/15/2023<br><br>Borehole URS-08. Cuttings from 37.5-40 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 59**<br><br>12/16/2023<br><br>Borehole URS-08. Cuttings from 40-42.5 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 60**<br><br>12/16/2023<br><br>Borehole URS-08. Cuttings from 42.5-45 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 61**<br><br>12/16/2023<br><br>Borehole URS-08. Cuttings from 45-47.5 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 62**<br><br>12/16/2023<br><br>Borehole URS-08. Cuttings from 47.5-50 feet below ground surface. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 63**<br><br>12/18/2023<br><br>Looking northeast. Constructed monument for extraction well, URS-07. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 64**<br><br>12/18/2023<br><br>Looking south. Constructed monument for extraction well URS-07. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 65**<br><br>12/18/2023<br><br>Looking northeast. Constructed flush mount for monitoring well URS-05. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 66**<br><br>12/18/2023<br><br>Looking south. Constructed flush mount for monitoring well URS-05. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 67**<br><br>12/18/2023<br><br>Looking north. Completed monument for extraction well URS-06. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 68**<br><br>12/18/2023<br><br>Looking south. Completed monument for extraction well URS-06. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | |
|---|---|
| **Photograph 69**<br><br>12/18/2023<br><br>Looking south. Cascade constructing flush mount for monitoring well URS-08. |  |

# Photographic Log
# URS-05, URS-06, URS-07, URS-08 Well Installation Report
# APS Four Corners Power Plant
# 6675 End of County Road
# Fruitland, New Mexico
# Project # 14-2022-2030

| | | |
|---|---|---|
| **Photograph 70**<br><br>12/18/2023<br><br>Constructed flush mount for monitoring well URS-08. Lid removed while cement dried. | |  |

# APPENDIX

## C

## DEPARTMENT OF WATER RESOURCES WATER WELL DRILLING PERMITS

**Department of Water Resources (DWR)**
**Technical, Construction and Operations Branch (TCOB)**
**P.O. Box 678**
**Fort Defiance, Arizona 86504**
**Ph. No. (928) 729-4132/Fax No. (928) 729-4421**
**www.watercode.navajo-nsn.gov**

**WDP NO:** 23-101

**REF WUP NO:** _____

**VALID:** 10/23/2023 **TO** 12/30/2023

# WATER WELL DRILLING APPLICATION/PERMIT

**TRIBAL WELL NO:** _____

APPROVED

APS 1

DRILLER'S NAME Cascade PHONE NO: 623-935-0124

ADDRESS: 7773 W Seldon Lane

CITY: Peoria STATE: AZ ZIP: 85345

LICENSE NO: 1664 (NM License) CONTACT PERSON: Andrew Whitsell

APPLICATION/PERMIT TO: ( ) DRILL ( ) RE-DRILL ( ) RE-CASE ( ) DEEPEN

WELL USE: ( ) DOMESTIC ( ) AGRICULTURE/LIVESTOCK ( ) INDUSTRIAL/MINING
( ) MUNICIPAL ( ) RECREATIONAL ( ) OTHER Remediation

PROPOSED: WELL DEPTH 50 FT WELL DIA. 10 IN CASING DIA. 6 IN
WEIGHT OF CASING _____ LBS/FT PRODUCTION CAPACITY 2 GPM

DRILLING METHOD Sonic

PROPOSED DRILLING DATES: START 10 / 23 / 2023 COMPLETION 11 / 2 / 2023

LOCATION: CHAPTER NAME: Nenahneza GRAZING DISTRICT 13

**ATTACH AN 8 ½" X 11" MAP SHOWING THE LOCATION OF DRILLING**

**APPLICANT AGREES, AS A CONDITION AND AS CONSIDERATION FOR THE PERMIT, TO PROVIDE THE DEPARTMENT OF WATER RESOURCES, AT NO COST, THE FOLLOWING INFORMATION ON COMPLETION OF THE WELL:**

- **A:** **A COMPLETED TRIBAL "WELL RECORD" FORM WITH SUMMARY DRILLER'S LOG INFORMATION AND GEOLOGIC FORMATIONS IDENTIFIED.**
- **B:** **COPIES OF ALL WELL LOGS**
- **C:** **COPIES OF ALL CHEMICAL ANALYSES**

**APPLICANT AGREES, AS A CONDITION FOR THE PERMIT, TO ALLOW REASONABLE ENTRY UPON THEIR PREMISES BY DEPARTMENT OF WATER RESOURCES.**

APPLICANT: WSP USA Environment & Infrastructure, Inc. on behalf of Arizona Public Service

ADDRESS: 4600 E Washington St. Ste. 600 CITY: Phoenix TATE: AZ

TELEPHONE NUMBER: ( 480 ) 258-3148 ZIP: 85034

APPLICANT'S SIGNATURE: _____ DATE: 9/26/2023

WDP NO: 23-101 to 23-104

REF WUP NO: _____

## CONDITIONS!

**The following data needs to be furnished to the DEPARTMENT OF WATER RESOURCES within 30 days of completion of the well:**

1. **Driller's log;**
2. **Stratigraphic log (if done on the well);**
3. **Copies of all electric logs;**
4. **Complete water quality analysis including heavy metals and radionuclides;**
5. **Copy of completed well design and construction showing casing and well screen settings, gravel pack, and packer settings;**
6. **Cement bonding log;**
7. **Pump test data;**
8. **Copies of any special tests conducted on this well.**
9. **Placing a well in service without submittal of the above information will result in a penalty and possible fine.**
10. **Well will be utilized by local livestock permit holders in the area.**

**Upon submission of data listed above to the Department of Water Resources a Water Use Permit application will be processed.**

## RECOMMENDATIONS

GRAZING COMMITTEE MEMBER/ DISTRICT LAND BOARD MEMBER ( ) YES( ) NO_____ DATE____/____/____

CHAPTER COUNCIL DELEGATE ( ) YES( ) NO_____ DATE____/____/____

TECHNICAL REVIEWER (✓) YES( ) NO Katrina Sam DATE 10 / 2 / 23

APPROVED: Najam A. Tariq DATE 10 / 3 / 23
Branch Director, Department of Water Resources

# WELL RECORD

**Department of Water Resources (DWR)**
**Technical, Construction and Operations Branch (TCOB)**
**P.O. Box 678**
**Fort Defiance, Arizona 86504**

**WDP NO:** 23-101
REF WUP NO:
**WELL NO:**
**Page** _____ **of** _____

## LOCATION

7.5 min. quad name: _____ Quad no. _____ Grazing Dist. 13

State: New Mexico County: San Juan Chapter: Nenahneza

Approx. location: Navajo Mine

UTM Coordinates: X (East): 725413.00 Y (North): 4063199.00 Zone: 12s

## STRUCTURE

Date begun: 12 / 08 / 2023 Date completed: 12 / 12 / 2023 Date depth measured: 12 / 12 / 2023

Elevation: 5361 ft. Total Depth: 45 ft. Hole Diameter(s): 10"

Casing Diameter: 6" in. From: 0 ft. to 25 ft. Material: Blank Sch. 80 PVC
Casing Diameter: 6" in. From: 25 ft. to 45 ft. Material: Sch. 80 PVC .020 slot
Casing Diameter: 6" in. From: 45 ft. to 50 ft. Material: Blank Sch. 80 PVC
Casing Diameter: _____ in. From: _____ ft. to _____ ft. Material: _____

Perforations [ ] Screen [X] (type: .020 ) Open Hole [ ] From: _____ ft. to _____ ft.
Perforations [ ] Screen [ ] (type: _____ ) Open Hole [ ] From: _____ ft. to _____ ft.
Perforations [ ] Screen [ ] (type: _____ ) Open Hole [ ] From: _____ ft. to _____ ft.
Perforations [ ] Screen [ ] (type: _____ ) Open Hole [ ] From: _____ ft. to _____ ft.
Perforations [ ] Screen [ ] (type: _____ ) Open Hole [ ] From: _____ ft. to _____ ft.

Funded By: Arizona Public Service Company Contractor: Cascade Drilling

Site Improvements: Well Installation

Type of Lift: None Energy Source: None Pump HP: None

## HYDROLOGY

Well Yield: NM gallons/minute (GPM) Date Yield Measured: / /

Test Type: NA Test rate: _____ GPM for _____ hours (Attach copy of well test data.)

Test Date: / / SWL at Beginning of Test: _____ ft. Total Drawdown: _____ ft.

Specific Capacity: NM GPM per ft. Recovery: _____ ft. after _____ hours.

Logs Available (attach copies): [X] Driller's [ ] Geophysical [ ] Other

Water Chemistry Analysis Available (attach copies): [ ] Yes [X] No

Static Water Level (SWL): 35 ft. Date: 12 / 12 / 2023 SWL. _____ ft. Date: / /

# WELL RECORD

**Department of Water Resources (DWR)**
**Technical, Construction and Operations Branch (TCOB)**
**P.O. Box 678**
**Fort Defiance, Arizona 86504**

**WDP NO:** 23-101
REF WUP NO:_____
**WELL NO:**_____
**Page**_____ **of** ____

## LOG

| DEPTH (FT) FROM | TO | FORMATION DESCRIPTION | GEOLOGIC UNIT | REMARKS |
|---|---|---|---|---|
| | | See Attached | | |
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Additional Comments:_____

_____

_____ *Revised 9/96*

# Well Construction Report

**Job Name** WSP-APS Four Corners
**Job Number** 113-23-1192
**Location** Fruitland, NM
**Lat/Long**

**Well Name** 1st well
**Driller** Trevor Cain
**Helper**
**Date Started**
**Date Completed** 12/12/2023

**Type of Well:**
- ___ Water Table Observation
- ___ Piezometer
- ___ Other Extraction

x ___

**A. Height of Well Casing above ground**
3 ft.

**B. Diameter of Well Casing**
6 in.

**C. Surface Seal Bottom**
___ ft.

**D. Well Casing: Flush Threaded PVC**
- ___ Schedule 40
- x Schedule 80
- ___ Other

**E. Borehole Diameter** 10 in.

**F. Bentonite Seal Top** 19 ft.

**G. Fine Sand Top** 21 ft.

**H. Filter Pack Top** 23 ft.

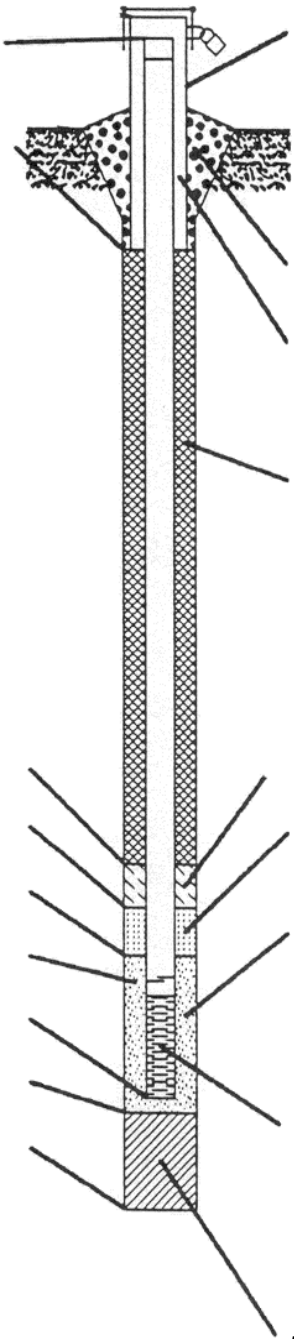
**I. Screen Joint Top** 25 ft.

**J. Well Bottom** 45 ft.

**K. Filter Pack Bottom** 46 ft.

**L. Borehole Bottom** 50 ft.

5' Sump 40'-45'



**2. Protective Cover:**
- a. Inside diam. 10 in.
- b. Length 5 ft.
- c. Material
  - x Steel
  - ___ Other
- d. Bumper Post ___ qty
  - ___ 3"
  - ___ 4"

**3. Surface Seal:**
- ___ Bentonite # bags used ___
- x Concrete # bags used ___
- ___ Other ___ # bags used ___

**4. Material between Casing and Protop:**
- ___ Bentonite # bags used ___
- ___ Other ___ # bags used ___

**5. Annular Space Seal:**
- ___ Granular Bentonite # bags used ___
- ___ Bentonite Slurry # bags used ___
- x Cement-Bentonite Grout
- ___ Other # bags used ___

How Installed:
- ___ Gravity # bags used ___
- ___ Tremie Pumped # bags used 8

**6. Bentonite Seal:**
- ___ Granules # bags used ___
- x Pellets # bags used 3

**7. Type of Fine Sand:** #60
# bags used 2

**8. Type of Filter Pack:** 12/20
# bags used 12

**9. Screen Material:**
Type: x Factory Cut
___ Continuous Slot
Slot Size: .020 in.
Length: 20 ft.

**10. Backfill Material: (Below filter pack)**
- ___ None
- x Other Chips 46'-50'

*Cascade Drilling LP*
*7823 W. Golden Lane*
*Peoria, AZ 85345*
*Phone (623) 935-0124*

**Department of Water Resources (DWR)**
**Technical, Construction and Operations Branch (TCOB)**
**P.O. Box 678**
**Fort Defiance, Arizona 86504**
**Ph. No. (928) 729-4132/Fax No. (928) 729-4421**
**www.watercode.navajo-nsn.gov**

**WDP NO:** 23-102

**REF WUP NO:** _____

**VALID:** 10/23/2023 **TO** 12/30/2023

# WATER WELL DRILLING APPLICATION/PERMIT

**TRIBAL WELL NO:** _____

APPROVED

APS 2

DRILLER'S NAME Cascade PHONE NO: 623-935-0124

ADDRESS: 7773 W Seldon Lane

CITY: Peoria STATE: AZ ZIP: 85345

LICENSE NO: 1664 (NM License) CONTACT PERSON: Andrew Whitsell

APPLICATION/PERMIT TO: ( ) DRILL ( ) RE-DRILL ( ) RE-CASE ( ) DEEPEN

WELL USE: ( ) DOMESTIC ( ) AGRICULTURE/LIVESTOCK ( ) INDUSTRIAL/MINING
( ) MUNICIPAL ( ) RECREATIONAL ( ) OTHER Remediation

PROPOSED: WELL DEPTH 50 FT WELL DIA. 10 IN CASING DIA. 6 IN
WEIGHT OF CASING _____ LBS/FT PRODUCTION CAPACITY 2 GPM

DRILLING METHOD Sonic

PROPOSED DRILLING DATES: START 10 / 23 / 2023 COMPLETION 11 / 2 / 2023

LOCATION: CHAPTER NAME: Nenahneza GRAZING DISTRICT 13

**ATTACH AN 8 ½" X 11" MAP SHOWING THE LOCATION OF DRILLING**

**APPLICANT AGREES, AS A CONDITION AND AS CONSIDERATION FOR THE PERMIT, TO PROVIDE THE DEPARTMENT OF WATER RESOURCES, AT NO COST, THE FOLLOWING INFORMATION ON COMPLETION OF THE WELL:**

- **A: A COMPLETED TRIBAL "WELL RECORD" FORM WITH SUMMARY DRILLER'S LOG INFORMATION AND GEOLOGIC FORMATIONS IDENTIFIED.**
- **B: COPIES OF ALL WELL LOGS**
- **C: COPIES OF ALL CHEMICAL ANALYSES**

**APPLICANT AGREES, AS A CONDITION FOR THE PERMIT, TO ALLOW REASONABLE ENTRY UPON THEIR PREMISES BY DEPARTMENT OF WATER RESOURCES.**

APPLICANT: WSP USA Environment & Infrastructure, Inc. on behalf of Arizona Public Service

ADDRESS: 4600 E Washington St. Ste. 600 CITY: Phoenix TATE: AZ

TELEPHONE NUMBER: ( 480 ) 258-3148 ZIP: 85034

APPLICANT'S SIGNATURE: _____ DATE: 9/26/2023

WDP NO: 23-101 to 23-104

REF WUP NO: _____

## CONDITIONS!

**The following data needs to be furnished to the DEPARTMENT OF WATER RESOURCES within 30 days of completion of the well:**

1. **Driller's log;**
2. **Stratigraphic log (if done on the well);**
3. **Copies of all electric logs;**
4. **Complete water quality analysis including heavy metals and radionuclides;**
5. **Copy of completed well design and construction showing casing and well screen settings, gravel pack, and packer settings;**
6. **Cement bonding log;**
7. **Pump test data;**
8. **Copies of any special tests conducted on this well.**
9. **Placing a well in service without submittal of the above information will result in a penalty and possible fine.**
10. **Well will be utilized by local livestock permit holders in the area.**

**Upon submission of data listed above to the Department of Water Resources a Water Use Permit application will be processed.**

## RECOMMENDATIONS

GRAZING COMMITTEE MEMBER / DISTRICT LAND BOARD MEMBER ( ) YES( ) NO _____ DATE ___/___/___

CHAPTER COUNCIL DELEGATE ( ) YES( ) NO _____ DATE ___/___/___

TECHNICAL REVIEWER (✓) YES( ) NO Katrina Sam DATE 10 / 2 / 23

APPROVED: Tajam A. Tariq DATE 10 / 3 / 23
Branch Director, Department of Water Resources

# WELL RECORD

**Department of Water Resources (DWR)**
**Technical, Construction and Operations Branch (TCOB)**
**P.O. Box 678**
**Fort Defiance, Arizona 86504**

**WDP NO:** 23-102
REF WUP NO:
**WELL NO:**
**Page** _____ **of** _____

## LOCATION

7.5 min. quad name: _____ Quad no. _____ Grazing Dist. 13

State: New Mexico County: San Juan Chapter: Nenahneza

Approx. location: Navajo Mine

UTM Coordinates: X (East): 725358.00 Y (North): 4063185.00 Zone: 12 S

## STRUCTURE

Date begun: 12 / 14 / 23 Date completed: 12 / 15 / 23 Date depth measured: 12 / 15 / 23

Elevation: 5359 ft. Total Depth: 45 ft. Hole Diameter(s): 10

Casing Diameter: 6" in. From: 0 ft. to 20 ft. Material: sch. 80 pvc blank
Casing Diameter: 6" in. From: 20 ft. to 40 ft. Material: sch. 80 pvc slot screen 0.020
Casing Diameter: 6" in. From: 40 ft. to 45 ft. Material: sch. 80 pvc blank
Casing Diameter: _____ in. From: _____ ft. to _____ ft. Material: _____

Perforations [ ] Screen [ x ] (type: 0.020 slot screen) Open Hole [ ] From: _____ ft. to _____ ft.
Perforations [ ] Screen [ ] (type: _____) Open Hole [ ] From: _____ ft. to _____ ft.
Perforations [ ] Screen [ ] (type: _____) Open Hole [ ] From: _____ ft. to _____ ft.
Perforations [ ] Screen [ ] (type: _____) Open Hole [ ] From: _____ ft. to _____ ft.
Perforations [ ] Screen [ ] (type: _____) Open Hole [ ] From: _____ ft. to _____ ft.

Funded By: Arizona Public Service Company Contractor: Cascade Drilling

Site Improvements: Well Installation

Type of Lift: NA Energy Source: NA Pump HP: NA

## HYDROLOGY

Well Yield: NM gallons/minute (GPM) Date Yield Measured: / /

Test Type: NA Test rate: NA GPM for _____ hours (Attach copy of well test data.)

Test Date: / / SWL at Beginning of Test: _____ ft. Total Drawdown: _____ ft.

Specific Capacity: NA GPM per ft. Recovery: _____ ft. after _____ hours.

Logs Available (attach copies): [ X ] Driller's [ ] Geophysical [ ] Other

Water Chemistry Analysis Available (attach copies): [ ] Yes [ X ] No

Static Water Level (SWL): 30 ft. Date: 12 / 15 / 2023 SWL. _____ ft. Date: / /

# WELL RECORD

**Department of Water Resources (DWR)**
**Technical, Construction and Operations Branch (TCOB)**
**P.O. Box 678**
**Fort Defiance, Arizona 86504**

WDP NO: 23-102
REF WUP NO: _____
WELL NO: _____
Page _____ of ____

## LOG

DEPTH (FT)

| FROM | TO | FORMATION DESCRIPTION | GEOLOGIC UNIT | REMARKS |
|---|---|---|---|---|
| | | See Attached | | |
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Additional Comments: _____

_____

_____ *Revised 9/96*

# Well Construction Report

**Job Name** WSP-APS Four Corners
**Job Number** 113-23-1192
**Location** Fruitland, NM
**Lat/Long**

**Well Name** 3rd well
**Driller** Trevor Cain
**Helper**
**Date Started**
**Date Completed** 12/15/2023

**Type of Well:**
- ___ Water Table Observation
- ___ Piezometer
- ___ Other Extraction

x ___

**A. Height of Well Casing above ground**
3 ft.

**B. Diameter of Well Casing**
6 in.

**C. Surface Seal Bottom**
___ ft.

**D. Well Casing: Flush Threaded PVC**
- ___ Schedule 40
- x Schedule 80
- ___ Other

**E. Borehole Diameter** 10 in.

**F. Bentonite Seal Top** 14 ft.

**G. Fine Sand Top** 16 ft.

**H. Filter Pack Top** 18 ft.

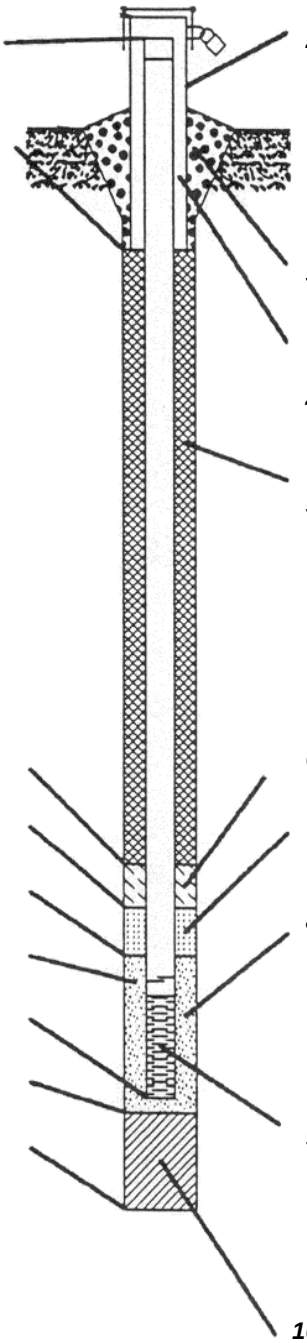
**I. Screen Joint Top** 20 ft.

**J. Well Bottom** 45 ft.

**K. Filter Pack Bottom** 46 ft.

**L. Borehole Bottom** 50 ft.

5' Sump 40'-45'



**2. Protective Cover:**
- a. Inside diam. 10 in.
- b. Length 5 ft.
- c. Material
  - x Steel
  - ___ Other
- d. Bumper Post ___ qty
  - ___ 3"
  - ___ 4"

**3. Surface Seal:**
- ___ Bentonite # bags used ___
- x Concrete # bags used ___
- ___ Other ___ # bags used ___

**4. Material between Casing and Protop:**
- ___ Bentonite # bags used ___
- ___ Other ___ # bags used ___

**5. Annular Space Seal:**
- ___ Granular Bentonite # bags used ___
- ___ Bentonite Slurry # bags used ___
- x Cement-Bentonite Grout
- ___ Other # bags used ___

How Installed:
- ___ Gravity # bags used ___
- ___ Tremie Pumped # bags used 8

**6. Bentonite Seal:**
- ___ Granules # bags used ___
- x Pellets # bags used 2

**7. Type of Fine Sand:** #60
# bags used 1

**8. Type of Filter Pack:** 12/20
# bags used 13

**9. Screen Material:**
Type: x Factory Cut
___ Continuous Slot
Slot Size: .020 in.
Length: 20 ft.

**10. Backfill Material: (Below filter pack)**
- ___ None
- x Other Chips 46'-50'

*Cascade Drilling LP*
*7823 W. Golden Lane*
*Peoria, AZ 85345*
*Phone (623) 935-0124*

**Department of Water Resources (DWR)**
**Technical, Construction and Operations Branch (TCOB)**
**P.O. Box 678**
**Fort Defiance, Arizona 86504**
**Ph. No. (928) 729-4132/Fax No. (928) 729-4421**
**www.watercode.navajo-nsn.gov**

**WDP NO:** 23-103

**REF WUP NO:** _____

**VALID:** 10/23/2023 **TO** 12/30/2023

# WATER WELL DRILLING APPLICATION/PERMIT

**TRIBAL WELL NO:** _____

APPROVED

APS 3

DRILLER'S NAME Cascade PHONE NO: 623-935-0124

ADDRESS: 7773 W Seldon Lane

CITY: Peoria STATE: AZ ZIP: 85345

LICENSE NO: 1664 (NM License) CONTACT PERSON: Andrew Whitsell

APPLICATION/PERMIT TO: (✓) DRILL ( ) RE-DRILL ( ) RE-CASE ( ) DEEPEN

WELL USE: ( ) DOMESTIC ( ) AGRICULTURE/LIVESTOCK ( ) INDUSTRIAL/MINING
( ) MUNICIPAL ( ) RECREATIONAL (✓) OTHER Monitor

PROPOSED: WELL DEPTH 40 FT WELL DIA. 10 IN CASING DIA. 4 IN
WEIGHT OF CASING _____ LBS/FT PRODUCTION CAPACITY _____ GPM

DRILLING METHOD Sonic

PROPOSED DRILLING DATES: START 10 / 23 / 2023 COMPLETION 11 / 2 / 2023

LOCATION: CHAPTER NAME: Nenahneza GRAZING DISTRICT 13

**ATTACH AN 8 ½" X 11" MAP SHOWING THE LOCATION OF DRILLING**

**APPLICANT AGREES, AS A CONDITION AND AS CONSIDERATION FOR THE PERMIT, TO PROVIDE THE DEPARTMENT OF WATER RESOURCES, AT NO COST, THE FOLLOWING INFORMATION ON COMPLETION OF THE WELL:**

- **A:** **A COMPLETED TRIBAL "WELL RECORD" FORM WITH SUMMARY DRILLER'S LOG INFORMATION AND GEOLOGIC FORMATIONS IDENTIFIED.**
- **B:** **COPIES OF ALL WELL LOGS**
- **C:** **COPIES OF ALL CHEMICAL ANALYSES**

**APPLICANT AGREES, AS A CONDITION FOR THE PERMIT, TO ALLOW REASONABLE ENTRY UPON THEIR PREMISES BY DEPARTMENT OF WATER RESOURCES.**

APPLICANT: WSP USA Environment & Infrastructure, Inc. on behalf of Arizona Public Service

ADDRESS: 4600 E Washington St. Ste. 600 CITY: Phoenix STATE: AZ

TELEPHONE NUMBER: ( 480 ) 258-3148 ZIP: 85034

APPLICANT'S SIGNATURE: _____ DATE: 9/26/2023

WDP NO: 23-101 to 23-104

REF WUP NO: _____

## CONDITIONS!

**The following data needs to be furnished to the DEPARTMENT OF WATER RESOURCES within 30 days of completion of the well:**

1. **Driller's log;**
2. **Stratigraphic log (if done on the well);**
3. **Copies of all electric logs;**
4. **Complete water quality analysis including heavy metals and radionuclides;**
5. **Copy of completed well design and construction showing casing and well screen settings, gravel pack, and packer settings;**
6. **Cement bonding log;**
7. **Pump test data;**
8. **Copies of any special tests conducted on this well.**
9. **Placing a well in service without submittal of the above information will result in a penalty and possible fine.**
10. **Well will be utilized by local livestock permit holders in the area.**

**Upon submission of data listed above to the Department of Water Resources a Water Use Permit application will be processed.**

## RECOMMENDATIONS

GRAZING COMMITTEE MEMBER / DISTRICT LAND BOARD MEMBER ( ) YES( ) NO _____ DATE ___/___/___

CHAPTER COUNCIL DELEGATE ( ) YES( ) NO _____ DATE ___/___/___

TECHNICAL REVIEWER (✓) YES( ) NO Katrina Sam DATE 10 / 2 / 23

APPROVED: Najam A. H. Tariq DATE 10 / 3 / 23
Branch Director, Department of Water Resources

# WELL RECORD

**Department of Water Resources (DWR)**
**Technical, Construction and Operations Branch (TCOB)**
**P.O. Box 678**
**Fort Defiance, Arizona 86504**

**WDP NO:** 23-103
REF WUP NO:_____
**WELL NO:**_____
**Page**_____ **of**_____

## LOCATION

7.5 min. quad name:_____ Quad no._____ Grazing Dist. 13

State: New Mexico County: San Juan Chapter: Nenahneza

Approx. location: Navajo Mine

UTM Coordinates: X (East): 725372.00 Y (North): 4063197.00 Zone: 12s

## STRUCTURE

Date begun: 12 / 12 / 23 Date completed: 12 / 13 / 23 Date depth measured: 12 / 13 / 23

Elevation: 5358 ft. Total Depth: 40 ft. Hole Diameter(s): 10

Casing Diameter: 6" in. From: 0 ft. to 30 ft. Material: sch. 80 pvc blank
Casing Diameter: 6" in. From: 30 ft. to 40 ft. Material: sch. 80 pvc 0.020 slot screen
Casing Diameter:_____ in. From:_____ ft. to_____ ft. Material:_____
Casing Diameter:_____ in. From:_____ ft. to_____ ft. Material:_____

Perforations [ ] Screen [ X ] (type: 0.020 slot screen) Open Hole [ ] From:_____ ft. to _____ ft.
Perforations [ ] Screen [ ] (type:_____) Open Hole [ ] From:_____ ft. to _____ ft.
Perforations [ ] Screen [ ] (type:_____) Open Hole [ ] From:_____ ft. to _____ ft.
Perforations [ ] Screen [ ] (type:_____) Open Hole [ ] From:_____ ft. to _____ ft.
Perforations [ ] Screen [ ] (type:_____) Open Hole [ ] From:_____ ft. to _____ ft.

Funded By: Arizona Public Service Company Contractor: Cascade Drilling

Site Improvements: Well Installation

Type of Lift: NA Energy Source: None Pump HP: None

## HYDROLOGY

Well Yield: NM gallons/minute (GPM) Date Yield Measured:_____/_____/_____

Test Type: NA Test rate:_____ GPM for _____ hours (Attach copy of well test data.)

Test Date:_____/_____/_____ SWL at Beginning of Test:_____ ft. Total Drawdown:_____ ft.

Specific Capacity: NA GPM per ft. Recovery:_____ ft. after _____ hours.

Logs Available (attach copies): [ X ] Driller's [ ] Geophysical [ ] Other

Water Chemistry Analysis Available (attach copies): [ ] Yes [ X ] No

Static Water Level (SWL): 30 ft. Date: 12 / 13 / 23 SWL._____ ft. Date:_____/_____/_____

# WELL RECORD

**Department of Water Resources (DWR)**
**Technical, Construction and Operations Branch (TCOB)**
**P.O. Box 678**
**Fort Defiance, Arizona 86504**

WDP NO: 23-103
REF WUP NO:_____
WELL NO:_____
Page_____ of ____

## LOG

DEPTH (FT)

| FROM | TO | FORMATION DESCRIPTION | GEOLOGIC UNIT | REMARKS |
|---|---|---|---|---|
| | | See Attached | | |
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Additional Comments:_____

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_____ *Revised 9/96*

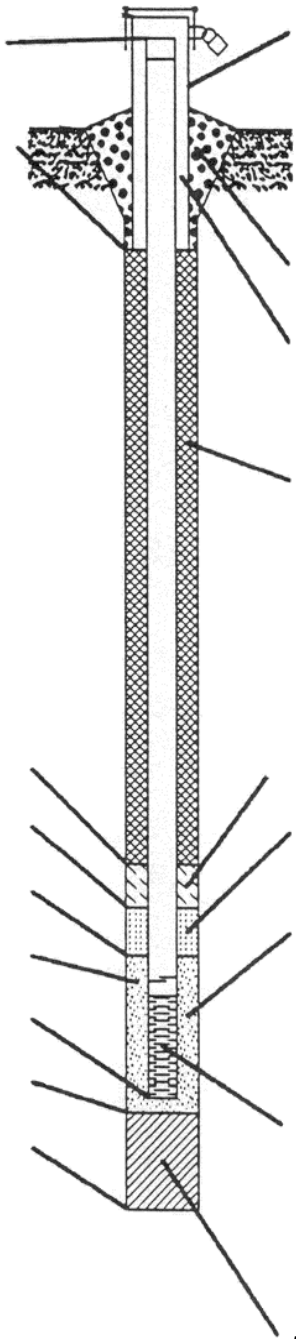
# Well Construction Report

**Job Name** WSP-APS Four Corners
**Job Number** 113-23-1192
**Location** Fruitland, NM
**Lat/Long**

**Well Name** 2nd well
**Driller** Trevor Cain
**Helper**
**Date Started**
**Date Completed** 12/13/2023

***Type of Well:***

___ *Water Table Observation*
___ *Piezometer*
___ *Other* Monitor



x ___

***A. Height of Well Casing above ground***
0 *ft.*

***B. Diameter of Well Casing***
4 *in.*

***C. Surface Seal Bottom***
___ *ft.*

***D. Well Casing: Flush Threaded PVC***
___ *Schedule 40*
x *Schedule 80*
___ *Other* ___

***E. Borehole Diameter*** 10 *in.*

***F. Bentonite Seal Top*** 24 *ft.*

***G. Fine Sand Top*** 26 *ft.*

***H. Filter Pack Top*** 28 *ft.*

***I. Screen Joint Top*** 30 *ft.*

***J. Well Bottom*** 40 *ft.*

***K. Filter Pack Bottom*** 41 *ft.*

***L. Borehole Bottom*** 50 *ft.*

***2. Protective Cover:*** ***a. Inside diam.*** 12 *in.*
***b. Length*** 1 *ft.*
***c. Material***
x *Steel*
___ *Other* ___
***d. Bumper Post*** ___ *qty*
___ *3"* ___ *4"*

***3. Surface Seal:***
___ *Bentonite* *# bags used* ___
x *Concrete* *# bags used* ___
___ *Other* ___ *# bags used* ___

***4. Material between Casing and Protop:***
___ *Bentonite* *# bags used* ___
___ *Other* ___ *# bags used* ___

***5. Annular Space Seal:***
___ *Granular Bentonite* *# bags used* ___
___ *Bentonite Slurry* *# bags used* ___
x *Cement-Bentonite Grout*
___ *Other* *# bags used* ___
*How Installed:*
___ *Gravity* *# bags used* ___
___ *Tremie Pumped* *# bags used* 16

***6. Bentonite Seal:***
___ *Granules* *# bags used* ___
x *Pellets* *# bags used* 5

***7. Type of Fine Sand:*** #60
*# bags used* 2

***8. Type of Filter Pack:*** 12/20
*# bags used* 9

***9. Screen Material:***
*Type:* x *Factory Cut*
___ *Continuous Slot*
*Slot Size:* .020 *in.*
*Length:* 10 *ft.*

***10. Backfill Material: (Below filter pack)***
___ *None*
x *Other* Chips 41'-50'

*Cascade Drilling LP*
*7823 W. Golden Lane*
*Peoria, AZ 85345*
*Phone (623) 935-0124*

**Department of Water Resources (DWR)**
**Technical, Construction and Operations Branch (TCOB)**
**P.O. Box 678**
**Fort Defiance, Arizona 86504**
**Ph. No. (928) 729-4132/Fax No. (928) 729-4421**
**www.watercode.navajo-nsn.gov**

**WDP NO:** 23-104

**REF WUP NO:** _____

**VALID:** 10/23/2023 **TO** 12/30/2023

# WATER WELL DRILLING APPLICATION/PERMIT

**TRIBAL WELL NO:** _____

APPROVED

APS 4

DRILLER'S NAME Cascade PHONE NO: 623-935-0124

ADDRESS: 7773 W Seldon Lane

CITY: Peoria STATE: AZ ZIP: 85345

LICENSE NO: 1664 (NM License) CONTACT PERSON: Andrew Whitsell

APPLICATION/PERMIT TO: (✓) DRILL ( ) RE-DRILL ( ) RE-CASE ( ) DEEPEN

WELL USE: ( ) DOMESTIC ( ) AGRICULTURE/LIVESTOCK ( ) INDUSTRIAL/MINING
( ) MUNICIPAL ( ) RECREATIONAL (✓) OTHER Monitor

PROPOSED: WELL DEPTH 40 FT WELL DIA. 10 IN CASING DIA. 4 IN
WEIGHT OF CASING _____ LBS/FT PRODUCTION CAPACITY _____ GPM

DRILLING METHOD Sonic

PROPOSED DRILLING DATES: START 10 / 23 / 2023 COMPLETION 11 / 2 / 2023

LOCATION: CHAPTER NAME: Nenahneza GRAZING DISTRICT 13

**ATTACH AN 8 ½" X 11" MAP SHOWING THE LOCATION OF DRILLING**

**APPLICANT AGREES, AS A CONDITION AND AS CONSIDERATION FOR THE PERMIT, TO PROVIDE THE DEPARTMENT OF WATER RESOURCES, AT NO COST, THE FOLLOWING INFORMATION ON COMPLETION OF THE WELL:**

- **A:** **A COMPLETED TRIBAL "WELL RECORD" FORM WITH SUMMARY DRILLER'S LOG INFORMATION AND GEOLOGIC FORMATIONS IDENTIFIED.**
- **B:** **COPIES OF ALL WELL LOGS**
- **C:** **COPIES OF ALL CHEMICAL ANALYSES**

**APPLICANT AGREES, AS A CONDITION FOR THE PERMIT, TO ALLOW REASONABLE ENTRY UPON THEIR PREMISES BY DEPARTMENT OF WATER RESOURCES.**

APPLICANT: WSP USA Environment & Infrastructure, Inc. on behalf of Arizona Public Service

ADDRESS: 4600 E Washington St. Ste. 600 CITY: Phoenix STATE: AZ

TELEPHONE NUMBER: ( 480 ) 258-3148 ZIP: 85034

APPLICANT'S SIGNATURE: _____ DATE: 9/26/2023

WDP NO: 23-101 to 23-104

REF WUP NO:_____

## CONDITIONS!

**The following data needs to be furnished to the DEPARTMENT OF WATER RESOURCES within 30 days of completion of the well:**

1. **Driller's log;**
2. **Stratigraphic log (if done on the well);**
3. **Copies of all electric logs;**
4. **Complete water quality analysis including heavy metals and radionuclides;**
5. **Copy of completed well design and construction showing casing and well screen settings, gravel pack, and packer settings;**
6. **Cement bonding log;**
7. **Pump test data;**
8. **Copies of any special tests conducted on this well.**
9. **Placing a well in service without submittal of the above information will result in a penalty and possible fine.**
10. **Well will be utilized by local livestock permit holders in the area.**

**Upon submission of data listed above to the Department of Water Resources a Water Use Permit application will be processed.**

## RECOMMENDATIONS

GRAZING COMMITTEE MEMBER/ DISTRICT LAND BOARD MEMBER ( ) YES( ) NO_____ DATE____/____/____

CHAPTER COUNCIL DELEGATE ( ) YES( ) NO_____ DATE____/____/____

TECHNICAL REVIEWER (✓) YES( ) NO Katrina Sam DATE 10 / 2 / 23

APPROVED: Najam A. H. Tariq DATE 10 / 3 / 23
Branch Director, Department of Water Resources

# WELL RECORD

**Department of Water Resources (DWR)**
**Technical, Construction and Operations Branch (TCOB)**
**P.O. Box 678**
**Fort Defiance, Arizona 86504**

**WDP NO:** 23-104
REF WUP NO:
**WELL NO:**
**Page** _____ **of** _____

## LOCATION

7.5 min. quad name: _____ Quad no. _____ Grazing Dist. 13

State: New Mexico County: San Juan Chapter: Nenahneza

Approx. location: Navajo Mine

UTM Coordinates: X (East): 725401.00 Y (North): 4063187.00 Zone: 12s

## STRUCTURE

Date begun: 12 / 14 / 23 Date completed: 12 / 15 / 23 Date depth measured: 12 / 15 / 23

Elevation: 5362 ft. Total Depth: 40 ft. Hole Diameter(s): 10"

Casing Diameter: 6" in. From: 0 ft. to 30 ft. Material: Sch. 80 PVC blank
Casing Diameter: 6" in. From: 30 ft. to 40 ft. Material: Sch. 80 PVC 0.020 Slot Screen
Casing Diameter: _____ in. From: _____ ft. to _____ ft. Material: _____
Casing Diameter: _____ in. From: _____ ft. to _____ ft. Material: _____

Perforations [ ] Screen [ X ] (type: 0.020 slot screen) Open Hole [ ] From: _____ ft. to _____ ft.
Perforations [ ] Screen [ ] (type: _____) Open Hole [ ] From: _____ ft. to _____ ft.
Perforations [ ] Screen [ ] (type: _____) Open Hole [ ] From: _____ ft. to _____ ft.
Perforations [ ] Screen [ ] (type: _____) Open Hole [ ] From: _____ ft. to _____ ft.
Perforations [ ] Screen [ ] (type: _____) Open Hole [ ] From: _____ ft. to _____ ft.

Funded By: Arizona Public Service Company Contractor: Cascade Drilling

Site Improvements: Well Installation

Type of Lift: NA Energy Source: None Pump HP: None

## HYDROLOGY

Well Yield: NM gallons/minute (GPM) Date Yield Measured: / /

Test Type: NA Test rate: _____ GPM for _____ hours (Attach copy of well test data.)

Test Date: / / SWL at Beginning of Test: _____ ft. Total Drawdown: _____ ft.

Specific Capacity: NA GPM per ft. Recovery: _____ ft. after _____ hours.

Logs Available (attach copies): [ X ] Driller's [ ] Geophysical [ ] Other

Water Chemistry Analysis Available (attach copies): [ ] Yes [ X ] No

Static Water Level (SWL): 35 ft. Date: 12 / 15 / 23 SWL. _____ ft. Date: / /

# WELL RECORD

**Department of Water Resources (DWR)**
**Technical, Construction and Operations Branch (TCOB)**
**P.O. Box 678**
**Fort Defiance, Arizona 86504**

**WDP NO:** 23-104
REF WUP NO:_____
**WELL NO:**_____
**Page**_____ **of** ____

## LOG

**DEPTH (FT)**

| FROM | TO | FORMATION DESCRIPTION | GEOLOGIC UNIT | REMARKS |
|---|---|---|---|---|
| | | See Attached | | |
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Additional Comments:_____

_____

_____

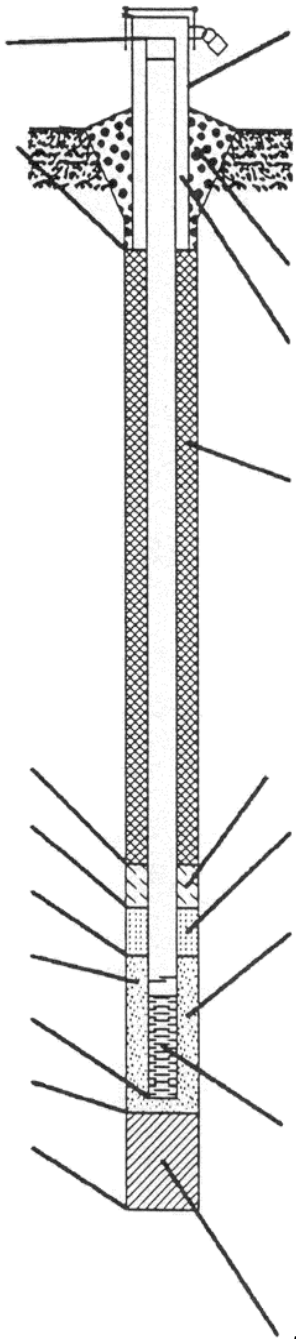
*Revised 9/96*

# Well Construction Report

**Job Name** WSP-APS Four Corners
**Job Number** 113-23-1192
**Location** Fruitland, NM
**Lat/Long**

**Well Name** 4th well
**Driller** Trevor Cain
**Helper**
**Date Started**
**Date Completed** 12/18/2023

**Type of Well:**
___ Water Table Observation
___ Piezometer
___ Other Monitor



**A. Height of Well Casing above ground**
0 ft.

**B. Diameter of Well Casing**
4 in.

**C. Surface Seal Bottom**
___ ft.

**D. Well Casing: Flush Threaded PVC**
___ Schedule 40
x Schedule 80
___ Other

**E. Borehole Diameter** 10 in.

**F. Bentonite Seal Top** 24 ft.

**G. Fine Sand Top** 26 ft.

**H. Filter Pack Top** 28 ft.

**I. Screen Joint Top** 30 ft.

**J. Well Bottom** 40 ft.

**K. Filter Pack Bottom** 41 ft.

**L. Borehole Bottom** 50 ft.

x ___

**2. Protective Cover:**
a. Inside diam. 12 in.
b. Length 1 ft.
c. Material
x Steel
___ Other
d. Bumper Post ___ qty
___ 3" ___ 4"

**3. Surface Seal:**
___ Bentonite # bags used ___
x Concrete # bags used ___
___ Other ___ # bags used ___

**4. Material between Casing and Protop:**
___ Bentonite # bags used ___
___ Other ___ # bags used ___

**5. Annular Space Seal:**
___ Granular Bentonite # bags used ___
___ Bentonite Slurry # bags used ___
x Cement-Bentonite Grout
___ Other # bags used ___
How Installed:
___ Gravity # bags used ___
___ Tremie Pumped # bags used 8

**6. Bentonite Seal:**
___ Granules # bags used ___
x Pellets # bags used 5

**7. Type of Fine Sand:** #60
# bags used 2

**8. Type of Filter Pack:** 12/20
# bags used 9

**9. Screen Material:**
Type: x Factory Cut
___ Continuous Slot
Slot Size: .020 in.
Length: 10 ft.

**10. Backfill Material: (Below filter pack)**
___ None
x Other Chips 41'-50'

*Cascade Drilling LP*
*7823 W. Golden Lane*
*Peoria, AZ 85345*
*Phone (623) 935-0124*

# APPENDIX

# D

## SWAB AND BAIL AND PUMP DEVELOPMENT LOGS

Page 1 of 1

# Swab and Bail Log

Well ID: VRS-5

| | |
|---|---|
| Project Name: FC DRILLING | Field Personnel: HI DRAGON |
| Project Number: 1470222030 | Development Contactor: CASCADE |
| Start Date and Time: 01/09/24 1619 | Static Water Depth: ~~30.66~~ 30.66 |
| Measuring Point (BTOC or BGS): BTOC | Stop Date and Time: 1706 01/09/24 |
| Initial Well Depth: ~~39.30~~ 39.30 | Top of Casing Relative to the Ground: ~~STICK UP~~ STICK UP |
| Well Diameter: | Final Well Depth: 39.35 |
| Number of Swab Disks: 1 | Swab Diameter: |
| Screen Length: 20 ft | Water Volume Bailed: 60 gal |

| Date | Activity | Time | Water Removed (gpm) | Cumulative Water Removed (gpm) | Sand Content (ml/L) | Description of Sand (size, color, ect) | Description of Water (Clarity, color, odor) | Notes |
|---|---|---|---|---|---|---|---|---|
| 01/09/24 | BAIL | 1618 | — | — | — | — | MURKY BROWN OPAQUE | 30.66=WL 39.30=TD START BAIL |
| | ↓ | 1620 | — | — | 500 | FINE GRAINED DARK BROWN | MURKY BROWN OPAQUE NO ODOR | |
| | ↓ | 1635 | 35 gal | ~~35~~ gal 35↗ | 500 | FINE GRAINED DARK BROWN | MURKY BROWN, OPAQUE NO ODOR | STOP BAIL WL=34.00 TD=39.35 |
| | SURGE | 1639 | | | | | | STARTING SURGE |
| | ↓ | 1656 | | | | | | STOP SURGE |
| | BAIL | 1657 | — | ~~35~~ gal | — | — | MURKY BROWN, OPAQUE | START BAIL |
| | | 1709 | — | | 500 | FINE GRAINED DARK BROWN | MURKY BROWN, OPAQUE | |
| | | 1706 | 25 gal | 60 gal | ~~500~~ | ~~none~~ | | STOP BAIL TD=39.35 32.33=WL |
| | | | | | | | | |
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Page 1 of 2

# Pump Development

Well ID: URS-5

| | |
|---|---|
| Project Name: FC DRILLING | Field Personnel: H DRAGON |
| Project Number: 1920222030 | Development Contactor: CASCADE DRILLING |
| Start Date and Time: 01/05/24 0757 | Static Water Depth: 30.66 |
| Measuring Point (BTOC or BGS): BTOC | Stop Date and Time: 01/05/24 1052 |
| Initial Well Depth: ~~30.1800~~ 39.35 | Top of Casing Relative to the Ground: |
| Well Diameter: | Final Well Depth: 39.3 |
| Pump Type: 12 VOLT MEGA MONSOON | Screen Length: 20 ft |
| Total Volume Water Removed: 515 gal | Specific Capacity of Max Drawdown (gpm/ft) |

| Date | Activity | Pump Intake Depth | Time | Flow (gpm) | Cumulative Flow (gpm) | Water Level | Sand Content (ml/L) | Temp. (°C) | pH | EC (us/cm) | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~~no~~ ~~1/4/24~~ | ~~[illegible]~~ | ~~35.50~~ | | | | | | | | | | ~~SLIGHTLY BROWN & SLIGHTLY CLOUDY~~ |
| 01/05/24 | PUMP ON | 38.3 | 07:57 | 2 | | 30.57 | — | — | — | — | — | PUMP ON TD = 39.35 |
| | PUMP | | 0810 | 2 | | 30.59 | 1.5 | 16.80 | 8.20 | 7150 | 11.8 | BROWN & CLOUDY |
| | | | 0820 | 2 | | 30.62 | 1.5 | 16.51 | 8.33 | 11649 | 234 | ↓ |
| | | | 0821 | — | | — | — | — | — | — | — | PUMP SHUT OFF CASCADE FIXING NOW |
| | PUMP ON | | 0838 | — | | — | — | — | — | — | — | NEW PUMP INSTALLED FOR TEST |
| | | | 0840 | 3 | | 32.06 | 1.7 | 16.01 | 8.75 | 11741 | 7860 | BROWN & CLOUDY |
| | | | 0850 | 3 | | 32.70 | 1.3 | 16.68 | 8.98 | 11593 | 158 | ↓ |
| | | | 0900 | 3 | | 32.81 | 0.5 | 17.29 | 9.06 | 11835 | 69.5 | BROWN & SLIGHTLY CLOUDY |
| | | | 0910 | 3 | | 32.90 | 0 | 16.86 | 9.17 | 11588 | 42.9 | ↓ |
| | | | 0920 | 3 | | 32.92 | 0 | 17.13 | 9.01 | 11777 | 16.9 | ↓ |
| | | | 0930 | 3 | | 33.00 | 0 | 16.90 | 9.60 | 11793 | 8.79 | SLIGHTLY TINTED YELLOW |
| | | | 0940 | 3 | | 33.10 | 0 | 17.03 | 9.68 | 11776 | 11.2 | ↓ |
| | | | 0950 | 3 | | 33.10 | 0 | 17.01 | 9.14 | 11973 | 7.29 | ↓ |
| | | | 1000 | 3 | | 33.15 | 0 | 17.06 | 9.31 | 11867 | 6.63 | ↓ |
| | | | 1010 | 3 | | 33.20 | 0 | 17.15 | 9.39 | 11184 | 4.16 | ↓ |
| | | | 1020 | 3 | | 33.25 | 0 | 17.17 | 9.31 | 11732 | 3.45 | ↓ |
| | | | 1030 | 3 | | 33.25 | 0 | 17.00 | 9.25 | 11857 | 3.16 | ↓ |
| ↓ | ↓ | ↓ | 1040 | 3 | | 33.25 | 0 | 17.05 | 9.28 | 11891 | 3.75 | ↓ |

| Date | Activity | Pump Intake Depth | Time | Flow (gpm) | Cumulative Flow (gpm) | Water Level | Sand Content (ml/L) | Temp. (°C) | pH | EC (us/cm) | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01/05/22 | PUMP OFF | 30.3 | 1042 | | | 32.81 | | | | | | PULLED PUMP TD = 39.30 |
| " | RECHARGE | | 1047 | | | 31.60 | | | | | | |
| " | " | | 1052 | | | 30.13 | | | | | | FAST RECHARGE |

Page ____ of ____

# Swab and Bail Log

Well ID: VRS-Q

| | |
|---|---|
| Project Name: FC DRILLING | Field Personnel: H. DRAGON |
| Project Number: 14.20222030 | Development Contactor: CASCADE |
| Start Date and Time: 01/09/24 0900 | Static Water Depth: 31.10 |
| Measuring Point (BTOC or BGS): BTOC | Stop Date and Time: 01/09/23 1013 |
| Initial Well Depth: 46.65 | Top of Casing Relative to the Ground: 3ft |
| Well Diameter: | Final Well Depth: 46.05 |
| Number of Swab Disks: 1 | Swab Diameter: |
| Screen Length: 10 ft | Water Volume Bailed: 55 gal |

| Date | Activity | Time | Water Removed (gpm) | Cumulative Water Removed (gpm) | Sand Content (ml/L) | Description of Sand (size, color, ect) | Description of Water (Clarity, color, odor) | Notes |
|---|---|---|---|---|---|---|---|---|
| 01/09/24 | BAIL | 0900 | 45gal | 45gal | – | – | BROWN, opaque, NO ODOR | WL=31.10 TD=46.65 |
| | SURGE | 0925 | – | – | – | – | – | STOP BAIL START SURGE TD=46.65 WL=38.60 |
| | BAIL | 0955 | | | – | – | BROWN, NOT AS OPAQUE BUT STILL OPAQUE | START BAIL |
| | | 1013 | 10gal | 55gal | 200 | LIGHT BROWN FINE GRAIN | BROWN, OPAQUE | STOP BAIL WL= 31.32 ft BTOC |

CREW BAILED & EMPTYED BARREL BEFORE I COULD COLLECT SAND.

Page 1 of 2

# Pump Development

Well ID: URS-6

| | |
|---|---|
| Project Name: FC DRILLING | Field Personnel: H. DRAGON |
| Project Number: 142022030 | Development Contactor: CASCADE |
| Start Date and Time: 01/09/23 1016 | Static Water Depth: 31.10 |
| Measuring Point (BTOC or BGS): BTOC | Stop Date and Time: 1607 01/09/23 |
| Initial Well Depth: 96.05 | Top of Casing Relative to the Ground: 3FT |
| Well Diameter: | Final Well Depth: 96.05 |
| Pump Type: 12 VOLT MEGA MONSOON | Screen Length: 10FT |
| Total Volume Water Removed: 654 gal | Specific Capacity of Max Drawdown (gpm/ft) |

| Date | Activity | Pump Intake Depth | Time | Flow (gpm) | Cumulative Flow (gpm) | Water Level | Sand Content (ml/L) | Temp. (°C) | pH | EC (us/cm) | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01/09/23 | PUMP ON | 45.50 | 1016 | 1.25 | | 31.32 | 150 | 15.10 | 8.21 | 9919 | TO LIGHT FOR METER | WATER BROWN & OPAQUE TD=96.05 |
| | PUMPING | | 1026 | 1.25 | | 32.35 | 75 | 15.53 | 8.23 | 12290 | ↓ | WATER LIGHT BROWN VERY CLOUDY |
| | | | 1036 | 1.25 | | 32.30 | 50 | 15.68 | 8.42 | 12293 | 1008 | BROWN & CLOUDY |
| | | | 1046 | 1.25 | | 32.39 | 27 | 13.69 | 8.50 | 12884 | 607 | BROWN & CLOUDY |
| | | | 1056 | 1.25 | | 32.40 | 1 | 16.03 | 8.69 | 12411 | 263 | BROWN & CLOUDY |
| | | | 11:06 | 1.25 | | 32.42 | 0.3 | 15.41 | 8.67 | 12401 | 69.5 | BROWN & CLOUDY |
| | | | 1116 | 1.25 | | 32.42 | 0.1 | 14.90 | 8.74 | 12617 | 77.6 | BROWN & SLIGHTLY CLOUDY |
| | | | 1126 | 1.25 | | 32.43 | 0.05 | 13.16 | 8.74 | 12800 | 39.5 | BROWN & VERY SLIGHTLY CLOUDY |
| | | | 1136 | 1.25 | | 32.41 | 0 | 15.97 | 8.75 | 12615 | 26.3 | BROWN & VERY SLIGHTLY SLIGHTLY CLOUDY |
| | | | 1146 | 1.25 | | 32.37 | 0 | 16.25 | 8.75 | 12422 | 21.4 | SLIGHTLY BROWN & VERY SLIGHTLY CLOUDY |
| | | | 1151 | 2 | | 32.58 | 0 | | 8 | | | CHANGED FLOW RATE TO 2 GPM |
| | | | 1156 | 2 | | 32.71 | 0 | 16.21 | 8.71 | 12480 | 69.6 | SLIGHTLY BROWN & CLOUDY |
| | | | 1206 | 2 | | 32.75 | 0 | 15.85 | 8.72 | 12526 | 91.0 | ↓ |
| | | | 1216 | 2 | | 32.82 | 0 | 16.15 | 8.87 | 12418 | 76.1 | ↓ |
| | | | 1226 | 2 | | 33.15 | 0 | 16.21 | 8.88 | 12497 | 112 | ↓ |
| | | | 1236 | 2 | | 33.25 | 0 | 16.21 | 8.91 | 12400 | 83.9 | ↓ |
| | | | 1246 | 2 | | 33.31 | 0 | 16.21 | 9.06 | 12415 | 65.9 | ↓ |
| | | | 1256 | 2 | | 33.33 | 0 | 16.50 | 8.99 | 12291 | 38.7 | SLIGHTLY BROWN & VERY SLIGHTLY CLOUDY |
| | | | 1306 | 2 | | 33.47 | 0 | 16.48 | 9.12 | 12495 | 54.0 | ↓ |

| Date | Activity | Pump Intake Depth | Time | Flow (gpm) | Cumulative Flow (gpm) | Water Level | Sand Content (ml/L) | Temp. (°C) | pH | EC (us/cm) | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01/09/24 | PUMP | 45.50 | 1316 | 2 | | 33.99 | 0 | 16.14 | 9.13 | 12533 | 43.4 | SLIGHTLY BROWN & VERY SLIGHTLY CLOUDY |
| | | | 1326 | 2 | | 33.61 | | 15.93 | 9.06 | 12519 | 51.9 | ↓ |
| | | | 1336 | 2 | | 33.80 | | 17.17 | 9.26 | 12316 | 61.7 | ↓ |
| | | | 1346 | 2 | | 33.86 | | 16.96 | 9.28 | 12481 | 46.9 | ↓ |
| | | | 1356 | 2 | | 33.87 | | 16.90 | 9.66 | 12567 | 22.9 | ↓ |
| | | | 1406 | | | | | | | | | PUMP STOPPED... CASCADE CHECKING BREAKER |
| | | | 1407 | 2 | | 32.61 | 0 | 16.15 | 9.58 | 12497 | 17.3 | PUMP ON. WATER TINTED BROWN & SLIGHTLY CLOUDY |
| | | | 1417 | 1 | | 32.54 | | 15.88 | 9.23 | 12336 | 10.55 | PUMP CLOSE TO BURNING OUT FLOW RATE SLOWED |
| | | | 1426 | 1.5 | | 32.60 | | 16.13 | 9.30 | 7960 | 5.36 | SLIGHTLY YELLOW (TINTED) |
| | | | 1436 | 1.5 | | 32.93 | | 15.89 | 9.21 | 12376 | 6.55 | ↓ |
| | | | 1446 | 1.5 | | 32.89 | | 16.47 | 9.22 | 12448 | 9.78 | ↓ |
| | | | 1456 | 1.5 | | 32.93 | | 16.63 | 9.15 | 12396 | 3.67 | ↓ |
| | | | 1506 | 2.5 | | 34.27 | | 16.28 | 9.21 | 12298 | 101 | INCREASED FLOW RATE |
| | | | 1512 | 1.5 | | 33.72 | | | | | | DECREASED FLOW RATE. DRAWING DOWN A LOT |
| | | | 1516 | 1.5 | | 33.60 | | 15.98 | 9.18 | 12190 | 69.1 | SLIGHTLY CLOUDY & YELLOW |
| | | | 1526 | 1.5 | | 33.48 | | 16.36 | 9.26 | 12306 | 26.9 | ↓ |
| | | | 1536 | 1.5 | | 33.27 | | 16.22 | 9.21 | 12486 | 9.37 | SLIGHTLY TINTED YELLOW |
| | | | 1546 | 1.5 | | 32.98 | | 16.02 | 9.22 | 12468 | 5.00 | SLIGHTLY TINTED YELLOW |
| | | | 1556 | 1.5 | | 32.61 | | 16.15 | 9.21 | 12493 | 3.23 | ↓ |
| | | | 16006 | 1.5 | | 32.48 | | 16.40 | 9.20 | 12223 | 2.78 | ↓ |
| | PUMP OFF | | 1607 | 1.5 | | 32.31 | | | | | | PUMP OFF |
| | | | | | | | | | | | | |
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Page 1 of 3

# Swab and Bail Log

Well ID: URS-7

| | |
|---|---|
| Project Name: FC DRILLING | Field Personnel: H. DRAGON |
| Project Number: 14202222030 | Development Contactor: CASCADE DRILLING |
| Start Date and Time: 1140 01/05/24 | Static Water Depth: ~~BTOC~~ 39.80 |
| Measuring Point (BTOC or BGS): BTOC | Stop Date and Time: 01/05/24 1457 |
| Initial Well Depth: ~~BTOC~~ 52.8 | Top of Casing Relative to the Ground: 3FT |
| Well Diameter: 6 IN | Final Well Depth: 52.80 |
| Number of Swab Disks: 1 | Swab Diameter: |
| Screen Length: 10 ft | Water Volume Bailed: 63 gal |

| Date | Activity | Time | Water Removed ~~(gpm)~~ | Cumulative Water Removed ~~(gpm)~~ | Sand Content (ml/L) | Description of Sand (size, color, ect) | Description of Water (Clarity, color, odor) | Notes |
|---|---|---|---|---|---|---|---|---|
| 01/05/24 | BAIL | 1140 | – | – | – | – | – | WL = 39.80 TD = 52.8 |
| | | 1149 | | | | | | START BAIL |
| | | 1152 | | | 850 | DARK BROWN, FINE GRAINED | MURKY BROWN, NO ODOR | WA |
| | BAIL STOP | 1213 | 28 gal | 28 gal | | | | WL = 52.00 TD: 52.95 BAIL STOP, WELL DRY |
| | ~~SURGE~~ | ~~1~~ | | | | | | |
| | RECHARGE | 1218 | | | | | | WL = 49.82 |
| | | 1223 | | | | | | WL = 48.20 |
| | | 1229 | | | | | | WL = 47.80 |
| | | 1242 | | | | | | WL = 46.40 |
| | | 1243 | | | | | | WL = 45.88 |
| | | 1249 | | | | | | WL = 45.64 |
| | | 1295 | | | | | | WL = 45.70 |
| | | 1296 | | | | | | WL = 45.58 |
| | | 1297 | | | | | | WL = 45.45 |
| | | 1298 | | | | | | WL = 45.34 |
| | | 1299 | | | | | | WL = 45.21 |
| | | 1250 | | | | | | WL = 45.11 |
| | | 1251 | | | | | | WL = 44.98 |
| | | 1252 | | | | | | WL = 44.81 |

VPS-7

| Date | Activity | Time | Water Removed (gpm) | Cumulative Water Removed (gpm) | Sand Content (ml/L) | Description of Sand (size, color, ect) | Description of Water (Clarity, color, odor) | Notes |
|---|---|---|---|---|---|---|---|---|
| 01/05/24 | RECHARGE | 1255 | | | | | | |
| | ↓ | 1300 | | | | | | WL=49.65 |
| | | 1305 | | | | | | WL=45.35 |
| | ↓ | 1310 | | | | | | WL=44.70 |
| | SURGE | 1315 | | | | | | WL=43.26 |
| | ↓ | 1341 | | | | | | START SURGE |
| | BAIL | 1343 | | | | | | STOP SURGE |
| | STOP BAIL | 1355 | 35 | 63gal | | BROWN & FINE GRAINED | MUCKY & BROWN NO ODOR | START BAIL WL=40.95 |
| | RECHARGE | 1410 | | | | | | WL=50.20 TD=52.95 STOP BAIL |
| | | 1412 | | | | | | WL=44.0 |
| | | 1414 | | | | | | WL=43.45 |
| | | 1416 | | | | | | WL=42.91 |
| | | 1418 | | | | | | WL=42.60 |
| | | 1420 | | | | | | WL=42.41 |
| | | 1422 | | | | | | WL=42.15 |
| | | 1424 | | | | | | WL=41.92 |
| | | 1426 | | | | | | WL=41.64 |
| | | 1428 | | | | | | WL=41.52 |
| | | 1430 | | | | | | WL=41.36 |
| | | 1432 | | | | | | WL=41.17 |
| | | 1434 | | | | | | WL=41.05 |
| | | 1436 | | | | | | WL=40.95 |
| | | 1438 | | | | | | WL=40.85 |
| | | 1440 | | | | | | WL=40.74 |
| | | | | | | | | WL=40.65 |

VAS-7

| Date | Activity | Time | Water Removed (gpm) | Cumulative Water Removed (gpm) | Sand Content (ml/L) | Description of Sand (size, color, ect) | Description of Water (Clarity, color, odor) | Notes |
|---|---|---|---|---|---|---|---|---|
| 01/05/24 | RECHARGE | 1442 | | | | | | WL=40.60 |
| | | 1444 | | | | | | WL=40.53 |
| | | 1446 | | | | | | WL=40.46 |
| | | 1448 | | | | | | WL=40.41 |
| | | 1450 | | | | | | WL=40.30 |
| | | 1457 | | | | | | WL=40.24 |
| | | ~~1458~~ | | | | | | |

Page ____ of ____

# Pump Development

Well ID: UPS-7

| | |
|---|---|
| Project Name: FC DRILLING | Field Personnel: H. DRAGON |
| Project Number: 1470272030 | Development Contactor: CASCADE DRILLING |
| Start Date and Time: 01/05/24 1457 | Static Water Depth: 35.32 |
| Measuring Point (BTOC or BGS): BTOC | Stop Date and Time: 01/06/24 1037 |
| Initial Well Depth: 52.8 | Top of Casing Relative to the Ground: 3 ft |
| Well Diameter: 6in | Final Well Depth: 52.8 |
| Pump Type: | Screen Length: 10 ft |
| Total Volume Water Removed: 283 gal | Specific Capacity of Max Drawdown (gpm/ft) |

| Date | Activity | Pump Intake Depth | Time | Flow (gpm) | Cumulative Flow (gpm) | Water Level | Sand Content (ml/L) | Temp. (°C) | pH | EC (us/cm) | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01/05/24 | PUMP | 52.8 | 1457 | 0.3 | | 40.24 | – | – | – | – | – | |
| | | | 1505 | 0.3 | | 42.30 | 0.5 | 15.30 | 9.16 | 10683 | 706 | LIGHT BROWN & CLOUDY |
| | | | 1515 | 0.3 | | 42.50 | 0.1 | 15.61 | 9.15 | 10952 | 305 | ↓ |
| | | | 1520 | 0.3 | | 42.71 | 0 | 16.41 | 8.83 | 10617 | 197 | ↓ |
| | | | 1525 | 0.3 | | 42.84 | 0 | 16.15 | 8.96 | 10629 | 184 | SLIGHTLY TINTED YELLOW & CLOUDY |
| | | | 1535 | 0.3 | | 43.10 | | 15.86 | 9.00 | 10497 | 161 | ↓ |
| | | | 1540 | 0.3 | | 43.05 | | 15.90 | 8.92 | 10715 | 142 | ↓ |
| | | | 1545 | 0.3 | | 43.03 | | 15.92 | 9.16 | 10667 | 139 | ↓ |
| | | | 1548 | | | | | | | | | CHANGING FLOW RATE |
| | | | 1550 | 0.75 | | 43.62 | | | | | | INCREASED |
| | | | 1600 | 0.75 | | 44.90 | | 15.69 | 9.44 | 10666 | 69.0 | SLIGHTLY TINTED YELLOW & CLOUDY |
| | | | 1610 | 0.75 | | 44.57 | | 16.29 | 9.41 | 10505 | 256 | ↓ |
| | | | 1620 | 0.75 | | 44.65 | | 16.09 | 9.28 | 10707 | 317 | WATER IS SLIGHTLY BROWN & CLOUDY |
| | | | 1643 | 0.75 | | 45.35 | | 14.27 | 9.31 | 10936 | 203 | ↓ |
| | | | 1695 | 3 | | 49.62 | | | | | | INCREASED PUMP RATE |
| | | | 1696 | 2 | | 51.80 | | | | | | DECREASED RATE |
| | | | 1698 | 1 | | 51.93 | | | | | | DECREASED RATE |
| | | | 1650 | 0.3 | | DRY | | | | | | DECREASED RATE DRY |
| | | | 1700 | 0.3 | | 51.79 | | 15.38 | 9.41 | 10316 | 800 | DARKER BROWN/ CLOUDY |

VRS-7

| Date | Activity | Pump Intake Depth | Time | Flow (gpm) | Cumulative Flow (gpm) | Water Level | Sand Content (ml/L) | Temp. (°C) | pH | EC (us/cm) | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/5/24 | PUMP | 52.55 | 1705 | 0.3 | | 51.89 | 0 | 14.66 | 9.50 | 10897 | 150 | CLOUDY & BROWN |
| | | | 1710 | 0.3 | | 51.96 | 0 | 14.26 | 9.49 | 10697 | 135 | ↓ |
| | | | 1715 | 0.3 | | 52.15 | 0 | 15.72 | 9.62 | 10701 | 130 | ↓ |
| | | | 1720 | 0.3 | | 52.32 | 0 | 15.38 | 9.71 | 10686 | 120 | ↓ |
| | PUMP OFF | | 1721 | | | 52.55 | | | | | | DRY |
| | | | | | | | | | | | | |
| 01/06/24 | | 52.55 | 0751 | | | 39.96 | | | | | | IWL = 39.96 |
| | PUMP ON | | 0752 | 1 | | 41.00 | 0 | 15.40 | 9.69 | 10667 | 16 | SLIGHTLY TINTED YELLOW; PUMP ON |
| | | | 0800 | 1 | | 43.39 | 0 | 15.39 | 9.40 | 10740 | 15 | ↓ |
| | | | 0805 | 1 | | 43.77 | 0 | 16.65 | 9.45 | 10509 | 25 | ↓ |
| | | | 0810 | 1 | | 45.35 | 0 | 15.73 | 9.77 | 10757 | 60 | ↓ |
| | | | 0811 | 0.75 | | | | | | | | DECREASED RATE |
| | | | 0815 | 0.75 | | 45.74 | 0 | 15.93 | 9.73 | 10876 | 450 | VERY CLOUDY & YELLOW |
| | | | 0820 | 0.75 | | 45.95 | 0 | 15.59 | 9.77 | 10658 | 550 | ↓ |
| | | | 0825 | 0.75 | | 46.05 | 0 | 15.47 | 9.72 | 10829 | 480 | ↓ |
| | | | 0830 | 0.75 | | 46.14 | 0 | 15.98 | 9.71 | 10718 | 310 | ↓ |
| | | | 0840 | 0.75 | | 46.16 | 0 | 15.73 | 9.45 | 10774 | 150 | ↓ |
| | | | 0850 | 0.75 | | 46.20 | 0 | 15.59 | 9.26 | 10899 | 95 | SLIGHTLY YELLOW & SLIGHTLY CLOUDY |
| | | | 0900 | 0.75 | | 46.16 | 0 | 16.19 | 9.29 | 10696 | 340 | CLOUDY & YELLOW-BROWN |
| | | | 0910 | 0.75 | | 46.09 | 0 | 15.55 | 9.37 | 10708 | 800+ | ~~800~~ ↓ ERROR MESSAGE ON METER |
| | | | 0920 | 0.75 | | 46.12 | 0 | 15.28 | 9.73 | 10856 | 130 | SLIGHTLY YELLOW & CLOUDY |
| | | | 0930 | 0.75 | | 46.00 | 0 | 15.81 | 9.36 | 10673 | 85 | ↓ |
| | | | 1000 | 0.75 | | 45.65 | 0 | 15.26 | 9.21 | 10973 | 36 | ↓ |
| | | | 1005 | 0.75 | | 45.72 | | 15.78 | 9.45 | 10822 | 31 | ↓ |

UBS-7

| Date | Activity | Pump Intake Depth | Time | Flow (gpm) | Cumulative Flow (gpm) | Water Level | Sand Content (ml/L) | Temp. (°C) | pH | EC (us/cm) | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9/6/25 | PUMP ON | 52.55 | 1010 | 0.75 | | 45.72 | 0 | 16.05 | 9.78 | 10763 | 36 | SLIGHTLY CLOUDY & YELLOW |
| ↓ | ↓ | ↓ | 1015 | 0.75 | | 45.54 | 0 | 14.97 | 9.40 | 10750 | 32 | ↓ |
| | | | 1020 | 0.75 | | 45.55 | 0 | 14.69 | 9.61 | 10901 | 31 | ↓ |
| | | | 1025 | 0.75 | | 45.56 | 0 | 15.13 | 9.75 | 10750 | 31 | ↓ |
| | ↓ | | 1030 | 0.75 | | 45.56 | 0 | 15.24 | 9.63 | 10760 | 28 | ↓ |
| ↓ | PUMP OFF | ↓ | 1037 | — | — | 52.55 | — | — | — | — | — | PUMP OFF / PURGED DRY IT |

Page 1 of 1

# Swab and Bail Log

Well ID: URS-8

| | |
|---|---|
| Project Name: FC DRILLING | Field Personnel: H. DRAGON |
| Project Number: 1920222030 | Development Contactor: CASCADE DRILLING |
| Start Date and Time: 01/05/24 1050 | Static Water Depth: 35.32 |
| Measuring Point (BTOC or BGS): BTOC | Stop Date and Time: 01/05/24 1132 |
| Initial Well Depth: 39.55 | Top of Casing Relative to the Ground: ~~0.5~~ 0.3 ft bgs |
| Well Diameter: | Final Well Depth: 39.50 |
| Number of Swab Disks: 1 | Swab Diameter: |
| Screen Length: 20 ft | Water Volume Bailed: 18 gal |

| Date | Activity | Time | Water Removed ~~(gpm)~~ | Cumulative Water Removed ~~(gpm)~~ | Sand Content (ml/L) | Description of Sand (size, color, ect) | Description of Water (Clarity, color, odor) | Notes |
|---|---|---|---|---|---|---|---|---|
| 01/05/24 | BAIL | 1050 | — | — | — | — | — | WL=35.32 START TD=39.55 BAIL |
| | | 1055 | | | 800 | FINE GRAINED BROWN | WATER IS BROWN & OPAQUE, MURKY | WATER HAS A SLIGHT SHEEN TO IT |
| | STOP | 1057 | 10 gal | 10 gal | 800 | ↓ | ↓ | STOP BAIL, WELL DRY |
| | RECHARGE | 1100 | | | | | | |
| | | 1105 | | | | | | WL=38.90 |
| | | 1110 | | | | | | WL=38.05 |
| | | 1115 | | | | | | WL=37.78 |
| | | 1120 | | | | | | WL=37.55 |
| | | 1125 | | | | | | WL=37.38 |
| | | 1129 | | | | | | WL=37.13 |
| | BAIL | 1129 | | | | | | WL=37.00 |
| | | 1131 | | | 650 | FINE GRAINED, BROWN | BROWN, OPAQUE, MURKY | START BAIL |
| | STOP | 1132 | 8 gal | 18 gal | ~~650~~ | | | STOP BAIL, WELL DRY |

WELL IS DRYING OUT TO FAST. CASCADE IS GOING TO PUT A PUMP IN INSTEAD OF CONTINUING TO BAIL & WAIT. WE WILL LET THE WELL RECHARGE AND TURN THE PUMP ON EVERY HOUR OR SO TO PUMP IT DRY AND GET MATERIAL MOVING

Page 1 of ____

# Pump Development

Well ID: URS-8

| | |
|---|---|
| Project Name: FC DRILLING | Field Personnel: H. DRAGON |
| Project Number: 1472022030 | Development Contactor: CASCADE DRILLING |
| Start Date and Time: 01/05/24 1150 | Static Water Depth: 35.32 |
| Measuring Point (BTOC or BGS): BTOC | Stop Date and Time: 01/05/24 1656 |
| Initial Well Depth: 39.55 | Top of Casing Relative to the Ground: |
| Well Diameter: | Final Well Depth: 39.55 |
| Pump Type: | Screen Length: 20 ft |
| Total Volume Water Removed: 43gal | Specific Capacity of Max Drawdown (gpm/ft) |

| Date | Activity | Pump Intake Depth | Time | Flow (gpm) | Cumulative Flow (gpm) | Water Level | Sand Content (ml/L) | Temp. (°C) | pH | EC (us/cm) | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01/05/24 | PUMP ON | 39.55 | 1150 | | | | | | | | | |
| | PUMP OFF | | 1152 | 1 gal | 1 gal | 39.55 | | | | | | DRY |
| | PUMP ON | | 1211 | | | | | | | | | |
| | PUMP OFF | | 1215 | 1 gal | 2 gal | 39.55 | | | | | | DRY |
| | PUMP ON | | 1226 | | | | | | | | | |
| | PUMP OFF | | 1228 | 1 ~~2~~ gal | 3 ~~4~~ gal | 39.55 | | | | | | DRY |
| | RECHARGE | | 1320 | | | 37.85 | | | | | | |
| | | | 1330 | | | 37.01 | | | | | | |
| | | | 1332 | | | 36.96 | | | | | | |
| | | | 1333 | | | 36.90 | | | | | | |
| | | | 1334 | | | 36.85 | | | | | | |
| | | | 1335 | | | 36.79 | | | | | | |
| | | | 1336 | | | 36.68 | | | | | | |
| | | | 1337 | | | 36.61 | | | | | | |
| | | | 1338 | | | 36.55 | | | | | | |
| | | | 1339 | | | 36.49 | | | | | | |
| | | | 1340 | | | 36.44 | | | | | | |
| | PUMP ON | | 1343 | | | 36.39 | | 11.15 | 9.27 | 11251 | 800+ | VERY CLOUDY & MURKY BROWN |
| | PUMP OFF | | 1348 | 5 | 8 | 38.85 | | | | | | |

VBS-9

| Date | Activity | Pump Intake Depth | Time | GAL REMOVED ~~Flow (gpm)~~ | Cumulative gal REMOVED ~~Flow (gpm)~~ | Water Level | Sand Content (ml/L) | Temp. (°C) | pH | EC (us/cm) | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01/05/24 | PUMP ON | 39.55 | 1404 | | | 37.69 | 50 | 17.65 | 9.16 | 10935 | 800+ | WOULD NOT REGISTAR IN METER. WATER VERY CLOUDY/opaque |
| | PUMP OFF | | 1407 | 5 | 13 | 39.01 | | | | | | |
| | RECHARGE | | 1411 | | | 37.90 | | | | | | |
| | | | 1413 | | | 37.47 | | | | | | |
| | | | 1415 | | | 37.25 | | | | | | |
| | | | 1417 | | | 37.10 | | | | | | |
| | | | 1419 | | | 36.95 | | | | | | |
| | | | 1421 | | | 36.80 | | | | | | |
| | | | 1423 | | | 36.65 | | | | | | |
| | | | 1425 | | | 36.51 | | | | | | |
| | | | 1427 | | | 36.45 | | | | | | |
| | | | 1429 | | | 36.35 | | | | | | |
| | | | 1431 | | | 36.27 | | | | | | |
| | | | 1435 | | | 36.22 | | | | | | |
| | | | 1437 | | | 36.19 | | | | | | |
| | | | 1439 | | | 36.07 | | | | | | |
| | | | 1441 | | | 36.05 | | | | | | |
| | | | 1443 | | | 36.00 | | | | | | |
| | | | 1445 | | | 35.95 | | | | | | |
| | | | 1447 | | | 35.90 | | | | | | |
| | | | 1449 | | | 35.87 | | | | | | |
| | | | 1451 | | | 35.84 | | | | | | |
| | PUMP ON | | 1453 | | | 37.00 | 0 | 16.70 | 9.12 | 11030 | 288 | BROWN & CLOUDY |
| | PUMP OFF | | 1454 | 5 | 18 | 37.50 | | | | | | |

VRS-8

| Date | Activity | Pump Intake Depth | Time | ~~Flow (gpm)~~ | Cumulative ~~Flow (gpm)~~ | Water Level | Sand Content (ml/L) | Temp. (°C) | pH | EC (us/cm) | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01/05/24 | PUMP ON | 39.55 | 1455 | | | | | | | | | |
| | PUMP OFF | | 14570 | 5 | ~~23~~ | 39.55 | | | | | | |
| | RECHARGE | | 1459 | | | 39.75 | | | | | | |
| | PUMP ON | | 1509 | 5 | 28 | 37.89 | 0.1 | 17.59 | 9.25 | 11145 | 396 | WATER IS BROWN & VERY CLOUDY |
| | PUMP OFF | | 1510 | | | 39.55 | | | | | | DRY |
| | PUMP ON | | 1528 | | | | | | | | | |
| | PUMP OFF | | 1532 | 5 | ~~33~~ | 39.72 | | | | | | |
| | RECHARGE | | 1540 | | | 38.49 | | | | | | |
| | | | 1545 | | | 37.10 | | | | | | |
| | PUMP ON | | 1550 | | | 37.05 | | | | | | |
| | PUMP OFF | | 1557 | 5 | 38 | 39.55 | 0.2 | 16.62 | 9.47 | 11129 | 800+ | DRY |
| | RECHARGE | | 1601 | | | 37.70 | | | | | | |
| | PUMP ON | | 1650 | | | | | | | | | |
| | PUMP OFF | | 1656 | 5 | 48 gal | 39.55 | | | | | | PULLING PUMP DRY |
| | | | | | | | | | | | | |
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# URS-05, URS-06, URS-07, AND URS-08 WELL COMPLETION REPORT ADDENDUM 1

## FOUR CORNERS POWER PLANT

## ARIZONA PUBLIC SERVICE COMPANY

FOUR CORNERS POWER PLANT
FRUITLAND, NEW MEXICO

PROJECT NO.: 1420222030
DATE: APRIL 05, 2024

WSP USA ENVIRONMENT & INFRASTRUCTURE INC.
4600 E WASHINGTON STREET SUITE 600
PHOENIX, AZ 85034

T: 602-733-6000

WSP.COM

# CERTIFICATION STATEMENT

I, Rebecca A. Weaver, as a qualified groundwater scientist and professional engineer have reviewed this report titled URS-05, URS-06, URS-07, and URS-08 Well Completion Report Addendum 1, Four Corners Power Plant, Fruitland, New Mexico, Project # 14-2018-2030 dated April 5, 2024. I certify that the groundwater monitoring system components that are documented in this report have been designed and constructed for the Arizona Public Service Company Four Corners Power Plant as required for compliance with coal combustion residuals (CCR) groundwater monitoring and corrective action requirements detailed in 40 Code of Federal Regulations (CFR) Part 257.




Signed:

Dated: April 5, 2024

## TABLES


| | |
|---|---|
| TABLE 1 | GROUNDWATER INFILTRATION RATE MONITORING SUMMARY |
| TABLE 2 | WELL CONSTRUCTION SUMMARY |
| TABLE 3 | WELL DEVELOPMENT SUMMARY |


## FIGURES


| | |
|---|---|
| FIGURE 1 | SITE LOCATION MAP |
| FIGURE 2 | URS WELL INSTALLATION SITE MAP (REVISED APRIL 3, 2024) |
| FIGURE 3 | COMPARISON OF URS WELL LOCATIONS TO NOVEMBER 2023 FLUORIDE ISO-CONCENTRATION CONTOURS (REVISED APRIL 3, 2024) |


## APPENDICES

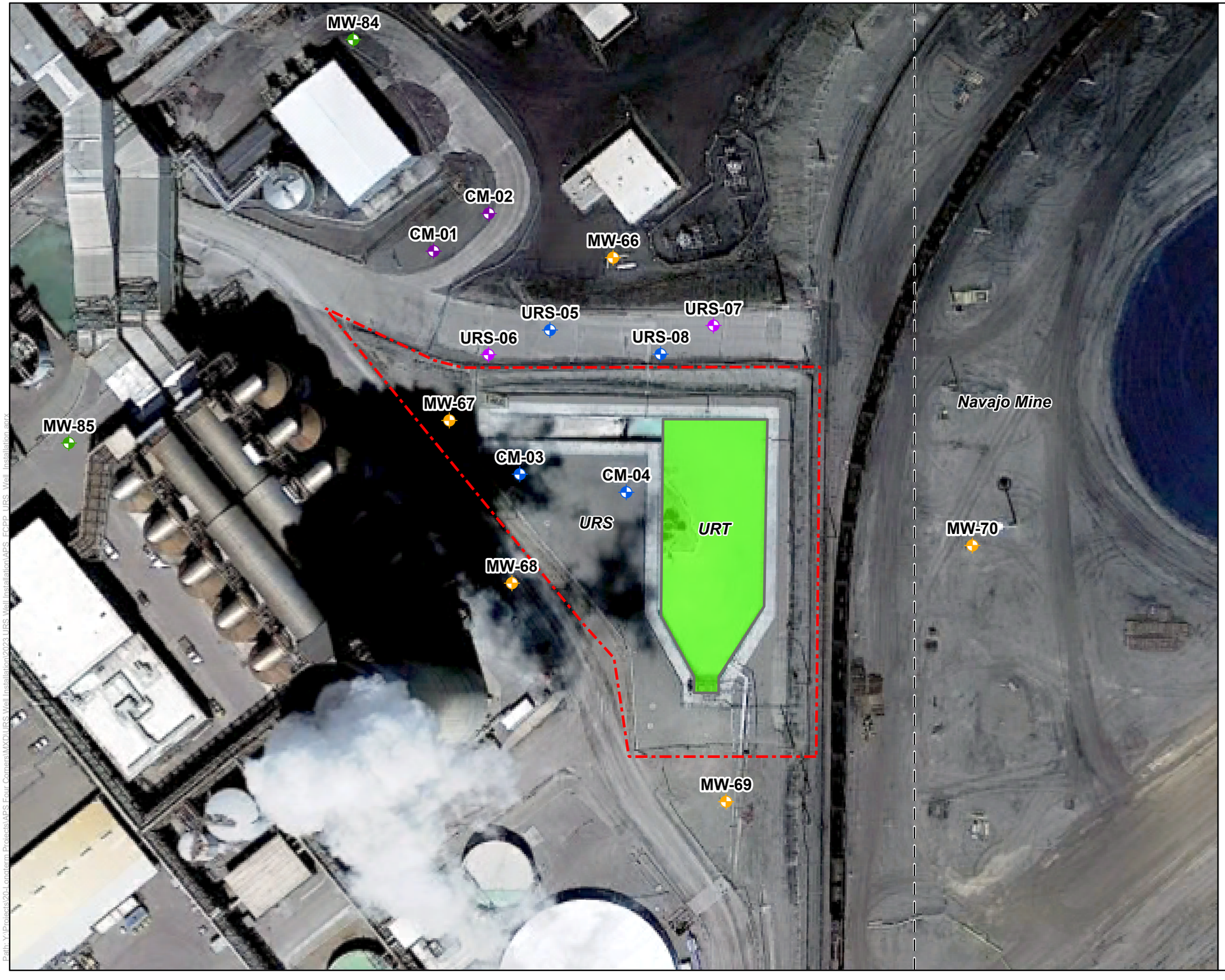

| | |
|---|---|
| **A** | LITHOLOGIC LOGS AND WELL CONSTRUCTION DIAGRAMS (REVISED APRIL 1, 2024) |
| **B** | PHOTOGRAPHIC LOG |
| **C** | DEPARTMENT OF WATER RESOURCES WATER WELL DRILLING PERMITS |
| **D** | SWAB AND BAIL AND PUMP DEVELOPMENT LOGS |
| **E** | GOFF ENGINEERING & SURVEYING, INC SURVEY REPORT |

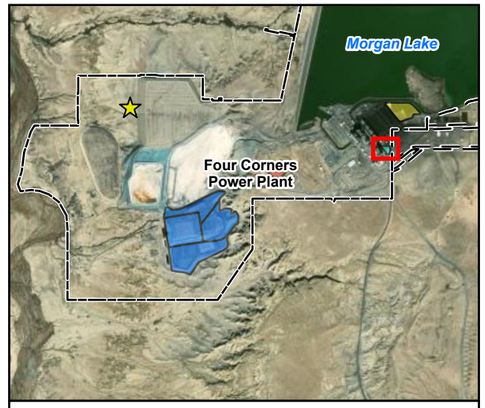
## *LIST OF ACRONYMS AND ABBREVIATIONS*

| | |
|---|---|
| % | Percent |
| amsl | above mean sea level |
| APS | Arizona Public Service Company |
| bgs | below ground surface |
| Cascade | Cascade Environmental |
| CCR | coal combustion residuals |
| CFR | Code of Federal Regulations |
| CWTP | Combined Waste Treatment Pond |
| ft | foot, feet |
| FGD | flue gas desulfurization |
| Goff | Goff Engineering & Surveying, Inc |
| gpm | gallons per minute |
| gps | global positioning unit |
| GWPS | Groundwater Protection Standard |
| HASP | Health and Safety Plan |
| IDW | Investigation-Derived Waste |
| mg/L | milligrams per liter |
| NDWR | Navajo Department of Water Resources |
| NTEC | Navajo Transitional Energy Company |
| NTUs | Nephelometric Turbidity Units |
| PVC | polyvinyl chloride |
| SCH | schedule |
| URS | Upper Retention Sump |
| URT | Upper Retention Tank |
| Wood | Wood Environment & Infrastructure Solutions, Inc. |
| WSP | WSP USA Environment & Infrastructure |

This Addendum supplements the *URS-05, URS-06, URS-07, and URS-08 Well Completion Report* dated March 28, 2024. The locations of URS-05, URS-06, URS-07, and URS-08 were surveyed by Goff Engineering & Surveying, Inc. (Goff) on March 28, 2024 and several components of the report have been updated to incorporate the surveyed locations of the wells. Specifically, the contents of **Appendix A** have been modified to include the surveyed coordinates and elevations for wells URS-05, URS, 06, URS-07, and URS-08. Additionally, the locations of URS-05, URS-06, URS-07, and URS-08 have been adjusted on **Figure 2** and **Figure 3** to the coordinate locations provided by Goff. Lastly, the survey report provided by Goff is included as **Appendix E**. All other content of the report remains unchanged as originally submitted to Arizona Public Service Company.

# FIGURES
# (REVISED APRIL 3, 2024)




Vicinity Map

## Legend

- CCR Compliance - Downgradient Well Location
- CCR Compliance - Downgradient Boundary Well Location
- Supplementary Site Monitoring Well Location
- Extraction Well Location
- Extraction (Inactive) Well Location
- Disposal Location for Borehole Soil Cuttings
- Upper Retention Sump
- Upper Retention Tank
- Four Corners Power Plant Lease Boundary

0 40 80 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

Figure **2**

**URS Well Installation Site Map**

| | |
|---|---|
| Job No. | 14-2022-2030 |
| PM: | MBH |
| Date: | 4/3/2024 |
| Scale: | 1"= 80 feet |

The map shown here has been created with all due and reasonable care and is strictly for use with WSP USA Project Number 14-2022-2030. This map has not been certified by a licensed land surveyor, and any third party use of this map comes without warranties of any kind. WSP USA assumes no liability, direct or indirect, whatsoever for any such third party or unintended use.

Path: Y:\Projects\20-Longterm Projects\APS Four Corners\MXD\URS Well Installation\2023 URS Well Installation\APS_FCPP_URS_Well_Installation.aprx




## Legend

- CCR Compliance - Downgradient Well Location
- CCR Compliance - Downgradient Boundary Well Location
- Supplementary Site Monitoring Well Location
- Extraction Well Location
- Extraction (Inactive) Well Location
- Upper Retention Sump
- Upper Retention Tank
- Four Corners Power Plant Lease Boundary
- Groundwater Elevation Contour (ft amsl) 1-Foot Contour Interval

**Fluoride Concentration in Groundwater (November 2023)**

- 4.0 mg/L
- 4.0 mg/L, Defined
- 4.0 mg/L, Inferred

**Notes and Abbreviations:**

| | |
|---|---|
| MW-66 | Well Identification |
| 5328.50 | Groundwater Elevation (ft amsl) November 2023 |
| NM | Not Measured |
| 19 | Fluoride concentration (mg/L) |
| J | Result is estimated quantity |
| NS | Not Sampled |
| * | Well Installed in December 2023 |
| ft amsl | Feet above mean sea level |
| mg/L | Milligrams per Liter |

0 40 80 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

Figure 3

**Comparison of URS Well Locations to November 2023 Flouride Iso-Concentration Contours**

| | |
|---|---|
| Job No. | 14-2022-2030 |
| PM: | MBH |
| Date: | 4/3/2024 |
| Scale: | 1"= 80 feet |

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Path: Y:\Projects\20-Longterm Projects\APS Four Corners\MXD\URS Well Installation\2023 URS Well Installation\APS_FCPP_URS_Well_Installation.aprx

# APPENDIX

# A LITHOLOGIC LOGS AND WELL CONSTRUCTION DIAGRAMS (REVISED APRIL 1, 2024)

Borehole Log ID

# URS-05

| | | | | | |
|---|---|---|---|---|---|
| **Coordinates** | 2070273.63, 2534212.78 | | | | |
| **Coordinate System** | New Mexico West State Plane NAD88 | | | | |
| **CLIENT** | Arizona Public Service Company | **NDWR No.** | 23-103 | **Surface Elevation** | 5360.2 ft amsl |
| **PROJECT LOCATION** | Four Corners Power Plant, Fruitland, New Mexico | | | **Measuring Point Elevation** | 5359.8 ft amsl |

## LITHOLOGY DESCRIPTION

Depth in feet

0

**0 to 6 ft bgs:** Hydro-excavated

**6 ft bgs to 7.5 ft bgs:** Sample lost by driller.

10

**7.5 ft bgs to 25 ft bgs: Pictured Cliffs Sandstone/Sandy Silt** VF to F Gr sandstone. Moist. Light brown to medium brown color. Low to medium PL. Low dry strength, and no odors.
Note: 11 ft bgs to 12 ft bgs: Gravels present, rounded to sub-angular, color is dark brown.
Note: 13 ft bgs to 14 ft bgs: Color is reddish-brown.

Note: 18 ft bgs to 20 ft bgs: Gypsum nodules.

20

Note: 20 ft bgs to 22.5 ft bgs: Sample lost by driller.

**25 ft bgs to 37 ft bgs: Pictured Cliffs Sandstone/Sandy Clay** VF to F Gr. Moist. Medium brown color. Medium PL. Low to medium dry strength, no odors.

30

Note: 35 ft bgs: Wet

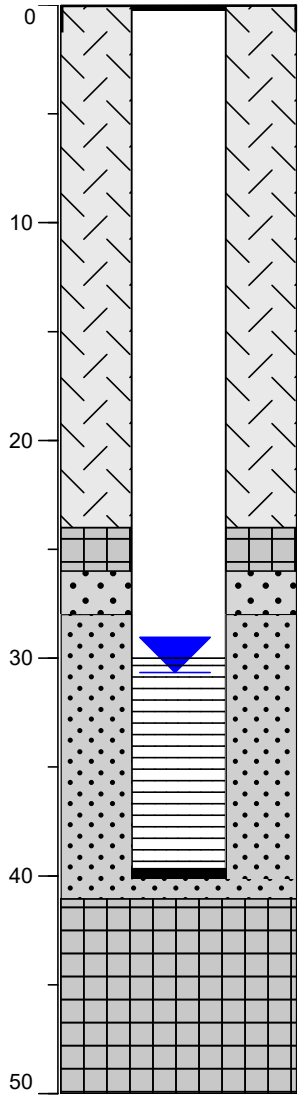
**37 ft bgs to 50 ft bgs: Lewis Shale** Microcrystalline to VF to F Gr, very thinly laminated (< 0.5 millimeter thick) to thick bedded (30 centimeter), stratified unit consisting of interbedded mudstone/siltstone (@ 37 ft bgs to 38 ft bgs and 42 ft bgs to 50 ft bgs), concretionary limestone (@ 38 ft bgs to 40 ft bgs), sandy limestone (@ 40 ft bgs to 42 ft bgs). Wet from 37 ft bgs to 38 ft bgs and dry 38 ft bgs to 50 ft bgs. Very dark grayish-yellowish-reddish-dull olive brown mudstone/siltstone; blue-gray-reddish-brown limestone; reddish-dull olive brown shale. No to low PL (except mudstone; medium to high PL). Low to very high dry strength (from softest to hardest: mudstone, siltstone, shale, and limestone) and no odors.

40

50

## WELL AS-BUILT DIAGRAM

Depth in feet




**Flush-mount, 10-in Diameter Vault**

**Borehole 10-in** (0 to 50 ft bgs)

**Cement Grout** (0 to 24 ft bgs)

**4-in SCH 80 PVC Blank Casing** (0.4 to 29.7 ft bgs)

**Bentonite Seal** (24 ft bgs to 26 ft bgs)
**Transition Sand (20-40 Silica Sand)** (26 ft bgs to 28 ft bgs)

Static Water Level = 30.7 ft bgs (01/04/24)
**4-in SCH 80 PVC Screen (0.020-in slots)** (29.7 ft bgs to 39.7 ft bgs)

**Filter Pack (10-20 Silica Sand)** (28 ft bgs to 41 ft bgs)

**Well Cap** (39.7 ft bgs to 40.2 ft bgs)
**Well Depth** 40.2 ft bgs

**Bentonite Seal** (41 ft bgs to 50 ft bgs)

| | | | |
|---|---|---|---|
| TOTAL DEPTH | 50 ft bgs | DESIGN | BM |
| DATE STARTED | 12-12-2023 | CHECK | BE |
| DATE FINISHED | 12-13-2023 | REVIEW | RW |
| LOGGED BY | Brad Hartman | PROJECT MANAGER | MH |
| DRILLING CONTRACTOR | Cascade Drilling | DATE | 02-16-2024 |
| DRILLING METHOD | Rotosonic | PROJECT No. | 14.2022.2030 |
| SCALE | AS SHOWN | | |

TITLE

**BOREHOLE LOG AND AS-BUILT DRAWING**

wsp

Abbreviations: @ = at; F = fine; ft bgs = feet below ground surface; ft amsl = feet above mean sea level; Gr = grained; in = inch

Abbreviations (continued): NDWR = Navajo Department of Water Resources; No. number; PL = plasticity; VF = very fine

Borehole Log ID

# URS-06

| | | | | | |
|---|---|---|---|---|---|
| **CLIENT** | Arizona Public Service Company | **NDWR No.** | 23-102 | **Coordinates** | 2070252.92, 2534161.91 |
| | | | | **Coordinate System** | New Mexico West State Plane NAD88 |
| **PROJECT LOCATION** | Four Corners Power Plant, Fruitland, New Mexico | | | **Surface Elevation** | 5358.4 ft asml |
| | | | | **Measuring Point Elevation** | 5360.5 ft asml |

## LITHOLOGY / DESCRIPTION

Depth in feet

0

**0 to 6 ft bgs:** Hydro-excavated

**6 ft bgs to 7.5 ft bgs:** Sample lost by driller.

10

**7.5 ft bgs to 30 ft bgs: Silty Sand/Pictured Cliffs Sandstone**; VF to F Gr, Moist, Dark grayish brown-medium brown-dark brown color. Low to medium PL. Low to high dry strength, and no odors.
Note: 7.5 ft bgs to 8.5 ft bgs**:** Trace gypsum nodules.

Note: 11 ft bgs to 18 ft bgs: Trace gypsum nodules.

20

Note: 21 ft bgs to 22 ft bgs: Trace gypsum nodules.

30

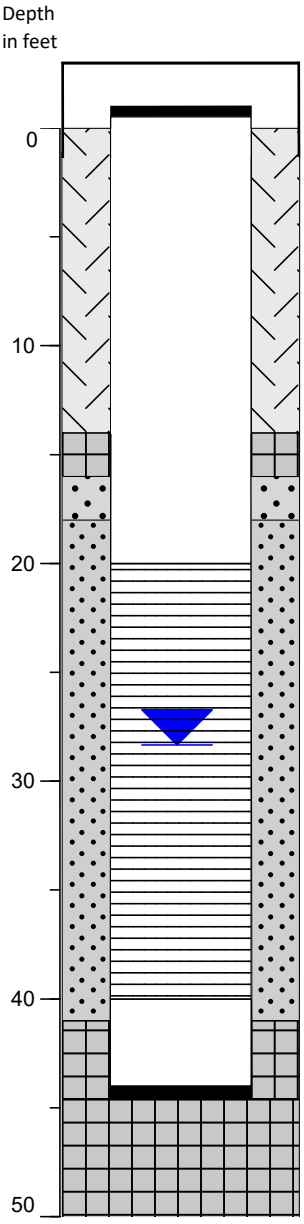
**30 ft bgs to 35 ft bgs:** Sandy Clay/Pictured Cliffs Sandstone; VF to F Gr, very thinly to thickly laminated (<0.5 to 6 millimeter thick), Moist. Dark brown-brown color. Medium to high PL. Low to medium dry strength, and no odors.
Note: Wet at 32 ft bgs.

40

**35 ft bgs to 50 ft bgs:** Lewis Shale; Microcrystalline to VF to F Gr, very thinly laminated (< 0.5 millimeter thick) to thick bedded (30 centimeter) stratified unit consisting of interbedded mudstone/siltstone (@ 40 ft bgs to 50 ft bgs), fossiliferous,concretionary limestone (@ 35 ft bgs to 38 ft bgs), sandy limestone (@ 38 ft bgs to 40 ft bgs). Dry. Very dark grayish-yellowish-reddish-dull olive brown mudstone/siltstone; blue-gray/reddish-brown limestone; reddish-dull olive brown shale; No to low PL (except mudstone; medium to high PL). Low to very high dry strength (from softest to hardest: mudstone, siltstone, shale, and limestone), and no odors.

50

## WELL AS-BUILT DIAGRAM




**3 ft Tall, 10-in Diameter Vault**

**Borehole 10-in** (0 to 50 ft bgs)

**Cement Grout** (0 to 14 ft bgs)

**6-in SCH 80 PVC Blank Casing** (+2.1 ft bgs to 19.1 ft bgs)

**Bentonite Seal** (14 ft bgs to 16 ft bgs)

**Transition Sand (20-40 Silica Sand)** (16 ft bgs to 18 ft bgs)

**6-in SCH 80 PVC Screen (0.020-in slots)** (19.1 ft bgs to 39.1 ft bgs)

Static Water Level = 28.3 ft bgs (01/04/24)

**Filter Pack (10-20 Silica Sand)** (18 ft bgs to 41 ft bgs)

**6-in SCH 80 PVC Sump** (39.1 ft bgs to 44.1 ft bgs)

**Well Cap** (44.1 ft bgs to 44.6 ft bgs)

**Well Depth** = 44.6 ft bgs (12/18/23)

**Bentonite Seal** (41 ft bgs to 50 ft bgs)

| | | | |
|---|---|---|---|
| TOTAL DEPTH | 50 ft bgs | DESIGN | BM |
| DATE STARTED | 12-14-2023 | CHECK | BM |
| DATE FINISHED | 12-14-2023 | REVIEW | BE |
| LOGGED BY | Brad Hartman | PROJECT MANAGER | RW |
| DRILLING CONTRACTOR | Cascade Drilling | DATE | 3-4-2023 |
| DRILLING METHOD | Rotosonic | PROJECT No. | 14.2022.2030 |
| SCALE | AS SHOWN | | |

TITLE

# BOREHOLE LOG AND AS-BUILT DRAWING

wsp

Abbreviations: @ = at; F = fine; ft bgs = feet below ground surface; ft asml = feet above mean sea level; Gr = grained; in = inch

Abbreviations (continued): NDWR = Navajo Department of Water Resources; No. = number; PL = plasticity; VF = very fine

Borehole Log ID

# URS-07

| | | | | | |
|---|---|---|---|---|---|
| **Coordinates** | 2070277.07, 2534348.54 | | | | |
| **Coordinate System** | New Mexico West State Plane NAD88 | | | | |
| **CLIENT** | Arizona Public Service Company | **NDWR No.** | 23-101 | **Surface Elevation** | 5367.1 ft asml |
| **PROJECT LOCATION** | Four Corners Power Plant, Fruitland, New Mexico | | | **Measuring Point Elevation** | 5369.2 ft asml |

## LITHOLOGY

## DESCRIPTION

Depth in feet

0

**0 to 10 ft bgs:** Hydro-excavated

10

**10 ft bgs to 30 ft bgs: Silty Sand/Pictured Cliffs Sandstone**; VF to F Gr sandstone. Moist. Light brown-medium yellowish brown color. Low to medium PL. Low to medium dry strength, and no odors.

Note: 18 ft bgs to 19 ft bgs: Semi-angular to rounded gravels, dark brown color.

20

Note: 27 ft bgs: Wet

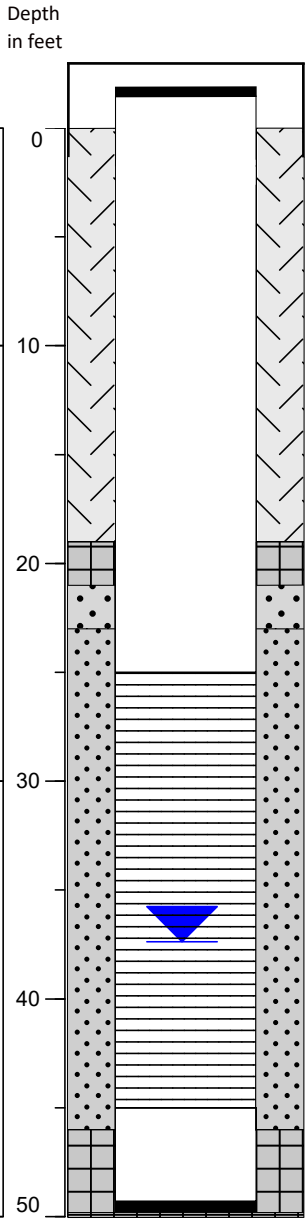
30

**30 ft bgs to 50 ft bgs: Lewis Shale**; Microcrystalline to VF to F Gr shale consisting of interbedded fossilferous, concretionary limestone (@ 30 ft bgs to 31 ft bgs, 35 ft bgs to 36 ft bgs, 37 ft bgs to 38 ft bgs, and 45 ft bgs to 48 ft bgs), mudstone/siltstone (@ 31 ft bgs to 35 ft bgs, and 40 ft bgs to 45 ft bgs), and sandy shale (@ 38 ft bgs to 40 ft bgs). Intermittent moisture zones observed between limestone layers between 31 ft bgs to 35 ft bgs. Dominantly dull olive and slightly reddish brown shale, blue-gray limestone w/tan, dark-dull olive-yellowish-reddish brown mudstone/siltstone. No to low PL (except mudstone; medium to high PL). Low to very high dry strength (from softest to hardest: mudstone, siltstone, shale, and limestone), and no odors.

40

50

## WELL AS-BUILT DIAGRAM




**3 ft Tall, 10-in Diameter Vault**

**Borehole 10-in** (0 to 50 ft bgs).

**Cement Grout** (0 to 19 ft bgs).

**6-in SCH 80 PVC Blank Casing** (+2.1 ft bgs to 24.3 ft bgs).

**Bentonite Seal** (19 ft bgs to 21 ft bgs).

**Transition Sand (20-40 Silica Sand)** (21 ft bgs to 23 ft bgs).

**6-in SCH 80 PVC Screen (0.020-in slots)** (24.3 ft bgs to 44.3 ft bgs).

**Filter Pack (10-20 Silica Sand)** (23 ft bgs to 46 ft bgs).

Static Water Level = 37.5 ft bgs (01/05/24)

**6-in SCH 80 PVC Sump** (44.3 ft bgs to 49.3 ft bgs)

**Bentonite Seal** (46 ft bgs to 50 ft bgs)

**Well Cap** (49.3 ft bgs to 49.8 ft bgs)

**Well Depth** = 49.8 ft bgs (12/18/23)

| | | | |
|---|---|---|---|
| TOTAL DEPTH | 50 ft bgs | DESIGN | BM |
| DATE STARTED | 12-7-2023 | CHECK | BM |
| DATE FINISHED | 12-11-2023 | REVIEW | BE |
| LOGGED BY | Brad Hartman | PROJECT MANAGER | RW |
| DRILLING CONTRACTOR | Cascade Drilling | DATE | 3-4-2024 |
| DRILLING METHOD | Rotosonic | PROJECT No. | 14.2022.2030 |
| SCALE | AS SHOWN | | |

TITLE

**BOREHOLE LOG AND AS-BUILT DRAWING**

wsp

Abbreviations: @ = at; F = fine; ft bgs = feet below ground surface; ft asml = feet above mean sea level; Gr = grained; in = inch

Abbreviations (continued): NDWR = Navajo Department of Water Resources; No. = number; PL = plasticity; VF = very fine

Borehole Log ID

# URS-08

| | | | | | |
|---|---|---|---|---|---|
| **CLIENT** | Arizona Public Service Company | **NDWR No.** | 23-104 | **Surface Elevation** | 5364.9 ft amsl |
| **PROJECT LOCATION** | Four Corners Power Plant, Fruitland, New Mexico | | | **Measuring Point Elevation** | 5364.7 ft amsl |

| | |
|---|---|
| **Coordinates** | 2070253.61, 2534304.70 |
| **Coordinate System** | New Mexico West State Plane NAD88 |

## LITHOLOGY / DESCRIPTION

Depth in feet

0

**0 to 6 ft bgs:** Hydro-excavated

**6 ft bgs to 7.5 ft bgs:** Sample was lost by the driller.

10

**7.5 ft bgs to 30 ft bgs: Pictured Cliffs Sandstone/ Silty Sand** VF to F Gr sandstone. Moist. Light brown-medium brown color. Low to medium PL. Low dry strength and no odors.

Note: 13 ft bgs to 17 ft bgs: Color is reddish-brown.

20

Note: 21 ft bgs: Trace gypsum nodules.

Note: 25 ft bgs to 26 ft bgs: Lense of light grey sandstone, dry, medium dry strength.

30

**30 ft bgs to 43 ft bgs: Pictured Cliffs Sandstone/ Clayey Sand** VF to F Gr sandstone with interbedded layers of silt/clay. Intermittent moisture zones observed between clay layers (@ 30 ft bgs to 32 ft bgs, 37 ft bgs to 37.5 ft bgs, 38 ft bgs to 40 ft bgs, and 41 ft bgs to 43 ft bgs). Very dark brown-brown-olive-brown-light brown. Medium to high PL. Low to medium dry strength, and no odors.

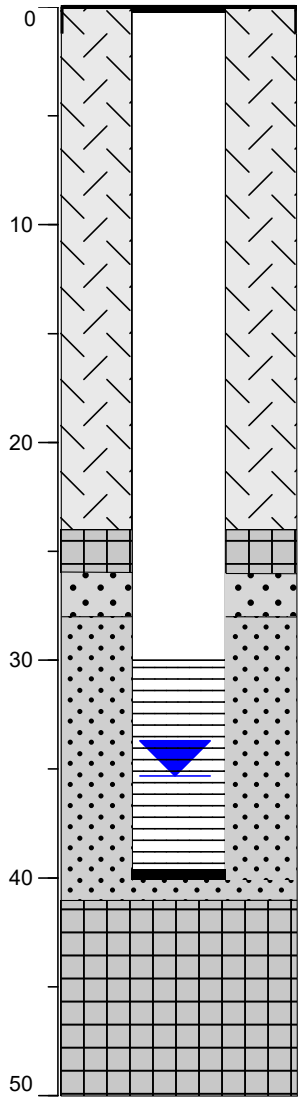
40

**43 ft bgs to 50 ft bgs: Lewis Shale** Microcrystalline to VF to F Gr, mudstone(@ 48 ft bgs to 50 ft bgs), concretionary limestone (@ 42 ft bgs to 45 ft bgs), sandy limestone (45 ft bgs to 48 ft bgs). Dry. Dark grayish-dull olive brown mudstone; blue-gray-reddish-brown limestone. No to low PL (except mudstone; medium to high PL). Low to very high dry strength (from softest to hardest: mudstone to limestone), and no odors.

50

## WELL AS-BUILT DIAGRAM

Depth in feet




**Flush-mount, 10-in Diameter Vault**

**Borehole 10-in** (0 to 50 ft bgs)

**Cement Grout** (0 to 24 ft bgs)

**4-in SCH 80 PVC Blank Casing** (0.2 to 29.6 ft bgs)

**Bentonite Seal** (24 ft bgs to 26 ft bgs)

**Transition Sand (20-40 Silica Sand)** (26 ft bgs to 28 ft bgs)

**4-in SCH 80 PVC Screen (0.020-in slots)** (29.6 ft bgs to 39.6 ft bgs)

Static Water Level = 35.3 ft bgs (01/05/24)

**Filter Pack (10-20 Silica Sand)** (28 ft bgs to 41 ft bgs)

**Well Cap** (39.6 ft bgs to 40.1 ft bgs)

**Well Depth** = 40.1 ft bgs (12/18/23)

**Bentonite Seal** (41 ft bgs to 50 ft bgs)

| | | | |
|---|---|---|---|
| TOTAL DEPTH | 50 ft bgs | DESIGN | BM |
| DATE STARTED | 12-15-2023 | CHECK | BE |
| DATE FINISHED | 12-16-2023 | REVIEW | RW |
| LOGGED BY | Brad Hartman | PROJECT MANAGER | MH |
| DRILLING CONTRACTOR | Cascade Drilling | DATE | 03-04-2024 |
| DRILLING METHOD | Rotosonic | PROJECT No. | 14.2022.2030 |
| SCALE | AS SHOWN | | |

TITLE

**BOREHOLE LOG AND AS-BUILT DRAWING**

wsp

Abbreviations @ = at; F = fine; ft bgs = feet below ground surface; ft amsl = feet above mean sea level; Gr = grained; in = inch

Abbreviations (continued) NDWR = Navajo Department of Water Resources; No. = number; PL = Plasticity; VF = very fine

# APPENDIX

## E GOFF ENGINEERING AND SURVEYING, INC SURVEY REPORT

| | |
|---|---|
| UNITS: | US Survey Foot |
| HORIZONTAL DATUM: | United States/State Plane 1983 |
| VERTICAL DATUM: | NAVD88 (Computed using GEOID18) |
| GEOID MODEL: | GEOID18 (Conus) |
| PROJECTION: | Transverse Mercator |
| STATE PLANE ZONE: | New Mexico West (3003) |
| BASIS OF BEARINGS: | Grid Bearings |
| SCALE FACTOR: | 1.0000000 |
| MODIFICATION METHOD: | n/a: Project coordinates in New Mexico State Plane Coordinates, West Zone (3003), USFt Grid. |
| FIELD METHODOLOGY: | RTK GPS Observations with Static GPS Observation at base point |
| EQUIPMENT: | Trimble GPS Equipment (R12 base & rover) |
| DATE OF FIELD SURVEY: | 28-Mar-24 |

| WELL URS-5 | Northing | Easting | Elevation |
|---|---|---|---|
| Ground Surface (North Side of Well) | 2070273.63 | 2534212.78 | 5360.22 |
| Top of Well PVC (North Side of Well) | 2070273.06 | 2534212.79 | 5359.79 |
| Top of Well Vault (North Side of Well) | 2070273.40 | 2534212.82 | 5360.28 |

| WELL URS-6 | Northing | Easting | Elevation |
|---|---|---|---|
| Ground Surface (North Side of Well) | 2070252.92 | 2534161.91 | 5358.41 |
| Top of Well PVC (North Side of Well) | 2070252.09 | 2534161.72 | 5360.52 |
| Top of Well Vault (North Side of Well) | 2070252.03 | 2534161.59 | 5361.41 |

| WELL URS-7 | Northing | Easting | Elevation |
|---|---|---|---|
| Ground Surface (North Side of Well) | 2070277.07 | 2534348.54 | 5367.06 |
| Top of Well PVC (North Side of Well) | 2070276.47 | 2534348.45 | 5369.20 |
| Top of Well Vault (North Side of Well) | 2070276.70 | 2534348.65 | 5370.03 |

| WELL URS-8 | Northing | Easting | Elevation |
|---|---|---|---|
| Ground Surface (North Side of Well) | 2070253.61 | 2534304.70 | 5364.92 |
| Top of Well PVC (North Side of Well) | 2070253.13 | 2534304.69 | 5364.66 |
| Top of Well Vault (North Side of Well) | 2070253.45 | 2534304.69 | 5364.96 |

| WELL EW-11R | Northing | Easting | Elevation |
|---|---|---|---|
| Ground Surface (North Side of Well) | 2071117.79 | 2522103.08 | 5096.07 |
| Top of Well PVC (North Side of Well) | 2071116.77 | 2522103.45 | 5098.65 |
| Top of Well Vault (North Side of Well) | 2071117.06 | 2522103.67 | 5099.26 |

| WELL EW-12R | Northing | Easting | Elevation |
|---|---|---|---|
| Ground Surface (North Side of Well) | 2071248.07 | 2522195.46 | 5091.75 |
| Top of Well PVC (North Side of Well) | 2071247.01 | 2522195.29 | 5094.39 |
| Top of Well Vault (North Side of Well) | 2071247.34 | 2522195.25 | 5095.28 |

| WELL MW-06R | Northing | Easting | Elevation |
|---|---|---|---|
| Ground Surface (North Side of Well) | 2068052.18 | 2521470.29 | 5080.59 |
| Top of Well PVC (North Side of Well) | 2068050.67 | 2521470.58 | 5082.99 |
| Top of Well Vault (North Side of Well) | 2068050.99 | 2521470.60 | 5083.36 |

| WELL DMX-05R | Northing | Easting | Elevation |
|---|---|---|---|
| Ground Surface (North Side of Well) | 2067739.53 | 2521637.88 | 5081.58 |
| Top of Well PVC (North Side of Well) | 2067737.98 | 2521637.69 | 5084.09 |
| Top of Well Vault (North Side of Well) | 2067738.45 | 2521637.55 | 5084.96 |

# APPENDIX

# B

## CHACO RIVER FLOW MEASUREMENT 2024 MAINTENANCE SUMMARY

# Chaco River Flow Measurement
# 2024 Maintenance Summary

June
2024

Prepared for | Arizona Public Service

JE FULLER
hydrology • geomorphology
8400 S. Kyrene Rd., Suite 201
Tempe, AZ 85284
www.jefuller.com

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# 1.0 Introduction

In 2022 JE Fuller designed and installed a stream flow gaging station for Arizona Public Service (APS) to monitor the water surface elevation of Chaco River within the vicinity of the APS Four Corners Power Plant near Farmington, NM. A single gaging station was installed approximately 7 miles upstream of the Navajo Route 36 bridge spanning the river. **Figure 1** below depicts the location of the new station as well as the location adjacent to the channel of the new pressure transducer sensor.

Maintenance was performed on this equipment in June 2024, and this document summarizes the work performed and highlights a few recommendations.

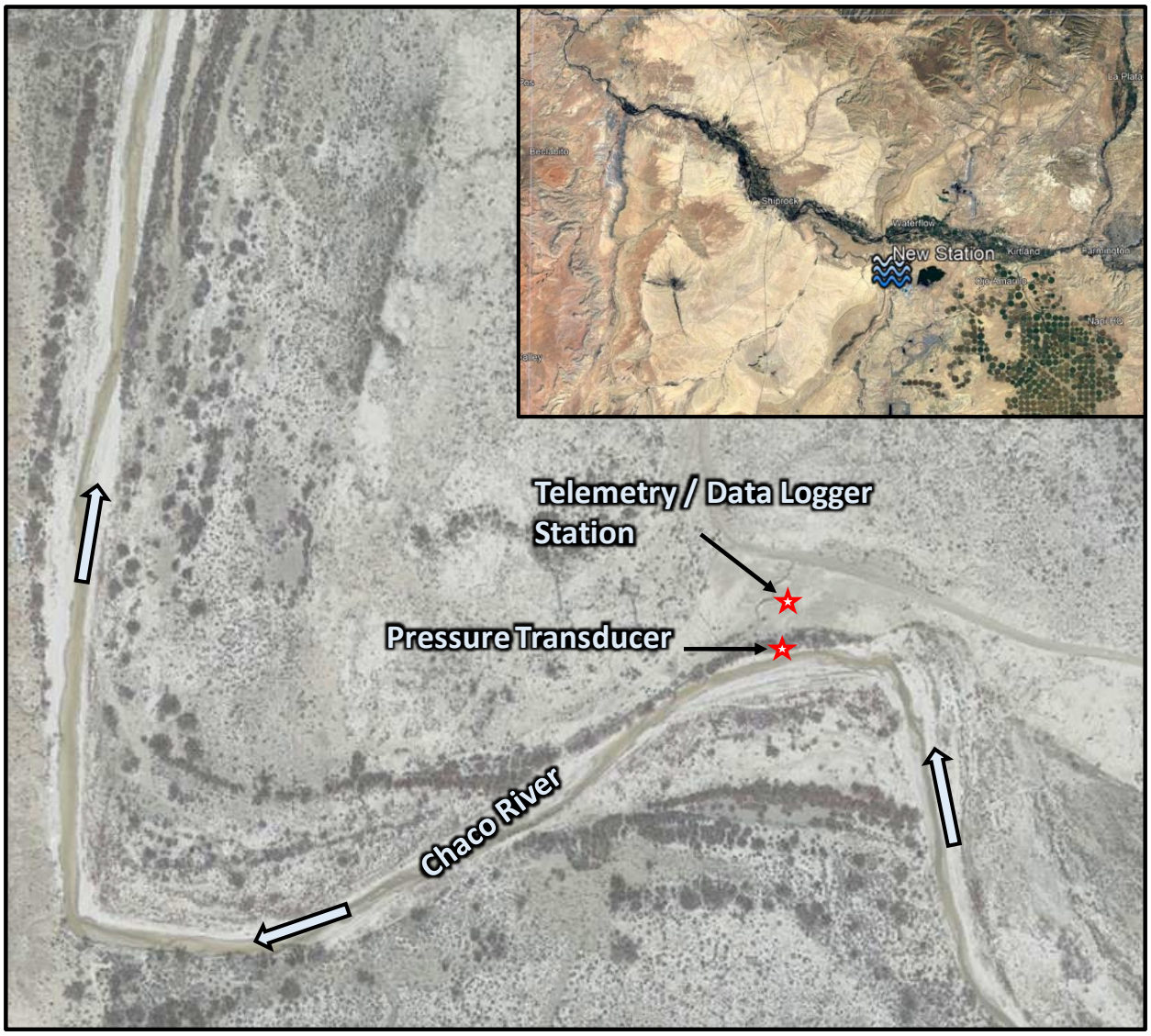


*Figure 1. Station Location.*

# 2.0 Maintenance

## 2.1. Station Overview

The enclosure for the equipment is positioned above the wash on a high silt bank (**Figure 2**). A pressure transducer was installed to measure the stage in the river. The manufacturer of this sensor is Campbell Scientific, Inc., and the model number is CS451. This is a digital, SDI-12 sensor, and it reports the hydrostatic pressure and temperature. Further, this is a vented transducer, so no correction for atmospheric pressure needs to be made. The translation then from pressure to depth is based upon the unit weight of water.

A field observation camera was also installed. The camera was programmed to take static photos every 12 hours and store them on an on-board SD card. The photographs will provide documentation to aid in the streamflow measurements, as the channel at this location is a natural, non-engineered channel where gaging streamflow at low flows is notoriously difficult. These photographs will especially be useful for establishing time periods of zero flow rate. Photographs are uploaded to the camera manufacturers' cloud-based platform for viewing images, and these settings can be changed by remotely accessing the camera settings.



*Figure 2. Field Station on 6/20/2024.*

## 2.2. Maintenance Items

Upon arrival, the station appeared to have no significant damage or issues. The following items were performed during the maintenance task:



*Figure 3. Station Solar Panel After Cleaning.*

- The station enclosure was unlocked (combination lock code = 5050).
- The solar panel was cleaned.
- The solar charge controller performance was evaluated. No issues were detected. The solar panel voltage was in the expected range.
- All logged data from the data logger was downloaded, and the data logger software was used to identify any faults or anomalous issues, and none were found
- The data logger battery and recently logged voltage data was assessed to evaluate the performance. For instance, the minimum voltage during each night was evaluated, which can indicate a weak or weakening batter.

The battery voltage has remained high throughout each night, indicating a strong battery.

- The cellular modem was accessed to look for any faults, and none were found. The firmware on the modem was updated to the newest available version.
- The SD card for the camera was removed, and all images were downloaded. The internal battery bank of twelve AA batteries were replaced (**Figure 4**). The camera could not access the cellular network, therefore, the mode of the camera was switched to turn the cellular mode off, which enabled the field crew to make time the time lapse settings (every 6 hours) locally, and on-site.
- Pressure transducer maintenance (see discussion below).

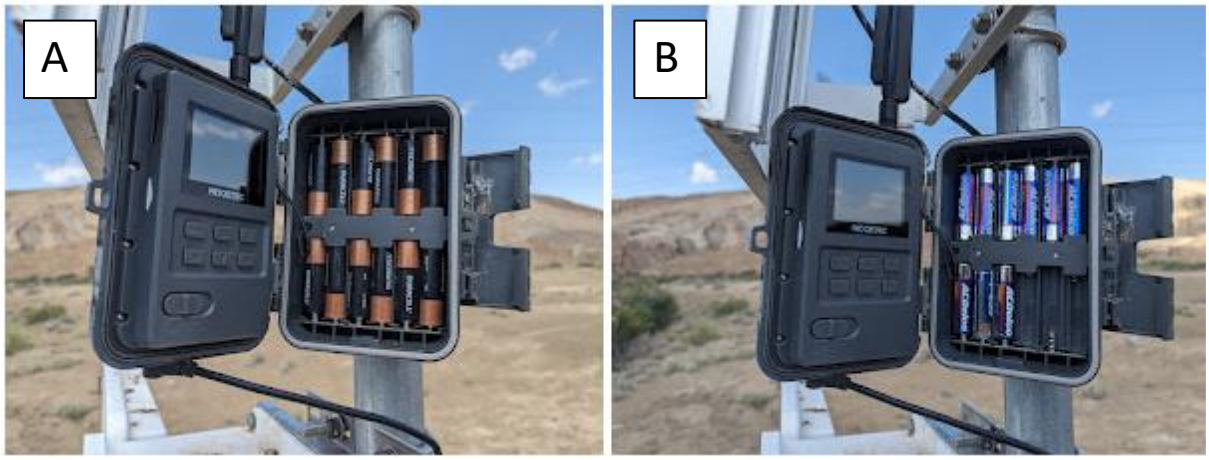


*Figure 4. Camera Battery Replacement.*

Moving downward to the wash, it was observed that over one foot of sediment deposition has occurred in the channel and on the floodplain surfaces. The subsurface pull box just above the pressure transducer was marked with about 1.25 feet of deposition (**Figure 5**). While access to this box was dug out subsequent flow events that inundate this surface will likely fill this access back in with sediment. This access box is used to access the pressure transducer through the buried conduit, and as it had become submerged with water, sediment then entered into the conduit with the pressure transducer sensor. The result is that the pressure transducer could not be pulled up via this access box.

The conduit housing the actual pressure transducer sensor was also buried approximately 1.5 feet below the wash bottom (**Figure 6** and **Figure 7**). Given that the sensor could not be removed from the conduit due to excessive deposition and impacted sediment in the conduit, a detailed calibration check could not be performed. Instead, the sensor reading was evaluated for a condition where no water was applied to the sensor (i.e., depth = 0.00') and about a foot of depth of water. This was done by filling the excavated hole with water and quickly taking a sensor reading. This limited test was enough to demonstrate that the sensor calibration was reasonably in line with the manufacturer's specifications.



*Figure 5. Excavated Access Box.*




*Figure 6. Pressure Transducer Conduit.*



*Figure 7. Pressure Transducer Conduit.*

# 3.0 Recommendations

Several key recommendations are made based upon this maintenance work.

- It had been approximately 2.5 years since JE Fuller had last visited this site (during installation). Given the dramatic change in wash configuration it is recommended to perform maintenance on a tighter time interval (e.g., annually).
- As part of this scope of work, cellular data was pre-paid for two years. This interval, however, begins at when the previous cellular data plan expired, which was in October of 2023. That said, the current cellular data plan will expire in October 2025, and it will need to be renewed before then.
- It is recommended during the next maintenance visit to re-work the lower sections of the pressure transducer conduit. Streamflow gaging without any hardened structures to attach equipment or to maintain the grade of the channel (e.g., bedrock, concrete, etc.) is notoriously difficult, and it requires active examination of changing configurations and adapting the sensor position to the new channel configuration. For this case, it is recommended to re-establish the position of the sensor such that it is located at the same elevation of the new wash bottom. Further, the access box will be raised above the existing grade to minimize chances of flow and sediment entering the pressure transducer conduit again.
- After each significant (> 1 foot) flow event in the river it is recommended that APS visit the gaging location and take several photographs.

# APPENDIX

# C

# TECHNICAL EVALUATION OF LABORATORY ANALYTICAL METHOD SPLIT SAMPLING DATA FOR FLUORIDE COLLECTED FROM FOUR CORNERS AND CHOLLA POWER PLANTS

# TECHNICAL MEMORANDUM

**To:** Arizona Public Service Company

**Project No:** US0023513.9708-US-2024 Cholla CCR Compliance SVC/ US0023513.6155-US-2024 APS FC CCR Compliance SVC

**By:** Samantha O'Shea

**Reviewed by:** Maren Henley, PE

**Tel:** 480-966-8295

**CC:** File

**Date:** January 17, 2025

**Re:** **CCR GROUNDWATER ASSESSMENT MONITORING**
**TECHNICAL EVALUATION OF LABORATORY ANALYTICAL METHOD SPLIT SAMPLING DATA FOR FLUORIDE COLLECTED FROM FOUR CORNERS AND CHOLLA POWER PLANTS**

**Arizona Public Service Company**
**Four Corners Power Plant – Fruitland, New Mexico**
**Cholla Power Plant – Navajo County, Arizona**

## INTRODUCTION

This Technical Memorandum (Tech Memo) presents the results of a technical evaluation of groundwater monitoring split sampling data collected from monitoring wells located at the Arizona Public Service Company (APS) Four Corners Power Plant in Fruitland, New Mexico (Four Corners) (**Figure 1**) and at the Cholla Power Plant in Navajo County, Arizona (Cholla) (**Figure 2**) (Sites). WSP USA Environment & Infrastructure Solutions, Inc. (WSP) conducts semi-annual groundwater monitoring at the Sites pursuant to Coal Combustion Residuals (CCR) Rule requirements for groundwater monitoring and corrective action detailed in 40 Code of Federal Regulations Sections 257.90 through 257.98 (CCR Rule) (Federal Register, 2020). The current monitoring network for Four Corners and Cholla are displayed on **Figures 3** and **4**, respectively. The well construction details for monitoring locations included in this evaluation are presented in **Table 1**.

For many years, Eurofins Environment Testing America (Eurofins) has been the contracted laboratory for the semi-annual CCR groundwater monitoring program at the Sites. During the time when Eurofins conducted the CCR groundwater analyses, inconsistencies were noted in the sample dilution factors (DFs) and reporting limits (RLs). These issues ultimately led to an evaluation of alternative laboratories in 2023. The results of the evaluation were presented in

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the *Technical Evaluation of Laboratory Split Sampling Data Collected from Four Corners and Cholla Power Plants* (WSP, 2023). Eurofins was found to meet all project requirements and CCR compliance samples continued to be submitted to Eurofins for analysis. However, since that evaluation was performed, additional DF and RL inconsistencies were observed in the analysis of fluoride using United States Environmental Protection Agency (USEPA) Drinking Water Method 300.0 during the first semi-annual groundwater monitoring events of 2023 (WSP, 2024a and b). Several RLs were above the designated background threshold values (BTVs) for the designated CCR unit. The laboratory declined to re-analyze the samples at lower dilutions due to elevated sulfate and total dissolved solids (TDS) concentrations, which can adversely affect laboratory equipment. Based on WSP's review sulfate and TDS concentrations in the 2023 first semi-annual monitoring event were consistent with historical data at these locations – except for TDS at MW-11, which was only slightly elevated.

To achieve the lowest level of detection and somewhat mitigate the effect of the higher DFs, fluoride concentrations were estimated between the method detection limit (MDL) and the RL. The reported MDLs ranged from less than (<) 0.8 to < 400 milligrams per liter (mg/L), which for many CCR compliance wells still exceeded the BTV. The analytical fluoride results for the first semi-annual groundwater monitoring events in 2023 for Four Corners and Cholla are presented in **Table 2** and **3**, respectively. Additionally, **Table 2** and **3** include the associated DFs, MDLs, the CCR unit's specified BTVs for fluoride, and the results for sulfate and TDS.

At the suggestion of Eurofins, USEPA Hazardous Waste Test Method 9056A was evaluated as an alternative to USEPA Method 300.0. Each method employs ion chromatography, but USEPA Method 9056A may allow for less sample dilution. A select subset of samples was submitted to Eurofins for fluoride analysis by USEPA Method 300.0 and 9056A during the second semi-annual groundwater monitoring event in 2023 to evaluate the analytical comparability of the methods. The process of selecting the laboratory methods, the selection of the wells to be used in the analysis, and the evaluation and comparison of the results are presented and summarized in the following sections. The Tech Memo evaluates the precision and accuracy of the sampling data and presents recommendations based on the results of the technical evaluation.

## SAMPLE COLLECTION AND ANALYSIS

CCR groundwater monitoring program samples for the second semi-annual event in 2023 were collected in November 2023 for Four Corners and October 2023 for Cholla. The split samples were collected from a subset of monitoring wells selected to represent a range of locations near CCR units where fluoride has been consistently detected in the past. At Four Corners; wells were selected because they were downgradient of the Upper Retention Sump (URS) and Multiunit 1. At Cholla, wells were selected at the boundary of the Bottom Ash Pond (BAP) and Fly Ash Pond (FAP) and within the alluvial and Moenkopi formations. The selected monitoring wells are presented in **Table 4**.

A total of 14 and 5 split samples were each collected for Cholla and Four Corners, respectively. Groundwater samples were collected using a low flow sampling method per the project standard operating procedures outlined in the Sampling and Analysis Plans for the Sites (Wood, 2022a and b). Samples were collected in 500 milliliter (mL) unpreserved plastic containers provided by the laboratory for the USEPA Methods 300.0 and 9056 analyses. The holding time for these samples with the associated analyses is 28 days. All semi-annual CCR samples were submitted under a signed chain of custody (CoC) and relinquished to Eurofins for analysis. The collected samples were submitted to Eurofins and analyzed within the specified holding period.

**Tables 5** and **6** present the split sampling results for each site. The laboratory reports of analysis are included in **Attachment A**. The reports include the results of CCR groundwater samples that were not evaluated in the split sample analysis.

# TECHNICAL EVALUATION RESULTS

## ANALYTICAL VALIDATION

A WSP chemist performed a USEPA Stage 2A validation on samples collected. This data evaluation is defined in the project sampling and analysis plan (SAP). Data assessment checklists are generated for each sample delivery group submitted to the analytical laboratory during the reporting period. The laboratory performing the analyses as well as the methods of analysis are presented in the individual data validation checklists completed by the WSP chemist. A WSP chemist reviewed and evaluated all laboratory data and added specific qualifiers based on laboratory deficiencies which are noted in the data validation checklists (**Attachment B**).

No qualifiers were added to the fluoride results evaluated for the Sites. The primary (USEPA Method 300.0) and secondary (USEPA Method 9056) analytical results were reviewed and findings were included in the data validation checklists (**Attachment B**) and in the following section.

All analytical data was deemed useable with no significant deficiencies or rejected records. This determination is based on analyses meeting the SAP-specified holding time of 28-days, the absence of fluoride in the laboratory blank samples, laboratory control sample (LCS)/LCS duplicate recoveries within the specified limits, and matrix spike/matrix spike duplicate (MS/MSD) sample recoveries within the specified limits.

The laboratory performed a duplicate analysis for fluoride on M-46A and MW-77A and results were within the laboratory specified limits. The fluoride analysis RPD for the laboratory matrix spike (MS)/matrix spike duplicate (MSD) samples for M-46A and M-77A were 2 and 3, respectively. These RPDs were both below the laboratory RPD limit of 20.

Additional QA/QC samples (e.g., duplicates and matrix spike/matrix spike duplicates [MS/MSDs]) were collected and used in validating the CCR compliance groundwater samples

that are not included in the laboratory analytical reports in **Attachment A**. A complete set analytical reports, including all QA/QC samples, are included in the *Annual Groundwater Monitoring and Corrective Action Report 2023* (WSP, 2024a and b). The QA/QC sample evaluation is performed by a qualified chemist and included in the data validation report (WSP, 2024c and d).

## METHOD SPLIT PRECISION

Precision, defined as the degree of agreement or reproducibility between analytical results, was evaluated by a WSP chemist and is presented in **Table 7**. Precision is evaluated by comparing the split samples results to the historical ranges for each well and by calculating the relative percent difference (RPD) between the results of the primary and secondary methods. Additionally, the magnitude of sulfate and TDS concentrations relative to historical ranges and BTV benchmarks was assessed as a potential factor contributing to sample dilutions and elevated RLs, particularly in analyses using USEPA Method 300.0.

A WSP chemist evaluated both methods and the relative percent difference (RPD) between the methods during the analytical validation process. The Site specific (Four Corners and Cholla Sites) comparison table includes the relative percent difference (RPD) between analytical methods is presented in **Table 7**. No significant deficiencies or rejected records were present in the data set with the exception of the result for MW-72M (**Table 6**) where the secondary result was two orders of magnitude greater than the BTV for the BAP (less than (<) 80 mg/L versus < 0.8 mg/L) as a result of a separate laboratory dilutions. The findings of the evaluation is presented in the following section per Site.

### FOUR CORNERS

Precision between fluoride results from the primary and the secondary results in the Four Corners samples were deemed near equivalent. The dilution factors (DF) for the primary and secondary sample results were two (2) with RLs of 0.8 mg/L. The targeted project specific RL discussed with the laboratory was 0.8 mg/L and both methods were able to achieve the appropriate RL. The RPDs between the primary and secondary fluoride results were 0% excluding the RPD at MW-68 which was 8% (MW-68 fluoride results were 13 and 12 mg/L). The presented RPDs were less than 40%.

Detected concentrations of sulfate and TDS at MW-68 were elevated above the associated BTVs and slightly elevated compared to historically detected concentrations. The detected concentrations of sulfate and TDS at the remaining locations were consistent with historically detected concentrations. The laboratory was able to achieve the appropriate RLs for fluoride with the elevated sulfate and TDS concentrations at MW-68.

The primary and secondary sample results were consistent with historically detected concentrations. The sample results had acceptable RLs and DFs per the project's specifications.

## CHOLLA

Precision between fluoride results from the primary and the secondary results were deemed generally acceptable, with RPDs less than 40%, differences between detected concentrations less than the average reporting limit, or differences between a non-detect results and a low detection (MW-77A) with the following exception (**Table 7**):

- The non-detect fluoride result observed at MW-72M. The RPD between the primary and secondary sample results were 196% due to a RL of 80 mg/L and a DF of 200 for the secondary sample result. The 300.0 and 9056 analyses were performed at 2 times and 200 times dilutions and fluoride was not detected in either analysis.

The primary fluoride sample results were consistent with historically detected concentrations excluding the non-detect secondary result at MW-72M which was above the Bottom Ash Pond (BAP) BTV of 0.8 mg/L. Precision values between results from the primary and the secondary analytical results were deemed near equivalent excluding results at MW-72M.

The DFs for the primary and secondary sample results were 2 with RLs of 0.8 mg/L excluding the following:

- MW-72M
  - Primary: DF of 2 and RL of 0.8 mg/L
  - Secondary: DF of 200 and RL of 80 mg/L
- MW-77A
  - Primary: DF of 2 and RL of 0.8 mg/L
  - Secondary: DF of 1 and RL of 0.4 mg/L
- MW-78A
  - Primary: DF of 1 and RL of 0.4 mg/L
  - Secondary: DF of 1 and RL of 0.4 mg/L
- W-306
  - Primary: DF of 2 and RL of 0.8 mg/L
  - Secondary: DF of 1 and RL of 0.4 mg/L

The targeted project specific RL discussed with the laboratory was 0.8 mg/L and both methods were able to achieve the RL excluding the secondary fluoride result at MW-72M. One primary and 3 secondary sample results were able to be analyzed with a single dilution achieving a lower RL of 0.4 mg/L at MW-77A, MW-78A, and W-306. Additionally, a matrix spike (MS) of fluoride was performed by the laboratory on MW-77A and the MS recoveries were within the laboratory specified limits.

The detected concentrations of sulfate and TDS at the locations included in the evaluation were consistent with historically detected concentrations. The laboratory was able to achieve the appropriate RLs for fluoride with the detected sulfate and TDS concentrations. Based on this, the high DFs and elevated RLs in the April 2023 monitoring event can be concluded to have been the result of an analyst over dilution.

The primary and secondary sample results were consistent with historically detected concentrations. The sample results had acceptable RLs and DFs per the project's specifications excluding fluoride results at MW-72M. The primary results were used for all analyses performed for the CCR monitoring evaluations and the secondary sample results were deemed generally useable for comparison purposes excluding fluoride results at MW-72M.

## RECOMMENDATIONS

Based on the analytical data evaluation of groundwater samples collected during the second semi-annual CCR groundwater monitoring event in 2023, there were no records that were rejected during data validation, but imprecision between analytical results was observed at MW-72M. An over dilution was performed on the sample MW-72M, which is attributed to an analyst error. The performed dilution is at the discretion of the analyst and subject to performance errors

No significant discrepancies were noted between the results of the primary and secondary analytical analyses. Data was deemed generally comparable from primary to secondary analyses. The lowest RL of 0.4 mg/L was achieved with one and three collected samples using USEPA Method 300.0 and US Method 9056A, respectively. These reporting limits were obtained with a one times dilution factor. However, the US Method 9056A could not consistently achieve the lower reporting limit for the fluoride analysis. Reporting limits were achieved for the analysis of TDS and sulfate at similar and/or higher concentrations than historical ranges, and therefore the April 2023 high DFs are concluded to have been the result of analyst over dilution.

Based on the results of the evaluation; it is recommended for the CCR groundwater monitoring samples to continue to be submitted to Eurofins and request the USEPA Method 300.0 for analysis. The chosen method met all project requirements, and the laboratory is aware of required RLs and project specific BTVs. The selected analytical method will reduce the occurrence of variations as the CCR groundwater monitoring program continues and maintain overall program consistency. Additionally, it is recommended to continue monitoring for performance errors, like dilution errors and, if errors continue, to consider changing the contracted laboratory in order to maintain compliance.

## REFERENCES


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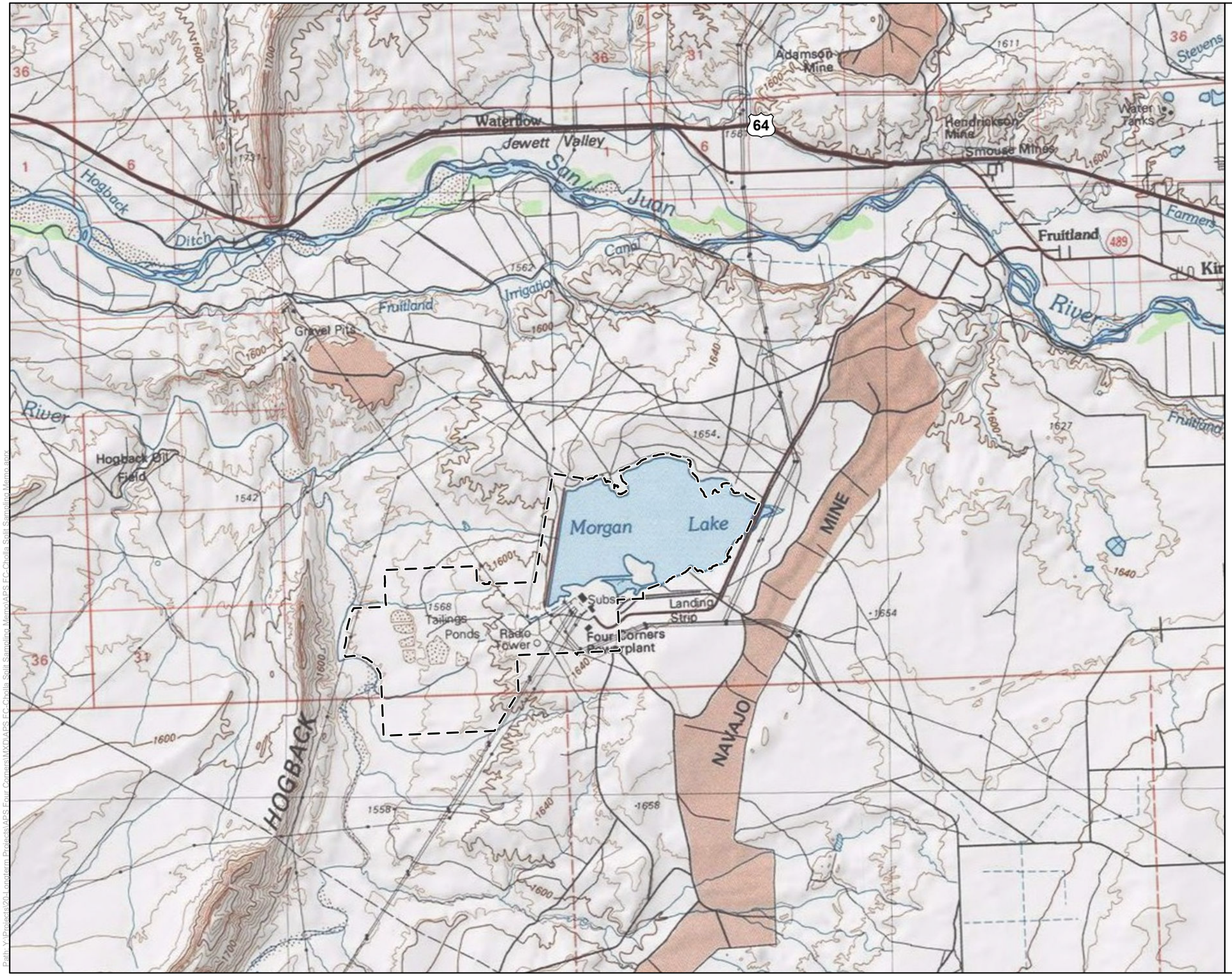
Final Rule promulgated April 17, 2015 with Amendments issued through November 12, 2020.

- Wood, 2022a. *Groundwater Sampling and Analysis Program*. Coal Combustion Residuals Rule Groundwater Monitoring System Compliance. Cholla Power Plant, Joseph City, Arizona. Prepared on behalf of APS. Report dated January 31, 2022.
- Wood, 2022b. *Groundwater Sampling and Analysis Program*. Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Four Corners Power Plant, Fruitland, New Mexico. Prepared on behalf of APS. Report dated August 3, 2022.
- WSP, 2023. Technical Evaluation of Laboratory Split Sampling Data Collected from Four Corners and Cholla Power Plants. Cholla Power Plant, Joseph City, Arizona. Four Corners Power Plant, Fruitland, New Mexico. Prepared on behalf of APS. Report dated January 30, 2022.
- WSP, 2024a. *Annual Groundwater Monitoring and Corrective Action Report for 2023*. Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Cholla Power Plant, Navajo County, Arizona. Prepared on behalf of APS. Report dated January 31, 2024.
- WSP, 2024b. *Annual Groundwater Monitoring and Corrective Action Report for 2023.* Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Four Corners Power Plant, Fruitland, New Mexico, Prepared on behalf of APS. Report dated January 31, 2024.
- WSP, 2024c. *2023 Data Validation Report.* CCR Rule Compliance Groundwater Monitoring Data, Cholla Power Plant, Navajo County, Arizona. Prepared on behalf of APS. Report dated January 31, 2024.
- WSP, 2024d. *2023 Data Validation Report.* CCR Rule Compliance Groundwater Monitoring Data, Four Corners Power Plant, Fruitland, New Mexico. Prepared on behalf of APS. Report dated January 31, 2024.

# ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| APS | Arizona Public Service |
| BTV | Background threshold value |
| CCR | Coal Combustion Residuals |
| Cholla | Cholla Power Plant |
| CoC | Chain of Custody |
| DF | Dilution factor |
| EPA | Environmental Protection Agency |
| Eurofins | Eurofins Environment Testing America |
| Four Corners | Four Corners Power Plant |
| mg/L | milligrams per Liter |
| ml | milliliters |
| MDL | Method detection limits |
| MS | Matrix spike |
| MS/MSD | Matrix spike/matrix spike duplicate |
| QA | Quality assurance |
| QC | Quality control |
| RL | Reporting limit |
| RPD | Relative percent difference |
| SAP | Sampling and Analysis Plan |
| Sites | Cholla Power Plant and Four Corners Power Plant |
| TDS | Total dissolved solids |
| Tech Memo | Technical Memorandum |
| USEPA | United States Environmental Protection Agency |
| WSP | WSP USA Inc. |

# FIGURES







**Area of Detail**

## Legend

Four Corners Power Plant Lease Boundary

0 0.5 1 Miles

N

Technical Evaluation of Laboratory Analytical Method Split Sampling Data
APS Four Corners Power Plant
Fruitland, New Mexico

FIGURE **1**

**Site Location Map**

| | |
|---|---|
| Job No. | 14-2023-2011 |
| PM: | MBH |
| Date: | 4/22/2024 |
| Scale: | 1"= 1 miles |

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**Area of Detail**

## Legend

Cholla Power Plant Lease Boundary

0 0.5 1 Miles

N

Technical Evaluation of Laboratory Analytical Method Split Sampling Data
APS Cholla Power Plant
Navajo County, Arizona

FIGURE **2**

**Site Location Map**

| | |
|---|---|
| Job No. | 14-2023-2012 |
| PM: | MBH |
| Date: | 4/22/2024 |
| Scale: | 1"= 1 miles |

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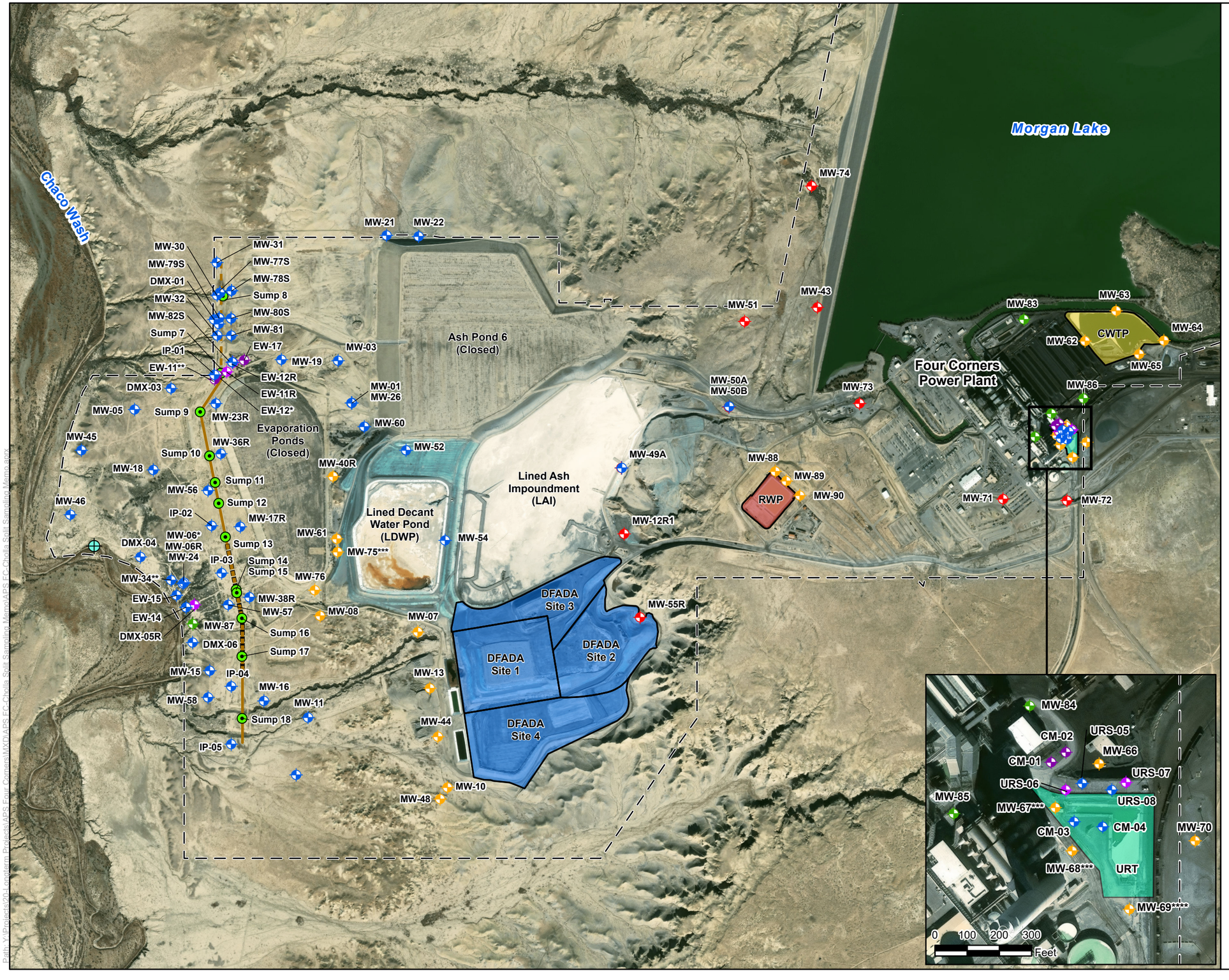


## Legend

- CCR Compliance - Background Well Location
- CCR Compliance - Downgradient Well Location
- CCR Compliance - Downgradient Waste Boundary Well Location
- Supplementary Site Monitoring Well Location
- Extraction Well Location
- Extraction (Inactive) Well Location
- Sump Locations
- Chaco Wash Stream Monitoring Station (Approximate Location)
- North Intercept Trench
- South Intercept Trench
- Approximate Extent of High Flow Zone
- Four Corners Power Plant Lease Boundary

**CCR Units**

- Dry Fly Ash Disposal Area (DFADA)
- Combined Waste Treatment Pond (CWTP)
- Upper Retention Sump (URS)
- Return Water Pond (RWP)

**Notes and Abbreviations:**

| | |
|---|---|
| MW-83 | Well Identification |
| * | Well abandoned in June 2023 |
| ** | In previous reports MW-34 is also referred to as EW-34. |
| *** | Sampled as part of the split sampling. |
| CCR | Coal Combustion Residuals |
| URT | Upper Retention Tank |

0 700 1,400 Feet

N

# Technical Evaluation of Laboratory Analytical Method Split Sampling Data
# APS Four Corners Power Plant
# Fruitland, New Mexico

FIGURE **3**

## CCR Units and Monitoring System Summary

| | |
|---|---|
| Job No. | 14-2023-2011 |
| PM: | MBH |
| Date: | 4/22/2024 |
| Scale: | 1" = 1,400 feet |

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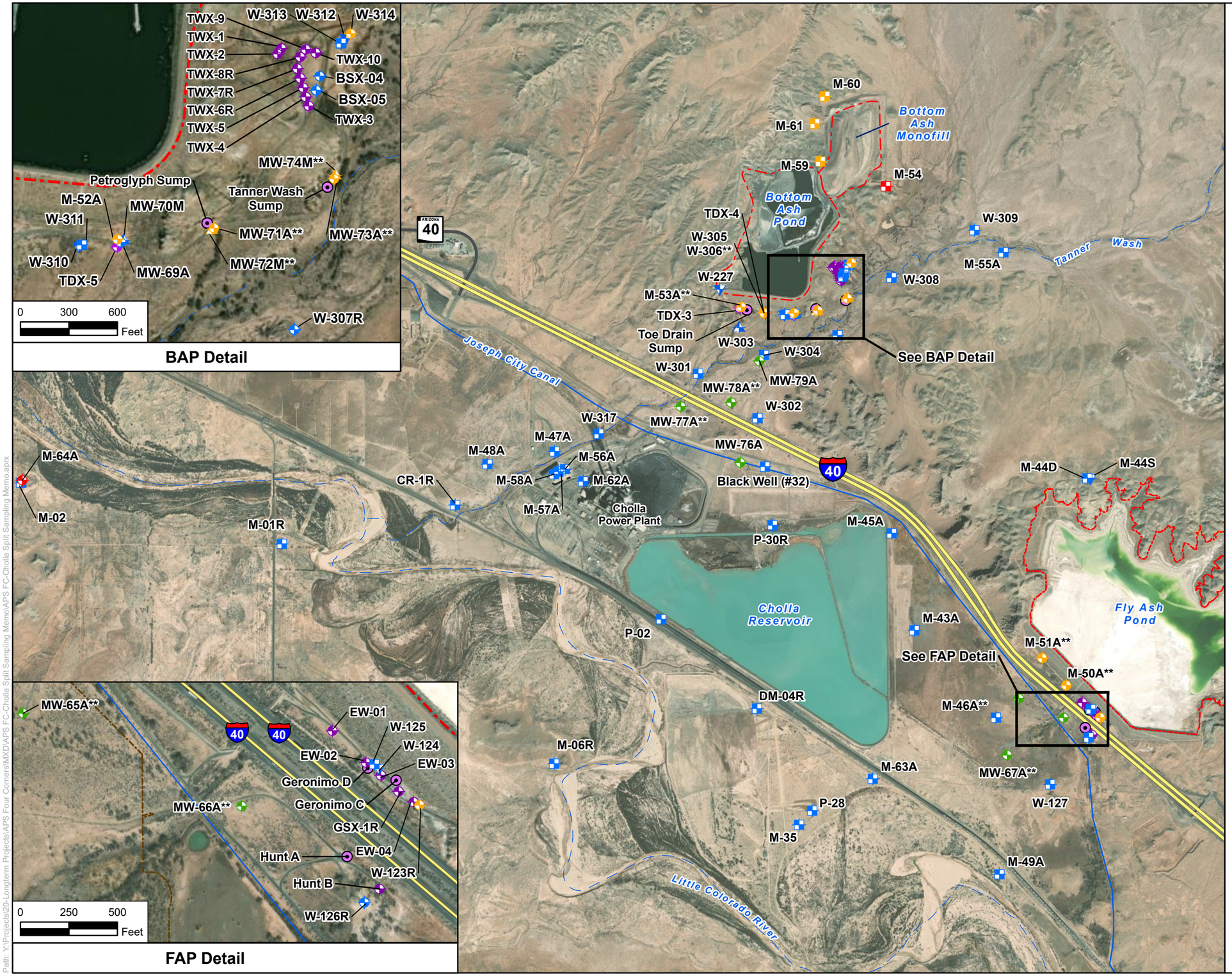


## Legend

**CCR Monitoring Well Location**

- CCR Monitoring Well - Background, Alluvial
- CCR Monitoring Well - Background, C-Aquifer
- CCR Monitoring Well - Downgradient, Alluvial
- CCR Monitoring Well - Downgradient Waste Boundary, Alluvial
- CCR Monitoring Well - Downgradient Waste Boundary, C-Aquifer
- CCR Monitoring Well - Downgradient Waste Boundary, Moenkopi Formation (Moqui Member)

**Supplementary Site Monitoring Well Location**

- C-Aquifer Monitoring Well; Alluvial Monitoring Well; Supplementary Monitoring Well,C-Aquifer
- Moenkopi Formation (Moqui Member) Monitoring Well
- Moenkopi Formation (Wupatki Member) Monitoring Well

**Other Features**

- Extraction Well
- Extraction (Inactive) Well
- Seepage Collection Sump
- Ephemeral Surface Water Feature
- Canal
- Evaporation Pond
- Approximate Extent of CCR Unit
- Approximate Extent of Closed CCR Unit

**Notes:**

In previous documents TDX-3 is also known as BSX-01, TDX-4 is also known as BSX-02, and TDX-5 is also known as BSX-03

TWX area is also referred to as the P-226 or B-226 area on some historical drawings and figures.

** Sampled as part of the split sampling

0 1,000 2,000 Feet

N

Technical Evaluation of Laboratory Analytical Method Split Sampling Data
APS Cholla Power Plant
Navajo County, Arizona

FIGURE 4 — **CCR Units and Groundwater Monitoring System Summary Map**

| | |
|---|---|
| Job No. | 14-2023-2012 |
| PM: | MBH |
| Date: | 4/22/2024 |
| Scale: | 1" = 2,000 feet |

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Path: Y:\Projects\20-Longterm Projects\APS Four Corners\MXD\APS FC-Cholla Split Sampling Memo\APS FC-Cholla Split Sampling Memo.aprx

**Legend**

- CCR Compliance - Downgradient Waste Boundary Well Location
- Four Corners Power Plant Lease Boundary
- Dry Fly Ash Disposal Area (DFADA)
- Combined Waste Treatment Pond (CWTP)
- Upper Retention Sump (URS)
- Return Water Pond (RWP)

**Notes and Abbreviations:**

**MW-67** Well Identification

N

0 700 1,400
Feet

Technical Evaluation of Laboratory Analytical Method Split Sampling Data
APS Four Corners Power Plant
Fruitland, New Mexico

FIGURE **5**

**Split Sampling Locations**

| | |
|---|---|
| Job No. | 14-2023-2011 |
| PM: | MBH |
| Date: | 4/22/2024 |
| Scale: | 1" = 945 feet |

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## Legend

**CCR Monitoring Well Location**

- CCR Monitoring Well - Downgradient, Alluvial
- CCR Monitoring Well - Downgradient Waste Boundary, Alluvial
- CCR Monitoring Well - Downgradient Waste Boundary, Moenkopi Formation (Moqui Member)

**Supplementary Site Monitoring Well Location**

- C-Aquifer Monitoring Well; Alluvial Monitoring Well; Supplementary Monitoring Well,C-Aquifer
- Ephemeral Surface Water Feature
- Canal
- Evaporation Pond
- Approximate Extent of CCR Unit
- Approximate Extent of Closed CCR Unit

**Notes and Abbreviations:**

**MW-67A** Well Identification

0 1,000 2,000 Feet

N

Technical Evaluation of Laboratory Analytical Method Split Sampling Data
APS Cholla Power Plant
Navajo County, Arizona

FIGURE **6**

**Split Sampling Locations**

Job No. 14-2023-2012
PM: MBH
Date: 4/22/2024
Scale: 1" = 1,062.05 feet

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# TABLES

# Table 1

## Well Construction Details

| Site | Well | CCR Compliance Well | CCR Unit | Well Designation | Hydrogeologic Unit | Date Installed | Borehole Depth [ft bgs] | Top of Casing Elevation [ft AMSL] | Ground Surface Elevation [ft AMSL] | Top of Screen [ft bgs] | Bottom of Screen [ft bgs] | Screen Length [ft] | Top Screen Elevation [ft AMSL] | Bottom Screen Elevation [ft AMSL] | Bottom Borehole Elevation [ft AMSL] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cholla Power Plant | M-53A | Yes | BAP | Downgradient Boundary | Tanner Wash Alluvium | 9/22/2015 | 38 | 5044.68 | 5042.09 | 10 | 35 | 25 | 5,032.09 | 5,007.09 | 5,004.09 |
| | MW-71A | Yes | BAP | Downgradient Boundary | Tanner Wash Alluvium | 9/28/2021 | 30 | 5050.680 | 5050.15 | 15.0 | 25.0 | 10 | 5,035.15 | 5,025.15 | 5,020.15 |
| | MW-72M | Yes | BAP | Downgradient Boundary | Moenkopi - Moqui Member | 9/19/2021 | 125 | 5049.670 | 5050.54 | 59.0 | 69.0 | 10 | 4,991.54 | 4,981.54 | 4,925.54 |
| | MW-73A | Yes | BAP | Downgradient Boundary | Tanner Wash Alluvium | 9/23/2021 | 26 | 5049.190 | 5049.66 | 11.0 | 21.0 | 10 | 5,038.66 | 5,028.66 | 5,023.66 |
| | MW-74M | Yes | BAP | Downgradient Boundary | Moenkopi - Moqui Member | 9/23/2021 | 125 | 5049.070 | 5049.74 | 45.0 | 65.0 | 20 | 5,004.74 | 4,984.74 | 4,924.74 |
| | MW-77A | Yes | BAP | Downgradient | Tanner Wash Alluvium/Moenkopi - Moqui Member | 4/30/2021 | 65 | 5031.020 | 5029.78 | 44.0 | 64.0 | 20 | 4,985.78 | 4,965.78 | 4,964.78 |
| | MW-78A | Yes | BAP | Downgradient | Tanner Wash Alluvium | 5/4/2021 | 107 | 5036.950 | 5035.05 | 66.0 | 96.0 | 30 | 4,969.05 | 4,939.05 | 4,928.05 |
| | W-306 | Yes | BAP | Downgradient Boundary | Tanner Wash Alluvium | 10/11/1983 | 52 | 5046.74 | 5044.78 | 30 | 50 | 20 | 5,014.78 | 4,994.78 | 4,992.78 |
| | M-46A | No | FAP | Supplementary | LCR Alluvium | 11/14/2011 | 40 | 5025.36 | 5023.36 | 22 | 34 | 12 | 5,001.36 | 4,989.36 | 4,983.36 |
| | M-50A | Yes | FAP | Downgradient Boundary | LCR Alluvium | 9/18/2015 | 32 | 5038.18 | 5035.65 | 9 | 29 | 20 | 5,026.65 | 5,006.65 | 5,003.65 |
| | M-51A | Yes | FAP | Downgradient Boundary | LCR Alluvium | 9/19/2015 | 14 | 5041.77 | 5039.10 | 7 | 12 | 5 | 5,032.10 | 5,027.10 | 5,025.10 |
| | MW-65A | Yes | FAP | Downgradient | LCR Alluvium | 11/15/2018 | 25 | 5027.86 | 5026.21 | 9 | 19 | 10 | 5,017.31 | 5,007.31 | 5,001.21 |
| | MW-66A | Yes | FAP | Downgradient | LCR Alluvium | 11/14/2018 | 60 | 5033.35 | 5032.46 | 24 | 49 | 25.1 | 5,008.86 | 4,983.76 | 4,972.46 |
| | MW-67A | Yes | FAP | Downgradient | LCR Alluvium | 11/16/2018 | 50 | 5025.38 | 5024.05 | 15 | 45 | 30.1 | 5,009.45 | 4,979.35 | 4,974.05 |
| Four Corners Power Plant | MW-75 | Yes | Multiunit 1 | Downgradient Boundary | Weathered Lewis Shale | 3/15/2017 | 41 | 5,126.80 | 5,124.80 | 29 | 39 | 10 | 5,095.80 | 5,085.80 | 5,083.80 |
| | MW-67 | Yes | URS | Downgradient Boundary | Pictured Cliffs Sandstone | 9/11/2015 | 31 | 5,352.76 | 5,353.8 | 20 | 30 | 10 | 5,334.42 | 5,324.42 | 5,323.02 |
| | MW-68 | Yes | URS | Downgradient Boundary | Pictured Cliffs Sandstone | 9/10/2015 | 30 | 5,353.58 | 5,353.95 | 19 | 29 | 10 | 5,334.95 | 5,324.95 | 5,323.95 |
| | MW-69 | Yes | URS | Downgradient Boundary | Pictured Cliffs Sandstone | 9/9/2015 | 35 | 5,357.66 | 5,355.26 | 24 | 34 | 10 | 5,330.96 | 5,320.96 | 5,320.26 |

**Source:**

AECOM, 2017. CCR Monitoring Well Network Report and Certification, Four Corners Power Plant, Fruitland, New Mexico. AECOM Job No. 60531071. Report dated September 18, 2017

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Wood Environment & Infrastructure Solutions, Inc. Surveying, 2018 and 2019.

Martin Land Surveys, Inc., 2020 and 2021.

**Notes and Abbreviations:**

AMSL - Above mean sea level (Vertical datum is NAVD 88)
BAP - Bottom Ash Pond
bgs - below ground surface
CCR - Coal combustion residuals
FAP - Fly Ash Pond
ft - feet
LCR - Little Colorado River
URS - Upper Retention Sump

**Well Designation Descriptions:**

Downgradient - Monitoring location used to evaluate the nature and extent of groundwater conditions associated with each CCR unit

Downgradient Boundary - Monitoring location used to assess the groundwater conditions at the boundary of each CCR unit

Supplementary - Monitoring location intended to further support interpretations of both immediate CCR Unit-area conditions and Site-wide conditions

# Table 2

## Four Corners Power Plant

## Semi-Annual Event 1 2023 - Analytical Results

| Sample Information | | | | | | Fluoride Information | | | Analytical Results | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Field Sample ID | Lab Sample ID | Sample Date | Sample Location | CCR Unit | Well Designation | Associated Fluoride BTV (mg/L) | Laboratory Fluoride MDL (mg/L) | Fluoride Dilution Factor | Fluoride (mg/L) | Sulfate (mg/L) | Total Dissolved Solids (mg/L) |
| FC-CCR-APV6-0523 | 550-202029-6 | 05/09/2023 | Ash Pond | -- | -- | -- | 2.0 | 5 | <2.0 | 9,600 | 16,000 |
| FC-CCR-CM01-0523 | 550-202031-8 | 05/09/2023 | CM-01 | URS | Extraction | >RL | 20 | 50 | <20 | 9,300 | 16,000 |
| FC-CCR-CM02-0523 | 550-202031-9 | 05/09/2023 | CM-02 | URS | Extraction | >RL | 2.0 | 5 | 4.1 | 9,600 | 16,000 |
| FC-CCR-DMX03-0523 | 550-201909-21 | 05/03/2023 | DMX-03 | Multiunit 1 | Supplementary | 0.8 | 80 | 200 | <80 | 13,000 | 21,000 |
| FC-CCR-DMX04-0523 | 550-201909-22 | 05/04/2023 | DMX-04 | Multiunit 1 | Supplementary | 0.8 | 20 | 50 | <20 | 6,800 | 11,000 |
| FC-CCR-DMX06-0523 | 550-202029-1 | 05/08/2023 | DMX-06 | Multiunit 1 | Supplementary | 0.8 | 2.0 | 5 | <2.0 | 7,500 | 12,000 |
| FC-CCR-MW05-0523 | 550-201909-25 | 05/03/2023 | MW-05 | Multiunit 1 | Supplementary | 0.8 | 80 | 200 | <80 | 14,000 | 28,000 |
| FC-CCR-MW06-0523 | 550-201909-26 | 05/04/2023 | MW-06 | Multiunit 1 | Supplementary | 0.8 | 80 | 200 | <80 | 20,000 | 31,000 |
| FC-CCR-MW07-0523 | 550-202030-1 | 05/08/2023 | MW-07 | Multiunit 1 | Downgradient Boundary | 0.8 | 2.0 | 5 | <2.0 | 5,500 | 9,300 |
| FC-CCR-MW08-0523 | 550-202030-2 | 05/08/2023 | MW-08 | Multiunit 1 | Downgradient Boundary | 0.8 | 2.0 | 5 | <2.0 | 10,000 | 16,000 |
| FC-CCR-MW11-0523 | 550-201909-27 | 05/05/2023 | MW-11 | DFADA | Supplementary | 0.8 | 80 | 200 | <80 | 60,000 | 100,000 |
| FC-CCR-MW15-0523 | 550-202029-2 | 05/08/2023 | MW-15 | Multiunit 1 | Supplementary | 0.8 | 2.0 | 5 | <2.0 | 6,800 | 11,000 |
| FC-CCR-MW16-0523 | 550-202029-3 | 05/08/2023 | MW-16 | Multiunit 1 | Supplementary | 0.8 | 2.0 | 5 | <2.0 | 13,000 | 21,000 |
| FC-CCR-MW17R-0523 | 550-201909-29 | 05/04/2023 | MW-17R | Multiunit 1 | Supplementary | 0.8 | 8.0 | 20 | <8.0 | 4,000 | 6,200 |
| FC-CCR-MW18-0523 | 550-201909-30 | 05/04/2023 | MW-18 | Multiunit 1 | Supplementary | 0.8 | 80 | 200 | <80 | 16,000 | 29,000 |
| FC-CCR-MW23R-0523 | 550-201909-33 | 05/03/2023 | MW-23R | Multiunit 1 | Supplementary | 0.8 | 80 | 200 | <80 | 8,800 | 14,000 |
| FC-CCR-MW24-0523 | 550-201909-34 | 05/04/2023 | MW-24 | Multiunit 1 | Supplementary | 0.8 | 4.0 | 10 | <4.0 | 11,000 | 24,000 |
| FC-CCR-MW36R-0523 | 550-201909-36 | 05/04/2023 | MW-36R | Multiunit 1 | Supplementary | 0.8 | 8.0 | 20 | <8.0 | 3,900 | 6,800 |
| FC-CCR-MW38R-0523 | 550-201909-37 | 05/05/2023 | MW-38R | Multiunit 1 | Supplementary | 0.8 | 8.0 | 20 | <8.0 | 5,400 | 8,900 |
| FC-CCR-MW49A-0523 | 550-202030-3 | 05/08/2023 | MW-49A | Multiunit 1 | Background | 0.8 | 20 | 50 | <20 | 15,000 | 19,000 |
| FC-CCR-MW56-0523 | 550-201909-38 | 05/04/2023 | MW-56 | Multiunit 1 | Supplementary | 0.8 | 80 | 200 | <80 | 19,000 | 30,000 |
| FC-CCR-MW57-0523 | 550-201909-40 | 05/05/2023 | MW-57 | Multiunit 1 | Supplementary | 0.8 | 40 | 100 | <40 | 9,100 | 14,000 |
| FC-CCR-MW61-0523 | 550-201909-16 | 05/04/2023 | MW-61 | Multiunit 1 | Downgradient Boundary | 0.8 | 4.0 | 10 | <4.0 | 3,400 | 5,800 |
| FC-CCR-MW62-0523 | 550-201909-1 | 05/07/2023 | MW-62 | CWTP | Downgradient Boundary | 1.8 | 80 | 200 | <80 | 3,500 | 6,400 |
| FC-CCR-MW63-0523 | 550-201909-2 | 05/07/2023 | MW-63 | CWTP | Downgradient Boundary | 2.3 | 8.0 | 20 | <8 | 1,900 | 3,400 |
| FC-CCR-MW65-0523 | 550-201909-4 | 05/07/2023 | MW-65 | CWTP | Downgradient Boundary | 2.1 | 2.0 | 5 | <2.0 | 300 | 900 |
| FC-CCR-MW66-0523 | 550-201909-9 | 05/07/2023 | MW-66 | URS | Downgradient Boundary | >RL | 80 | 200 | <80 | 11,000 | 18,000 |
| FC-CCR-MW67-0523 | 550-202031-1 | 05/09/2023 | MW-67 | URS | Downgradient Boundary | >RL | 20 | 50 | <20 | 13,000 | 19,000 J |
| FC-CCR-MW68-0523 | 550-202031-2 | 05/09/2023 | MW-68 | URS | Downgradient Boundary | >RL | 20 | 50 | <20 | 14,000 | 22,000 |
| FC-CCR-MW69-0523 | 550-202031-3 | 05/09/2023 | MW-69 | URS | Downgradient Boundary | >RL | 2.0 | 5 | 4.1 | 4,800 | 8,600 J |
| FC-CCR-MW70-0523 | 550-201909-10 | 05/07/2023 | MW-70 | URS | Downgradient Boundary | >RL | 80 | 200 | <80 | 5,600 | 11,000 |
| FC-CCR-MW71-0523 | 550-202031-4 | 05/08/2023 | MW-71 | URS/CWTP | Background | >RL | 2.0 | 5 | <2.0 | 10,000 | 17,000 |
| FC-CCR-MW72-0523 | 550-202031-5 | 05/08/2023 | MW-72 | URS/CWTP | Background | >RL | 2.0 | 5 | 4.2 | 9,800 | 15,000 |
| FC-CCR-MW73-0523 | 550-201909-11 | 05/07/2023 | MW-73 | URS/CWTP | Background | >RL | 80 | 200 | <80 | 8,200 | 12,000 |
| FC-CCR-MW75-0523 | 550-201909-17 | 05/04/2023 | MW-75 | Multiunit 1 | Downgradient Boundary | 0.8 | 4.0 | 10 | <4.0 | 4,500 | 6,800 |
| FC-CCR-MW82S-0523 | 550-201909-46 | 05/05/2023 | MW-82S | -- | Supplementary | -- | 40 | 100 | <40 | 6,100 | 9,800 |

# Table 2

## Four Corners Power Plant

## Semi-Annual Event 1 2023 - Analytical Results

| Field Sample ID | Lab Sample ID | Sample Date | Sample Location | CCR Unit | Well Designation | Associated Fluoride BTV (mg/L) | Laboratory Fluoride MDL (mg/L) | Fluoride Dilution Factor | Fluoride (mg/L) | Sulfate (mg/L) | Total Dissolved Solids (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW83-0523 | 550-201909-12 | 05/07/2023 | MW-83 | URS | Downgradient | >RL | 8.0 | 20 | <8.0 | 3,400 | 5,300 |
| FC-CCR-MW84-0523 | 550-202031-6 | 05/09/2023 | MW-84 | URS | Downgradient | >RL | 2.0 | 5 | <2.0 | 6,000 | 9,200 |
| FC-CCR-FD01-0523 | 550-202031-10 | 05/09/2023 | MW-84 | URS | Downgradient | >RL | 2.0 | 5 | <2.0 | 6,000 | 9,600 |
| FC-CCR-MW85-0523 | 550-202031-7 | 05/09/2023 | MW-85 | URS | Downgradient | >RL | 2.0 | 5 | <2.0 | 6,100 | 10,000 |
| FC-CCR-MW86-0523 | 550-201909-13 | 05/07/2023 | MW-86 | URS | Downgradient | >RL | 80 | 200 | <80 | 5,600 | 9,300 |
| FC-CCR-FD02-0523 | 550-201909-14 | 05/07/2023 | MW-86 | URS | Downgradient | >RL | 80 | 200 | <80 | 5,400 | 9,400 |
| FC-CCR-MW87-0523 | 550-201909-18 | 05/05/2023 | MW-87 | Multiunit 1 | Downgradient | 0.8 | 80 | 200 | <80 | 33,000 | 54,000 J |

**Notes and Abbreviations:**

BTV - Background Threshold Value
CCR - Coal Combustion Residual
CWTP - Combined Waste Treatment Pond
DFADA - Dry Fly Ash Disposal Area
ID - Identification
mg/L - Milligrams per Liter
MDL - method detection limit
Method Detection Limit exceeded the associated BTV

[1] - Sample analyzed by USEPA Method 300.0
[2] - Sample analyzed by US Method SM 2540C
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

# Table 3

## Cholla Power Plant

## Semi-Annual 1 2023 - Analytical Results

| Sample Information | | | | | Fluoride Information | | | Analytical Results | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Field Sample ID | Lab Sample ID | Sample Date | Sample Location | CCR Unit | Associated Fluoride BTV (mg/L) | Laboratory Fluoride MDL (mg/L) | Fluoride Dilution Factor | Fluoride [1] (mg/L) | Sulfate [1] (mg/L) | Total Dissolved Solids [2] (mg/L) |
| CH-CCR-BAPTD-0423 | 550-201346-15 | 04/26/2023 | BAPTD | BAP | 0.8 | 4.0 | 10 | <4.0 | 3,200 | 8,300 |
| CH-CCR-BudHunt-0423 | 550-201150-40 | 04/19/2023 | Bud Hunt Well | FAP | 0.8 | 0.80 | 2 | <0.80 | 260 | 1,100 |
| CH-CCR-GeronimoC-0423 | 550-201346-37 | 04/25/2023 | Geronimo C | FAP | 0.8 | 40 | 100 | <40 | 4,800 | 16,000 |
| CH-CCR-GeronimoD-0423 | 550-201346-39 | 04/25/2023 | Geronimo D | FAP | 0.8 | 8.0 | 20 | 8.2 | 4,500 | 16,000 |
| CH-CCR-HuntB-0423 | 550-201346-41 | 04/25/2023 | Hunt | FAP | 0.8 | 4.0 | 10 | 4.2 | 3,100 | 12,000 |
| CH-CCR-M43A-0423 | 550-200849-1 | 04/15/2023 | M-43A | FAP | 0.8 | 4.0 | 10 | <4.0 | 2,200 | 3,500 |
| CH-CCR-M44D-0423 | 550-200849-3 | 04/13/2023 | M-44D | FAP | 0.8 | 0.80 | 2 | <0.80 | 320 J | 4,600 J |
| CH-CCR-M45A-0423 | 550-200849-4 | 04/15/2023 | M-45A | FAP | 0.8 | 4.0 | 10 | <4.0 | 2,400 | 2,600 |
| CH-CCR-M46A-0423 | 550-200849-5 | 04/15/2023 | M-46A | FAP | 0.8 | 4.0 | 10 | <4.0 | 2,600 | 11,000 |
| CH-CCR-M50A-0423 | 550-201150-31 | 04/17/2023 | MW-50A | FAP | 0.8 | 4.0 | 10 | <4.0 | 3,000 | 7,400 |
| CH-CCR-M51A-0423 | 550-201150-33 | 04/17/2023 | M-51A | FAP | 0.8 | 4.0 | 10 | 5.8 | 2,800 | 12,000 |
| CH-CCR-M52A-0423 | 550-201150-1 | 04/19/2023 | M-52A | BAP | 0.8 | 4.0 | 10 | <4.0 | 2,600 | 11,000 |
| CH-CCR-M53A-0423 | 550-201150-3 | 04/19/2023 | M-53A | BAP | 0.8 | 2.0 | 5 | 2.4 | 3,100 | 7,700 |
| CH-CCR-M54-0423 | 550-200839-1 | 04/13/2023 | M-54 | BAM | 1.8 | 0.80 | 2 | 1.4 | 370 J | 3,100 J |
| CH-CCR-M55A-0423 | 550-201150-5 | 04/20/2023 | M-55A | BAP | 0.8 | 2.0 | 5 | <2.0 | 3,500 | 12,000 |
| CH-CCR-M59-0423 | 550-200839-2 | 04/12/2023 | M-59 | BAM | 1.8 | 0.80 | 2 | 1.4 | 360 J | 2,800 J |
| CH-CCR-FD01-0423 | 550-200839-4 | 04/12/2023 | M-59 | BAM | 1.8 | 0.80 | 2 | 1.4 | 350 J | 1,100 J |
| CH-CCR-M60-0523 | 550-202028-1 | 05/10/2023 | M-60 | BAM | 1.7 | 0.40 | 1 | 1.4 | 370 | 2,800 |
| CH-CCR-M61-0423 | 550-200839-3 | 04/12/2023 | M-61 | BAM | 1.6 | 0.80 | 2 | 1.4 | 350 J | 2,900 J |
| CH-CCR-M63A-0423 | 550-200849-7 | 04/15/2023 | M-63A | FAP | 0.8 | 4.0 | 10 | <4.0 | 630 | 1100 J |
| CH-CCR-FD05-0423 | 550-200849-16 | 04/15/2023 | M-63A | FAP | 0.8 | 4.0 | 10 | <4.0 | 620 | 1900 J |
| CH-CCR-M64A-0423 | 550-201150-35 | 04/17/2023 | M-64A | FAP/BAP | 0.8 | 10 | 25 | <10 | 3,700 | 12,000 |
| CH-CCR-M65A-0423 | 550-200849-10 | 04/15/2023 | MW-65A | FAP | 0.8 | 4.0 | 10 | <4.0 | 2,900 | 8,700 |
| CH-CCR-M66A-0423 | 550-200849-12 | 04/15/2023 | MW-66A | FAP | 0.8 | 4.0 | 10 | <4.0 | 3,000 | 10,000 |
| CH-CCR-M67A-0423 | 550-200849-14 | 04/15/2023 | MW-67A | FAP | 0.8 | 4.0 | 10 | <4.0 | 1,600 | 5,400 |
| CH-CCR-MW69A-0423 | 550-201150-7 | 04/19/2023 | MW-69A | BAP | 0.8 | 2.0 | 5 | <2.0 | 3,100 | 8,000 |
| CH-CCR-MW70M-0423 | 550-201150-9 | 04/19/2023 | MW-70M | BAP | 0.8 | 2.0 | 5 | <2.0 | 2,900 | 7,700 |
| CH-CCR-MW71A-0423 | 550-201150-11 | 04/19/2023 | MW-71A | BAP | 0.8 | 2.0 | 5 | 3.1 | 3,000 | 7,400 |
| CH-CCR-MW72M-0423 | 550-201150-13 | 04/19/2023 | MW-72M | BAP | 0.8 | 40 | 100 | <40 | 1,200 | 74,000 |
| CH-CCR-MW73A-0423 | 550-201150-15 | 04/20/2023 | MW-73A | BAP | 0.8 | 2.0 | 5 | 3.9 | 3,300 | 8,300 |
| CH-CCR-MW74M-0423 | 550-201150-17 | 04/20/2023 | MW-74M | BAP | 0.8 | 4.0 | 10 | <4.0 | 2,600 | 7,400 |
| CH-CCR-MW77A-0423 | 550-201346-9 | 04/25/2023 | MW-77A | BAP | 0.8 | 4.0 | 10 | <4.0 | 4,200 | 11,000 |
| CH-CCR-MW78A-0423 | 550-201346-11 | 04/24/2023 | MW-78A | BAP | 0.8 | 4.0 | 10 | <4.0 | 2,400 | 8,000 |

# Table 3

## Cholla Power Plant

## Semi-Annual 1 2023 - Analytical Results

| Sample Information | | | | | Fluoride Information | | | Analytical Results | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Field Sample ID | Lab Sample ID | Sample Date | Sample Location | CCR Unit | Associated Fluoride BTV (mg/L) | Laboratory Fluoride MDL (mg/L) | Fluoride Dilution Factor | Fluoride [1] (mg/L) | Sulfate [1] (mg/L) | Total Dissolved Solids [2] (mg/L) |
| CH-CCR-MW79A-0423 | 550-200842-5 | 04/14/2023 | MW-79A | BAP | 0.8 | 2.0 | 5 | <2.0 | 2400 J | 7400 J |
| CH-CCR-FD02-0423 | 550-200842-1 | 04/14/2023 | MW-79A | BAP | 0.8 | 2.0 | 5 | <2.0 | 2400 J | 3000 J |
| CH-CCR-Petroglyph-0423 | 550-201346-17 | 04/26/2023 | Petroglyph | BAP | 0.8 | 4.0 | 10 | <4.0 | 3,100 | 7,400 |
| CH-CCR-TannerWash-0423 | 550-201346-19 | 04/26/2023 | Tanner Wash Seep | BAP | 0.8 | 8.0 | 20 | <8.0 | 3,200 | 7,900 |
| CH-CCR-TWX10-0423 | 550-201346-31 | 04/26/2023 | TWX-10 | BAP | 0.8 | 8.0 | 20 | <8.0 | 3,000 | 9,600 |
| CH-CCR-TWX3-0423 | 550-201346-21 | 04/26/2023 | TWX-3 | BAP | 0.8 | 8.0 | 20 | <8.0 | 3,100 | 8,100 |
| CH-CCR-TWX5-0423 | 550-201346-23 | 04/26/2023 | TWX-5 | BAP | 0.8 | 8.0 | 20 | <8.0 | 3,100 | 8,000 |
| CH-CCR-TWX6-0423 | 550-201346-25 | 04/26/2023 | TWX-6 | BAP | 0.8 | 8.0 | 20 | <8.0 | 3,100 | 7,400 |
| CH-CCR-TWX7-0423 | 550-201346-27 | 04/26/2023 | TWX-7 | BAP | 0.8 | 8.0 | 20 | <8.0 | 3,100 | 7,800 |
| CH-CCR-TWX9-0423 | 550-201346-29 | 04/26/2023 | TWX-9 | BAP | 0.8 | 20 | 50 | <20 | 3,100 | 8,300 |
| CH-CCR-W123R-0423 | 550-201150-37 | 04/17/2023 | W-123R | FAP | 0.8 | 4.0 | 10 | 5.9 | 3,300 | 13,000 |
| CH-CCR-W125-0423_A | 550-201150-39 | 04/17/2023 | W-125 | FAP | 0.8 | 0.80 | 2 | <0.80 | 320 | 1,800 |
| CH-CCR-W126R-0423 | 550-200849-8 | 04/15/2023 | W-126R | FAP | 0.8 | 4.0 | 10 | 5.3 | 3,700 | -- |
| CH-CCR-W301-0423 | 550-201150-19 | 04/18/2023 | W-301 | BAP | 0.8 | 4.0 | 10 | <4.0 | 3,800 | 14,000 |
| CH-CCR-W302-0423 | 550-201346-1 | 04/24/2023 | W-302 | BAP | 0.8 | 4.0 | 10 | <4.0 | 2,100 | 8,300 |
| CH-CCR-W303-0423 | 550-201150-21 | 04/18/2023 | W-303 | BAP | 0.8 | 4.0 | 10 | <4.0 | 3,400 | 9,200 |
| CH-CCR-W304-0423 | 550-201346-3 | 04/24/2023 | W-304 | BAP | 0.8 | 4.0 | 10 | <4.0 | 2,600 | 7,700 |
| CH-CCR-W305-0423 | 550-200842-3 | 04/14/2023 | W-305 | BAP | 0.8 | 2.0 | 5 | <2.0 | 2300 J | 7200 J |
| CH-CCR-W306-0423 | 550-201150-23 | 04/19/2023 | W-306 | BAP | 0.8 | 4.0 | 10 | <4.0 | 12,000 | 19,000 |
| CH-CCR-W307R-0423 | 550-201346-5 | 04/24/2023 | W-307R | BAP | 0.8 | 4.0 | 10 | <4.0 | 2,800 | 8,000 |
| CH-CCR-FD03-0423 | 550-201346-7 | 04/24/2023 | W-307R | BAP | 0.8 | 4.0 | 10 | <4.0 | 2,900 | 8,200 |
| CH-CCR-W308-0423 | 550-201150-25 | 04/20/2023 | W-308 | BAP | 0.8 | 4.0 | 10 | <4.0 | 2,600 | 8,800 |
| CH-CCR-W309-0423 | 550-201150-27 | 04/20/2023 | W-309 | BAP | 0.8 | 4.0 | 10 | <4.0 | 3,100 | 7,200 |
| CH-CCR-W314-0423 | 550-201150-29 | 04/20/2023 | W-314 | BAP | 0.8 | 4.0 | 10 | <4.0 | 2,500 | 7,300 |
| CH-CCR-W317-0423 | 550-200842-7 | 04/14/2023 | W-317 | BAP | 0.8 | 2.0 | 5 | <2.0 | 690 J | 7000 J |
| CH-CCR-FD04-0423 | 550-200842-8 | 04/14/2023 | W-317 | BAP | 0.8 | 2.0 | 5 | <2.0 | 690 J | 7000 J |

**Notes and Abbreviations:**

BAM - Bottom Ash Monofill

BAP - Bottom Ash Pond

BTV - Background Threshold Value

CCR -Coal Combustion Residual

FAP - Fly Ash Pond

ID - Identification

mg/L - Milligrams per Liter

[1] - Sample analyzed by USEPA Method 300.0

[2] - Sample analyzed by US Method SM 2540C

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

Method Detection Limit exceeded the associated BTV

## Table 4

## Sample Locations

| Site | Field Sample ID | Lab Sample ID | Well Location | CCR Unit |
|---|---|---|---|---|
| Four Corners Power Plant | FC-CCR-MW67-1123 | 550-210593-1 | MW-67 | URS |
| | FC-CCR-MW68-1123 | 550-210593-2 | MW-68 | URS |
| | FC-CCR-MW69-1123 | 550-210593-3 | MW-69 | URS |
| | FC-CCR-MW75-1123 | 550-210429-3 | MW-75 | Multiunit 1 |
| Cholla Power Plant | CH-CCR-M46A-1023 | 550-209471-4 | M-46A | FAP |
| | CH-CCR-M50A-1023 | 550-209471-6 | M-50A | FAP |
| | CH-CCR-M51A-1023 | 550-209471-8 | M-51A | FAP |
| | CH-CCR-M65A-1023 | 550-209471-10 | MW-65A | FAP |
| | CH-CCR-M66A-1023 | 550-209471-12 | MW-66A | FAP |
| | CH-CCR-M67A-1023 | 550-209471-14 | MW-67A | FAP |
| | CH-CCR-M53A-1023 | 550-209476-1 | M-53A | BAP |
| | CH-CCR-MW71A-1023 | 550-209476-7 | MW-71A | BAP |
| | CH-CCR-MW72M-1023 | 550-209476-9 | MW-72M | BAP |
| | CH-CCR-MW73A-1023 | 550-209476-11 | MW-73A | BAP |
| | CH-CCR-MW74M-1023 | 550-209476-13 | MW-74M | BAP |
| | CH-CCR-MW77A-1023 | 550-209476-15 | MW-77A | BAP |
| | CH-CCR-MW78A-1023 | 550-209609-1 | MW-78A | BAP |
| | CH-CCR-W306-1023 | 550-209476-21 | W-306 | BAP |

**Notes and Abbreviations:**

BAP - Bottom Ash Pond

CCR - Coal combustion residuals

FAP - Fly Ash Pond

ID - Identification

URS - Upper Retention Sump

## Table 5

## Four Corners Power Plant

## Semi-Annual Event 2 2023 - Analytical Results

| Field Sample ID | Lab Sample ID | Sample Date | Sample Location | Fluoride BTVs (mg/L) | Fluoride (mg/L) | Fluoride (mg/L) | Sulfate (mg/L) | Total Dissolved Solids (mg/L) |
|---|---|---|---|---|---|---|---|---|
| | | | | US EPA Laboratory Analysis Method | 300.0 | 9056A | 300.0 | SM2540C |
| FC-CCR-MW67-1123 | 550-210593-1 | 11/13/2023 | MW-67 | >RL | 13 | 13 | 13,000 | 20,000 |
| FC-CCR-MW68-1123 | 550-210593-2 | 11/11/2023 | MW-68 | >RL | 13 | 12 | 15,000 | 24,000 |
| FC-CCR-MW69-1123 | 550-210593-3 | 11/11/2023 | MW-69 | >RL | 4.7 | 4.7 | 5,000 | 8,900 |
| FC-CCR-MW75-1123 | 550-210429-3 | 11/8/2023 | MW-75 | 0.8 | 1.2 | 1.2 | 4,600 | 7,100 |

**Notes and Abbreviations:**

> - greater than

BTV - Background Threshold Value

ID - Identification

mg/L - Milligrams per Liter

RL - Laboratory Reporting Limit

**Table 6**

**Cholla Power Plant**

**Semi-Annual Event 2 Analytical Results**

| Field Sample ID | Lab Sample ID | Sample Date | Sample Location | Fluoride BTVs (mg/L) | Fluoride (mg/L) | Fluoride (mg/L) | Sulfate (mg/L) | Total Dissolved Solids (mg/L) |
|---|---|---|---|---|---|---|---|---|
| US EPA Laboratory Analysis Method | | | | | 300.0 | 9056A | 300.0 | SM2540C |
| CH-CCR-M46A-1023 | 550-209471-4 | 10/16/2023 | M-46A | 0.8 | 1.0 | 1.1 | 2,800 | 12,000 |
| CH-CCR-M50A-1023 | 550-209471-6 | 10/17/2023 | M-50A | 0.8 | 2.5 | 2.4 | 3,000 | 7,500 |
| CH-CCR-M51A-1023 | 550-209471-8 | 10/17/2023 | M-51A | 0.8 | 5.6 | 5.7 | 2,800 | 14,000 |
| CH-CCR-M53A-1023 | 550-209476-1 | 10/19/2023 | M-53A | 0.8 | 2.4 | 2.7 | 2,900 | 7,800 |
| CH-CCR-M65A-1023 | 550-209471-10 | 10/16/2023 | MW-65A | 0.8 | 3.0 | 3.0 | 3,700 | 12,000 |
| CH-CCR-M66A-1023 | 550-209471-12 | 10/16/2023 | MW-66A | 0.8 | 1.4 | 1.4 | 3,000 | 9,900 |
| CH-CCR-M67A-1023 | 550-209471-14 | 10/16/2023 | MW-67A | 0.8 | 0.80 | 0.83 | 1,800 | 5,000 |
| CH-CCR-MW71A-1023 | 550-209476-7 | 10/18/2023 | MW-71A | 0.8 | 3.4 | 3.5 | 1,200 | 7,800 |
| CH-CCR-MW72M-1023 | 550-209476-9 | 10/18/2023 | MW-72M | 0.8 | <0.80 | <80 | 1,800 | 61,000 |
| CH-CCR-MW73A-1023 | 550-209476-11 | 10/18/2023 | MW-73A | 0.8 | 4.2 | 4.3 | 3,300 | 8,900 |
| CH-CCR-MW74M-1023 | 550-209476-13 | 10/18/2023 | MW-74M | 0.8 | 1.4 | 1.3 | 2,600 | 7,400 |
| CH-CCR-MW77A-1023 | 550-209476-15 | 10/17/2023 | MW-77A | 0.8 | <0.80 | 0.50 | 4,700 | 11,000 |
| CH-CCR-MW78A-1023 | 550-209609-1 | 10/23/2023 | MW-78A | 0.8 | <0.40 | <0.40 | 2,300 | 7,900 |
| CH-CCR-W306-1023 | 550-209476-21 | 10/19/2023 | W-306 | 0.8 | 1.3 | 1.0 | 11,000 | 18,000 |

**Notes and Abbreviations:**

BTV - Background Threshold Value

ID - Identification

mg/L - Milligrams per Liter

# Table 7

## Comparison of Fluoride Results by Method

| Site | Field Sample ID | Lab Sample ID | Sample Date | Fluoride by USEPA Method 300.0 | | | | Fluoride by US Method SW9056 | | | | RPD | ABS Value Difference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Lab Result | RL | Dilution Factor | Lab Units | Lab Result | RL | Dilution Factor | Lab Units | | |
| Four Corners | FC-CCR-MW67-1123 | 550-210593-1 | 11/13/2023 | 13 | 0.8 | 2 | mg/L | 13 | 0.8 | 2 | mg/L | 0.0% | 0.0 |
| Four Corners | FC-CCR-MW68-1123 | 550-210593-2 | 11/11/2023 | 13 | 0.8 | 2 | mg/L | 12 | 0.8 | 2 | mg/L | 8.0% | 1.0 |
| Four Corners | FC-CCR-MW69-1123 | 550-210593-3 | 11/11/2023 | 4.7 | 0.8 | 2 | mg/L | 4.7 | 0.8 | 2 | mg/L | 0.0% | 0.0 |
| Four Corners | FC-CCR-MW75-1123 | 550-210429-3 | 11/8/2023 | 1.2 | 0.8 | 2 | mg/L | 1.2 | 0.8 | 2 | mg/L | 0.0% | 0.0 |
| Cholla | CH-CCR-M46A-1023 | 550-209471-4 | 10/16/2023 | 1.0 | 0.8 | 2 | mg/L | 1.1 | 0.8 | 2 | mg/L | 9.5% | 0.10 |
| Cholla | CH-CCR-M50A-1023 | 550-209471-6 | 10/17/2023 | 2.5 | 0.8 | 2 | mg/L | 2.4 | 0.8 | 2 | mg/L | 4.1% | 0.10 |
| Cholla | CH-CCR-M51A-1023 | 550-209471-8 | 10/17/2023 | 5.6 | 0.8 | 2 | mg/L | 5.7 | 0.8 | 2 | mg/L | 1.8% | 0.10 |
| Cholla | CH-CCR-M53A-1023 | 550-209476-1 | 10/19/2023 | 2.4 | 0.8 | 2 | mg/L | 2.7 | 0.8 | 2 | mg/L | 12% | 0.30 |
| Cholla | CH-CCR-M65A-1023 | 550-209471-10 | 10/16/2023 | 3.0 | 0.8 | 2 | mg/L | 3.0 | 0.8 | 2 | mg/L | 0.0% | 0.00 |
| Cholla | CH-CCR-M66A-1023 | 550-209471-12 | 10/16/2023 | 1.4 | 0.8 | 2 | mg/L | 1.4 | 0.8 | 2 | mg/L | 0.0% | 0.00 |
| Cholla | CH-CCR-M67A-1023 | 550-209471-14 | 10/16/2023 | 0.8 | 0.8 | 2 | mg/L | 0.83 | 0.8 | 2 | mg/L | 3.7% | 0.03 |
| Cholla | CH-CCR-MW71A-1023 | 550-209476-7 | 10/18/2023 | 3.4 | 0.8 | 2 | mg/L | 3.5 | 0.8 | 2 | mg/L | 2.9% | 0.10 |
| Cholla | CH-CCR-MW72M-1023 | 550-209476-9 | 10/18/2023 | <0.8 | 0.8 | 2 | mg/L | <80 | 80 | 200 | mg/L | 196% [A] | 79 |
| Cholla | CH-CCR-MW73A-1023 | 550-209476-11 | 10/18/2023 | 4.2 | 0.8 | 2 | mg/L | 4.3 | 0.8 | 2 | mg/L | 2.4% | 0.10 |
| Cholla | CH-CCR-MW74M-1023 | 550-209476-13 | 10/18/2023 | 1.4 | 0.8 | 2 | mg/L | 1.3 | 0.8 | 2 | mg/L | 7.4% | 0.10 |
| Cholla | CH-CCR-MW77A-1023 | 550-209476-15 | 10/17/2023 | <0.8 | 0.8 | 2 | mg/L | 0.5 | 0.4 | 1 | mg/L | 46% | 0.30 |
| Cholla | CH-CCR-MW78A-1023 | 550-209609-1 | 10/23/2023 | <0.4 | 0.4 | 1 | mg/L | <0.4 | 0.4 | 1 | mg/L | 0% [A] | 0.0 |
| Cholla | CH-CCR-W306-1023 | 550-209476-21 | 10/19/2023 | 1.3 | 0.8 | 2 | mg/L | 1.0 | 0.4 | 1 | mg/L | 0.0% | 0.30 |

**Notes and Abbreviations:**

[A] - The RPD is comparing non-detect values

< - less than

ABS - Absolute

CCR - Coal combustion residuals

ID - Identification

mg/L - Milligrams per Liter

RL - Laboratory Reporting Limit

RPD - Relative Percent Difference

# ATTACHMENT

# A

Eurofins Environment

Testing America
Analytical Reports

eurofins | Environment Testing

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
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Generated 11/14/2023 2:13:10 PM Revision 1

## JOB DESCRIPTION

CCR Groundwater Monitoring
APS Cholla Power Plant (FAP)

## JOB NUMBER

550-209471-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.



my EOL

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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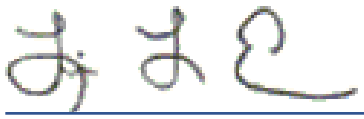
## Authorization



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Revision 1

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# Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

## Qualifiers

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| D1 | Sample required dilution due to matrix. |
| D2 | Sample required dilution due to high concentration of analyte. |
| D5 | Minimum Reporting Limit (MRL) adjusted due to sample dilution; analyte was non-detect in the sample. |
| E2 | Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| L3 | The associated blank spike recovery was above method acceptance limits. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |
| T5 | Laboratory not licensed for this parameter |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| H5 | This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time. |
| M1 | Matrix spike recovery was high, the associated blank spike recovery was acceptable. |
| T5 | Laboratory not licensed for this parameter |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |

## Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

## Job ID: 550-209471-1

### Laboratory: Eurofins Phoenix

**Narrative**

**Job Narrative**
**550-209471-1**

REVISION

The report being provided is a revision of the original report sent on 11/10/2023. The report (revision 1) is being revised due to Final report was sent out with duplicate 200.8 metals.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**
The samples were received on 10/20/2023 3:01 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 1.9°C, 2.1°C, 2.3°C, 3.1°C, 3.2°C and 4.6°C

**HPLC/IC**
Method 300_ORGFMS: The following samples were diluted due to the nature of the sample matrix: CH-CCR-M43A-1023 (550-209471-1), CH-CCR-M45A-1023 (550-209471-3), CH-CCR-W125-1023 (550-209471-16) and CH-CCR-BudHunt-1023 (550-209471-19). Elevated reporting limits (RLs) are provided. The following samples contain an analyte not part of the method profile which interferes with fluoride providing an indiscernible chromatogram. A 2x dilution is required.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**Metals**
Method 200.8_CWA_LL: The laboratory control sample (LCS) associated with preparation batch 550-309754 and analytical batch 550-309936 was outside acceptance criteria for Barium. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. CH-CCR-M43A-1023 (550-209471-1), CH-CCR-M45A-1023 (550-209471-3), CH-CCR-M46A-1023 (550-209471-4), CH-CCR-M50A-1023 (550-209471-6), CH-CCR-M51A-1023 (550-209471-8), CH-CCR-M65A-1023 (550-209471-10), CH-CCR-M66A-1023 (550-209471-12), CH-CCR-M67A-1023 (550-209471-14), CH-CCR-W125-1023 (550-209471-16), CH-CCR-W-126R-1023 (550-209471-17) and CH-CCR-BudHunt-1023 (550-209471-19)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**General Chemistry**
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 550-209471-1 | CH-CCR-M43A-1023 | Water | 10/16/23 16:23 | 10/20/23 15:01 |
| 550-209471-2 | CH-CCR-M43A-1023 | Water | 10/16/23 16:23 | 10/20/23 15:01 |
| 550-209471-3 | CH-CCR-M45A-1023 | Water | 10/17/23 13:38 | 10/20/23 15:01 |
| 550-209471-4 | CH-CCR-M46A-1023 | Water | 10/16/23 13:22 | 10/20/23 15:01 |
| 550-209471-5 | CH-CCR-M46A-1023 | Water | 10/16/23 13:22 | 10/20/23 15:01 |
| 550-209471-6 | CH-CCR-M50A-1023 | Water | 10/17/23 10:21 | 10/20/23 15:01 |
| 550-209471-7 | CH-CCR-M50A-1023 | Water | 10/17/23 10:21 | 10/20/23 15:01 |
| 550-209471-8 | CH-CCR-M51A-1023 | Water | 10/17/23 09:37 | 10/20/23 15:01 |
| 550-209471-9 | CH-CCR-M51A-1023 | Water | 10/17/23 09:37 | 10/20/23 15:01 |
| 550-209471-10 | CH-CCR-M65A-1023 | Water | 10/16/23 11:19 | 10/20/23 15:01 |
| 550-209471-11 | CH-CCR-M65A-1023 | Water | 10/16/23 11:19 | 10/20/23 15:01 |
| 550-209471-12 | CH-CCR-M66A-1023 | Water | 10/16/23 10:15 | 10/20/23 15:01 |
| 550-209471-13 | CH-CCR-M66A-1023 | Water | 10/16/23 10:15 | 10/20/23 15:01 |
| 550-209471-14 | CH-CCR-M67A-1023 | Water | 10/16/23 15:15 | 10/20/23 15:01 |
| 550-209471-15 | CH-CCR-M67A-1023 | Water | 10/16/23 15:15 | 10/20/23 15:01 |
| 550-209471-16 | CH-CCR-W125-1023 | Water | 10/17/23 11:16 | 10/20/23 15:01 |
| 550-209471-17 | CH-CCR-W-126R-1023 | Water | 10/16/23 09:29 | 10/20/23 15:01 |
| 550-209471-18 | CH-CCR-W-126R-1023 | Water | 10/16/23 09:29 | 10/20/23 15:01 |
| 550-209471-19 | CH-CCR-BudHunt-1023 | Water | 10/17/23 08:40 | 10/20/23 15:01 |
| 550-209471-20 | CH-CCR-BudHunt-1023 | Water | 10/17/23 08:40 | 10/20/23 15:01 |

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

## Client Sample ID: CH-CCR-M43A-1023 — Lab Sample ID: 550-209471-1

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 210 | D2 | 40 | | mg/L | 20 | | 300.0 | Total/NA |
| Sulfate | 1900 | D2 | 40 | | mg/L | 20 | | 300.0 | Total/NA |
| Boron | 0.49 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 530 | M3 | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 1.9 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 1.6 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.15 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0035 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.018 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0030 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Ammonia | 0.37 | | 0.050 | | mg/L | 1 | | 350.1 | Total/NA |
| Total Dissolved Solids | 6500 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 9.2 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 1.8 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 1.8 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 1.8 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-M43A-1023 — Lab Sample ID: 550-209471-2

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 1.8 | | 0.10 | | mg/L | 1 | | 200.7 | Dissolved |
| Manganese | 1.6 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 3.3 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

## Client Sample ID: CH-CCR-M45A-1023 — Lab Sample ID: 550-209471-3

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 700 | D2 | 40 | | mg/L | 20 | | 300.0 | Total/NA |
| Sulfate | 2100 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 1.0 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 600 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.27 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0045 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.013 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0029 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 4700 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.3 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 9.5 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: CH-CCR-M46A-1023 — Lab Sample ID: 550-209471-4

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1700 | D2 | 40 | | mg/L | 20 | | 300.0 | Total/NA |
| Fluoride | 1.0 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 2800 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Fluoride | 1.1 | | 0.80 | | mg/L | 2 | | 9056A | Total/NA |
| Boron | 0.64 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 950 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 5.3 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 4.1 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: CH-CCR-M46A-1023 (Continued) — Lab Sample ID: 550-209471-4

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Potassium | 13 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 3200 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 200 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.35 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0063 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.020 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Chromium | 0.0085 | | 0.0050 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0091 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Ammonia | 1.1 | | 0.050 | | mg/L | 1 | | 350.1 | Total/NA |
| Alkalinity as CaCO3 | 230 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 230 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 12000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.3 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 8.3 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 3.8 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 3.8 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 3.8 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-M46A-1023 — Lab Sample ID: 550-209471-5

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 1.9 | | 0.10 | | mg/L | 1 | | 200.7 | Dissolved |
| Manganese | 3.9 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 3.6 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

## Client Sample ID: CH-CCR-M50A-1023 — Lab Sample ID: 550-209471-6

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1900 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Fluoride | 2.5 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 3000 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Fluoride | 2.4 | D1 | 0.80 | | mg/L | 2 | | 9056A | Total/NA |
| Boron | 3.0 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 570 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.31 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 5.7 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1600 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 180 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.50 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0052 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.0084 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0083 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 160 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 160 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 7500 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.4 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 8.1 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 2.8 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 2.8 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 2.8 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

## Client Sample ID: CH-CCR-M50A-1023 — Lab Sample ID: 550-209471-7

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 0.30 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 5.2 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

## Client Sample ID: CH-CCR-M51A-1023 — Lab Sample ID: 550-209471-8

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 6300 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Fluoride | 5.6 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 2800 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Fluoride | 5.7 | D1 | 0.80 | | mg/L | 2 | | 9056A | Total/NA |
| Boron | 27 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 860 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 1.1 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 27 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 3200 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 250 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.54 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.032 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.0077 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.16 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Ammonia | 0.12 | | 0.050 | | mg/L | 1 | | 350.1 | Total/NA |
| Alkalinity as CaCO3 | 77 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 77 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 14000 | | 200 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.3 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 8.2 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 2.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 2.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 2.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-M51A-1023 — Lab Sample ID: 550-209471-9

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 1.1 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 31 | | 5.0 | | ug/L | 10 | | 200.8 LL | Dissolved |

## Client Sample ID: CH-CCR-M65A-1023 — Lab Sample ID: 550-209471-10

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4300 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Fluoride | 3.0 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 3700 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Fluoride | 3.0 | D1 | 0.80 | | mg/L | 2 | | 9056A | Total/NA |
| Boron | 14 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 830 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.43 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.22 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 33 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 2900 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 360 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.73 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: CH-CCR-M65A-1023 (Continued) — Lab Sample ID: 550-209471-10

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.0040 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.021 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.18 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 230 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 230 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 12000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 6.9 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 9.1 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 4.0 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 4.0 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 4.0 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-M65A-1023 — Lab Sample ID: 550-209471-11

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 0.29 | | 0.10 | | mg/L | 1 | | 200.7 | Dissolved |
| Manganese | 0.23 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 3.8 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

## Client Sample ID: CH-CCR-M66A-1023 — Lab Sample ID: 550-209471-12

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 3800 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Fluoride | 1.4 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 3000 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Fluoride | 1.4 | D1 | 0.80 | | mg/L | 2 | | 9056A | Total/NA |
| Boron | 2.0 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 740 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 1.8 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 2.9 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 6.5 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 2600 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 250 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.50 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0048 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.019 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Chromium | 0.020 | | 0.0050 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.015 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Selenium | 0.0046 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Ammonia | 0.067 | | 0.050 | | mg/L | 1 | | 350.1 | Total/NA |
| Alkalinity as CaCO3 | 150 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 150 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 9900 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.4 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 9.7 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 2.7 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 2.7 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 2.7 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

## Client Sample ID: CH-CCR-M66A-1023 — Lab Sample ID: 550-209471-13

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 2.7 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 2.7 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

## Client Sample ID: CH-CCR-M67A-1023 — Lab Sample ID: 550-209471-14

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2000 | D2 | 40 | | mg/L | 20 | | 300.0 | Total/NA |
| Fluoride | 0.80 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 1800 | D2 | 40 | | mg/L | 20 | | 300.0 | Total/NA |
| Fluoride | 0.83 | D1 | 0.80 | | mg/L | 2 | | 9056A | Total/NA |
| Boron | 0.35 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 520 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 4.0 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 1.5 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 12 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 770 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 220 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.20 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0053 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.034 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cobalt | 0.0057 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Ammonia | 0.33 | | 0.050 | | mg/L | 1 | | 350.1 | Total/NA |
| Alkalinity as CaCO3 | 240 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 240 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 5000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.3 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 9.8 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 1.2 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 1.2 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 1.2 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-M67A-1023 — Lab Sample ID: 550-209471-15

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 2.3 | | 0.10 | | mg/L | 1 | | 200.7 | Dissolved |
| Manganese | 1.4 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 4.2 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |
| Cobalt | 4.8 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

## Client Sample ID: CH-CCR-W125-1023 — Lab Sample ID: 550-209471-16

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 720 | D2 | 20 | | mg/L | 10 | | 300.0 | Total/NA |
| Sulfate | 320 | D2 | 20 | | mg/L | 10 | | 300.0 | Total/NA |
| Boron | 0.15 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 110 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.069 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0058 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.020 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 1800 | | 20 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.6 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: CH-CCR-W125-1023 (Continued) — Lab Sample ID: 550-209471-16

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Temperature | 9.6 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: CH-CCR-W-126R-1023 — Lab Sample ID: 550-209471-17

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 6300 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Fluoride | 5.0 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 3700 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Boron | 43 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 740 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.55 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 39 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 3600 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 340 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.71 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0030 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.0099 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cobalt | 0.0038 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.27 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Ammonia | 0.59 | | 0.050 | | mg/L | 1 | | 350.1 | Total/NA |
| Alkalinity as CaCO3 | 72 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 72 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 14000 | | 200 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.6 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 9.0 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 2.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 2.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 2.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-W-126R-1023 — Lab Sample ID: 550-209471-18

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 0.56 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 2.9 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |
| Cobalt | 3.8 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

## Client Sample ID: CH-CCR-BudHunt-1023 — Lab Sample ID: 550-209471-19

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 120 | D2 | 4.0 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 290 | D2 | 20 | | mg/L | 10 | | 300.0 | Total/NA |
| Boron | 0.14 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 80 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.13 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 2.8 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 170 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 36 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.058 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0026 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.012 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 170 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: CH-CCR-BudHunt-1023 (Continued) — Lab Sample ID: 550-209471-19

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bicarbonate Alkalinity as CaCO3 | 170 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 1100 | | 20 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.7 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 9.7 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: CH-CCR-BudHunt-1023 — Lab Sample ID: 550-209471-20

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.7 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: CH-CCR-M43A-1023

**Date Collected: 10/16/23 16:23**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-1

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **210** | **D2** | 40 | | mg/L | | | 10/31/23 12:43 | 20 |
| Fluoride | ND | D1 D5 | 0.80 | | mg/L | | | 10/21/23 17:43 | 2 |
| **Sulfate** | **1900** | **D2** | 40 | | mg/L | | | 10/21/23 18:01 | 20 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:33 | 1 |
| **Boron** | **0.49** | | 0.050 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:33 | 1 |
| **Calcium** | **530** | **M3** | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:33 | 1 |
| **Iron** | **1.9** | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:33 | 1 |
| **Manganese** | **1.6** | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:33 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.15** | | 0.050 | | mg/L | | 10/25/23 08:04 | 10/27/23 16:00 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:53 | 5 |
| **Arsenic** | **0.0035** | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:53 | 5 |
| **Barium** | **0.018** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:53 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:53 | 5 |
| Chromium | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:53 | 5 |
| Cobalt | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:53 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:53 | 5 |
| **Molybdenum** | **0.0030** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:53 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:53 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:53 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/26/23 12:18 | 10/26/23 15:36 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia (EPA 350.1)** | **0.37** | | 0.050 | | mg/L | | | 10/30/23 14:38 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/25/23 12:54 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **6500** | | 100 | | mg/L | | | 10/23/23 15:06 | 1 |
| **pH (SM 4500 H+ B)** | **7.5** | **H5** | 1.7 | | SU | | | 10/26/23 09:14 | 1 |
| **Temperature (SM 4500 H+ B)** | **9.2** | **H5 T5** | 0.1 | | Degrees C | | | 10/26/23 09:14 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon (SM 5310B)** | **1.8** | | 0.50 | | mg/L | | | 10/30/23 23:09 | 1 |
| **Dissolved Organic Carbon - Duplicate (SM 5310B)** | **1.8** | | 0.50 | | mg/L | | | 10/30/23 23:09 | 1 |
| **Dissolved Organic Carbon - Quad (SM 5310B)** | **1.8** | | 0.50 | | mg/L | | | 10/30/23 23:09 | 1 |

## Client Sample ID: CH-CCR-M43A-1023

**Lab Sample ID: 550-209471-2**

**Date Collected: 10/16/23 16:23**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Iron** | **1.8** | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:36 | 1 |
| **Manganese** | **1.6** | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:36 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **3.3** | | 2.5 | | ug/L | | 10/23/23 09:42 | 10/24/23 18:55 | 5 |
| Cobalt | ND | | 2.5 | | ug/L | | 10/23/23 09:42 | 10/24/23 18:55 | 5 |

## Client Sample ID: CH-CCR-M45A-1023

**Lab Sample ID: 550-209471-3**

**Date Collected: 10/17/23 13:38**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **700** | **D2** | 40 | | mg/L | | | 10/21/23 18:38 | 20 |
| Fluoride | ND | D1 D5 | 0.80 | | mg/L | | | 10/21/23 18:19 | 2 |
| **Sulfate** | **2100** | **D2** | 200 | | mg/L | | | 10/31/23 02:29 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:39 | 1 |
| **Boron** | **1.0** | | 0.050 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:39 | 1 |
| **Calcium** | **600** | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:39 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.27** | | 0.10 | | mg/L | | 10/25/23 08:04 | 10/27/23 16:41 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:49 | 5 |
| **Arsenic** | **0.0045** | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:49 | 5 |
| **Barium** | **0.013** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:49 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:49 | 5 |
| Chromium | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:49 | 5 |
| Cobalt | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:49 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:49 | 5 |
| **Molybdenum** | **0.0029** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:49 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:49 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:49 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/26/23 12:18 | 10/26/23 15:38 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **4700** | | 100 | | mg/L | | | 10/23/23 15:06 | 1 |
| **pH (SM 4500 H+ B)** | **7.3** | **H5** | 1.7 | | SU | | | 10/26/23 09:16 | 1 |
| **Temperature (SM 4500 H+ B)** | **9.5** | **H5 T5** | 0.1 | | Degrees C | | | 10/26/23 09:16 | 1 |

## Client Sample ID: CH-CCR-M46A-1023

**Date Collected: 10/16/23 13:22**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-4

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1700** | **D2** | 40 | | mg/L | | | 10/21/23 20:10 | 20 |
| **Fluoride** | **1.0** | **D2** | 0.80 | | mg/L | | | 10/21/23 19:51 | 2 |
| **Sulfate** | **2800** | **D2** | 200 | | mg/L | | | 10/31/23 02:57 | 100 |

### Method: SW846 9056A - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **1.1** | | 0.80 | | mg/L | | | 11/02/23 16:40 | 2 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:42 | 1 |
| **Boron** | **0.64** | | 0.050 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:42 | 1 |
| **Calcium** | **950** | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:42 | 1 |
| **Iron** | **5.3** | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:42 | 1 |
| **Manganese** | **4.1** | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:42 | 1 |
| **Potassium** | **13** | | 0.50 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:42 | 1 |
| **Sodium** | **3200** | | 5.0 | | mg/L | | 10/23/23 06:23 | 10/26/23 20:40 | 10 |
| **Magnesium** | **200** | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:42 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.35** | | 0.10 | | mg/L | | 10/25/23 08:04 | 10/27/23 17:04 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:51 | 5 |
| **Arsenic** | **0.0063** | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:51 | 5 |
| **Barium** | **0.020** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:51 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:51 | 5 |
| **Chromium** | **0.0085** | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:51 | 5 |
| Cobalt | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:51 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:51 | 5 |
| **Molybdenum** | **0.0091** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:51 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:51 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:51 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/26/23 12:18 | 10/26/23 15:40 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia (EPA 350.1)** | **1.1** | | 0.050 | | mg/L | | | 10/30/23 14:42 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/25/23 13:00 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **230** | | 6.0 | | mg/L | | | 10/25/23 18:49 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 18:49 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **230** | | 6.0 | | mg/L | | | 10/25/23 18:49 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 18:49 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 18:49 | 1 |

## Client Sample ID: CH-CCR-M46A-1023

**Lab Sample ID: 550-209471-4**
**Date Collected: 10/16/23 13:22**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 12000 | | 100 | | mg/L | | | 10/23/23 15:06 | 1 |
| pH (SM 4500 H+ B) | 7.3 | H5 | 1.7 | | SU | | | 10/26/23 09:18 | 1 |
| Temperature (SM 4500 H+ B) | 8.3 | H5 T5 | 0.1 | | Degrees C | | | 10/26/23 09:18 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon (SM 5310B) | 3.8 | | 0.50 | | mg/L | | | 10/30/23 23:32 | 1 |
| Dissolved Organic Carbon - Duplicate (SM 5310B) | 3.8 | | 0.50 | | mg/L | | | 10/30/23 23:32 | 1 |
| Dissolved Organic Carbon - Quad (SM 5310B) | 3.8 | | 0.50 | | mg/L | | | 10/30/23 23:32 | 1 |

## Client Sample ID: CH-CCR-M46A-1023

**Lab Sample ID: 550-209471-5**
**Date Collected: 10/16/23 13:22**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 1.9 | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:45 | 1 |
| Manganese | 3.9 | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:45 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 3.6 | | 2.5 | | ug/L | | 10/23/23 09:42 | 10/24/23 18:57 | 5 |
| Cobalt | ND | | 2.5 | | ug/L | | 10/23/23 09:42 | 10/24/23 18:57 | 5 |

## Client Sample ID: CH-CCR-M50A-1023

**Lab Sample ID: 550-209471-6**
**Date Collected: 10/17/23 10:21**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1900 | D2 | 100 | | mg/L | | | 10/21/23 20:47 | 50 |
| Fluoride | 2.5 | D2 | 0.80 | | mg/L | | | 10/21/23 20:28 | 2 |
| Sulfate | 3000 | D2 | 100 | | mg/L | | | 10/21/23 20:47 | 50 |

### Method: SW846 9056A - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 2.4 | D1 | 0.80 | | mg/L | | | 11/02/23 18:48 | 2 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:48 | 1 |
| Boron | 3.0 | | 0.050 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:48 | 1 |
| Calcium | 570 | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:48 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:48 | 1 |
| Manganese | 0.31 | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:48 | 1 |
| Potassium | 5.7 | | 0.50 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:48 | 1 |
| Sodium | 1600 | | 5.0 | | mg/L | | 10/23/23 06:23 | 10/26/23 20:43 | 10 |
| Magnesium | 180 | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:48 | 1 |

## Client Sample ID: CH-CCR-M50A-1023

**Date Collected: 10/17/23 10:21**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-6

**Matrix: Water**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.50** | | 0.10 | | mg/L | | 10/25/23 08:04 | 10/27/23 17:07 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:59 | 5 |
| **Arsenic** | **0.0052** | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:59 | 5 |
| **Barium** | **0.0084** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:59 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:59 | 5 |
| Chromium | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:59 | 5 |
| Cobalt | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:59 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:59 | 5 |
| **Molybdenum** | **0.0083** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:59 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:59 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:59 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/26/23 12:18 | 10/26/23 15:42 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia (EPA 350.1) | ND | | 0.050 | | mg/L | | | 10/30/23 14:44 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/25/23 13:02 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **160** | | 6.0 | | mg/L | | | 10/25/23 18:57 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 18:57 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **160** | | 6.0 | | mg/L | | | 10/25/23 18:57 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 18:57 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 18:57 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **7500** | | 100 | | mg/L | | | 10/23/23 15:06 | 1 |
| **pH (SM 4500 H+ B)** | **7.4** | **H5** | 1.7 | | SU | | | 10/26/23 09:19 | 1 |
| **Temperature (SM 4500 H+ B)** | **8.1** | **H5 T5** | 0.1 | | Degrees C | | | 10/26/23 09:19 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon (SM 5310B)** | **2.8** | | 0.50 | | mg/L | | | 10/30/23 23:49 | 1 |
| **Dissolved Organic Carbon - Duplicate (SM 5310B)** | **2.8** | | 0.50 | | mg/L | | | 10/30/23 23:49 | 1 |
| **Dissolved Organic Carbon - Quad (SM 5310B)** | **2.8** | | 0.50 | | mg/L | | | 10/30/23 23:49 | 1 |

## Client Sample ID: CH-CCR-M50A-1023

**Date Collected: 10/17/23 10:21**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-7

**Matrix: Water**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:50 | 1 |
| **Manganese** | **0.30** | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:50 | 1 |

## Client Sample ID: CH-CCR-M50A-1023

**Lab Sample ID: 550-209471-7**

**Date Collected: 10/17/23 10:21**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **5.2** | | 2.5 | | ug/L | | 10/23/23 09:42 | 10/24/23 19:01 | 5 |
| Cobalt | ND | | 2.5 | | ug/L | | 10/23/23 09:42 | 10/24/23 19:01 | 5 |

## Client Sample ID: CH-CCR-M51A-1023

**Lab Sample ID: 550-209471-8**

**Date Collected: 10/17/23 09:37**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **6300** | **D2** | 200 | | mg/L | | | 10/31/23 03:25 | 100 |
| **Fluoride** | **5.6** | **D2** | 0.80 | | mg/L | | | 10/21/23 21:05 | 2 |
| **Sulfate** | **2800** | **D2** | 100 | | mg/L | | | 10/21/23 21:23 | 50 |

### Method: SW846 9056A - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **5.7** | **D1** | 0.80 | | mg/L | | | 11/02/23 19:07 | 2 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:53 | 1 |
| **Boron** | **27** | | 0.050 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:53 | 1 |
| **Calcium** | **860** | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:53 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:53 | 1 |
| **Manganese** | **1.1** | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:53 | 1 |
| **Potassium** | **27** | | 0.50 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:53 | 1 |
| **Sodium** | **3200** | | 5.0 | | mg/L | | 10/23/23 06:23 | 10/26/23 20:46 | 10 |
| **Magnesium** | **250** | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:53 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.54** | | 0.10 | | mg/L | | 10/25/23 08:04 | 10/27/23 17:09 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:03 | 5 |
| **Arsenic** | **0.032** | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:43 | 10 |
| **Barium** | **0.0077** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:03 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:03 | 5 |
| Chromium | ND | | 0.010 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:43 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:43 | 10 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:03 | 5 |
| **Molybdenum** | **0.16** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:03 | 5 |
| Selenium | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:43 | 10 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:03 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/26/23 12:18 | 10/26/23 15:44 | 1 |

## Client Sample ID: CH-CCR-M51A-1023
**Date Collected: 10/17/23 09:37**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-8
**Matrix: Water**

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia (EPA 350.1)** | **0.12** | | 0.050 | | mg/L | | | 10/30/23 14:45 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/25/23 13:04 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **77** | | 6.0 | | mg/L | | | 10/25/23 19:04 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 19:04 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **77** | | 6.0 | | mg/L | | | 10/25/23 19:04 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 19:04 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 19:04 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **14000** | | 200 | | mg/L | | | 10/23/23 15:06 | 1 |
| **pH (SM 4500 H+ B)** | **7.3** | **H5** | 1.7 | | SU | | | 10/26/23 09:20 | 1 |
| **Temperature (SM 4500 H+ B)** | **8.2** | **H5 T5** | 0.1 | | Degrees C | | | 10/26/23 09:20 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon (SM 5310B)** | **2.1** | | 0.50 | | mg/L | | | 10/31/23 00:06 | 1 |
| **Dissolved Organic Carbon - Duplicate (SM 5310B)** | **2.1** | | 0.50 | | mg/L | | | 10/31/23 00:06 | 1 |
| **Dissolved Organic Carbon - Quad (SM 5310B)** | **2.1** | | 0.50 | | mg/L | | | 10/31/23 00:06 | 1 |

## Client Sample ID: CH-CCR-M51A-1023
**Date Collected: 10/17/23 09:37**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-9
**Matrix: Water**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:56 | 1 |
| **Manganese** | **1.1** | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:56 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **31** | | 5.0 | | ug/L | | 10/23/23 09:42 | 10/27/23 18:45 | 10 |
| Cobalt | ND | | 5.0 | | ug/L | | 10/23/23 09:42 | 10/27/23 18:45 | 10 |

## Client Sample ID: CH-CCR-M65A-1023
**Date Collected: 10/16/23 11:19**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-10
**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **4300** | **D2** | 100 | | mg/L | | | 10/21/23 22:00 | 50 |
| **Fluoride** | **3.0** | **D2** | 0.80 | | mg/L | | | 10/21/23 21:42 | 2 |
| **Sulfate** | **3700** | **D2** | 100 | | mg/L | | | 10/21/23 22:00 | 50 |

### Method: SW846 9056A - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **3.0** | **D1** | 0.80 | | mg/L | | | 11/02/23 19:25 | 2 |

## Client Sample ID: CH-CCR-M65A-1023

**Date Collected: 10/16/23 11:19**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-10

**Matrix: Water**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:59 | 1 |
| **Boron** | **14** | | 0.050 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:59 | 1 |
| **Calcium** | **830** | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:59 | 1 |
| **Iron** | **0.43** | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:59 | 1 |
| **Manganese** | **0.22** | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:59 | 1 |
| **Potassium** | **33** | | 0.50 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:59 | 1 |
| **Sodium** | **2900** | | 5.0 | | mg/L | | 10/23/23 06:23 | 10/26/23 20:49 | 10 |
| **Magnesium** | **360** | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:59 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.73** | | 0.10 | | mg/L | | 10/25/23 08:04 | 11/01/23 10:52 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:07 | 5 |
| **Arsenic** | **0.0040** | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:07 | 5 |
| **Barium** | **0.021** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:07 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:07 | 5 |
| Chromium | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:07 | 5 |
| Cobalt | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:07 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:07 | 5 |
| **Molybdenum** | **0.18** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:07 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:07 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:07 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/26/23 12:18 | 10/26/23 15:50 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia (EPA 350.1) | ND | | 0.050 | | mg/L | | | 10/30/23 14:47 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/25/23 13:06 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **230** | | 6.0 | | mg/L | | | 10/25/23 19:10 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 19:10 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **230** | | 6.0 | | mg/L | | | 10/25/23 19:10 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 19:10 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 19:10 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **12000** | | 100 | | mg/L | | | 10/23/23 15:06 | 1 |
| **pH (SM 4500 H+ B)** | **6.9** | **H5** | 1.7 | | SU | | | 10/26/23 09:21 | 1 |
| **Temperature (SM 4500 H+ B)** | **9.1** | **H5 T5** | 0.1 | | Degrees C | | | 10/26/23 09:21 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon (SM 5310B)** | **4.0** | | 0.50 | | mg/L | | | 10/31/23 00:29 | 1 |
| **Dissolved Organic Carbon - Duplicate (SM 5310B)** | **4.0** | | 0.50 | | mg/L | | | 10/31/23 00:29 | 1 |

## Client Sample ID: CH-CCR-M65A-1023

**Lab Sample ID: 550-209471-10**
**Matrix: Water**
**Date Collected: 10/16/23 11:19**
**Date Received: 10/20/23 15:01**

### General Chemistry - Dissolved (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad (SM 5310B) | 4.0 | | 0.50 | | mg/L | | | 10/31/23 00:29 | 1 |

## Client Sample ID: CH-CCR-M65A-1023

**Lab Sample ID: 550-209471-11**
**Matrix: Water**
**Date Collected: 10/16/23 11:19**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 0.29 | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:07 | 1 |
| Manganese | 0.23 | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:07 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 3.8 | | 2.5 | | ug/L | | 10/23/23 09:42 | 10/24/23 19:15 | 5 |
| Cobalt | ND | | 2.5 | | ug/L | | 10/23/23 09:42 | 10/24/23 19:15 | 5 |

## Client Sample ID: CH-CCR-M66A-1023

**Lab Sample ID: 550-209471-12**
**Matrix: Water**
**Date Collected: 10/16/23 10:15**
**Date Received: 10/20/23 15:01**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 3800 | D2 | 100 | | mg/L | | | 10/21/23 23:32 | 50 |
| Fluoride | 1.4 | D2 | 0.80 | | mg/L | | | 10/21/23 22:19 | 2 |
| Sulfate | 3000 | D2 | 100 | | mg/L | | | 10/21/23 23:32 | 50 |

### Method: SW846 9056A - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 1.4 | D1 | 0.80 | | mg/L | | | 11/02/23 19:44 | 2 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:10 | 1 |
| Boron | 2.0 | | 0.050 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:10 | 1 |
| Calcium | 740 | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:10 | 1 |
| Iron | 1.8 | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:10 | 1 |
| Manganese | 2.9 | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:10 | 1 |
| Potassium | 6.5 | | 0.50 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:10 | 1 |
| Sodium | 2600 | | 5.0 | | mg/L | | 10/23/23 06:23 | 10/26/23 20:52 | 10 |
| Magnesium | 250 | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:10 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.50 | | 0.10 | | mg/L | | 10/25/23 08:04 | 11/01/23 10:55 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:17 | 5 |
| Arsenic | 0.0048 | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:17 | 5 |
| Barium | 0.019 | L3 | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:17 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:17 | 5 |

## Client Sample ID: CH-CCR-M66A-1023

**Date Collected: 10/16/23 10:15**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-12

**Matrix: Water**

### Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **0.020** | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:17 | 5 |
| Cobalt | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:17 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:47 | 5 |
| **Molybdenum** | **0.015** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:17 | 5 |
| **Selenium** | **0.0046** | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:17 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:47 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/26/23 12:18 | 10/26/23 15:52 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia (EPA 350.1)** | **0.067** | | 0.050 | | mg/L | | | 10/30/23 14:48 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/25/23 13:08 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **150** | | 6.0 | | mg/L | | | 10/25/23 19:18 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 19:18 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **150** | | 6.0 | | mg/L | | | 10/25/23 19:18 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 19:18 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 19:18 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **9900** | | 100 | | mg/L | | | 10/23/23 15:06 | 1 |
| **pH (SM 4500 H+ B)** | **7.4** | **H5** | 1.7 | | SU | | | 10/26/23 09:22 | 1 |
| **Temperature (SM 4500 H+ B)** | **9.7** | **H5 T5** | 0.1 | | Degrees C | | | 10/26/23 09:22 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon (SM 5310B)** | **2.7** | | 0.50 | | mg/L | | | 11/07/23 23:43 | 1 |
| **Dissolved Organic Carbon - Duplicate (SM 5310B)** | **2.7** | | 0.50 | | mg/L | | | 11/07/23 23:43 | 1 |
| **Dissolved Organic Carbon - Quad (SM 5310B)** | **2.7** | | 0.50 | | mg/L | | | 11/07/23 23:43 | 1 |

## Client Sample ID: CH-CCR-M66A-1023

**Date Collected: 10/16/23 10:15**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-13

**Matrix: Water**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:13 | 1 |
| **Manganese** | **2.7** | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:13 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **2.7** | | 2.5 | | ug/L | | 10/23/23 09:42 | 10/24/23 19:19 | 5 |
| Cobalt | ND | | 2.5 | | ug/L | | 10/23/23 09:42 | 10/24/23 19:19 | 5 |

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

## Client Sample ID: CH-CCR-M67A-1023

**Date Collected: 10/16/23 15:15**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-14

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2000** | **D2** | 40 | | mg/L | | | 10/22/23 00:09 | 20 |
| **Fluoride** | **0.80** | **D2** | 0.80 | | mg/L | | | 10/21/23 23:51 | 2 |
| **Sulfate** | **1800** | **D2** | 40 | | mg/L | | | 10/22/23 00:09 | 20 |

### Method: SW846 9056A - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **0.83** | **D1** | 0.80 | | mg/L | | | 11/02/23 20:02 | 2 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:16 | 1 |
| **Boron** | **0.35** | | 0.050 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:16 | 1 |
| **Calcium** | **520** | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:16 | 1 |
| **Iron** | **4.0** | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:16 | 1 |
| **Manganese** | **1.5** | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:16 | 1 |
| **Potassium** | **12** | | 0.50 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:16 | 1 |
| **Sodium** | **770** | | 0.50 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:16 | 1 |
| **Magnesium** | **220** | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:16 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.20** | | 0.050 | | mg/L | | 10/25/23 08:04 | 10/27/23 16:32 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:21 | 5 |
| **Arsenic** | **0.0053** | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:21 | 5 |
| **Barium** | **0.034** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:21 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:21 | 5 |
| Chromium | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:21 | 5 |
| **Cobalt** | **0.0057** | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:21 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:49 | 5 |
| Molybdenum | ND | T5 | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:21 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:21 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:49 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/26/23 12:18 | 10/26/23 15:54 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia (EPA 350.1)** | **0.33** | | 0.050 | | mg/L | | | 10/30/23 14:50 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/25/23 13:10 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **240** | | 6.0 | | mg/L | | | 10/25/23 19:25 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 19:25 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **240** | | 6.0 | | mg/L | | | 10/25/23 19:25 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 19:25 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 19:25 | 1 |

## Client Sample ID: CH-CCR-M67A-1023

**Lab Sample ID: 550-209471-14**
**Matrix: Water**
**Date Collected: 10/16/23 15:15**
**Date Received: 10/20/23 15:01**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 5000 | | 100 | | mg/L | | | 10/23/23 15:06 | 1 |
| pH (SM 4500 H+ B) | 7.3 | H5 | 1.7 | | SU | | | 10/26/23 09:23 | 1 |
| Temperature (SM 4500 H+ B) | 9.8 | H5 T5 | 0.1 | | Degrees C | | | 10/26/23 09:23 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon (SM 5310B) | 1.2 | | 0.50 | | mg/L | | | 11/08/23 00:38 | 1 |
| Dissolved Organic Carbon - Duplicate (SM 5310B) | 1.2 | | 0.50 | | mg/L | | | 11/08/23 00:38 | 1 |
| Dissolved Organic Carbon - Quad (SM 5310B) | 1.2 | | 0.50 | | mg/L | | | 11/08/23 00:38 | 1 |

## Client Sample ID: CH-CCR-M67A-1023

**Lab Sample ID: 550-209471-15**
**Matrix: Water**
**Date Collected: 10/16/23 15:15**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 2.3 | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:19 | 1 |
| Manganese | 1.4 | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:19 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 4.2 | | 2.5 | | ug/L | | 10/23/23 09:42 | 10/24/23 19:23 | 5 |
| Cobalt | 4.8 | | 2.5 | | ug/L | | 10/23/23 09:42 | 10/24/23 19:23 | 5 |

## Client Sample ID: CH-CCR-W125-1023

**Lab Sample ID: 550-209471-16**
**Matrix: Water**
**Date Collected: 10/17/23 11:16**
**Date Received: 10/20/23 15:01**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 720 | D2 | 20 | | mg/L | | | 10/22/23 00:46 | 10 |
| Fluoride | ND | D1 D5 | 0.80 | | mg/L | | | 10/22/23 00:27 | 2 |
| Sulfate | 320 | D2 | 20 | | mg/L | | | 10/22/23 00:46 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:22 | 1 |
| Boron | 0.15 | | 0.050 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:22 | 1 |
| Calcium | 110 | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:22 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.069 | | 0.050 | | mg/L | | 10/25/23 08:04 | 10/27/23 16:34 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:25 | 5 |
| Arsenic | 0.0058 | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:25 | 5 |
| Barium | 0.020 | L3 | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:25 | 5 |

## Client Sample ID: CH-CCR-W125-1023

**Lab Sample ID: 550-209471-16**

**Date Collected: 10/17/23 11:16**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:25 | 5 |
| Chromium | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:25 | 5 |
| Cobalt | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:25 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:51 | 5 |
| Molybdenum | ND | T5 | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:25 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:25 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:51 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/26/23 12:18 | 10/26/23 15:56 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 1800 | | 20 | | mg/L | | | 10/23/23 15:06 | 1 |
| pH (SM 4500 H+ B) | 7.6 | H5 | 1.7 | | SU | | | 10/26/23 09:25 | 1 |
| Temperature (SM 4500 H+ B) | 9.6 | H5 T5 | 0.1 | | Degrees C | | | 10/26/23 09:25 | 1 |

## Client Sample ID: CH-CCR-W-126R-1023

**Lab Sample ID: 550-209471-17**

**Date Collected: 10/16/23 09:29**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 6300 | D2 | 200 | | mg/L | | | 10/31/23 05:17 | 100 |
| Fluoride | 5.0 | D2 | 0.80 | | mg/L | | | 10/22/23 01:04 | 2 |
| Sulfate | 3700 | D2 | 100 | | mg/L | | | 10/22/23 01:23 | 50 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:24 | 1 |
| Boron | 43 | | 0.050 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:24 | 1 |
| Calcium | 740 | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:24 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:24 | 1 |
| Manganese | 0.55 | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:24 | 1 |
| Potassium | 39 | | 0.50 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:24 | 1 |
| Sodium | 3600 | | 5.0 | | mg/L | | 10/23/23 06:23 | 10/26/23 20:55 | 10 |
| Magnesium | 340 | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:24 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.71 | | 0.10 | | mg/L | | 10/25/23 08:04 | 10/27/23 17:22 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:27 | 5 |
| Arsenic | 0.0030 | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:27 | 5 |
| Barium | 0.0099 | L3 | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:27 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:27 | 5 |
| Chromium | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:27 | 5 |
| Cobalt | 0.0038 | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:27 | 5 |

## Client Sample ID: CH-CCR-W-126R-1023

**Lab Sample ID: 550-209471-17**
**Matrix: Water**
**Date Collected: 10/16/23 09:29**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:53 | 5 |
| **Molybdenum** | **0.27** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:27 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:27 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:53 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/26/23 12:18 | 10/26/23 15:28 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia (EPA 350.1)** | **0.59** | | 0.050 | | mg/L | | | 10/30/23 14:51 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/25/23 13:12 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **72** | | 6.0 | | mg/L | | | 10/25/23 19:34 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 19:34 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **72** | | 6.0 | | mg/L | | | 10/25/23 19:34 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 19:34 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 19:34 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **14000** | | 200 | | mg/L | | | 10/23/23 15:06 | 1 |
| **pH (SM 4500 H+ B)** | **7.6** | **H5** | 1.7 | | SU | | | 10/26/23 09:26 | 1 |
| **Temperature (SM 4500 H+ B)** | **9.0** | **H5 T5** | 0.1 | | Degrees C | | | 10/26/23 09:26 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon (SM 5310B)** | **2.1** | | 0.50 | | mg/L | | | 11/08/23 01:00 | 1 |
| **Dissolved Organic Carbon - Duplicate (SM 5310B)** | **2.1** | | 0.50 | | mg/L | | | 11/08/23 01:00 | 1 |
| **Dissolved Organic Carbon - Quad (SM 5310B)** | **2.1** | | 0.50 | | mg/L | | | 11/08/23 01:00 | 1 |

## Client Sample ID: CH-CCR-W-126R-1023

**Lab Sample ID: 550-209471-18**
**Matrix: Water**
**Date Collected: 10/16/23 09:29**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:27 | 1 |
| **Manganese** | **0.56** | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:27 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **2.9** | | 2.5 | | ug/L | | 10/23/23 09:42 | 10/24/23 19:29 | 5 |
| **Cobalt** | **3.8** | | 2.5 | | ug/L | | 10/23/23 09:42 | 10/24/23 19:29 | 5 |

## Client Sample ID: CH-CCR-BudHunt-1023

**Date Collected: 10/17/23 08:40**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-19

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **120** | **D2** | 4.0 | | mg/L | | | 10/22/23 01:41 | 2 |
| Fluoride | ND | D1 D5 | 0.80 | | mg/L | | | 10/22/23 01:41 | 2 |
| **Sulfate** | **290** | **D2** | 20 | | mg/L | | | 10/22/23 01:59 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:30 | 1 |
| **Boron** | **0.14** | | 0.050 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:30 | 1 |
| **Calcium** | **80** | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:30 | 1 |
| **Iron** | **0.13** | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:30 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:30 | 1 |
| **Potassium** | **2.8** | | 0.50 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:30 | 1 |
| **Sodium** | **170** | | 0.50 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:30 | 1 |
| **Magnesium** | **36** | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:30 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.058** | | 0.050 | | mg/L | | 10/25/23 08:04 | 10/27/23 16:39 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:31 | 5 |
| **Arsenic** | **0.0026** | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:31 | 5 |
| **Barium** | **0.012** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:31 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:31 | 5 |
| Chromium | ND | | 0.0050 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:31 | 5 |
| Cobalt | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:31 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:55 | 5 |
| Molybdenum | ND | T5 | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:31 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:42 | 10/24/23 19:31 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:55 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/26/23 12:18 | 10/26/23 16:01 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia (EPA 350.1) | ND | | 0.050 | | mg/L | | | 10/30/23 14:53 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/25/23 13:26 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **170** | | 6.0 | | mg/L | | | 10/25/23 19:39 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 19:39 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **170** | | 6.0 | | mg/L | | | 10/25/23 19:39 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 19:39 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/25/23 19:39 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **1100** | | 20 | | mg/L | | | 10/23/23 15:06 | 1 |
| **pH (SM 4500 H+ B)** | **7.7** | **H5** | 1.7 | | SU | | | 10/26/23 09:27 | 1 |
| **Temperature (SM 4500 H+ B)** | **9.7** | **H5 T5** | 0.1 | | Degrees C | | | 10/26/23 09:27 | 1 |

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

## Client Sample ID: CH-CCR-BudHunt-1023

**Lab Sample ID: 550-209471-19**
**Date Collected: 10/17/23 08:40**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon (SM 5310B) | ND | | 0.50 | | mg/L | | | 11/08/23 01:16 | 1 |
| Dissolved Organic Carbon - Duplicate (SM 5310B) | ND | | 0.50 | | mg/L | | | 11/08/23 01:16 | 1 |
| Dissolved Organic Carbon - Quad (SM 5310B) | ND | | 0.50 | | mg/L | | | 11/08/23 01:16 | 1 |

## Client Sample ID: CH-CCR-BudHunt-1023

**Lab Sample ID: 550-209471-20**
**Date Collected: 10/17/23 08:40**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:33 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 20:33 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **2.7** | | 2.5 | | ug/L | | 10/23/23 09:42 | 10/24/23 19:33 | 5 |
| Cobalt | ND | | 2.5 | | ug/L | | 10/23/23 09:42 | 10/24/23 19:33 | 5 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 550-309850/2**
**Matrix: Water**
**Analysis Batch: 309850**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 10/21/23 14:27 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 10/21/23 14:27 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 10/21/23 14:27 | 1 |

**Lab Sample ID: LCS 550-309850/5**
**Matrix: Water**
**Analysis Batch: 309850**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 21.0 | | mg/L | | 105 | 90 - 110 | | |
| Fluoride | | | 4.00 | 4.31 | | mg/L | | 108 | 90 - 110 | | |
| Sulfate | | | 20.0 | 21.1 | | mg/L | | 105 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-309850/6**
**Matrix: Water**
**Analysis Batch: 309850**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 21.0 | | mg/L | | 105 | 90 - 110 | 0 | 20 |
| Fluoride | | | 4.00 | 4.35 | | mg/L | | 109 | 90 - 110 | 1 | 20 |
| Sulfate | | | 20.0 | 21.1 | | mg/L | | 105 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 550-209102-A-1 MS ^10**
**Matrix: Water**
**Analysis Batch: 309850**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 290 | D2 | 200 | 500 | D2 | mg/L | | 103 | 80 - 120 | | |
| Fluoride | ND | | 40.0 | 43.1 | D2 | mg/L | | 105 | 80 - 120 | | |
| Sulfate | 480 | D2 | 200 | 670 | D2 | mg/L | | 96 | 80 - 120 | | |

**Lab Sample ID: 550-209102-A-1 MSD ^10**
**Matrix: Water**
**Analysis Batch: 309850**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 290 | D2 | 200 | 499 | D2 | mg/L | | 103 | 80 - 120 | 0 | 20 |
| Fluoride | ND | | 40.0 | 43.0 | D2 | mg/L | | 105 | 80 - 120 | 0 | 20 |
| Sulfate | 480 | D2 | 200 | 670 | D2 | mg/L | | 95 | 80 - 120 | 0 | 20 |

**Lab Sample ID: MB 550-310211/2**
**Matrix: Water**
**Analysis Batch: 310211**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 10/30/23 10:10 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 10/30/23 10:10 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 10/30/23 10:10 | 1 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 550-310211/5**
**Matrix: Water**
**Analysis Batch: 310211**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 18.9 | | mg/L | | 94 | 90 - 110 | | |
| Fluoride | | | 4.00 | 4.01 | | mg/L | | 100 | 90 - 110 | | |
| Sulfate | | | 20.0 | 19.0 | | mg/L | | 95 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-310211/6**
**Matrix: Water**
**Analysis Batch: 310211**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 18.9 | | mg/L | | 95 | 90 - 110 | 0 | 20 |
| Fluoride | | | 4.00 | 4.01 | | mg/L | | 100 | 90 - 110 | 0 | 20 |
| Sulfate | | | 20.0 | 19.0 | | mg/L | | 95 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 550-209568-B-5 MS ^10**
**Matrix: Water**
**Analysis Batch: 310211**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 29 | | 200 | 221 | | mg/L | | 96 | 80 - 120 | | |
| Fluoride | ND | | 40.0 | 41.0 | | mg/L | | 101 | 80 - 120 | | |
| Sulfate | 340 | | 200 | 514 | | mg/L | | 86 | 80 - 120 | | |

**Lab Sample ID: 550-209568-B-5 MSD ^10**
**Matrix: Water**
**Analysis Batch: 310211**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 29 | | 200 | 222 | | mg/L | | 97 | 80 - 120 | 0 | 20 |
| Fluoride | ND | | 40.0 | 41.3 | | mg/L | | 101 | 80 - 120 | 1 | 20 |
| Sulfate | 340 | | 200 | 511 | | mg/L | | 85 | 80 - 120 | 1 | 20 |

**Lab Sample ID: MB 550-310213/2**
**Matrix: Water**
**Analysis Batch: 310213**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 10/30/23 10:46 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 10/30/23 10:46 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 10/30/23 10:46 | 1 |

**Lab Sample ID: LCS 550-310213/5**
**Matrix: Water**
**Analysis Batch: 310213**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 20.4 | | mg/L | | 102 | 90 - 110 | | |
| Fluoride | | | 4.00 | 4.23 | | mg/L | | 106 | 90 - 110 | | |
| Sulfate | | | 20.0 | 20.5 | | mg/L | | 103 | 90 - 110 | | |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCSD 550-310213/6**
**Matrix: Water**
**Analysis Batch: 310213**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 20.4 | | mg/L | | 102 | 90 - 110 | 0 | 20 |
| Fluoride | | | 4.00 | 4.23 | | mg/L | | 106 | 90 - 110 | 0 | 20 |
| Sulfate | | | 20.0 | 20.5 | | mg/L | | 102 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 550-209476-A-15 MS**
**Matrix: Water**
**Analysis Batch: 310213**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 790 | E2 M3 | 20.0 | 786 | E2 M3 | mg/L | | -11 | 80 - 120 | | |
| Fluoride | 0.50 | | 4.00 | 4.12 | | mg/L | | 90 | 80 - 120 | | |
| Sulfate | 1300 | E2 M3 | 20.0 | 1290 | E2 M3 | mg/L | | -125 | 80 - 120 | | |

**Lab Sample ID: 550-209476-A-15 MSD**
**Matrix: Water**
**Analysis Batch: 310213**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 790 | E2 M3 | 20.0 | 786 | E2 M3 | mg/L | | -11 | 80 - 120 | 0 | 20 |
| Fluoride | 0.50 | | 4.00 | 4.23 | | mg/L | | 93 | 80 - 120 | 3 | 20 |
| Sulfate | 1300 | E2 M3 | 20.0 | 1290 | E2 M3 | mg/L | | -130 | 80 - 120 | 0 | 20 |

**Lab Sample ID: MB 550-310443/2**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 11/02/23 09:54 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 11/02/23 09:54 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 11/02/23 09:54 | 1 |

**Lab Sample ID: LCS 550-310443/5**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 20.8 | | mg/L | | 104 | 90 - 110 | | |
| Fluoride | | | 4.00 | 4.11 | | mg/L | | 103 | 90 - 110 | | |
| Sulfate | | | 20.0 | 20.9 | | mg/L | | 104 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-310443/6**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 20.8 | | mg/L | | 104 | 90 - 110 | 0 | 20 |
| Fluoride | | | 4.00 | 4.07 | | mg/L | | 102 | 90 - 110 | 1 | 20 |
| Sulfate | | | 20.0 | 20.9 | | mg/L | | 104 | 90 - 110 | 0 | 20 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 550-209471-4 MS**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: CH-CCR-M46A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1800 | E2 | 40.0 | 1770 | E2 M3 | mg/L | | 9 | 80 - 120 | | |
| Fluoride | 1.1 | | 8.00 | 8.87 | | mg/L | | 98 | 80 - 120 | | |
| Sulfate | 1300 | E2 | 40.0 | 1340 | E2 M3 | mg/L | | 29 | 80 - 120 | | |

**Lab Sample ID: 550-209471-4 MSD**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: CH-CCR-M46A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1800 | E2 | 40.0 | 1760 | E2 M3 | mg/L | | -5 | 80 - 120 | 0 | 20 |
| Fluoride | 1.1 | | 8.00 | 8.72 | | mg/L | | 96 | 80 - 120 | 2 | 20 |
| Sulfate | 1300 | E2 | 40.0 | 1340 | E2 M3 | mg/L | | 11 | 80 - 120 | 1 | 20 |

**Lab Sample ID: 550-209876-D-1 MS**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 360 | E2 M3 | 20.0 | 357 | E2 M3 | mg/L | | -7 | 80 - 120 | | |
| Fluoride | ND | | 4.00 | 4.27 | | mg/L | | 100 | 80 - 120 | | |
| Sulfate | 320 | E2 M3 | 20.0 | 322 | E2 M3 | mg/L | | 12 | 80 - 120 | | |

**Lab Sample ID: 550-209876-D-1 MSD**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 360 | E2 M3 | 20.0 | 357 | E2 M3 | mg/L | | -6 | 80 - 120 | 0 | 20 |
| Fluoride | ND | | 4.00 | 4.33 | | mg/L | | 101 | 80 - 120 | 1 | 20 |
| Sulfate | 320 | E2 M3 | 20.0 | 322 | E2 M3 | mg/L | | 12 | 80 - 120 | 0 | 20 |

**Lab Sample ID: 550-209471-4 DU**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: CH-CCR-M46A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1800 | E2 | | 1750 | E2 | mg/L | | | | 0.9 | 20 |
| Fluoride | 1.1 | | | 1.04 | | mg/L | | | | 1 | 20 |
| Sulfate | 1300 | E2 | | 1320 | E2 | mg/L | | | | 1 | 20 |

## Method: 9056A - Anions, Ion Chromatography

**Lab Sample ID: 550-209471-4 MS**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: CH-CCR-M46A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 1.1 | | 8.00 | 8.87 | | mg/L | | 98 | 80 - 120 | | |

## Method: 9056A - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 550-209471-4 MSD**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: CH-CCR-M46A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 1.1 | | 8.00 | 8.72 | | mg/L | | 96 | 80 - 120 | 2 | 20 |

**Lab Sample ID: 550-209471-4 DU**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: CH-CCR-M46A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 1.1 | | | 1.04 | | mg/L | | | | 1 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 550-309745/1-A**
**Matrix: Water**
**Analysis Batch: 309989**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 309745**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:19 | 1 |
| Boron | ND | | 0.050 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:19 | 1 |
| Calcium | ND | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:19 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:19 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:19 | 1 |
| Potassium | ND | | 0.50 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:19 | 1 |
| Sodium | ND | | 0.50 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:19 | 1 |
| Magnesium | ND | | 2.0 | | mg/L | | 10/23/23 06:23 | 10/25/23 19:19 | 1 |

**Lab Sample ID: LCS 550-309745/2-A**
**Matrix: Water**
**Analysis Batch: 309989**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 309745**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | | | 1.00 | 0.963 | | mg/L | | 96 | 85 - 115 | | |
| Boron | | | 1.00 | 1.02 | | mg/L | | 102 | 85 - 115 | | |
| Calcium | | | 21.0 | 20.6 | | mg/L | | 98 | 85 - 115 | | |
| Iron | | | 1.00 | 0.830 | | mg/L | | 83 | 85 - 115 | | |
| Manganese | | | 1.00 | 0.935 | | mg/L | | 94 | 85 - 115 | | |
| Potassium | | | 20.0 | 18.9 | | mg/L | | 95 | 85 - 115 | | |
| Sodium | | | 20.0 | 19.0 | | mg/L | | 95 | 85 - 115 | | |
| Magnesium | | | 21.0 | 20.0 | | mg/L | | 95 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-309745/3-A**
**Matrix: Water**
**Analysis Batch: 309989**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 309745**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | | | 1.00 | 0.966 | | mg/L | | 97 | 85 - 115 | 0 | 20 |
| Boron | | | 1.00 | 1.02 | | mg/L | | 102 | 85 - 115 | 0 | 20 |
| Calcium | | | 21.0 | 20.7 | | mg/L | | 99 | 85 - 115 | 1 | 20 |
| Iron | | | 1.00 | 0.829 | | mg/L | | 83 | 85 - 115 | 0 | 20 |
| Manganese | | | 1.00 | 0.930 | | mg/L | | 93 | 85 - 115 | 1 | 20 |
| Potassium | | | 20.0 | 19.0 | | mg/L | | 95 | 85 - 115 | 0 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: LCSD 550-309745/3-A**
**Matrix: Water**
**Analysis Batch: 309989**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 309745**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sodium | | | 20.0 | 19.1 | | mg/L | | 96 | 85 - 115 | 1 | 20 |
| Magnesium | | | 21.0 | 20.1 | | mg/L | | 96 | 85 - 115 | 0 | 20 |

**Lab Sample ID: 550-209471-1 MS**
**Matrix: Water**
**Analysis Batch: 309989**

**Client Sample ID: CH-CCR-M43A-1023**
**Prep Type: Total/NA**
**Prep Batch: 309745**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 1.00 | 0.995 | | mg/L | | 100 | 70 - 130 |
| Boron | 0.49 | | 1.00 | 1.55 | | mg/L | | 106 | 70 - 130 |
| Calcium | 530 | M3 | 21.0 | 529 | M3 | mg/L | | -7 | 70 - 130 |
| Iron | 1.9 | | 1.00 | 2.75 | | mg/L | | 86 | 70 - 130 |
| Manganese | 1.6 | | 1.00 | 2.48 | | mg/L | | 83 | 70 - 130 |
| Potassium | 8.2 | | 20.0 | 29.3 | | mg/L | | 106 | 70 - 130 |
| Magnesium | 180 | M3 | 21.0 | 192 | M3 | mg/L | | 61 | 70 - 130 |

**Lab Sample ID: 550-209471-1 MSD**
**Matrix: Water**
**Analysis Batch: 309989**

**Client Sample ID: CH-CCR-M43A-1023**
**Prep Type: Total/NA**
**Prep Batch: 309745**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 1.00 | 1.01 | | mg/L | | 101 | 70 - 130 | 2 | 20 |
| Boron | 0.49 | | 1.00 | 1.56 | | mg/L | | 107 | 70 - 130 | 1 | 20 |
| Calcium | 530 | M3 | 21.0 | 545 | M3 | mg/L | | 65 | 70 - 130 | 3 | 20 |
| Iron | 1.9 | | 1.00 | 2.80 | | mg/L | | 91 | 70 - 130 | 2 | 20 |
| Manganese | 1.6 | | 1.00 | 2.51 | | mg/L | | 86 | 70 - 130 | 1 | 20 |
| Potassium | 8.2 | | 20.0 | 30.0 | | mg/L | | 109 | 70 - 130 | 2 | 20 |
| Magnesium | 180 | M3 | 21.0 | 197 | M3 | mg/L | | 84 | 70 - 130 | 2 | 20 |

**Lab Sample ID: MB 570-376967/1-A**
**Matrix: Water**
**Analysis Batch: 378051**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 376967**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 0.050 | | mg/L | | 10/25/23 08:04 | 10/27/23 16:50 | 1 |

**Lab Sample ID: LCS 570-376967/2-A**
**Matrix: Water**
**Analysis Batch: 378051**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 376967**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 0.500 | 0.536 | | mg/L | | 107 | 85 - 115 |

**Lab Sample ID: LCSD 570-376967/3-A**
**Matrix: Water**
**Analysis Batch: 378051**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total Recoverable**
**Prep Batch: 376967**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 0.500 | 0.531 | | mg/L | | 106 | 85 - 115 | 1 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: 550-209471-8 MS**
**Matrix: Water**
**Analysis Batch: 378051**

**Client Sample ID: CH-CCR-M51A-1023**
**Prep Type: Total Recoverable**
**Prep Batch: 376967**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.54 | | 0.500 | 1.13 | | mg/L | | 117 | 80 - 120 |

**Lab Sample ID: 550-209471-8 MSD**
**Matrix: Water**
**Analysis Batch: 378051**

**Client Sample ID: CH-CCR-M51A-1023**
**Prep Type: Total Recoverable**
**Prep Batch: 376967**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.54 | | 0.500 | 1.12 | | mg/L | | 115 | 80 - 120 | 1 | 20 |

## Method: 200.8 LL - Metals (ICP/MS)

**Lab Sample ID: MB 550-309754/1-A**
**Matrix: Water**
**Analysis Batch: 309936**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 309754**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:34 | 1 |
| Arsenic | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:34 | 1 |
| Barium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:34 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:34 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:34 | 1 |
| Cobalt | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:34 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:34 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:34 | 1 |
| Selenium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:34 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 10/23/23 09:42 | 10/24/23 18:34 | 1 |

**Lab Sample ID: MB 550-309754/1-A**
**Matrix: Water**
**Analysis Batch: 310201**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 309754**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:33 | 1 |
| Arsenic | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:33 | 1 |
| Barium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:33 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:33 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:33 | 1 |
| Cobalt | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:33 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:33 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:33 | 1 |
| Selenium | ND | | 0.00050 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:33 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 10/23/23 09:42 | 10/27/23 18:33 | 1 |

**Lab Sample ID: LCS 550-309754/2-A**
**Matrix: Water**
**Analysis Batch: 309936**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 309754**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 |
| Arsenic | | | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 550-309754/2-A**
**Matrix: Water**
**Analysis Batch: 309936**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 309754**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Barium | 0.100 | 0.125 | L3 | mg/L | | 125 | 85 - 115 |
| Cadmium | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 |
| Chromium | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 |
| Cobalt | 0.100 | 0.110 | | mg/L | | 110 | 85 - 115 |
| Lead | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 |
| Molybdenum | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 |
| Selenium | 0.100 | 0.100 | | mg/L | | 100 | 85 - 115 |
| Thallium | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 |

**Lab Sample ID: LCS 550-309754/2-A**
**Matrix: Water**
**Analysis Batch: 310201**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 309754**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Antimony | 0.100 | 0.0878 | | mg/L | | 88 | 85 - 115 |
| Arsenic | 0.100 | 0.0926 | | mg/L | | 93 | 85 - 115 |
| Barium | 0.100 | 0.0973 | | mg/L | | 97 | 85 - 115 |
| Cadmium | 0.100 | 0.0945 | | mg/L | | 94 | 85 - 115 |
| Chromium | 0.100 | 0.0946 | | mg/L | | 95 | 85 - 115 |
| Cobalt | 0.100 | 0.0941 | | mg/L | | 94 | 85 - 115 |
| Lead | 0.100 | 0.0963 | | mg/L | | 96 | 85 - 115 |
| Molybdenum | 0.100 | 0.0958 | | mg/L | | 96 | 85 - 115 |
| Selenium | 0.100 | 0.0906 | | mg/L | | 91 | 85 - 115 |
| Thallium | 0.100 | 0.0937 | | mg/L | | 94 | 85 - 115 |

**Lab Sample ID: LCSD 550-309754/3-A**
**Matrix: Water**
**Analysis Batch: 309936**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 309754**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.100 | 0.0995 | | mg/L | | 100 | 85 - 115 | 5 | 20 |
| Arsenic | 0.100 | 0.0989 | | mg/L | | 99 | 85 - 115 | 3 | 20 |
| Barium | 0.100 | 0.119 | L3 | mg/L | | 119 | 85 - 115 | 4 | 20 |
| Cadmium | 0.100 | 0.0978 | | mg/L | | 98 | 85 - 115 | 4 | 20 |
| Chromium | 0.100 | 0.103 | | mg/L | | 103 | 85 - 115 | 2 | 20 |
| Cobalt | 0.100 | 0.107 | | mg/L | | 107 | 85 - 115 | 3 | 20 |
| Lead | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 | 4 | 20 |
| Molybdenum | 0.100 | 0.0968 | | mg/L | | 97 | 85 - 115 | 5 | 20 |
| Selenium | 0.100 | 0.0983 | | mg/L | | 98 | 85 - 115 | 2 | 20 |
| Thallium | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 | 1 | 20 |

**Lab Sample ID: LCSD 550-309754/3-A**
**Matrix: Water**
**Analysis Batch: 310201**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 309754**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.100 | 0.0905 | | mg/L | | 90 | 85 - 115 | 3 | 20 |
| Arsenic | 0.100 | 0.0924 | | mg/L | | 92 | 85 - 115 | 0 | 20 |
| Barium | 0.100 | 0.100 | | mg/L | | 100 | 85 - 115 | 3 | 20 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCSD 550-309754/3-A**
**Matrix: Water**
**Analysis Batch: 310201**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 309754**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cadmium | | | 0.100 | 0.0953 | | mg/L | | 95 | 85 - 115 | 1 | 20 |
| Chromium | | | 0.100 | 0.0944 | | mg/L | | 94 | 85 - 115 | 0 | 20 |
| Cobalt | | | 0.100 | 0.0946 | | mg/L | | 95 | 85 - 115 | 0 | 20 |
| Lead | | | 0.100 | 0.0955 | | mg/L | | 96 | 85 - 115 | 1 | 20 |
| Molybdenum | | | 0.100 | 0.0971 | | mg/L | | 97 | 85 - 115 | 1 | 20 |
| Selenium | | | 0.100 | 0.0898 | | mg/L | | 90 | 85 - 115 | 1 | 20 |
| Thallium | | | 0.100 | 0.0944 | | mg/L | | 94 | 85 - 115 | 1 | 20 |

**Lab Sample ID: 550-209471-3 MS**
**Matrix: Water**
**Analysis Batch: 309936**

**Client Sample ID: CH-CCR-M45A-1023**
**Prep Type: Total/NA**
**Prep Batch: 309754**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.103 | | mg/L | | 103 | 70 - 130 |
| Antimony | ND | | 0.100 | 0.103 | | mg/L | | 103 | 70 - 130 |
| Arsenic | 0.0045 | | 0.100 | 0.103 | | mg/L | | 98 | 70 - 130 |
| Arsenic | 0.0045 | | 0.100 | 0.103 | | mg/L | | 98 | 70 - 130 |
| Barium | 0.013 | L3 | 0.100 | 0.131 | | mg/L | | 118 | 70 - 130 |
| Barium | 0.013 | L3 | 0.100 | 0.131 | | mg/L | | 118 | 70 - 130 |
| Cadmium | ND | | 0.100 | 0.0969 | | mg/L | | 97 | 70 - 130 |
| Cadmium | ND | | 0.100 | 0.0969 | | mg/L | | 97 | 70 - 130 |
| Chromium | ND | | 0.100 | 0.0972 | | mg/L | | 97 | 70 - 130 |
| Chromium | ND | | 0.100 | 0.0972 | | mg/L | | 97 | 70 - 130 |
| Cobalt | ND | | 0.100 | 0.102 | | mg/L | | 101 | 70 - 130 |
| Cobalt | ND | | 0.100 | 0.102 | | mg/L | | 101 | 70 - 130 |
| Lead | ND | | 0.100 | 0.0957 | | mg/L | | 96 | 70 - 130 |
| Lead | ND | | 0.100 | 0.0957 | | mg/L | | 96 | 70 - 130 |
| Molybdenum | 0.0029 | T5 | 0.100 | 0.103 | | mg/L | | 100 | 70 - 130 |
| Molybdenum | 0.0029 | T5 | 0.100 | 0.103 | | mg/L | | 100 | 70 - 130 |
| Selenium | ND | | 0.100 | 0.0961 | | mg/L | | 96 | 70 - 130 |
| Selenium | ND | | 0.100 | 0.0961 | | mg/L | | 96 | 70 - 130 |
| Thallium | ND | | 0.100 | 0.0937 | | mg/L | | 94 | 70 - 130 |
| Thallium | ND | | 0.100 | 0.0937 | | mg/L | | 94 | 70 - 130 |

**Lab Sample ID: 550-209471-3 MSD**
**Matrix: Water**
**Analysis Batch: 309936**

**Client Sample ID: CH-CCR-M45A-1023**
**Prep Type: Total/NA**
**Prep Batch: 309754**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.104 | | mg/L | | 104 | 70 - 130 | 1 | 20 |
| Antimony | ND | | 0.100 | 0.104 | | mg/L | | 104 | 70 - 130 | 1 | 20 |
| Arsenic | 0.0045 | | 0.100 | 0.103 | | mg/L | | 99 | 70 - 130 | 1 | 20 |
| Arsenic | 0.0045 | | 0.100 | 0.103 | | mg/L | | 99 | 70 - 130 | 1 | 20 |
| Barium | 0.013 | L3 | 0.100 | 0.134 | | mg/L | | 121 | 70 - 130 | 2 | 20 |
| Barium | 0.013 | L3 | 0.100 | 0.134 | | mg/L | | 121 | 70 - 130 | 2 | 20 |
| Cadmium | ND | | 0.100 | 0.0973 | | mg/L | | 97 | 70 - 130 | 0 | 20 |
| Cadmium | ND | | 0.100 | 0.0973 | | mg/L | | 97 | 70 - 130 | 0 | 20 |
| Chromium | ND | | 0.100 | 0.0977 | | mg/L | | 98 | 70 - 130 | 0 | 20 |
| Chromium | ND | | 0.100 | 0.0977 | | mg/L | | 98 | 70 - 130 | 0 | 20 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: 550-209471-3 MSD** — **Client Sample ID: CH-CCR-M45A-1023**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 309936** — **Prep Batch: 309754**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.100 | 0.102 | | mg/L | | 101 | 70 - 130 | 0 | 20 |
| Cobalt | ND | | 0.100 | 0.102 | | mg/L | | 101 | 70 - 130 | 0 | 20 |
| Lead | ND | | 0.100 | 0.0954 | | mg/L | | 95 | 70 - 130 | 0 | 20 |
| Lead | ND | | 0.100 | 0.0954 | | mg/L | | 95 | 70 - 130 | 0 | 20 |
| Molybdenum | 0.0029 | T5 | 0.100 | 0.103 | | mg/L | | 100 | 70 - 130 | 1 | 20 |
| Molybdenum | 0.0029 | T5 | 0.100 | 0.103 | | mg/L | | 100 | 70 - 130 | 1 | 20 |
| Selenium | ND | | 0.100 | 0.0935 | | mg/L | | 93 | 70 - 130 | 3 | 20 |
| Selenium | ND | | 0.100 | 0.0935 | | mg/L | | 93 | 70 - 130 | 3 | 20 |
| Thallium | ND | | 0.100 | 0.0939 | | mg/L | | 94 | 70 - 130 | 0 | 20 |
| Thallium | ND | | 0.100 | 0.0939 | | mg/L | | 94 | 70 - 130 | 0 | 20 |

## Method: 245.1 - Mercury (CVAA)

**Lab Sample ID: MB 550-310014/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 310057** — **Prep Batch: 310014**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/26/23 12:18 | 10/26/23 14:55 | 1 |

**Lab Sample ID: LCS 550-310014/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 310057** — **Prep Batch: 310014**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00480 | | mg/L | | 96 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-310014/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 310057** — **Prep Batch: 310014**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00444 | | mg/L | | 89 | 85 - 115 | 8 | 20 |

**Lab Sample ID: 550-209471-17 MS** — **Client Sample ID: CH-CCR-W-126R-1023**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 310057** — **Prep Batch: 310014**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00546 | | mg/L | | 109 | 70 - 130 | | |

**Lab Sample ID: 550-209570-B-2-E MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 310057** — **Prep Batch: 310014**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00448 | | mg/L | | 90 | 70 - 130 | 2 | 20 |

## Method: 350.1 - Nitrogen, Ammonia (Low Level)

**Lab Sample ID: MB 550-310263/159**
**Matrix: Water**
**Analysis Batch: 310263**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | ND | | 0.050 | | mg/L | | | 10/30/23 14:33 | 1 |

**Lab Sample ID: LCS 550-310263/160**
**Matrix: Water**
**Analysis Batch: 310263**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 1.00 | 0.916 | | mg/L | | 92 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-310263/161**
**Matrix: Water**
**Analysis Batch: 310263**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 1.00 | 0.936 | | mg/L | | 94 | 90 - 110 | 2 | 20 |

**Lab Sample ID: 550-209471-1 MS**
**Matrix: Water**
**Analysis Batch: 310263**

**Client Sample ID: CH-CCR-M43A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.37 | | 1.00 | 1.40 | | mg/L | | 103 | 90 - 110 | | |

**Lab Sample ID: 550-209471-1 MSD**
**Matrix: Water**
**Analysis Batch: 310263**

**Client Sample ID: CH-CCR-M43A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.37 | | 1.00 | 1.36 | | mg/L | | 99 | 90 - 110 | 3 | 20 |

## Method: 353.2 - Nitrogen, Nitrate-Nitrite

**Lab Sample ID: MB 280-631180/22**
**Matrix: Water**
**Analysis Batch: 631180**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | ND | | 0.10 | | mg/L | | | 10/25/23 12:52 | 1 |

**Lab Sample ID: LCS 280-631180/21**
**Matrix: Water**
**Analysis Batch: 631180**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | | | 5.00 | 5.01 | | mg/L | | 100 | 90 - 110 | | |

## Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

**Lab Sample ID: 550-209471-1 MS**
**Matrix: Water**
**Analysis Batch: 631180**

**Client Sample ID: CH-CCR-M43A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | ND | | 4.00 | 3.88 | | mg/L | | 97 | 90 - 110 |

**Lab Sample ID: 550-209471-1 MSD**
**Matrix: Water**
**Analysis Batch: 631180**

**Client Sample ID: CH-CCR-M43A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | ND | | 4.00 | 3.83 | | mg/L | | 96 | 90 - 110 | 1 | 10 |

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 550-309971/4**
**Matrix: Water**
**Analysis Batch: 309971**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 10/25/23 15:28 | 1 |
| Alkalinity, Phenolphthalein | ND | | 6.0 | | mg/L | | | 10/25/23 15:28 | 1 |
| Bicarbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 10/25/23 15:28 | 1 |
| Carbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 10/25/23 15:28 | 1 |
| Hydroxide Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 10/25/23 15:28 | 1 |

**Lab Sample ID: LCS 550-309971/3**
**Matrix: Water**
**Analysis Batch: 309971**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 242 | | mg/L | | 97 | 90 - 110 |

**Lab Sample ID: LCSD 550-309971/13**
**Matrix: Water**
**Analysis Batch: 309971**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 243 | | mg/L | | 97 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 550-209588-D-1 DU**
**Matrix: Water**
**Analysis Batch: 309971**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | 210 | | | 208 | | mg/L | | | | 0 | 20 |
| Alkalinity, Phenolphthalein | ND | | | ND | | mg/L | | | | NC | 20 |
| Bicarbonate Alkalinity as CaCO3 | 210 | | | 208 | | mg/L | | | | 0 | 20 |
| Carbonate Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |
| Hydroxide Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 550-309802/1**
**Matrix: Water**
**Analysis Batch: 309802**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 10/23/23 15:06 | 1 |

**Lab Sample ID: LCS 550-309802/2**
**Matrix: Water**
**Analysis Batch: 309802**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 998 | | mg/L | | 100 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-309802/3**
**Matrix: Water**
**Analysis Batch: 309802**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 992 | | mg/L | | 99 | 90 - 110 | 1 | 10 |

**Lab Sample ID: 550-209293-A-2 DU**
**Matrix: Water**
**Analysis Batch: 309802**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1100 | | | 1170 | | mg/L | | | | 4 | 10 |

**Lab Sample ID: 550-209471-4 DU**
**Matrix: Water**
**Analysis Batch: 309802**

**Client Sample ID: CH-CCR-M46A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 12000 | | | 11900 | | mg/L | | | | 1 | 10 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: LCSSRM 550-310003/1**
**Matrix: Water**
**Analysis Batch: 310003**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.0 | | SU | | 99.7 | 98.5 - 101.5 | | |

**Lab Sample ID: LCSSRM 550-310003/13**
**Matrix: Water**
**Analysis Batch: 310003**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.0 | | SU | | 100.0 | 98.5 - 101.5 | | |

## Method: SM 4500 H+ B - pH (Continued)

**Lab Sample ID: LCSSRM 550-310003/25**
**Matrix: Water**
**Analysis Batch: 310003**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.0 | | SU | | 100.0 | 98.5 - 101.5 | | |

**Lab Sample ID: LCSSRM 550-310003/37**
**Matrix: Water**
**Analysis Batch: 310003**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.0 | | SU | | 100.0 | 98.5 - 101.5 | | |

**Lab Sample ID: 550-209471-3 DU**
**Matrix: Water**
**Analysis Batch: 310003**

**Client Sample ID: CH-CCR-M45A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | 7.3 | H5 | | 7.3 | | SU | | | | 0 | 5 |
| Temperature | 9.5 | H5 T5 | | 9.4 | | Degrees C | | | | 1 | |

## Method: SM 5310B - Organic Carbon, Dissolved (DOC)

**Lab Sample ID: MB 550-310248/5**
**Matrix: Water**
**Analysis Batch: 310248**

**Client Sample ID: Method Blank**
**Prep Type: Dissolved**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | ND | | 0.50 | | mg/L | | | 10/30/23 15:16 | 1 |
| Dissolved Organic Carbon - Duplicate | ND | | 0.50 | | mg/L | | | 10/30/23 15:16 | 1 |
| Dissolved Organic Carbon - Quad | ND | | 0.50 | | mg/L | | | 10/30/23 15:16 | 1 |

**Lab Sample ID: LCS 550-310248/8**
**Matrix: Water**
**Analysis Batch: 310248**

**Client Sample ID: Lab Control Sample**
**Prep Type: Dissolved**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | | | 20.0 | 18.3 | | mg/L | | 92 | 90 - 110 | | |
| Dissolved Organic Carbon - Duplicate | | | 20.0 | 18.3 | | mg/L | | 92 | 90 - 110 | | |
| Dissolved Organic Carbon - Quad | | | 20.0 | 18.3 | | mg/L | | 92 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-310248/9**
**Matrix: Water**
**Analysis Batch: 310248**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Dissolved**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | | | 20.0 | 18.6 | | mg/L | | 93 | 90 - 110 | 1 | 20 |
| Dissolved Organic Carbon - Duplicate | | | 20.0 | 18.6 | | mg/L | | 93 | 90 - 110 | 1 | 20 |
| Dissolved Organic Carbon - Quad | | | 20.0 | 18.6 | | mg/L | | 93 | 90 - 110 | 1 | 20 |

## Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

**Lab Sample ID: 550-209145-A-3 MSD**
**Matrix: Water**
**Analysis Batch: 310248**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | 5.2 | M1 | 20.0 | 27.8 | M1 | mg/L | | 113 | 90 - 110 | 2 | 20 |
| Dissolved Organic Carbon - Duplicate | 5.2 | M1 | 20.0 | 27.8 | M1 | mg/L | | 113 | 90 - 110 | 2 | 20 |
| Dissolved Organic Carbon - Quad | 5.2 | M1 | 20.0 | 27.8 | M1 | mg/L | | 113 | 90 - 110 | 2 | 20 |

**Lab Sample ID: 550-209145-C-3 MS**
**Matrix: Water**
**Analysis Batch: 310248**

**Client Sample ID: Matrix Spike**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | 5.2 | M1 | 20.0 | 27.2 | | mg/L | | 110 | 90 - 110 |
| Dissolved Organic Carbon - Duplicate | 5.2 | M1 | 20.0 | 27.2 | | mg/L | | 110 | 90 - 110 |
| Dissolved Organic Carbon - Quad | 5.2 | M1 | 20.0 | 27.2 | | mg/L | | 110 | 90 - 110 |

**Lab Sample ID: MB 550-310716/3**
**Matrix: Water**
**Analysis Batch: 310716**

**Client Sample ID: Method Blank**
**Prep Type: Dissolved**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | ND | | 0.50 | | mg/L | | | 11/07/23 22:41 | 1 |
| Dissolved Organic Carbon - Duplicate | ND | | 0.50 | | mg/L | | | 11/07/23 22:41 | 1 |
| Dissolved Organic Carbon - Quad | ND | | 0.50 | | mg/L | | | 11/07/23 22:41 | 1 |

**Lab Sample ID: LCS 550-310716/5**
**Matrix: Water**
**Analysis Batch: 310716**

**Client Sample ID: Lab Control Sample**
**Prep Type: Dissolved**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | | | 20.0 | 19.6 | | mg/L | | 98 | 90 - 110 |
| Dissolved Organic Carbon - Duplicate | | | 20.0 | 19.3 | | mg/L | | 97 | 90 - 110 |
| Dissolved Organic Carbon - Quad | | | 20.0 | 19.6 | | mg/L | | 98 | 90 - 110 |

**Lab Sample ID: LCSD 550-310716/30**
**Matrix: Water**
**Analysis Batch: 310716**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Dissolved**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | | | 20.0 | 19.3 | | mg/L | | 96 | 90 - 110 | 1 | 20 |
| Dissolved Organic Carbon - Duplicate | | | 20.0 | 19.0 | | mg/L | | 95 | 90 - 110 | 2 | 20 |
| Dissolved Organic Carbon - Quad | | | 20.0 | 19.3 | | mg/L | | 96 | 90 - 110 | 1 | 20 |

## Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

**Lab Sample ID: 550-209471-12 MS**
**Matrix: Water**
**Analysis Batch: 310716**

**Client Sample ID: CH-CCR-M66A-1023**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | 2.7 | | 20.0 | 22.8 | | mg/L | | 100 | 90 - 110 | | |
| Dissolved Organic Carbon - Duplicate | 2.7 | | 20.0 | 22.8 | | mg/L | | 100 | 90 - 110 | | |
| Dissolved Organic Carbon - Quad | 2.7 | | 20.0 | 22.8 | | mg/L | | 100 | 90 - 110 | | |

**Lab Sample ID: 550-209471-12 MSD**
**Matrix: Water**
**Analysis Batch: 310716**

**Client Sample ID: CH-CCR-M66A-1023**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | 2.7 | | 20.0 | 21.4 | | mg/L | | 93 | 90 - 110 | 6 | 20 |
| Dissolved Organic Carbon - Duplicate | 2.7 | | 20.0 | 21.4 | | mg/L | | 93 | 90 - 110 | 6 | 20 |
| Dissolved Organic Carbon - Quad | 2.7 | | 20.0 | 21.4 | | mg/L | | 93 | 90 - 110 | 6 | 20 |

## HPLC/IC

### Analysis Batch: 309850

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-1 | CH-CCR-M43A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-1 | CH-CCR-M43A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-3 | CH-CCR-M45A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-3 | CH-CCR-M45A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-4 | CH-CCR-M46A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-4 | CH-CCR-M46A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-6 | CH-CCR-M50A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-6 | CH-CCR-M50A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-8 | CH-CCR-M51A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-8 | CH-CCR-M51A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-10 | CH-CCR-M65A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-10 | CH-CCR-M65A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-12 | CH-CCR-M66A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-12 | CH-CCR-M66A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-14 | CH-CCR-M67A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-14 | CH-CCR-M67A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-16 | CH-CCR-W125-1023 | Total/NA | Water | 300.0 | |
| 550-209471-16 | CH-CCR-W125-1023 | Total/NA | Water | 300.0 | |
| 550-209471-17 | CH-CCR-W-126R-1023 | Total/NA | Water | 300.0 | |
| 550-209471-17 | CH-CCR-W-126R-1023 | Total/NA | Water | 300.0 | |
| 550-209471-19 | CH-CCR-BudHunt-1023 | Total/NA | Water | 300.0 | |
| 550-209471-19 | CH-CCR-BudHunt-1023 | Total/NA | Water | 300.0 | |
| MB 550-309850/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-309850/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-309850/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-209102-A-1 MS ^10 | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-209102-A-1 MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

### Analysis Batch: 310211

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-3 | CH-CCR-M45A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-4 | CH-CCR-M46A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-8 | CH-CCR-M51A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-17 | CH-CCR-W-126R-1023 | Total/NA | Water | 300.0 | |
| MB 550-310211/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-310211/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-310211/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-209568-B-5 MS ^10 | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-209568-B-5 MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

### Analysis Batch: 310213

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-1 | CH-CCR-M43A-1023 | Total/NA | Water | 300.0 | |
| MB 550-310213/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-310213/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-310213/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-209476-A-15 MS | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-209476-A-15 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

## HPLC/IC

### Analysis Batch: 310443

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-4 | CH-CCR-M46A-1023 | Total/NA | Water | 9056A | |
| 550-209471-6 | CH-CCR-M50A-1023 | Total/NA | Water | 9056A | |
| 550-209471-8 | CH-CCR-M51A-1023 | Total/NA | Water | 9056A | |
| 550-209471-10 | CH-CCR-M65A-1023 | Total/NA | Water | 9056A | |
| 550-209471-12 | CH-CCR-M66A-1023 | Total/NA | Water | 9056A | |
| 550-209471-14 | CH-CCR-M67A-1023 | Total/NA | Water | 9056A | |
| MB 550-310443/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-310443/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-310443/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-209471-4 MS | CH-CCR-M46A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-4 MS | CH-CCR-M46A-1023 | Total/NA | Water | 9056A | |
| 550-209471-4 MSD | CH-CCR-M46A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-4 MSD | CH-CCR-M46A-1023 | Total/NA | Water | 9056A | |
| 550-209876-D-1 MS | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-209876-D-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |
| 550-209471-4 DU | CH-CCR-M46A-1023 | Total/NA | Water | 300.0 | |
| 550-209471-4 DU | CH-CCR-M46A-1023 | Total/NA | Water | 9056A | |

## Metals

### Prep Batch: 309745

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-1 | CH-CCR-M43A-1023 | Total/NA | Water | 200.7 | |
| 550-209471-2 | CH-CCR-M43A-1023 | Dissolved | Water | 200.7 | |
| 550-209471-3 | CH-CCR-M45A-1023 | Total/NA | Water | 200.7 | |
| 550-209471-4 | CH-CCR-M46A-1023 | Total/NA | Water | 200.7 | |
| 550-209471-5 | CH-CCR-M46A-1023 | Dissolved | Water | 200.7 | |
| 550-209471-6 | CH-CCR-M50A-1023 | Total/NA | Water | 200.7 | |
| 550-209471-7 | CH-CCR-M50A-1023 | Dissolved | Water | 200.7 | |
| 550-209471-8 | CH-CCR-M51A-1023 | Total/NA | Water | 200.7 | |
| 550-209471-9 | CH-CCR-M51A-1023 | Dissolved | Water | 200.7 | |
| 550-209471-10 | CH-CCR-M65A-1023 | Total/NA | Water | 200.7 | |
| 550-209471-11 | CH-CCR-M65A-1023 | Dissolved | Water | 200.7 | |
| 550-209471-12 | CH-CCR-M66A-1023 | Total/NA | Water | 200.7 | |
| 550-209471-13 | CH-CCR-M66A-1023 | Dissolved | Water | 200.7 | |
| 550-209471-14 | CH-CCR-M67A-1023 | Total/NA | Water | 200.7 | |
| 550-209471-15 | CH-CCR-M67A-1023 | Dissolved | Water | 200.7 | |
| 550-209471-16 | CH-CCR-W125-1023 | Total/NA | Water | 200.7 | |
| 550-209471-17 | CH-CCR-W-126R-1023 | Total/NA | Water | 200.7 | |
| 550-209471-18 | CH-CCR-W-126R-1023 | Dissolved | Water | 200.7 | |
| 550-209471-19 | CH-CCR-BudHunt-1023 | Total/NA | Water | 200.7 | |
| 550-209471-20 | CH-CCR-BudHunt-1023 | Dissolved | Water | 200.7 | |
| MB 550-309745/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-309745/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-309745/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-209471-1 MS | CH-CCR-M43A-1023 | Total/NA | Water | 200.7 | |
| 550-209471-1 MSD | CH-CCR-M43A-1023 | Total/NA | Water | 200.7 | |

### Prep Batch: 309754

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-1 | CH-CCR-M43A-1023 | Total/NA | Water | 200.8 | |

## Metals (Continued)

### Prep Batch: 309754 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-2 | CH-CCR-M43A-1023 | Dissolved | Water | 200.8 | |
| 550-209471-3 | CH-CCR-M45A-1023 | Total/NA | Water | 200.8 | |
| 550-209471-4 | CH-CCR-M46A-1023 | Total/NA | Water | 200.8 | |
| 550-209471-5 | CH-CCR-M46A-1023 | Dissolved | Water | 200.8 | |
| 550-209471-6 | CH-CCR-M50A-1023 | Total/NA | Water | 200.8 | |
| 550-209471-7 | CH-CCR-M50A-1023 | Dissolved | Water | 200.8 | |
| 550-209471-8 | CH-CCR-M51A-1023 | Total/NA | Water | 200.8 | |
| 550-209471-9 | CH-CCR-M51A-1023 | Dissolved | Water | 200.8 | |
| 550-209471-10 | CH-CCR-M65A-1023 | Total/NA | Water | 200.8 | |
| 550-209471-11 | CH-CCR-M65A-1023 | Dissolved | Water | 200.8 | |
| 550-209471-12 | CH-CCR-M66A-1023 | Total/NA | Water | 200.8 | |
| 550-209471-13 | CH-CCR-M66A-1023 | Dissolved | Water | 200.8 | |
| 550-209471-14 | CH-CCR-M67A-1023 | Total/NA | Water | 200.8 | |
| 550-209471-15 | CH-CCR-M67A-1023 | Dissolved | Water | 200.8 | |
| 550-209471-16 | CH-CCR-W125-1023 | Total/NA | Water | 200.8 | |
| 550-209471-17 | CH-CCR-W-126R-1023 | Total/NA | Water | 200.8 | |
| 550-209471-18 | CH-CCR-W-126R-1023 | Dissolved | Water | 200.8 | |
| 550-209471-19 | CH-CCR-BudHunt-1023 | Total/NA | Water | 200.8 | |
| 550-209471-20 | CH-CCR-BudHunt-1023 | Dissolved | Water | 200.8 | |
| MB 550-309754/1-A | Method Blank | Total/NA | Water | 200.8 | |
| LCS 550-309754/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-309754/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-209471-3 MS | CH-CCR-M45A-1023 | Total/NA | Water | 200.8 | |
| 550-209471-3 MSD | CH-CCR-M45A-1023 | Total/NA | Water | 200.8 | |

### Analysis Batch: 309936

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-1 | CH-CCR-M43A-1023 | Total/NA | Water | 200.8 LL | 309754 |
| 550-209471-2 | CH-CCR-M43A-1023 | Dissolved | Water | 200.8 LL | 309754 |
| 550-209471-3 | CH-CCR-M45A-1023 | Total/NA | Water | 200.8 LL | 309754 |
| 550-209471-4 | CH-CCR-M46A-1023 | Total/NA | Water | 200.8 LL | 309754 |
| 550-209471-5 | CH-CCR-M46A-1023 | Dissolved | Water | 200.8 LL | 309754 |
| 550-209471-6 | CH-CCR-M50A-1023 | Total/NA | Water | 200.8 LL | 309754 |
| 550-209471-7 | CH-CCR-M50A-1023 | Dissolved | Water | 200.8 LL | 309754 |
| 550-209471-8 | CH-CCR-M51A-1023 | Total/NA | Water | 200.8 LL | 309754 |
| 550-209471-10 | CH-CCR-M65A-1023 | Total/NA | Water | 200.8 LL | 309754 |
| 550-209471-11 | CH-CCR-M65A-1023 | Dissolved | Water | 200.8 LL | 309754 |
| 550-209471-12 | CH-CCR-M66A-1023 | Total/NA | Water | 200.8 LL | 309754 |
| 550-209471-13 | CH-CCR-M66A-1023 | Dissolved | Water | 200.8 LL | 309754 |
| 550-209471-14 | CH-CCR-M67A-1023 | Total/NA | Water | 200.8 LL | 309754 |
| 550-209471-15 | CH-CCR-M67A-1023 | Dissolved | Water | 200.8 LL | 309754 |
| 550-209471-16 | CH-CCR-W125-1023 | Total/NA | Water | 200.8 LL | 309754 |
| 550-209471-17 | CH-CCR-W-126R-1023 | Total/NA | Water | 200.8 LL | 309754 |
| 550-209471-18 | CH-CCR-W-126R-1023 | Dissolved | Water | 200.8 LL | 309754 |
| 550-209471-19 | CH-CCR-BudHunt-1023 | Total/NA | Water | 200.8 LL | 309754 |
| 550-209471-20 | CH-CCR-BudHunt-1023 | Dissolved | Water | 200.8 LL | 309754 |
| MB 550-309754/1-A | Method Blank | Total/NA | Water | 200.8 LL | 309754 |
| LCS 550-309754/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 309754 |
| LCSD 550-309754/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 309754 |
| 550-209471-3 MS | CH-CCR-M45A-1023 | Total/NA | Water | 200.8 LL | 309754 |
| 550-209471-3 MSD | CH-CCR-M45A-1023 | Total/NA | Water | 200.8 LL | 309754 |

## Metals

### Analysis Batch: 309989

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-1 | CH-CCR-M43A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| 550-209471-2 | CH-CCR-M43A-1023 | Dissolved | Water | 200.7 | 309745 |
| 550-209471-3 | CH-CCR-M45A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| 550-209471-4 | CH-CCR-M46A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| 550-209471-5 | CH-CCR-M46A-1023 | Dissolved | Water | 200.7 | 309745 |
| 550-209471-6 | CH-CCR-M50A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| 550-209471-7 | CH-CCR-M50A-1023 | Dissolved | Water | 200.7 | 309745 |
| 550-209471-8 | CH-CCR-M51A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| 550-209471-9 | CH-CCR-M51A-1023 | Dissolved | Water | 200.7 | 309745 |
| 550-209471-10 | CH-CCR-M65A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| 550-209471-11 | CH-CCR-M65A-1023 | Dissolved | Water | 200.7 | 309745 |
| 550-209471-12 | CH-CCR-M66A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| 550-209471-13 | CH-CCR-M66A-1023 | Dissolved | Water | 200.7 | 309745 |
| 550-209471-14 | CH-CCR-M67A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| 550-209471-15 | CH-CCR-M67A-1023 | Dissolved | Water | 200.7 | 309745 |
| 550-209471-16 | CH-CCR-W125-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| 550-209471-17 | CH-CCR-W-126R-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| 550-209471-18 | CH-CCR-W-126R-1023 | Dissolved | Water | 200.7 | 309745 |
| 550-209471-19 | CH-CCR-BudHunt-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| 550-209471-20 | CH-CCR-BudHunt-1023 | Dissolved | Water | 200.7 | 309745 |
| MB 550-309745/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| LCS 550-309745/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| LCSD 550-309745/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| 550-209471-1 MS | CH-CCR-M43A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| 550-209471-1 MSD | CH-CCR-M43A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |

### Prep Batch: 310014

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-1 | CH-CCR-M43A-1023 | Total/NA | Water | 245.1 | |
| 550-209471-3 | CH-CCR-M45A-1023 | Total/NA | Water | 245.1 | |
| 550-209471-4 | CH-CCR-M46A-1023 | Total/NA | Water | 245.1 | |
| 550-209471-6 | CH-CCR-M50A-1023 | Total/NA | Water | 245.1 | |
| 550-209471-8 | CH-CCR-M51A-1023 | Total/NA | Water | 245.1 | |
| 550-209471-10 | CH-CCR-M65A-1023 | Total/NA | Water | 245.1 | |
| 550-209471-12 | CH-CCR-M66A-1023 | Total/NA | Water | 245.1 | |
| 550-209471-14 | CH-CCR-M67A-1023 | Total/NA | Water | 245.1 | |
| 550-209471-16 | CH-CCR-W125-1023 | Total/NA | Water | 245.1 | |
| 550-209471-17 | CH-CCR-W-126R-1023 | Total/NA | Water | 245.1 | |
| 550-209471-19 | CH-CCR-BudHunt-1023 | Total/NA | Water | 245.1 | |
| MB 550-310014/1-A | Method Blank | Total/NA | Water | 245.1 | |
| LCS 550-310014/2-A | Lab Control Sample | Total/NA | Water | 245.1 | |
| LCSD 550-310014/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | |
| 550-209471-17 MS | CH-CCR-W-126R-1023 | Total/NA | Water | 245.1 | |
| 550-209570-B-2-E MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | |

### Analysis Batch: 310057

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-1 | CH-CCR-M43A-1023 | Total/NA | Water | 245.1 | 310014 |
| 550-209471-3 | CH-CCR-M45A-1023 | Total/NA | Water | 245.1 | 310014 |
| 550-209471-4 | CH-CCR-M46A-1023 | Total/NA | Water | 245.1 | 310014 |
| 550-209471-6 | CH-CCR-M50A-1023 | Total/NA | Water | 245.1 | 310014 |

## Metals (Continued)

### Analysis Batch: 310057 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-8 | CH-CCR-M51A-1023 | Total/NA | Water | 245.1 | 310014 |
| 550-209471-10 | CH-CCR-M65A-1023 | Total/NA | Water | 245.1 | 310014 |
| 550-209471-12 | CH-CCR-M66A-1023 | Total/NA | Water | 245.1 | 310014 |
| 550-209471-14 | CH-CCR-M67A-1023 | Total/NA | Water | 245.1 | 310014 |
| 550-209471-16 | CH-CCR-W125-1023 | Total/NA | Water | 245.1 | 310014 |
| 550-209471-17 | CH-CCR-W-126R-1023 | Total/NA | Water | 245.1 | 310014 |
| 550-209471-19 | CH-CCR-BudHunt-1023 | Total/NA | Water | 245.1 | 310014 |
| MB 550-310014/1-A | Method Blank | Total/NA | Water | 245.1 | 310014 |
| LCS 550-310014/2-A | Lab Control Sample | Total/NA | Water | 245.1 | 310014 |
| LCSD 550-310014/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | 310014 |
| 550-209471-17 MS | CH-CCR-W-126R-1023 | Total/NA | Water | 245.1 | 310014 |
| 550-209570-B-2-E MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | 310014 |

### Analysis Batch: 310151

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-4 | CH-CCR-M46A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| 550-209471-6 | CH-CCR-M50A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| 550-209471-8 | CH-CCR-M51A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| 550-209471-10 | CH-CCR-M65A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| 550-209471-12 | CH-CCR-M66A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |
| 550-209471-17 | CH-CCR-W-126R-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309745 |

### Analysis Batch: 310201

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-8 | CH-CCR-M51A-1023 | Total/NA | Water | 200.8 LL | 309754 |
| 550-209471-9 | CH-CCR-M51A-1023 | Dissolved | Water | 200.8 LL | 309754 |
| 550-209471-12 | CH-CCR-M66A-1023 | Total/NA | Water | 200.8 LL | 309754 |
| 550-209471-14 | CH-CCR-M67A-1023 | Total/NA | Water | 200.8 LL | 309754 |
| 550-209471-16 | CH-CCR-W125-1023 | Total/NA | Water | 200.8 LL | 309754 |
| 550-209471-17 | CH-CCR-W-126R-1023 | Total/NA | Water | 200.8 LL | 309754 |
| 550-209471-19 | CH-CCR-BudHunt-1023 | Total/NA | Water | 200.8 LL | 309754 |
| MB 550-309754/1-A | Method Blank | Total/NA | Water | 200.8 LL | 309754 |
| LCS 550-309754/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 309754 |
| LCSD 550-309754/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 309754 |

### Prep Batch: 376967

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-1 | CH-CCR-M43A-1023 | Total Recoverable | Water | 200.7 | |
| 550-209471-3 | CH-CCR-M45A-1023 | Total Recoverable | Water | 200.7 | |
| 550-209471-4 | CH-CCR-M46A-1023 | Total Recoverable | Water | 200.7 | |
| 550-209471-6 | CH-CCR-M50A-1023 | Total Recoverable | Water | 200.7 | |
| 550-209471-8 | CH-CCR-M51A-1023 | Total Recoverable | Water | 200.7 | |
| 550-209471-10 | CH-CCR-M65A-1023 | Total Recoverable | Water | 200.7 | |
| 550-209471-12 | CH-CCR-M66A-1023 | Total Recoverable | Water | 200.7 | |
| 550-209471-14 | CH-CCR-M67A-1023 | Total Recoverable | Water | 200.7 | |
| 550-209471-16 | CH-CCR-W125-1023 | Total Recoverable | Water | 200.7 | |
| 550-209471-17 | CH-CCR-W-126R-1023 | Total Recoverable | Water | 200.7 | |
| 550-209471-19 | CH-CCR-BudHunt-1023 | Total Recoverable | Water | 200.7 | |
| MB 570-376967/1-A | Method Blank | Total Recoverable | Water | 200.7 | |
| LCS 570-376967/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 | |
| LCSD 570-376967/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.7 | |

## Metals (Continued)

### Prep Batch: 376967 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-8 MS | CH-CCR-M51A-1023 | Total Recoverable | Water | 200.7 | |
| 550-209471-8 MSD | CH-CCR-M51A-1023 | Total Recoverable | Water | 200.7 | |

### Analysis Batch: 378051

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-1 | CH-CCR-M43A-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 376967 |
| 550-209471-3 | CH-CCR-M45A-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 376967 |
| 550-209471-4 | CH-CCR-M46A-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 376967 |
| 550-209471-6 | CH-CCR-M50A-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 376967 |
| 550-209471-8 | CH-CCR-M51A-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 376967 |
| 550-209471-14 | CH-CCR-M67A-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 376967 |
| 550-209471-16 | CH-CCR-W125-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 376967 |
| 550-209471-17 | CH-CCR-W-126R-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 376967 |
| 550-209471-19 | CH-CCR-BudHunt-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 376967 |
| MB 570-376967/1-A | Method Blank | Total Recoverable | Water | 200.7 Rev 4.4 | 376967 |
| LCS 570-376967/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 Rev 4.4 | 376967 |
| LCSD 570-376967/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.7 Rev 4.4 | 376967 |
| 550-209471-8 MS | CH-CCR-M51A-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 376967 |
| 550-209471-8 MSD | CH-CCR-M51A-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 376967 |

### Analysis Batch: 379296

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-10 | CH-CCR-M65A-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 376967 |
| 550-209471-12 | CH-CCR-M66A-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 376967 |

## General Chemistry

### Analysis Batch: 309802

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-1 | CH-CCR-M43A-1023 | Total/NA | Water | SM 2540C | |
| 550-209471-3 | CH-CCR-M45A-1023 | Total/NA | Water | SM 2540C | |
| 550-209471-4 | CH-CCR-M46A-1023 | Total/NA | Water | SM 2540C | |
| 550-209471-6 | CH-CCR-M50A-1023 | Total/NA | Water | SM 2540C | |
| 550-209471-8 | CH-CCR-M51A-1023 | Total/NA | Water | SM 2540C | |
| 550-209471-10 | CH-CCR-M65A-1023 | Total/NA | Water | SM 2540C | |
| 550-209471-12 | CH-CCR-M66A-1023 | Total/NA | Water | SM 2540C | |
| 550-209471-14 | CH-CCR-M67A-1023 | Total/NA | Water | SM 2540C | |
| 550-209471-16 | CH-CCR-W125-1023 | Total/NA | Water | SM 2540C | |
| 550-209471-17 | CH-CCR-W-126R-1023 | Total/NA | Water | SM 2540C | |
| 550-209471-19 | CH-CCR-BudHunt-1023 | Total/NA | Water | SM 2540C | |
| MB 550-309802/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-309802/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-309802/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-209293-A-2 DU | Duplicate | Total/NA | Water | SM 2540C | |
| 550-209471-4 DU | CH-CCR-M46A-1023 | Total/NA | Water | SM 2540C | |

### Analysis Batch: 309971

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-4 | CH-CCR-M46A-1023 | Total/NA | Water | SM 2320B | |
| 550-209471-6 | CH-CCR-M50A-1023 | Total/NA | Water | SM 2320B | |
| 550-209471-8 | CH-CCR-M51A-1023 | Total/NA | Water | SM 2320B | |

## General Chemistry (Continued)

### Analysis Batch: 309971 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-10 | CH-CCR-M65A-1023 | Total/NA | Water | SM 2320B | |
| 550-209471-12 | CH-CCR-M66A-1023 | Total/NA | Water | SM 2320B | |
| 550-209471-14 | CH-CCR-M67A-1023 | Total/NA | Water | SM 2320B | |
| 550-209471-17 | CH-CCR-W-126R-1023 | Total/NA | Water | SM 2320B | |
| 550-209471-19 | CH-CCR-BudHunt-1023 | Total/NA | Water | SM 2320B | |
| MB 550-309971/4 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 550-309971/3 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| LCSD 550-309971/13 | Lab Control Sample Dup | Total/NA | Water | SM 2320B | |
| 550-209588-D-1 DU | Duplicate | Total/NA | Water | SM 2320B | |

### Analysis Batch: 310003

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-1 | CH-CCR-M43A-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209471-3 | CH-CCR-M45A-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209471-4 | CH-CCR-M46A-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209471-6 | CH-CCR-M50A-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209471-8 | CH-CCR-M51A-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209471-10 | CH-CCR-M65A-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209471-12 | CH-CCR-M66A-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209471-14 | CH-CCR-M67A-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209471-16 | CH-CCR-W125-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209471-17 | CH-CCR-W-126R-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209471-19 | CH-CCR-BudHunt-1023 | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-310003/1 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-310003/13 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-310003/25 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-310003/37 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| 550-209471-3 DU | CH-CCR-M45A-1023 | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 310248

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-1 | CH-CCR-M43A-1023 | Dissolved | Water | SM 5310B | |
| 550-209471-4 | CH-CCR-M46A-1023 | Dissolved | Water | SM 5310B | |
| 550-209471-6 | CH-CCR-M50A-1023 | Dissolved | Water | SM 5310B | |
| 550-209471-8 | CH-CCR-M51A-1023 | Dissolved | Water | SM 5310B | |
| 550-209471-10 | CH-CCR-M65A-1023 | Dissolved | Water | SM 5310B | |
| MB 550-310248/5 | Method Blank | Dissolved | Water | SM 5310B | |
| LCS 550-310248/8 | Lab Control Sample | Dissolved | Water | SM 5310B | |
| LCSD 550-310248/9 | Lab Control Sample Dup | Dissolved | Water | SM 5310B | |
| 550-209145-A-3 MSD | Matrix Spike Duplicate | Dissolved | Water | SM 5310B | |
| 550-209145-C-3 MS | Matrix Spike | Dissolved | Water | SM 5310B | |

### Analysis Batch: 310263

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-1 | CH-CCR-M43A-1023 | Total/NA | Water | 350.1 | |
| 550-209471-4 | CH-CCR-M46A-1023 | Total/NA | Water | 350.1 | |
| 550-209471-6 | CH-CCR-M50A-1023 | Total/NA | Water | 350.1 | |
| 550-209471-8 | CH-CCR-M51A-1023 | Total/NA | Water | 350.1 | |
| 550-209471-10 | CH-CCR-M65A-1023 | Total/NA | Water | 350.1 | |
| 550-209471-12 | CH-CCR-M66A-1023 | Total/NA | Water | 350.1 | |
| 550-209471-14 | CH-CCR-M67A-1023 | Total/NA | Water | 350.1 | |

## General Chemistry (Continued)

### Analysis Batch: 310263 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-17 | CH-CCR-W-126R-1023 | Total/NA | Water | 350.1 | |
| 550-209471-19 | CH-CCR-BudHunt-1023 | Total/NA | Water | 350.1 | |
| MB 550-310263/159 | Method Blank | Total/NA | Water | 350.1 | |
| LCS 550-310263/160 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCSD 550-310263/161 | Lab Control Sample Dup | Total/NA | Water | 350.1 | |
| 550-209471-1 MS | CH-CCR-M43A-1023 | Total/NA | Water | 350.1 | |
| 550-209471-1 MSD | CH-CCR-M43A-1023 | Total/NA | Water | 350.1 | |

### Analysis Batch: 310716

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-12 | CH-CCR-M66A-1023 | Dissolved | Water | SM 5310B | |
| 550-209471-14 | CH-CCR-M67A-1023 | Dissolved | Water | SM 5310B | |
| 550-209471-17 | CH-CCR-W-126R-1023 | Dissolved | Water | SM 5310B | |
| 550-209471-19 | CH-CCR-BudHunt-1023 | Dissolved | Water | SM 5310B | |
| MB 550-310716/3 | Method Blank | Dissolved | Water | SM 5310B | |
| LCS 550-310716/5 | Lab Control Sample | Dissolved | Water | SM 5310B | |
| LCSD 550-310716/30 | Lab Control Sample Dup | Dissolved | Water | SM 5310B | |
| 550-209471-12 MS | CH-CCR-M66A-1023 | Dissolved | Water | SM 5310B | |
| 550-209471-12 MSD | CH-CCR-M66A-1023 | Dissolved | Water | SM 5310B | |

### Analysis Batch: 631180

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-1 | CH-CCR-M43A-1023 | Total/NA | Water | 353.2 | |
| 550-209471-4 | CH-CCR-M46A-1023 | Total/NA | Water | 353.2 | |
| 550-209471-6 | CH-CCR-M50A-1023 | Total/NA | Water | 353.2 | |
| 550-209471-8 | CH-CCR-M51A-1023 | Total/NA | Water | 353.2 | |
| 550-209471-10 | CH-CCR-M65A-1023 | Total/NA | Water | 353.2 | |
| 550-209471-12 | CH-CCR-M66A-1023 | Total/NA | Water | 353.2 | |
| 550-209471-14 | CH-CCR-M67A-1023 | Total/NA | Water | 353.2 | |
| 550-209471-17 | CH-CCR-W-126R-1023 | Total/NA | Water | 353.2 | |
| 550-209471-19 | CH-CCR-BudHunt-1023 | Total/NA | Water | 353.2 | |
| MB 280-631180/22 | Method Blank | Total/NA | Water | 353.2 | |
| LCS 280-631180/21 | Lab Control Sample | Total/NA | Water | 353.2 | |
| 550-209471-1 MS | CH-CCR-M43A-1023 | Total/NA | Water | 353.2 | |
| 550-209471-1 MSD | CH-CCR-M43A-1023 | Total/NA | Water | 353.2 | |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

## Client Sample ID: CH-CCR-M43A-1023
**Date Collected: 10/16/23 16:23**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-1
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309850 | MMH | EET PHX | 10/21/23 17:43 |
| Total/NA | Analysis | 300.0 | | 20 | 309850 | MMH | EET PHX | 10/21/23 18:01 |
| Total/NA | Analysis | 300.0 | | 20 | 310213 | MMH | EET PHX | 10/31/23 12:43 |
| Total Recoverable | Prep | 200.7 | | | 376967 | JP8N | EET CAL 4 | 10/25/23 08:04 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 378051 | P1R | EET CAL 4 | 10/27/23 16:00 |
| Total/NA | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309989 | GLW | EET PHX | 10/25/23 19:33 |
| Total/NA | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 18:53 |
| Total/NA | Prep | 245.1 | | | 310014 | HHL | EET PHX | 10/26/23 12:18 |
| Total/NA | Analysis | 245.1 | | 1 | 310057 | HHL | EET PHX | 10/26/23 15:36 |
| Total/NA | Analysis | 350.1 | | 1 | 310263 | MAN | EET PHX | 10/30/23 14:38 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 12:54 |
| Total/NA | Analysis | SM 2540C | | 1 | 309802 | KMG | EET PHX | 10/23/23 15:06 - 10/27/23 12:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 09:14 |
| Dissolved | Analysis | SM 5310B | | 1 | 310248 | RDC | EET PHX | 10/30/23 23:09 |

## Client Sample ID: CH-CCR-M43A-1023
**Date Collected: 10/16/23 16:23**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-2
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Dissolved | Analysis | 200.7 | | 1 | 309989 | GLW | EET PHX | 10/25/23 19:36 |
| Dissolved | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 18:55 |

## Client Sample ID: CH-CCR-M45A-1023
**Date Collected: 10/17/23 13:38**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-3
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309850 | MMH | EET PHX | 10/21/23 18:19 |
| Total/NA | Analysis | 300.0 | | 20 | 309850 | MMH | EET PHX | 10/21/23 18:38 |
| Total/NA | Analysis | 300.0 | | 100 | 310211 | SMA | EET PHX | 10/31/23 02:29 |
| Total Recoverable | Prep | 200.7 | | | 376967 | JP8N | EET CAL 4 | 10/25/23 08:04 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 378051 | P1R | EET CAL 4 | 10/27/23 16:41 |
| Total/NA | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309989 | GLW | EET PHX | 10/25/23 19:39 |
| Total/NA | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 18:49 |
| Total/NA | Prep | 245.1 | | | 310014 | HHL | EET PHX | 10/26/23 12:18 |
| Total/NA | Analysis | 245.1 | | 1 | 310057 | HHL | EET PHX | 10/26/23 15:38 |
| Total/NA | Analysis | SM 2540C | | 1 | 309802 | KMG | EET PHX | 10/23/23 15:06 - 10/27/23 12:11 [1] |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

## Client Sample ID: CH-CCR-M45A-1023
**Date Collected: 10/17/23 13:38**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-3
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 09:16 |

## Client Sample ID: CH-CCR-M46A-1023
**Date Collected: 10/16/23 13:22**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-4
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309850 | MMH | EET PHX | 10/21/23 19:51 |
| Total/NA | Analysis | 300.0 | | 20 | 309850 | MMH | EET PHX | 10/21/23 20:10 |
| Total/NA | Analysis | 300.0 | | 100 | 310211 | SMA | EET PHX | 10/31/23 02:57 |
| Total/NA | Analysis | 9056A | | 2 | 310443 | SMA | EET PHX | 11/02/23 16:40 |
| Total Recoverable | Prep | 200.7 | | | 376967 | JP8N | EET CAL 4 | 10/25/23 08:04 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 378051 | P1R | EET CAL 4 | 10/27/23 17:04 |
| Total/NA | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309989 | GLW | EET PHX | 10/25/23 19:42 |
| Total/NA | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310151 | GLW | EET PHX | 10/26/23 20:40 |
| Total/NA | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 18:51 |
| Total/NA | Prep | 245.1 | | | 310014 | HHL | EET PHX | 10/26/23 12:18 |
| Total/NA | Analysis | 245.1 | | 1 | 310057 | HHL | EET PHX | 10/26/23 15:40 |
| Total/NA | Analysis | 350.1 | | 1 | 310263 | MAN | EET PHX | 10/30/23 14:42 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 13:00 |
| Total/NA | Analysis | SM 2320B | | 1 | 309971 | MAN | EET PHX | 10/25/23 18:49 |
| Total/NA | Analysis | SM 2540C | | 1 | 309802 | KMG | EET PHX | 10/23/23 15:06 - 10/27/23 12:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 09:18 |
| Dissolved | Analysis | SM 5310B | | 1 | 310248 | RDC | EET PHX | 10/30/23 23:32 |

## Client Sample ID: CH-CCR-M46A-1023
**Date Collected: 10/16/23 13:22**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-5
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Dissolved | Analysis | 200.7 | | 1 | 309989 | GLW | EET PHX | 10/25/23 19:45 |
| Dissolved | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 18:57 |

## Client Sample ID: CH-CCR-M50A-1023
**Date Collected: 10/17/23 10:21**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-6
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309850 | MMH | EET PHX | 10/21/23 20:28 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

## Client Sample ID: CH-CCR-M50A-1023
**Date Collected: 10/17/23 10:21**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-6
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 50 | 309850 | MMH | EET PHX | 10/21/23 20:47 |
| Total/NA | Analysis | 9056A | | 2 | 310443 | SMA | EET PHX | 11/02/23 18:48 |
| Total Recoverable | Prep | 200.7 | | | 376967 | JP8N | EET CAL 4 | 10/25/23 08:04 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 378051 | P1R | EET CAL 4 | 10/27/23 17:07 |
| Total/NA | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309989 | GLW | EET PHX | 10/25/23 19:48 |
| Total/NA | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310151 | GLW | EET PHX | 10/26/23 20:43 |
| Total/NA | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 18:59 |
| Total/NA | Prep | 245.1 | | | 310014 | HHL | EET PHX | 10/26/23 12:18 |
| Total/NA | Analysis | 245.1 | | 1 | 310057 | HHL | EET PHX | 10/26/23 15:42 |
| Total/NA | Analysis | 350.1 | | 1 | 310263 | MAN | EET PHX | 10/30/23 14:44 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 13:02 |
| Total/NA | Analysis | SM 2320B | | 1 | 309971 | MAN | EET PHX | 10/25/23 18:57 |
| Total/NA | Analysis | SM 2540C | | 1 | 309802 | KMG | EET PHX | 10/23/23 15:06 - 10/27/23 12:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 09:19 |
| Dissolved | Analysis | SM 5310B | | 1 | 310248 | RDC | EET PHX | 10/30/23 23:49 |

## Client Sample ID: CH-CCR-M50A-1023
**Date Collected: 10/17/23 10:21**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-7
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Dissolved | Analysis | 200.7 | | 1 | 309989 | GLW | EET PHX | 10/25/23 19:50 |
| Dissolved | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 19:01 |

## Client Sample ID: CH-CCR-M51A-1023
**Date Collected: 10/17/23 09:37**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-8
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309850 | MMH | EET PHX | 10/21/23 21:05 |
| Total/NA | Analysis | 300.0 | | 50 | 309850 | MMH | EET PHX | 10/21/23 21:23 |
| Total/NA | Analysis | 300.0 | | 100 | 310211 | SMA | EET PHX | 10/31/23 03:25 |
| Total/NA | Analysis | 9056A | | 2 | 310443 | SMA | EET PHX | 11/02/23 19:07 |
| Total Recoverable | Prep | 200.7 | | | 376967 | JP8N | EET CAL 4 | 10/25/23 08:04 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 378051 | P1R | EET CAL 4 | 10/27/23 17:09 |
| Total/NA | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309989 | GLW | EET PHX | 10/25/23 19:53 |
| Total/NA | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310151 | GLW | EET PHX | 10/26/23 20:46 |

## Client Sample ID: CH-CCR-M51A-1023
**Date Collected: 10/17/23 09:37**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-8
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 19:03 |
| Total/NA | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Total/NA | Analysis | 200.8 LL | | 10 | 310201 | DSJ | EET PHX | 10/27/23 18:43 |
| Total/NA | Prep | 245.1 | | | 310014 | HHL | EET PHX | 10/26/23 12:18 |
| Total/NA | Analysis | 245.1 | | 1 | 310057 | HHL | EET PHX | 10/26/23 15:44 |
| Total/NA | Analysis | 350.1 | | 1 | 310263 | MAN | EET PHX | 10/30/23 14:45 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 13:04 |
| Total/NA | Analysis | SM 2320B | | 1 | 309971 | MAN | EET PHX | 10/25/23 19:04 |
| Total/NA | Analysis | SM 2540C | | 1 | 309802 | KMG | EET PHX | 10/23/23 15:06 - 10/27/23 12:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 09:20 |
| Dissolved | Analysis | SM 5310B | | 1 | 310248 | RDC | EET PHX | 10/31/23 00:06 |

## Client Sample ID: CH-CCR-M51A-1023
**Date Collected: 10/17/23 09:37**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-9
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Dissolved | Analysis | 200.7 | | 1 | 309989 | GLW | EET PHX | 10/25/23 19:56 |
| Dissolved | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Dissolved | Analysis | 200.8 LL | | 10 | 310201 | DSJ | EET PHX | 10/27/23 18:45 |

## Client Sample ID: CH-CCR-M65A-1023
**Date Collected: 10/16/23 11:19**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-10
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309850 | MMH | EET PHX | 10/21/23 21:42 |
| Total/NA | Analysis | 300.0 | | 50 | 309850 | MMH | EET PHX | 10/21/23 22:00 |
| Total/NA | Analysis | 9056A | | 2 | 310443 | SMA | EET PHX | 11/02/23 19:25 |
| Total Recoverable | Prep | 200.7 | | | 376967 | JP8N | EET CAL 4 | 10/25/23 08:04 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 379296 | K1UV | EET CAL 4 | 11/01/23 10:52 |
| Total/NA | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309989 | GLW | EET PHX | 10/25/23 19:59 |
| Total/NA | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310151 | GLW | EET PHX | 10/26/23 20:49 |
| Total/NA | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 19:07 |
| Total/NA | Prep | 245.1 | | | 310014 | HHL | EET PHX | 10/26/23 12:18 |
| Total/NA | Analysis | 245.1 | | 1 | 310057 | HHL | EET PHX | 10/26/23 15:50 |
| Total/NA | Analysis | 350.1 | | 1 | 310263 | MAN | EET PHX | 10/30/23 14:47 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 13:06 |
| Total/NA | Analysis | SM 2320B | | 1 | 309971 | MAN | EET PHX | 10/25/23 19:10 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

## Client Sample ID: CH-CCR-M65A-1023
**Date Collected: 10/16/23 11:19**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-10
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540C | | 1 | 309802 | KMG | EET PHX | 10/23/23 15:06 - 10/27/23 12:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 09:21 |
| Dissolved | Analysis | SM 5310B | | 1 | 310248 | RDC | EET PHX | 10/31/23 00:29 |

## Client Sample ID: CH-CCR-M65A-1023
**Date Collected: 10/16/23 11:19**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-11
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Dissolved | Analysis | 200.7 | | 1 | 309989 | GLW | EET PHX | 10/25/23 20:07 |
| Dissolved | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 19:15 |

## Client Sample ID: CH-CCR-M66A-1023
**Date Collected: 10/16/23 10:15**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-12
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309850 | MMH | EET PHX | 10/21/23 22:19 |
| Total/NA | Analysis | 300.0 | | 50 | 309850 | MMH | EET PHX | 10/21/23 23:32 |
| Total/NA | Analysis | 9056A | | 2 | 310443 | SMA | EET PHX | 11/02/23 19:44 |
| Total Recoverable | Prep | 200.7 | | | 376967 | JP8N | EET CAL 4 | 10/25/23 08:04 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 379296 | K1UV | EET CAL 4 | 11/01/23 10:55 |
| Total/NA | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309989 | GLW | EET PHX | 10/25/23 20:10 |
| Total/NA | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310151 | GLW | EET PHX | 10/26/23 20:52 |
| Total/NA | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 19:17 |
| Total/NA | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Total/NA | Analysis | 200.8 LL | | 5 | 310201 | DSJ | EET PHX | 10/27/23 18:47 |
| Total/NA | Prep | 245.1 | | | 310014 | HHL | EET PHX | 10/26/23 12:18 |
| Total/NA | Analysis | 245.1 | | 1 | 310057 | HHL | EET PHX | 10/26/23 15:52 |
| Total/NA | Analysis | 350.1 | | 1 | 310263 | MAN | EET PHX | 10/30/23 14:48 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 13:08 |
| Total/NA | Analysis | SM 2320B | | 1 | 309971 | MAN | EET PHX | 10/25/23 19:18 |
| Total/NA | Analysis | SM 2540C | | 1 | 309802 | KMG | EET PHX | 10/23/23 15:06 - 10/27/23 12:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 09:22 |
| Dissolved | Analysis | SM 5310B | | 1 | 310716 | SMA | EET PHX | 11/07/23 23:43 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

## Client Sample ID: CH-CCR-M66A-1023
**Date Collected: 10/16/23 10:15**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-13
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Dissolved | Analysis | 200.7 | | 1 | 309989 | GLW | EET PHX | 10/25/23 20:13 |
| Dissolved | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 19:19 |

## Client Sample ID: CH-CCR-M67A-1023
**Date Collected: 10/16/23 15:15**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-14
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309850 | MMH | EET PHX | 10/21/23 23:51 |
| Total/NA | Analysis | 300.0 | | 20 | 309850 | MMH | EET PHX | 10/22/23 00:09 |
| Total/NA | Analysis | 9056A | | 2 | 310443 | SMA | EET PHX | 11/02/23 20:02 |
| Total Recoverable | Prep | 200.7 | | | 376967 | JP8N | EET CAL 4 | 10/25/23 08:04 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 378051 | P1R | EET CAL 4 | 10/27/23 16:32 |
| Total/NA | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309989 | GLW | EET PHX | 10/25/23 20:16 |
| Total/NA | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 19:21 |
| Total/NA | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Total/NA | Analysis | 200.8 LL | | 5 | 310201 | DSJ | EET PHX | 10/27/23 18:49 |
| Total/NA | Prep | 245.1 | | | 310014 | HHL | EET PHX | 10/26/23 12:18 |
| Total/NA | Analysis | 245.1 | | 1 | 310057 | HHL | EET PHX | 10/26/23 15:54 |
| Total/NA | Analysis | 350.1 | | 1 | 310263 | MAN | EET PHX | 10/30/23 14:50 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 13:10 |
| Total/NA | Analysis | SM 2320B | | 1 | 309971 | MAN | EET PHX | 10/25/23 19:25 |
| Total/NA | Analysis | SM 2540C | | 1 | 309802 | KMG | EET PHX | 10/23/23 15:06 - 10/27/23 12:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 09:23 |
| Dissolved | Analysis | SM 5310B | | 1 | 310716 | SMA | EET PHX | 11/08/23 00:38 |

## Client Sample ID: CH-CCR-M67A-1023
**Date Collected: 10/16/23 15:15**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-15
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Dissolved | Analysis | 200.7 | | 1 | 309989 | GLW | EET PHX | 10/25/23 20:19 |
| Dissolved | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 19:23 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

## Client Sample ID: CH-CCR-W125-1023

**Date Collected: 10/17/23 11:16**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-16

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309850 | MMH | EET PHX | 10/22/23 00:27 |
| Total/NA | Analysis | 300.0 | | 10 | 309850 | MMH | EET PHX | 10/22/23 00:46 |
| Total Recoverable | Prep | 200.7 | | | 376967 | JP8N | EET CAL 4 | 10/25/23 08:04 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 378051 | P1R | EET CAL 4 | 10/27/23 16:34 |
| Total/NA | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309989 | GLW | EET PHX | 10/25/23 20:22 |
| Total/NA | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 19:25 |
| Total/NA | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Total/NA | Analysis | 200.8 LL | | 5 | 310201 | DSJ | EET PHX | 10/27/23 18:51 |
| Total/NA | Prep | 245.1 | | | 310014 | HHL | EET PHX | 10/26/23 12:18 |
| Total/NA | Analysis | 245.1 | | 1 | 310057 | HHL | EET PHX | 10/26/23 15:56 |
| Total/NA | Analysis | SM 2540C | | 1 | 309802 | KMG | EET PHX | 10/23/23 15:06 - 10/27/23 12:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 09:25 |

## Client Sample ID: CH-CCR-W-126R-1023

**Date Collected: 10/16/23 09:29**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-17

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309850 | MMH | EET PHX | 10/22/23 01:04 |
| Total/NA | Analysis | 300.0 | | 50 | 309850 | MMH | EET PHX | 10/22/23 01:23 |
| Total/NA | Analysis | 300.0 | | 100 | 310211 | SMA | EET PHX | 10/31/23 05:17 |
| Total Recoverable | Prep | 200.7 | | | 376967 | JP8N | EET CAL 4 | 10/25/23 08:04 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 378051 | P1R | EET CAL 4 | 10/27/23 17:22 |
| Total/NA | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309989 | GLW | EET PHX | 10/25/23 20:24 |
| Total/NA | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310151 | GLW | EET PHX | 10/26/23 20:55 |
| Total/NA | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 19:27 |
| Total/NA | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Total/NA | Analysis | 200.8 LL | | 5 | 310201 | DSJ | EET PHX | 10/27/23 18:53 |
| Total/NA | Prep | 245.1 | | | 310014 | HHL | EET PHX | 10/26/23 12:18 |
| Total/NA | Analysis | 245.1 | | 1 | 310057 | HHL | EET PHX | 10/26/23 15:28 |
| Total/NA | Analysis | 350.1 | | 1 | 310263 | MAN | EET PHX | 10/30/23 14:51 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 13:12 |
| Total/NA | Analysis | SM 2320B | | 1 | 309971 | MAN | EET PHX | 10/25/23 19:34 |
| Total/NA | Analysis | SM 2540C | | 1 | 309802 | KMG | EET PHX | 10/23/23 15:06 - 10/27/23 12:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 09:26 |
| Dissolved | Analysis | SM 5310B | | 1 | 310716 | SMA | EET PHX | 11/08/23 01:00 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

## Client Sample ID: CH-CCR-W-126R-1023
**Date Collected: 10/16/23 09:29**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-18
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Dissolved | Analysis | 200.7 | | 1 | 309989 | GLW | EET PHX | 10/25/23 20:27 |
| Dissolved | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 19:29 |

## Client Sample ID: CH-CCR-BudHunt-1023
**Date Collected: 10/17/23 08:40**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-19
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309850 | MMH | EET PHX | 10/22/23 01:41 |
| Total/NA | Analysis | 300.0 | | 10 | 309850 | MMH | EET PHX | 10/22/23 01:59 |
| Total Recoverable | Prep | 200.7 | | | 376967 | JP8N | EET CAL 4 | 10/25/23 08:04 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 378051 | P1R | EET CAL 4 | 10/27/23 16:39 |
| Total/NA | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309989 | GLW | EET PHX | 10/25/23 20:30 |
| Total/NA | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 19:31 |
| Total/NA | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Total/NA | Analysis | 200.8 LL | | 5 | 310201 | DSJ | EET PHX | 10/27/23 18:55 |
| Total/NA | Prep | 245.1 | | | 310014 | HHL | EET PHX | 10/26/23 12:18 |
| Total/NA | Analysis | 245.1 | | 1 | 310057 | HHL | EET PHX | 10/26/23 16:01 |
| Total/NA | Analysis | 350.1 | | 1 | 310263 | MAN | EET PHX | 10/30/23 14:53 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 13:26 |
| Total/NA | Analysis | SM 2320B | | 1 | 309971 | MAN | EET PHX | 10/25/23 19:39 |
| Total/NA | Analysis | SM 2540C | | 1 | 309802 | KMG | EET PHX | 10/23/23 15:06 - 10/27/23 12:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 09:27 |
| Dissolved | Analysis | SM 5310B | | 1 | 310716 | SMA | EET PHX | 11/08/23 01:16 |

## Client Sample ID: CH-CCR-BudHunt-1023
**Date Collected: 10/17/23 08:40**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209471-20
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309745 | SGO | EET PHX | 10/23/23 06:23 |
| Dissolved | Analysis | 200.7 | | 1 | 309989 | GLW | EET PHX | 10/25/23 20:33 |
| Dissolved | Prep | 200.8 | | | 309754 | SGO | EET PHX | 10/23/23 09:42 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309936 | DSJ | EET PHX | 10/24/23 19:33 |

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

**Laboratory References:**

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

# Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

## Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0728 | 06-10-24 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 200.8 LL | 200.8 | Water | Molybdenum |
| SM 4500 H+ B | | Water | Temperature |

## Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0830 | 11-16-23 |
| California | SCAQMD LAP | 17LA0919 | 11-30-23 |
| California | State | 3082 | 07-31-24 |
| Nevada | State | CA00111 | 07-31-24 |
| Oregon | NELAP | 4175 | 02-02-24 |
| USDA | US Federal Programs | P330-22-00059 | 06-08-26 |
| Washington | State | C916-18 | 10-11-23 * |

## Laboratory: Eurofins Denver

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0713 | 12-20-23 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209471-1
SDG: APS Cholla Power Plant (FAP)

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 300.0 | Anions, Ion Chromatography | EPA | EET PHX |
| 9056A | Anions, Ion Chromatography | SW846 | EET PHX |
| 200.7 | Dissolved Metals by ICP | EPA | EET PHX |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET CAL 4 |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET PHX |
| 200.8 LL | Metals (ICP/MS) | EPA | EET PHX |
| 245.1 | Mercury (CVAA) | EPA | EET PHX |
| 350.1 | Nitrogen, Ammonia (Low Level) | EPA | EET PHX |
| 353.2 | Nitrogen, Nitrate-Nitrite | EPA | EET DEN |
| SM 2320B | Alkalinity | SM | EET PHX |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET PHX |
| SM 4500 H+ B | pH | SM | EET PHX |
| SM 5310B | Organic Carbon, Dissolved (DOC) | SM | EET PHX |
| 200.7 | Preparation, Total Recoverable Metals | EPA | EET CAL 4 |
| 200.7 | Preparation, Total Metals | EPA | EET PHX |
| 200.8 | Preparation, Total Metals | EPA | EET PHX |
| 245.1 | Preparation, Mercury | EPA | EET PHX |

**Protocol References:**

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EET CAL 4 = Eurofins Calscience  Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR 209471

**TestAmerica Laboratories, Inc.**

| Client Contact | Natalie Chrisman | Pam Norris (505) 598-8781 | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | (602) 250-3608 | Lab Contact: Danielle Roberts | Carrier: | 1 of 2 COCs |
| 4801 Cholla Lake Rd | Analysis Turnaround Time | | | Sampler: |
| Joseph City, AZ 86032 | ☐ CALENDAR DAYS ☑ WORKING DAYS | | | For Lab Use Only: |
| (928) 587-0319 Phone | TAT if different from Below _____ | | | Walk-in Client: |
| FAX | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | |
| Site: APS Cholla Power Plant (FAP) | ☐ 2 days | | | Job / SDG No.: |
| PO #: 300592358 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y / N) | Perform MS / MSD (Y / N) | EPA 300.0 (Cl, F, SO4) | EPA 200.7 - Totals (B, Ca, Be, Fe, Mn) | EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na) | EPA 200.7 - Totals (B, Ca, Be) | EPA 200.7 - Total Lithium | EPA 200.7 - Dissolved (Fe, Mn) | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | EPA 200.8 - Dissolved (As, Co) | EPA 245.1 - Totals (Hg) | SM 4500-HB (pH) | SM 2540C (TDS) | SM 5310B (DOC) | SM 4500-NH3 D (NH3 as N) | 353.2 (NO3+NO2 as N) | SM 2320B (HCO3 - Alk. as | 9056A - Fluoride | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CH-CCR-M43A-1023 1+2 | 10/16/23 | 1623 | G | W | 10 | * | | X | X | | | X | X | X | X | X | X | X | X | X | X | | |
| CH-CCR-M45A-1023 3 | 10/17/23 | 1338 | G | W | 3 | N | | X | | | X | X | | X | | X | X | X | | | | | |
| CH-CCR-M46A-1023 4+5 | 10/16/23 | 1322 | G | W | 11 | * | | X | | X | | X | X | X | X | X | X | X | X | X | X | X | X |
| CH-CCR-M50A-1023 6+7 | 10/17/23 | 1021 | G | W | 11 | * | | X | | X | | X | X | X | X | X | X | X | X | X | X | X | X |
| CH-CCR-M51A-1023 8+9 | 10/17/23 | 937 | G | W | 11 | * | | X | | X | | X | X | X | X | X | X | X | X | X | X | X | X |
| CH-CCR-M65A-1023 10+11 | 10/16/23 | 1119 | G | W | 11 | * | | X | | X | | X | X | X | X | X | X | X | X | X | X | X | X |
| CH-CCR-M66A-1023 12+13 | 10/16/23 | 1015 | G | W | 11 | * | | X | | X | | X | X | X | X | X | X | X | X | X | X | X | X |
| CH-CCR-M67A-1023 14+15 | 10/16/23 | 1515 | G | W | 11 | * | | X | | X | | X | X | X | X | X | X | X | X | X | X | X | X |
| | | | | | | | | | | | | | | | | | | | | | | | |
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| **Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____** | | | | | | | | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 1 | 2 | 3 | 3 | 1 | | |

Low flow
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**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☐ Return to Client

550-209471 Chain of Custody

**Special Instructions/QC Requirements & Comments:**

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field*

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
|---|---|---|---|---|---|
| [signature] | WSP | 10-20-23 1501 | | | |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: [signature] | Company: EETA PHX | Date/Time: 10/20/23 15:01 +5.0 |

COO 1.9 | 2.3 | 3.1 | 3.2 | 4.6 | 21:

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

AG

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR 209471

**TestAmerica Laboratories, Inc.**

| Client Contact | Natalie Chrisman | Pam Norris (505) 598-8781 | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | (602) 250-3608 | Lab Contact: Danielle Roberts | Carrier: | 2 of 2 COCs |
| 4801 Cholla Lake Rd | Analysis Turnaround Time | | | Sampler: |
| Joseph City, AZ 86032 | ☐ CALENDAR DAYS ☑ WORKING DAYS | | | For Lab Use Only: |
| (928) 587-0319 Phone | TAT if different from Below | | | Walk-in Client: |
| FAX | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | |
| Site: APS Cholla Power Plant (FAP) | ☐ 2 days | | | Job / SDG No.: |
| PO #: 300592358 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y / N) | Perform MS / MSD (Y / N) | EPA 300.0 (Cl, F, SO4) | EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na) | EPA 200.7 - Totals (B, Ca, Be) | EPA 200.7 - Total Lithium | EPA 200.7 - Dissolved (Fe, Mn) | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | EPA 200.8 - Dissolved (As, Co) | EPA 245.1 - Totals (Hg) | SM 4500-HB (pH) | SM 2540C (TDS) | SM 5310B (TOC) | SM 5310B (DOC) | SM 4500-NH3 D (NH3 as N) | 353.2 (NO3+NO2 as N) | SM 2320B (CO3 Alk. as CaCO3) | SM 2320B (HCO3 Alk. as CaCO3) | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CH-CCR-W125-1023 16 | 10/17/23 | 1116 | G | W | 3 | N | | X | | X | X | | X | | X | X | X | | | | | | | Low flow |
| CH-CCR-W126R-1023 17 18 | 10/16/23 | 929 | G | W | 10 | * | | X | X | | X | X | X | X | X | X | X | | X | X | X | | X | " |
| CH-CCR-BudHunt-1023 19 + 20 | 10/17/23 | 840 | G | W | 10 | * | | X | X | | X | X | X | X | X | X | X | | X | X | X | | X | Port Sample |
| | | | | | | | | | | | | | | | | | | | | | | | | |
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| **Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other** | | | | | | | | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 1 | 2 | 2 | 3 | 3 | 1 | 1 | |

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

**Special Instructions/QC Requirements & Comments:**

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

| Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____ | | | |
|---|---|---|---|---|---|
| Relinquished by: BSLC | Company: WSP | Date/Time: 10-20-23 1500 | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: FEETA PHX | Date/Time: 10/20/23 15:01 |

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

Coo 1.9 | 2.3 | 3.1 | 3.2 | 4.6 | 2.1c

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins | Environment Testing

| | | | | |
|---|---|---|---|---|
| **Client Information (Sub Contract Lab)** | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-38074.1 |
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 1 of 1 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-209471-1 |
| Address: 4955 Yarrow Street, , | Due Date Requested: 11/2/2023 | | | |
| City: Arvada | TAT Requested (days): | | | |
| State, Zip: CO, 80002 | | | | |
| Phone: 303-736-0100(Tel) 303-431-7171(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 353.2_Pres | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| CH-CCR-M43A-1023 (550-209471-1) | 10/16/23 | 16:23 Arizona | | Water | | | X | 1 | |
| CH-CCR-M46A-1023 (550-209471-4) | 10/16/23 | 13:22 Arizona | | Water | | | X | 1 | |
| CH-CCR-M50A-1023 (550-209471-6) | 10/17/23 | 10:21 Arizona | | Water | | | X | 1 | |
| CH-CCR-M51A-1023 (550-209471-8) | 10/17/23 | 09:37 Arizona | | Water | | | X | 1 | |
| CH-CCR-M65A-1023 (550-209471-10) | 10/16/23 | 11:19 Arizona | | Water | | | X | 1 | |
| CH-CCR-M66A-1023 (550-209471-12) | 10/16/23 | 10:15 Arizona | | Water | | | X | 1 | |
| CH-CCR-M67A-1023 (550-209471-14) | 10/16/23 | 15:15 Arizona | | Water | | | X | 1 | |
| CH-CCR-W-126R-1023 (550-209471-17) | 10/16/23 | 09:29 Arizona | | Water | | | X | 1 | |
| CH-CCR-BudHunt-1023 (550-209471-19) | 10/17/23 | 08:40 Arizona | | Water | | | X | 1 | |

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

***Possible Hazard Identification***
*Unconfirmed*

***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)***
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

| | | | | | |
|---|---|---|---|---|---|
| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: | | |
| Relinquished by: [signature] 10-23-23 | Date/Time: 15:30 | Company: EETSW | Received by: [signature] | Date/Time: | Company: |
| Relinquished by: | Date/Time: | Company: | Received by: [signature] | Date/Time: 10/24/23 0920 | Company: EETDEN |
| Relinquished by: | Date/Time: | Company: | Received by: | Date/Time: | Company: |

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.6 IMMEDIATE CFO.3

Ver: 06/08/2021

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-38072.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 1 of 2 |
| Company: Eurofins Environment Testing Southwest, | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-209471-1 |
| Address: 2841 Dow Avenue, Suite 100, , | Due Date Requested: 11/2/2023 | | | Preservation C |
| City: Tustin | TAT Requested (days): | | | A - HCL<br>B - NaOH<br>C - Zn Acetate<br>D - Nitric Acid<br>E - NaHSO4<br>F - MeOH<br>G - Amchlor<br>H - Ascorbic Acid<br>I - Ice<br>J - DI Water<br>K - EDTA<br>L - EDA |
| State, Zip: CA, 92780 | | | | |
| Phone: 714-895-5494(Tel) | PO #: | | | |
| Email: | WO #: | | | Other: |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | |

Analysis Requested

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Custom 200.7 Metals List | Total Number of containers | Special |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| CH-CCR-M43A-1023 (550-209471-1) | 10/16/23 | 16:23 Arizona | | Water | | | X | 1 | |
| CH-CCR-M452-1023 (550-209471-3) | 10/17/23 | 13:38 Arizona | | Water | | | X | 1 | |
| CH-CCR-M46A-1023 (550-209471-4) | 10/16/23 | 13:22 Arizona | | Water | | | X | 1 | |
| CH-CCR-M50A-1023 (550-209471-6) | 10/17/23 | 10:21 Arizona | | Water | | | X | 1 | |
| CH-CCR-M51A-1023 (550-209471-8) | 10/17/23 | 09:37 Arizona | | Water | | | X | 1 | |
| CH-CCR-M65A-1023 (550-209471-10) | 10/16/23 | 11:19 Arizona | | Water | | | X | 1 | |
| CH-CCR-M66A-1023 (550-209471-12) | 10/16/23 | 10:15 Arizona | | Water | | | X | 1 | |
| CH-CCR-M67A-1023 (550-209471-14) | 10/16/23 | 15:15 Arizona | | Water | | | X | 1 | |
| CH-CCR-W125-1023 (550-209471-16) | 10/17/23 | 11:16 Arizona | | Water | | | X | 1 | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under c laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be pr accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Test

| Possible Hazard Identification | Sample Disposal ( A fee may be assessed if samples are retained longer tha |
|---|---|
| Unconfirmed | ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Relinquished by: Gust O-25-23 | Date/Time: 15:30 | Company: EESW | Received by: Fedex | Date/Time: | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: 10/24/23 0935 | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.6/1 |
|---|---|---|

550-209471 Chain of Custody

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofir

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-38073.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing Southwest, | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-209471-1 |
| Address: 2841 Dow Avenue, Suite 100, , | Due Date Requested: 11/2/2023 | | | Preservation Codes: |
| City: Tustin | TAT Requested (days): | | | A - HCL<br>B - NaOH<br>C - Zn Acetate<br>D - Nitric Acid<br>E - NaHSO4<br>F - MeOH<br>G - Amchlor<br>H - Ascorbic Aci<br>I - Ice<br>J - DI Water<br>K - EDTA<br>L - EDA |
| State, Zip: CA, 92780 | | | | |
| Phone: 714-895-5494(Tel) | PO #: | | | |
| Email: | WO #: | | | Other: |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | |

Analysis Requested

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Custom 200.7 Metals List | Total Number of containers | Special |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| CH-CCR-W125-1023 (550-209471-16) | 10/17/23 | 11:16 Arizona | | Water | | | X | 1 | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under c laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be pr accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testi

| Possible Hazard Identification | Sample Disposal ( A fee may be assessed if samples are retained longer tha |
|---|---|
| Unconfirmed | ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: |
|---|---|---|---|---|
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: |

| Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofi

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-38072.2 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 2 of 2 |
| Company: Eurofins Environment Testing Southwest, | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-209471- |
| Address: 2841 Dow Avenue, Suite 100, , | Due Date Requested: 11/2/2023 | | | |
| City: Tustin | TAT Requested (days): | | | |
| State, Zip: CA, 92780 | | | | |
| Phone: 714-895-5494(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | |

**Analysis Requested**

Preservation
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Ac
I - Ice
J - DI Water
K - EDTA
L - EDA
Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Custom 200.7 Metals List | Total Number of containers | Special |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| CH-CCR-W-126R-1023 (550-209471-17) | 10/16/23 | 09:29 Arizona | | Water | | | X | 1 | |
| CH-CCR-BudHunt-1023 (550-209471-19) | 10/17/23 | 08:40 Arizona | | Water | | | X | 1 | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under c laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be pr accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Test

| Possible Hazard Identification | Sample Disposal ( A fee may be assessed if samples are retained longer tha |
|---|---|
| Unconfirmed | ☐ Return To Client ☐ Disposal By Lab ☐ Archive For |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: |
|---|---|---|---|---|---|
| 1 | [illegible] 10-23-23 | 15:30 | CES | Fedex | |
| 2 | | | | | |
| 3 | | | | | |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|


TestAmerica
THE LEADER IN ENVIRONMENTAL TESTI
eurofins | Environment Testing TestAmerica
2219793
ORIGIN ID:INWA (602) 437-3340
TESTAMERICA-PHOENIX
TESTAMERICA
4625 E COTTON CENTER BLVD
SUITE 189
PHOENIX, AZ 85040
UNITED STATES US
SHIP DATE: 23OCT23
ACTWGT: 52.60 LB
CAD: 0875926/CAFE3
DIMS: 25x13x14 IN
BILL RECIPIENT
TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING SOUT
2841 DOW AVENUE, SUITE 100
TUSTIN CA 92780
(714) 895-5494
REF: S550-86672
PO: YES
DEPT: SAMPLE RECEIVING
TUE - 24 OCT 1
TRK# 0201 6388 9413 2200
PRIORITY OVERI
QZ DTHA
CA-U
Custody Seal
DATE
10-23-23
SIGNATURE
eurofins | Environment Testing TestAmerica
2219793


550-209471 Waybill

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-209471-1
SDG Number: APS Cholla Power Plant (FAP)

**Login Number: 209471**
**List Number: 1**
**Creator: Maycock, Lisa**

**List Source: Eurofins Phoenix**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | False | Check done at department level as required. |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-209471-1
SDG Number: APS Cholla Power Plant (FAP)

**Login Number: 209471**
**List Number: 2**
**Creator: Khana, Piyush**

**List Source: Eurofins Calscience**
**List Creation: 10/24/23 01:25 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | 2219793 |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 1.5 |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | False | Received project as a subcontract. |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-209471-1
SDG Number: APS Cholla Power Plant (FAP)

**Login Number: 209471**
**List Number: 3**
**Creator: Rystrom, Joshua R**

**List Source: Eurofins Denver**
**List Creation: 10/24/23 05:29 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 11/14/2023 9:19:18 AM

## JOB DESCRIPTION

CCR Groundwater Monitoring
APS Cholla Power Plant (BAP)

## JOB NUMBER

550-209476-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.



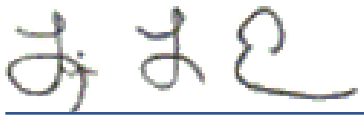
my EOL

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

## Authorization



Generated
11/14/2023 9:19:18 AM

Authorized for release by
Linda Eshelman, Project Manager II
linda.eshelman@et.eurofinsus.com
(602)659-7681

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## Qualifiers

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| D1 | Sample required dilution due to matrix. |
| D2 | Sample required dilution due to high concentration of analyte. |
| D5 | Minimum Reporting Limit (MRL) adjusted due to sample dilution; analyte was non-detect in the sample. |
| E2 | Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix. |
| M1 | Matrix spike recovery was high, the associated blank spike recovery was acceptable. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| L3 | The associated blank spike recovery was above method acceptance limits. |
| M1 | Matrix spike recovery was high, the associated blank spike recovery was acceptable. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |
| T5 | Laboratory not licensed for this parameter |
| V1 | CCV recovery was above method acceptance limits. This target analyte was not detected in the sample. |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| H5 | This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time. |
| M2 | Matrix spike recovery was low, the associated blank spike recovery was acceptable. |
| T5 | Laboratory not licensed for this parameter |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |

## Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

## Job ID: 550-209476-1

### Laboratory: Eurofins Phoenix

**Narrative**

**Job Narrative**
**550-209476-1**

**Receipt**
The samples were received on 10/20/2023 3:01 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 1.9º C, 2.1º C, 2.3º C, 3.1º C, 3.2º C and 4.6º C.

**HPLC/IC**
Method 300.0: The following sample was diluted due to the nature of the sample matrix: CH-CCR-MW72M-1023 (550-209476-9). Elevated reporting limits (RLs) are provided. The following samples contain an analyte not part of the method profile which interferes with fluoride providing an indiscernible chromatogram. A 2x dilution is required.

Method 300.0: Due to the high concentration of chloride and sulfate, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 550-309930 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method 300.0: Due to the high concentration of chloride and sulfate, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 550-309960 could not be evaluated for accuracy and precision of those analytes. The associated laboratory control sample (LCS) met acceptance criteria.

Methods 300.0, 9056A: The following samples were analyzed outside of analytical holding time due to analyst scheduling errors: (550-209060-O-1) and (550-209060-O-1 ^10)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**Metals**
Method 200.8 LL: The laboratory control sample (LCS) associated with preparation batch 550-309752 and analytical batch 550-309934 was outside acceptance criteria for the analyte Barium. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. CH-CCR-W306-1023 (550-209476-21) and CH-CCR-W314-1023 (550-209476-23)

Method 200.8 LL: The laboratory control sample (LCS) associated with preparation batch 550-309755 and analytical batch 550-309935 was outside acceptance criteria for the analyte Barium. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. CH-CCR-M53A-1023 (550-209476-1), CH-CCR-MW69A-1023 (550-209476-3), CH-CCR-MW70M-1023 (550-209476-5), CH-CCR-MW71A-1023 (550-209476-7), CH-CCR-MW72M-1023 (550-209476-9), CH-CCR-MW73A-1023 (550-209476-11), CH-CCR-MW74M-1023 (550-209476-13), CH-CCR-MW77A-1023 (550-209476-15), CH-CCR-W301-1023 (550-209476-17) and CH-CCR-W303-1023 (550-209476-19)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**Field Service / Mobile Lab**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**General Chemistry**
Method SM 2540C: Constant weight was not achieved after 3 drying cycles for the following sample: CH-CCR-MW72M-1023 (550-209476-9).

Method SM 5310B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 550-310867 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 550-209476-1 | CH-CCR-M53A-1023 | Water | 10/19/23 11:48 | 10/20/23 15:01 |
| 550-209476-2 | CH-CCR-M53A-1023 | Water | 10/19/23 11:48 | 10/20/23 15:01 |
| 550-209476-3 | CH-CCR-MW69A-1023 | Water | 10/19/23 09:11 | 10/20/23 15:01 |
| 550-209476-4 | CH-CCR-MW69A-1023 | Water | 10/19/23 09:11 | 10/20/23 15:01 |
| 550-209476-5 | CH-CCR-MW70M-1023 | Water | 10/18/23 15:43 | 10/20/23 15:01 |
| 550-209476-6 | CH-CCR-MW70M-1023 | Water | 10/18/23 15:43 | 10/20/23 15:01 |
| 550-209476-7 | CH-CCR-MW71A-1023 | Water | 10/18/23 13:12 | 10/20/23 15:01 |
| 550-209476-8 | CH-CCR-MW71A-1023 | Water | 10/18/23 13:12 | 10/20/23 15:01 |
| 550-209476-9 | CH-CCR-MW72M-1023 | Water | 10/18/23 14:02 | 10/20/23 15:01 |
| 550-209476-10 | CH-CCR-MW72M-1023 | Water | 10/18/23 14:02 | 10/20/23 15:01 |
| 550-209476-11 | CH-CCR-MW73A-1023 | Water | 10/18/23 11:00 | 10/20/23 15:01 |
| 550-209476-12 | CH-CCR-MW73A-1023 | Water | 10/18/23 11:00 | 10/20/23 15:01 |
| 550-209476-13 | CH-CCR-MW74M-1023 | Water | 10/18/23 10:00 | 10/20/23 15:01 |
| 550-209476-14 | CH-CCR-MW74M-1023 | Water | 10/18/23 10:00 | 10/20/23 15:01 |
| 550-209476-15 | CH-CCR-MW77A-1023 | Water | 10/17/23 14:54 | 10/20/23 15:01 |
| 550-209476-16 | CH-CCR-MW77A-1023 | Water | 10/17/23 14:54 | 10/20/23 15:01 |
| 550-209476-17 | CH-CCR-W301-1023 | Water | 10/19/23 15:52 | 10/20/23 15:01 |
| 550-209476-18 | CH-CCR-W301-1023 | Water | 10/19/23 15:52 | 10/20/23 15:01 |
| 550-209476-19 | CH-CCR-W303-1023 | Water | 10/19/23 13:35 | 10/20/23 15:01 |
| 550-209476-20 | CH-CCR-W303-1023 | Water | 10/19/23 13:35 | 10/20/23 15:01 |
| 550-209476-21 | CH-CCR-W306-1023 | Water | 10/19/23 10:30 | 10/20/23 15:01 |
| 550-209476-22 | CH-CCR-W306-1023 | Water | 10/19/23 10:30 | 10/20/23 15:01 |
| 550-209476-23 | CH-CCR-W314-1023 | Water | 10/19/23 08:45 | 10/20/23 15:01 |
| 550-209476-24 | CH-CCR-W314-1023 | Water | 10/19/23 08:45 | 10/20/23 15:01 |

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-M53A-1023 — Lab Sample ID: 550-209476-1

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2100 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Fluoride | 2.4 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 2900 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Fluoride | 2.7 | D1 | 0.80 | | mg/L | 2 | | 9056A | Total/NA |
| Boron | 3.8 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 580 | M3 | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 5.1 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.28 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0031 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.012 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cadmium | 0.00069 | | 0.00050 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cobalt | 0.0085 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.035 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Ammonia | 0.25 | | 0.050 | | mg/L | 1 | | 350.1 | Total/NA |
| Total Dissolved Solids | 7800 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 6.9 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 1.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 1.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 1.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-M53A-1023 — Lab Sample ID: 550-209476-2

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 4.9 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 2.7 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |
| Cobalt | 7.4 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

## Client Sample ID: CH-CCR-MW69A-1023 — Lab Sample ID: 550-209476-3

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2500 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Fluoride | 1.4 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 2900 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Boron | 3.1 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 630 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.50 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 160 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 2.9 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 5.1 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1800 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.26 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0025 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.019 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cobalt | 0.015 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.029 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Ammonia | 0.055 | | 0.050 | | mg/L | 1 | | 350.1 | Total/NA |
| Alkalinity as CaCO3 | 140 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 140 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 8400 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: CH-CCR-MW69A-1023 (Continued) — Lab Sample ID: 550-209476-3

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| pH | 7.6 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 5.9 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 1.3 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 1.3 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 1.3 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-MW69A-1023 — Lab Sample ID: 550-209476-4

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 2.8 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Cobalt | 15 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

## Client Sample ID: CH-CCR-MW70M-1023 — Lab Sample ID: 550-209476-5

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2200 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Fluoride | 1.3 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 2700 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Boron | 2.3 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 620 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 150 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 1.7 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 7.9 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1600 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.25 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Barium | 0.011 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Chromium | 0.0079 | | 0.0050 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cobalt | 0.016 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.030 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 88 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 88 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 7500 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.6 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 6.5 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 2.2 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 1.2 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 2.2 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-MW70M-1023 — Lab Sample ID: 550-209476-6

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 1.7 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Cobalt | 16 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

## Client Sample ID: CH-CCR-MW71A-1023 — Lab Sample ID: 550-209476-7

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 870 | D2 | 40 | | mg/L | 20 | | 300.0 | Total/NA |
| Fluoride | 3.4 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 1200 | D2 | 40 | | mg/L | 20 | | 300.0 | Total/NA |
| Fluoride | 3.5 | D1 | 0.80 | | mg/L | 2 | | 9056A | Total/NA |
| Boron | 3.5 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: CH-CCR-MW71A-1023 (Continued) — Lab Sample ID: 550-209476-7

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 630 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 220 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 5.3 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 15 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1600 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.25 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0025 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.013 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cobalt | 0.014 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.034 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Ammonia | 0.40 | | 0.050 | | mg/L | 1 | | 350.1 | Total/NA |
| Alkalinity as CaCO3 | 84 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 84 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 7800 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.6 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 6.7 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 1.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 1.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 1.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-MW71A-1023 — Lab Sample ID: 550-209476-8

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 5.3 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 2.6 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |
| Cobalt | 14 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

## Client Sample ID: CH-CCR-MW72M-1023 — Lab Sample ID: 550-209476-9

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 35000 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Sulfate | 1800 | | 40 | | mg/L | 20 | | 300.0 | Total/NA |
| Calcium | 8200 | | 20 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 1000 | | 20 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 3.2 | | 0.10 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 130 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 12000 | | 10 | | mg/L | 20 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 3.8 | | 1.0 | | mg/L | 20 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0076 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.13 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Chromium | 0.056 | | 0.0050 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cobalt | 0.0027 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.019 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Selenium | 0.0027 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Thallium | 0.0015 | | 0.00050 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Ammonia | 0.75 | | 0.050 | | mg/L | 1 | | 350.1 | Total/NA |
| Nitrate Nitrite as N | 0.33 | | 0.10 | | mg/L | 1 | | 353.2 | Total/NA |
| Alkalinity as CaCO3 | 21 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 21 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 61000 | | 1000 | | mg/L | 1 | | SM 2540C | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: CH-CCR-MW72M-1023 (Continued) — Lab Sample ID: 550-209476-9

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| pH | 7.6 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 6.6 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 0.55 | M2 | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 0.56 | M2 | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 0.55 | M2 | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-MW72M-1023 — Lab Sample ID: 550-209476-10

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 3.2 | | 0.10 | | mg/L | 10 | | 200.7 | Dissolved |
| Arsenic | 7.9 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |
| Cobalt | 2.5 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

## Client Sample ID: CH-CCR-MW73A-1023 — Lab Sample ID: 550-209476-11

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2600 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Fluoride | 4.2 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 3300 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Fluoride | 4.3 | D1 | 0.80 | | mg/L | 2 | | 9056A | Total/NA |
| Boron | 5.2 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 690 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.44 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 300 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.14 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 19 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1800 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.29 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0026 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.012 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Chromium | 0.097 | | 0.0050 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cobalt | 0.0087 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.044 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Nitrate Nitrite as N | 0.33 | | 0.10 | | mg/L | 1 | | 353.2 | Total/NA |
| Alkalinity as CaCO3 | 130 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 130 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 8900 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.2 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 7.6 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 1.2 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 1.2 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 1.2 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-MW73A-1023 — Lab Sample ID: 550-209476-12

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 0.025 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Cobalt | 8.0 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-MW74M-1023 — Lab Sample ID: 550-209476-13

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2200 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Fluoride | 1.4 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 2600 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Fluoride | 1.3 | D1 | 0.80 | | mg/L | 2 | | 9056A | Total/NA |
| Boron | 2.1 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 690 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 140 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.15 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 13 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1500 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.29 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Barium | 0.0088 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cobalt | 0.015 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.039 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 86 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 86 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 7400 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.9 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 7.4 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 0.98 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 0.99 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 0.98 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-MW74M-1023 — Lab Sample ID: 550-209476-14

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 0.14 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Cobalt | 15 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

## Client Sample ID: CH-CCR-MW77A-1023 — Lab Sample ID: 550-209476-15

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 3600 | | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Sulfate | 4700 | | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Fluoride | 0.50 | | 0.40 | | mg/L | 1 | | 9056A | Total/NA |
| Boron | 0.72 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 550 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 100 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.66 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 3.8 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 3300 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.58 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0029 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.0079 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Chromium | 0.0092 | | 0.0050 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cobalt | 0.0046 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0061 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 220 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 220 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 11000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: CH-CCR-MW77A-1023 (Continued) — Lab Sample ID: 550-209476-15

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| pH | 7.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 7.6 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 1.3 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 1.3 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 1.3 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-MW77A-1023 — Lab Sample ID: 550-209476-16

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 0.65 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 3.0 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |
| Cobalt | 5.1 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

## Client Sample ID: CH-CCR-W301-1023 — Lab Sample ID: 550-209476-17

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 5700 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Sulfate | 3700 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Boron | 0.63 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 750 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 180 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 1.5 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 6.2 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 4400 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.67 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0037 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.0072 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cobalt | 0.023 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0059 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Selenium | 0.0034 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Nitrate Nitrite as N | 13 | | 0.20 | | mg/L | 2 | | 353.2 | Total/NA |
| Alkalinity as CaCO3 | 160 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 160 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 14000 | | 200 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.6 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 7.9 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 2.9 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 2.9 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 2.9 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-W301-1023 — Lab Sample ID: 550-209476-18

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 1.4 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 3.5 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |
| Cobalt | 22 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

## Client Sample ID: CH-CCR-W303-1023 — Lab Sample ID: 550-209476-19

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 3300 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Sulfate | 3500 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: CH-CCR-W303-1023 (Continued) — Lab Sample ID: 550-209476-19

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 3.8 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 670 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 220 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.66 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 4.4 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 2600 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.48 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0027 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.0037 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Chromium | 0.014 | | 0.0050 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cobalt | 0.020 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.031 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 190 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 190 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 11000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 8.1 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 1.6 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 1.6 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 1.6 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-W303-1023 — Lab Sample ID: 550-209476-20

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 0.66 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 2.8 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |
| Cobalt | 20 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

## Client Sample ID: CH-CCR-W306-1023 — Lab Sample ID: 550-209476-21

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2100 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Fluoride | 1.3 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 11000 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 1.0 | | 0.40 | | mg/L | 1 | | 9056A | Total/NA |
| Beryllium | 0.010 | | 0.0010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Boron | 1.0 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 420 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 230 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.013 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 6.4 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 5800 | | 10 | | mg/L | 20 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.93 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0065 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.012 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.047 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 120 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 120 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 18000 | | 200 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.9 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: CH-CCR-W306-1023 (Continued) — Lab Sample ID: 550-209476-21

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Temperature | 8.6 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 2.4 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 2.4 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 2.4 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-W306-1023 — Lab Sample ID: 550-209476-22

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 0.010 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 6.5 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

## Client Sample ID: CH-CCR-W314-1023 — Lab Sample ID: 550-209476-23

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2300 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Fluoride | 0.97 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 2600 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Boron | 1.5 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 670 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.24 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.36 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0025 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.0090 | L3 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cadmium | 0.00059 | | 0.00050 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Chromium | 0.039 | | 0.0050 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cobalt | 0.045 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.019 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 7600 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 7.9 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Dissolved Organic Carbon | 1.3 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 1.3 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 1.3 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-W314-1023 — Lab Sample ID: 550-209476-24

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 0.26 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 2.5 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |
| Cobalt | 47 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: CH-CCR-M53A-1023

**Date Collected: 10/19/23 11:48**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209476-1

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2100** | **D2** | 100 | | mg/L | | | 10/22/23 03:31 | 50 |
| **Fluoride** | **2.4** | **D2** | 0.80 | | mg/L | | | 10/22/23 03:13 | 2 |
| **Sulfate** | **2900** | **D2** | 100 | | mg/L | | | 10/22/23 03:31 | 50 |

### Method: SW846 9056A - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **2.7** | **D1** | 0.80 | | mg/L | | | 11/02/23 20:20 | 2 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:11 | 1 |
| **Boron** | **3.8** | | 0.050 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:11 | 1 |
| **Calcium** | **580** | **M3** | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:11 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:11 | 1 |
| **Manganese** | **5.1** | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:11 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.28** | | 0.10 | | mg/L | | 10/25/23 08:52 | 10/28/23 09:56 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:43 | 5 |
| **Arsenic** | **0.0031** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:43 | 5 |
| **Barium** | **0.012** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:43 | 5 |
| **Cadmium** | **0.00069** | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:43 | 5 |
| Chromium | ND | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:43 | 5 |
| **Cobalt** | **0.0085** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:43 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:43 | 5 |
| **Molybdenum** | **0.035** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:43 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:43 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:43 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/24/23 13:22 | 10/24/23 16:15 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia (EPA 350.1)** | **0.25** | | 0.050 | | mg/L | | | 10/30/23 14:54 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/25/23 13:30 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **7800** | | 100 | | mg/L | | | 10/24/23 11:20 | 1 |
| **pH (SM 4500 H+ B)** | **7.5** | **H5** | 1.7 | | SU | | | 10/26/23 08:46 | 1 |
| **Temperature (SM 4500 H+ B)** | **6.9** | **H5 T5** | 0.1 | | Degrees C | | | 10/26/23 08:46 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon (SM 5310B)** | **1.1** | | 0.50 | | mg/L | | | 11/08/23 01:37 | 1 |
| **Dissolved Organic Carbon - Duplicate (SM 5310B)** | **1.1** | | 0.50 | | mg/L | | | 11/08/23 01:37 | 1 |

## Client Sample ID: CH-CCR-M53A-1023

**Lab Sample ID: 550-209476-1**
**Matrix: Water**
**Date Collected: 10/19/23 11:48**
**Date Received: 10/20/23 15:01**

### General Chemistry - Dissolved (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad (SM 5310B)** | **1.1** | | 0.50 | | mg/L | | | 11/08/23 01:37 | 1 |

## Client Sample ID: CH-CCR-M53A-1023

**Lab Sample ID: 550-209476-2**
**Matrix: Water**
**Date Collected: 10/19/23 11:48**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:14 | 1 |
| **Manganese** | **4.9** | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:14 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **2.7** | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 17:46 | 5 |
| **Cobalt** | **7.4** | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 17:46 | 5 |

## Client Sample ID: CH-CCR-MW69A-1023

**Lab Sample ID: 550-209476-3**
**Matrix: Water**
**Date Collected: 10/19/23 09:11**
**Date Received: 10/20/23 15:01**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2500** | **D2** | 100 | | mg/L | | | 10/22/23 04:08 | 50 |
| **Fluoride** | **1.4** | **D2** | 0.80 | | mg/L | | | 10/22/23 03:50 | 2 |
| **Sulfate** | **2900** | **D2** | 100 | | mg/L | | | 10/22/23 04:08 | 50 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:17 | 1 |
| **Boron** | **3.1** | | 0.050 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:17 | 1 |
| **Calcium** | **630** | | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:17 | 1 |
| **Iron** | **0.50** | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:17 | 1 |
| **Magnesium** | **160** | | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:17 | 1 |
| **Manganese** | **2.9** | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:17 | 1 |
| **Potassium** | **5.1** | | 0.50 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:17 | 1 |
| **Sodium** | **1800** | | 5.0 | | mg/L | | 10/23/23 06:31 | 10/26/23 19:38 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.26** | | 0.10 | | mg/L | | 10/25/23 08:52 | 10/28/23 10:04 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:39 | 5 |
| **Arsenic** | **0.0025** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:39 | 5 |
| **Barium** | **0.019** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:39 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:39 | 5 |
| Chromium | ND | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:39 | 5 |
| **Cobalt** | **0.015** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:39 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:39 | 5 |
| **Molybdenum** | **0.029** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:39 | 5 |

## Client Sample ID: CH-CCR-MW69A-1023

**Lab Sample ID: 550-209476-3**
**Matrix: Water**
**Date Collected: 10/19/23 09:11**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:39 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:39 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/24/23 13:22 | 10/24/23 16:17 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia (EPA 350.1)** | **0.055** | | 0.050 | | mg/L | | | 11/01/23 13:53 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/25/23 13:42 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **140** | | 6.0 | | mg/L | | | 10/24/23 15:35 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 15:35 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **140** | | 6.0 | | mg/L | | | 10/24/23 15:35 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 15:35 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 15:35 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **8400** | | 100 | | mg/L | | | 10/24/23 11:20 | 1 |
| **pH (SM 4500 H+ B)** | **7.6** | **H5** | 1.7 | | SU | | | 10/26/23 08:48 | 1 |
| **Temperature (SM 4500 H+ B)** | **5.9** | **H5 T5** | 0.1 | | Degrees C | | | 10/26/23 08:48 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon (SM 5310B)** | **1.3** | | 0.50 | | mg/L | | | 11/08/23 02:00 | 1 |
| **Dissolved Organic Carbon - Duplicate (SM 5310B)** | **1.3** | | 0.50 | | mg/L | | | 11/08/23 02:00 | 1 |
| **Dissolved Organic Carbon - Quad (SM 5310B)** | **1.3** | | 0.50 | | mg/L | | | 11/08/23 02:00 | 1 |

## Client Sample ID: CH-CCR-MW69A-1023

**Lab Sample ID: 550-209476-4**
**Matrix: Water**
**Date Collected: 10/19/23 09:11**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:20 | 1 |
| **Manganese** | **2.8** | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:20 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ND | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 17:41 | 5 |
| **Cobalt** | **15** | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 17:41 | 5 |

## Client Sample ID: CH-CCR-MW70M-1023

**Lab Sample ID: 550-209476-5**
**Matrix: Water**
**Date Collected: 10/18/23 15:43**
**Date Received: 10/20/23 15:01**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2200** | **D2** | 100 | | mg/L | | | 10/22/23 04:45 | 50 |

## Client Sample ID: CH-CCR-MW70M-1023

**Date Collected: 10/18/23 15:43**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209476-5

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **1.3** | **D2** | 0.80 | | mg/L | | | 10/22/23 04:27 | 2 |
| **Sulfate** | **2700** | **D2** | 100 | | mg/L | | | 10/22/23 04:45 | 50 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:23 | 1 |
| **Boron** | **2.3** | | 0.050 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:23 | 1 |
| **Calcium** | **620** | | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:23 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:23 | 1 |
| **Magnesium** | **150** | | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:23 | 1 |
| **Manganese** | **1.7** | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:23 | 1 |
| **Potassium** | **7.9** | | 0.50 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:23 | 1 |
| **Sodium** | **1600** | | 5.0 | | mg/L | | 10/23/23 06:31 | 10/26/23 19:41 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.25** | | 0.10 | | mg/L | | 10/25/23 08:52 | 10/28/23 10:06 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:48 | 5 |
| Arsenic | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:48 | 5 |
| **Barium** | **0.011** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:48 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:48 | 5 |
| **Chromium** | **0.0079** | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:48 | 5 |
| **Cobalt** | **0.016** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:48 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:48 | 5 |
| **Molybdenum** | **0.030** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:48 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:48 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:48 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/24/23 13:22 | 10/24/23 16:19 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia (EPA 350.1) | ND | | 0.050 | | mg/L | | | 11/01/23 13:58 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/25/23 13:44 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **88** | | 6.0 | | mg/L | | | 10/24/23 15:49 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 15:49 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **88** | | 6.0 | | mg/L | | | 10/24/23 15:49 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 15:49 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 15:49 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **7500** | | 100 | | mg/L | | | 10/24/23 11:20 | 1 |
| **pH (SM 4500 H+ B)** | **7.6** | **H5** | 1.7 | | SU | | | 10/26/23 08:50 | 1 |
| **Temperature (SM 4500 H+ B)** | **6.5** | **H5 T5** | 0.1 | | Degrees C | | | 10/26/23 08:50 | 1 |

## Client Sample ID: CH-CCR-MW70M-1023

**Lab Sample ID: 550-209476-5**
**Date Collected: 10/18/23 15:43**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon (SM 5310B) | 2.2 | | 0.50 | | mg/L | | | 11/08/23 22:03 | 1 |
| Dissolved Organic Carbon - Duplicate (SM 5310B) | 1.2 | | 0.50 | | mg/L | | | 11/08/23 22:03 | 1 |
| Dissolved Organic Carbon - Quad (SM 5310B) | 2.2 | | 0.50 | | mg/L | | | 11/08/23 22:03 | 1 |

## Client Sample ID: CH-CCR-MW70M-1023

**Lab Sample ID: 550-209476-6**
**Date Collected: 10/18/23 15:43**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:26 | 1 |
| Manganese | 1.7 | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:26 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ND | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 17:50 | 5 |
| Cobalt | 16 | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 17:50 | 5 |

## Client Sample ID: CH-CCR-MW71A-1023

**Lab Sample ID: 550-209476-7**
**Date Collected: 10/18/23 13:12**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 870 | D2 | 40 | | mg/L | | | 10/22/23 05:22 | 20 |
| Fluoride | 3.4 | D2 | 0.80 | | mg/L | | | 10/22/23 05:03 | 2 |
| Sulfate | 1200 | D2 | 40 | | mg/L | | | 10/22/23 05:22 | 20 |

### Method: SW846 9056A - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 3.5 | D1 | 0.80 | | mg/L | | | 11/02/23 20:39 | 2 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:28 | 1 |
| Boron | 3.5 | | 0.050 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:28 | 1 |
| Calcium | 630 | | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:28 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:28 | 1 |
| Magnesium | 220 | | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:28 | 1 |
| Manganese | 5.3 | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:28 | 1 |
| Potassium | 15 | | 0.50 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:28 | 1 |
| Sodium | 1600 | | 5.0 | | mg/L | | 10/23/23 06:31 | 10/26/23 19:43 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.25 | | 0.10 | | mg/L | | 10/25/23 08:52 | 10/28/23 10:08 | 2 |

## Client Sample ID: CH-CCR-MW71A-1023

**Lab Sample ID: 550-209476-7**
**Date Collected: 10/18/23 13:12**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:52 | 5 |
| **Arsenic** | **0.0025** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:52 | 5 |
| **Barium** | **0.013** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:52 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:52 | 5 |
| Chromium | ND | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:52 | 5 |
| **Cobalt** | **0.014** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:52 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:52 | 5 |
| **Molybdenum** | **0.034** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:52 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:52 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:52 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/24/23 13:22 | 10/24/23 16:21 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia (EPA 350.1)** | **0.40** | | 0.050 | | mg/L | | | 11/01/23 13:59 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/25/23 13:58 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **84** | | 6.0 | | mg/L | | | 10/24/23 15:56 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 15:56 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **84** | | 6.0 | | mg/L | | | 10/24/23 15:56 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 15:56 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 15:56 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **7800** | | 100 | | mg/L | | | 10/24/23 11:20 | 1 |
| **pH (SM 4500 H+ B)** | **7.6** | **H5** | 1.7 | | SU | | | 10/26/23 08:51 | 1 |
| **Temperature (SM 4500 H+ B)** | **6.7** | **H5 T5** | 0.1 | | Degrees C | | | 10/26/23 08:51 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon (SM 5310B)** | **1.1** | | 0.50 | | mg/L | | | 11/08/23 02:44 | 1 |
| **Dissolved Organic Carbon - Duplicate (SM 5310B)** | **1.1** | | 0.50 | | mg/L | | | 11/08/23 02:44 | 1 |
| **Dissolved Organic Carbon - Quad (SM 5310B)** | **1.1** | | 0.50 | | mg/L | | | 11/08/23 02:44 | 1 |

## Client Sample ID: CH-CCR-MW71A-1023

**Lab Sample ID: 550-209476-8**
**Date Collected: 10/18/23 13:12**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:31 | 1 |
| **Manganese** | **5.3** | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:31 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **2.6** | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 17:54 | 5 |

## Client Sample ID: CH-CCR-MW71A-1023

**Lab Sample ID: 550-209476-8**

**Date Collected: 10/18/23 13:12**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cobalt** | **14** | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 17:54 | 5 |

## Client Sample ID: CH-CCR-MW72M-1023

**Lab Sample ID: 550-209476-9**

**Date Collected: 10/18/23 14:02**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **35000** | **D2** | 400 | | mg/L | | | 10/28/23 21:03 | 200 |
| Fluoride | ND | D1 D5 | 0.80 | | mg/L | | | 10/22/23 05:40 | 2 |
| **Sulfate** | **1800** | | 40 | | mg/L | | | 10/22/23 06:54 | 20 |

### Method: SW846 9056A - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Fluoride | ND | D2 | 80 | | mg/L | | | 10/28/23 21:03 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/26/23 19:46 | 10 |
| Boron | ND | | 0.50 | | mg/L | | 10/23/23 06:31 | 10/26/23 19:46 | 10 |
| **Calcium** | **8200** | | 20 | | mg/L | | 10/23/23 06:31 | 10/26/23 19:46 | 10 |
| Iron | ND | | 1.0 | | mg/L | | 10/23/23 06:31 | 10/26/23 19:46 | 10 |
| **Magnesium** | **1000** | | 20 | | mg/L | | 10/23/23 06:31 | 10/26/23 19:46 | 10 |
| **Manganese** | **3.2** | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/26/23 19:46 | 10 |
| **Potassium** | **130** | | 5.0 | | mg/L | | 10/23/23 06:31 | 10/26/23 19:46 | 10 |
| **Sodium** | **12000** | | 10 | | mg/L | | 10/23/23 06:31 | 10/30/23 14:56 | 20 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **3.8** | | 1.0 | | mg/L | | 10/25/23 08:52 | 10/31/23 18:18 | 20 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:56 | 5 |
| **Arsenic** | **0.0076** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:56 | 5 |
| **Barium** | **0.13** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:56 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:56 | 5 |
| **Chromium** | **0.056** | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:56 | 5 |
| **Cobalt** | **0.0027** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:56 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:56 | 5 |
| **Molybdenum** | **0.019** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:56 | 5 |
| **Selenium** | **0.0027** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:56 | 5 |
| **Thallium** | **0.0015** | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:56 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/24/23 13:22 | 10/24/23 16:23 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia (EPA 350.1)** | **0.75** | | 0.050 | | mg/L | | | 11/01/23 14:01 | 1 |

## Client Sample ID: CH-CCR-MW72M-1023

**Lab Sample ID: 550-209476-9**

**Date Collected: 10/18/23 14:02**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N (EPA 353.2) | 0.33 | | 0.10 | | mg/L | | | 10/25/23 14:00 | 1 |
| Alkalinity as CaCO3 (SM 2320B) | 21 | | 6.0 | | mg/L | | | 10/24/23 16:02 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:02 | 1 |
| Bicarbonate Alkalinity as CaCO3 (SM 2320B) | 21 | | 6.0 | | mg/L | | | 10/24/23 16:02 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:02 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:02 | 1 |
| Total Dissolved Solids (SM 2540C) | 61000 | | 1000 | | mg/L | | | 10/24/23 11:20 | 1 |
| pH (SM 4500 H+ B) | 7.6 | H5 | 1.7 | | SU | | | 10/26/23 08:53 | 1 |
| Temperature (SM 4500 H+ B) | 6.6 | H5 T5 | 0.1 | | Degrees C | | | 10/26/23 08:53 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon (SM 5310B) | 0.55 | M2 | 0.50 | | mg/L | | | 11/08/23 21:02 | 1 |
| Dissolved Organic Carbon - Duplicate (SM 5310B) | 0.56 | M2 | 0.50 | | mg/L | | | 11/08/23 21:02 | 1 |
| Dissolved Organic Carbon - Quad (SM 5310B) | 0.55 | M2 | 0.50 | | mg/L | | | 11/08/23 21:02 | 1 |

## Client Sample ID: CH-CCR-MW72M-1023

**Lab Sample ID: 550-209476-10**

**Date Collected: 10/18/23 14:02**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 1.0 | | mg/L | | 10/23/23 06:31 | 10/26/23 19:49 | 10 |
| Manganese | 3.2 | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/26/23 19:49 | 10 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 7.9 | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 17:58 | 5 |
| Cobalt | 2.5 | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 17:58 | 5 |

## Client Sample ID: CH-CCR-MW73A-1023

**Lab Sample ID: 550-209476-11**

**Date Collected: 10/18/23 11:00**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2600 | D2 | 100 | | mg/L | | | 10/22/23 07:31 | 50 |
| Fluoride | 4.2 | D2 | 0.80 | | mg/L | | | 10/22/23 07:12 | 2 |
| Sulfate | 3300 | D2 | 100 | | mg/L | | | 10/22/23 07:31 | 50 |

### Method: SW846 9056A - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 4.3 | D1 | 0.80 | | mg/L | | | 11/02/23 20:57 | 2 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:45 | 1 |

## Client Sample ID: CH-CCR-MW73A-1023

**Date Collected: 10/18/23 11:00**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209476-11

**Matrix: Water**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **5.2** | | 0.050 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:45 | 1 |
| **Calcium** | **690** | | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:45 | 1 |
| **Iron** | **0.44** | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:45 | 1 |
| **Magnesium** | **300** | | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:45 | 1 |
| **Manganese** | **0.14** | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:45 | 1 |
| **Potassium** | **19** | | 0.50 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:45 | 1 |
| **Sodium** | **1800** | | 5.0 | | mg/L | | 10/23/23 06:31 | 10/26/23 19:58 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.29** | | 0.10 | | mg/L | | 10/25/23 08:52 | 10/28/23 10:13 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:06 | 5 |
| **Arsenic** | **0.0026** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:06 | 5 |
| **Barium** | **0.012** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:06 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:06 | 5 |
| **Chromium** | **0.097** | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:06 | 5 |
| **Cobalt** | **0.0087** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:06 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:06 | 5 |
| **Molybdenum** | **0.044** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:06 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:06 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:06 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/24/23 13:22 | 10/24/23 16:25 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia (EPA 350.1) | ND | | 0.050 | | mg/L | | | 11/01/23 14:02 | 1 |
| **Nitrate Nitrite as N (EPA 353.2)** | **0.33** | | 0.10 | | mg/L | | | 10/25/23 14:02 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **130** | | 6.0 | | mg/L | | | 10/24/23 16:06 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:06 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **130** | | 6.0 | | mg/L | | | 10/24/23 16:06 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:06 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:06 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **8900** | | 100 | | mg/L | | | 10/24/23 11:20 | 1 |
| **pH (SM 4500 H+ B)** | **7.2** | **H5** | 1.7 | | SU | | | 10/26/23 08:55 | 1 |
| **Temperature (SM 4500 H+ B)** | **7.6** | **H5 T5** | 0.1 | | Degrees C | | | 10/26/23 08:55 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon (SM 5310B)** | **1.2** | | 0.50 | | mg/L | | | 11/08/23 04:12 | 1 |
| **Dissolved Organic Carbon - Duplicate (SM 5310B)** | **1.2** | | 0.50 | | mg/L | | | 11/08/23 04:12 | 1 |

## Client Sample ID: CH-CCR-MW73A-1023
**Lab Sample ID: 550-209476-11**
**Date Collected: 10/18/23 11:00**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### General Chemistry - Dissolved (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad (SM 5310B)** | **1.2** | | 0.50 | | mg/L | | | 11/08/23 04:12 | 1 |

## Client Sample ID: CH-CCR-MW73A-1023
**Lab Sample ID: 550-209476-12**
**Date Collected: 10/18/23 11:00**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:48 | 1 |
| **Manganese** | **0.025** | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:48 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ND | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 18:08 | 5 |
| **Cobalt** | **8.0** | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 18:08 | 5 |

## Client Sample ID: CH-CCR-MW74M-1023
**Lab Sample ID: 550-209476-13**
**Date Collected: 10/18/23 10:00**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2200** | **D2** | 100 | | mg/L | | | 10/22/23 08:08 | 50 |
| **Fluoride** | **1.4** | **D2** | 0.80 | | mg/L | | | 10/22/23 07:49 | 2 |
| **Sulfate** | **2600** | **D2** | 100 | | mg/L | | | 10/22/23 08:08 | 50 |

### Method: SW846 9056A - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **1.3** | **D1** | 0.80 | | mg/L | | | 11/02/23 21:16 | 2 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:51 | 1 |
| **Boron** | **2.1** | | 0.050 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:51 | 1 |
| **Calcium** | **690** | | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:51 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:51 | 1 |
| **Magnesium** | **140** | | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:51 | 1 |
| **Manganese** | **0.15** | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:51 | 1 |
| **Potassium** | **13** | | 0.50 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:51 | 1 |
| **Sodium** | **1500** | | 5.0 | | mg/L | | 10/23/23 06:31 | 10/26/23 20:01 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.29** | | 0.10 | | mg/L | | 10/25/23 08:52 | 10/28/23 10:16 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:10 | 5 |
| Arsenic | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:10 | 5 |
| **Barium** | **0.0088** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:10 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:10 | 5 |

## Client Sample ID: CH-CCR-MW74M-1023

**Lab Sample ID: 550-209476-13**
**Matrix: Water**
**Date Collected: 10/18/23 10:00**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:10 | 5 |
| **Cobalt** | **0.015** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:10 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:10 | 5 |
| **Molybdenum** | **0.039** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:10 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:10 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:10 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/24/23 13:22 | 10/24/23 16:32 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia (EPA 350.1) | ND | | 0.050 | | mg/L | | | 11/01/23 14:04 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/25/23 14:04 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **86** | | 6.0 | | mg/L | | | 10/24/23 16:13 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:13 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **86** | | 6.0 | | mg/L | | | 10/24/23 16:13 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:13 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:13 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **7400** | | 100 | | mg/L | | | 10/24/23 11:20 | 1 |
| **pH (SM 4500 H+ B)** | **7.9** | **H5** | 1.7 | | SU | | | 10/26/23 08:56 | 1 |
| **Temperature (SM 4500 H+ B)** | **7.4** | **H5 T5** | 0.1 | | Degrees C | | | 10/26/23 08:56 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon (SM 5310B)** | **0.98** | | 0.50 | | mg/L | | | 11/08/23 04:33 | 1 |
| **Dissolved Organic Carbon - Duplicate (SM 5310B)** | **0.99** | | 0.50 | | mg/L | | | 11/08/23 04:33 | 1 |
| **Dissolved Organic Carbon - Quad (SM 5310B)** | **0.98** | | 0.50 | | mg/L | | | 11/08/23 04:33 | 1 |

## Client Sample ID: CH-CCR-MW74M-1023

**Lab Sample ID: 550-209476-14**
**Matrix: Water**
**Date Collected: 10/18/23 10:00**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:54 | 1 |
| **Manganese** | **0.14** | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:54 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ND | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 18:12 | 5 |
| **Cobalt** | **15** | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 18:12 | 5 |

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-MW77A-1023

**Date Collected: 10/17/23 14:54**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209476-15

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **3600** | | 100 | | mg/L | | | 10/22/23 09:22 | 50 |
| Fluoride | ND | D2 | 0.80 | | mg/L | | | 10/22/23 07:30 | 2 |
| **Sulfate** | **4700** | | 100 | | mg/L | | | 10/22/23 09:22 | 50 |

### Method: SW846 9056A - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **0.50** | | 0.40 | | mg/L | | | 10/30/23 12:18 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:57 | 1 |
| **Boron** | **0.72** | | 0.050 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:57 | 1 |
| **Calcium** | **550** | | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:57 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:57 | 1 |
| **Magnesium** | **100** | | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:57 | 1 |
| **Manganese** | **0.66** | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:57 | 1 |
| **Potassium** | **3.8** | | 0.50 | | mg/L | | 10/23/23 06:31 | 10/25/23 18:57 | 1 |
| **Sodium** | **3300** | | 5.0 | | mg/L | | 10/23/23 06:31 | 10/26/23 20:04 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.58** | | 0.10 | | mg/L | | 10/25/23 08:52 | 10/28/23 10:18 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:14 | 5 |
| **Arsenic** | **0.0029** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:14 | 5 |
| **Barium** | **0.0079** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:14 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:14 | 5 |
| **Chromium** | **0.0092** | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:14 | 5 |
| **Cobalt** | **0.0046** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:14 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:14 | 5 |
| **Molybdenum** | **0.0061** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:14 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:14 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:14 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/24/23 13:22 | 10/24/23 16:36 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia (EPA 350.1) | ND | | 0.050 | | mg/L | | | 11/01/23 14:05 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/25/23 14:10 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **220** | | 6.0 | | mg/L | | | 10/24/23 16:19 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:19 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **220** | | 6.0 | | mg/L | | | 10/24/23 16:19 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:19 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:19 | 1 |

## Client Sample ID: CH-CCR-MW77A-1023

**Lab Sample ID: 550-209476-15**
**Matrix: Water**
**Date Collected: 10/17/23 14:54**
**Date Received: 10/20/23 15:01**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 11000 | | 100 | | mg/L | | | 10/23/23 15:06 | 1 |
| pH (SM 4500 H+ B) | 7.5 | H5 | 1.7 | | SU | | | 10/26/23 08:57 | 1 |
| Temperature (SM 4500 H+ B) | 7.6 | H5 T5 | 0.1 | | Degrees C | | | 10/26/23 08:57 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon (SM 5310B) | 1.3 | | 0.50 | | mg/L | | | 11/08/23 04:55 | 1 |
| Dissolved Organic Carbon - Duplicate (SM 5310B) | 1.3 | | 0.50 | | mg/L | | | 11/08/23 04:55 | 1 |
| Dissolved Organic Carbon - Quad (SM 5310B) | 1.3 | | 0.50 | | mg/L | | | 11/08/23 04:55 | 1 |

## Client Sample ID: CH-CCR-MW77A-1023

**Lab Sample ID: 550-209476-16**
**Matrix: Water**
**Date Collected: 10/17/23 14:54**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:00 | 1 |
| Manganese | 0.65 | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:00 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 3.0 | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 18:16 | 5 |
| Cobalt | 5.1 | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 18:16 | 5 |

## Client Sample ID: CH-CCR-W301-1023

**Lab Sample ID: 550-209476-17**
**Matrix: Water**
**Date Collected: 10/19/23 15:52**
**Date Received: 10/20/23 15:01**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 5700 | D2 | 100 | | mg/L | | | 10/22/23 10:17 | 50 |
| Fluoride | ND | D2 | 0.80 | | mg/L | | | 10/22/23 09:49 | 2 |
| Sulfate | 3700 | D2 | 100 | | mg/L | | | 10/22/23 10:17 | 50 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:02 | 1 |
| Boron | 0.63 | | 0.050 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:02 | 1 |
| Calcium | 750 | | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:02 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:02 | 1 |
| Magnesium | 180 | | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:02 | 1 |
| Manganese | 1.5 | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:02 | 1 |
| Potassium | 6.2 | | 0.50 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:02 | 1 |
| Sodium | 4400 | | 5.0 | | mg/L | | 10/23/23 06:31 | 10/26/23 20:06 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.67 | | 0.10 | | mg/L | | 10/25/23 08:52 | 10/28/23 10:29 | 2 |

## Client Sample ID: CH-CCR-W301-1023

**Lab Sample ID: 550-209476-17**
**Matrix: Water**
**Date Collected: 10/19/23 15:52**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:18 | 5 |
| **Arsenic** | **0.0037** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:18 | 5 |
| **Barium** | **0.0072** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:18 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:18 | 5 |
| Chromium | ND | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:18 | 5 |
| **Cobalt** | **0.023** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:18 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:18 | 5 |
| **Molybdenum** | **0.0059** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:18 | 5 |
| **Selenium** | **0.0034** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:18 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:18 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/24/23 13:22 | 10/24/23 16:38 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia (EPA 350.1) | ND | | 0.050 | | mg/L | | | 11/01/23 14:07 | 1 |
| **Nitrate Nitrite as N (EPA 353.2)** | **13** | | 0.20 | | mg/L | | | 10/25/23 14:16 | 2 |
| **Alkalinity as CaCO3 (SM 2320B)** | **160** | | 6.0 | | mg/L | | | 10/24/23 16:27 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:27 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **160** | | 6.0 | | mg/L | | | 10/24/23 16:27 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:27 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:27 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **14000** | | 200 | | mg/L | | | 10/24/23 11:20 | 1 |
| **pH (SM 4500 H+ B)** | **7.6** | **H5** | 1.7 | | SU | | | 10/26/23 08:59 | 1 |
| **Temperature (SM 4500 H+ B)** | **7.9** | **H5 T5** | 0.1 | | Degrees C | | | 10/26/23 08:59 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon (SM 5310B)** | **2.9** | | 0.50 | | mg/L | | | 11/08/23 05:17 | 1 |
| **Dissolved Organic Carbon - Duplicate (SM 5310B)** | **2.9** | | 0.50 | | mg/L | | | 11/08/23 05:17 | 1 |
| **Dissolved Organic Carbon - Quad (SM 5310B)** | **2.9** | | 0.50 | | mg/L | | | 11/08/23 05:17 | 1 |

## Client Sample ID: CH-CCR-W301-1023

**Lab Sample ID: 550-209476-18**
**Matrix: Water**
**Date Collected: 10/19/23 15:52**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:05 | 1 |
| **Manganese** | **1.4** | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:05 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **3.5** | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 18:20 | 5 |

## Client Sample ID: CH-CCR-W301-1023

**Lab Sample ID: 550-209476-18**
**Date Collected: 10/19/23 15:52**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cobalt** | **22** | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 18:20 | 5 |

## Client Sample ID: CH-CCR-W303-1023

**Lab Sample ID: 550-209476-19**
**Date Collected: 10/19/23 13:35**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **3300** | **D2** | 100 | | mg/L | | | 10/24/23 19:02 | 50 |
| Fluoride | ND | | 0.80 | | mg/L | | | 10/24/23 18:34 | 2 |
| **Sulfate** | **3500** | **D2** | 100 | | mg/L | | | 10/24/23 19:02 | 50 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:08 | 1 |
| **Boron** | **3.8** | | 0.050 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:08 | 1 |
| **Calcium** | **670** | | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:08 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:08 | 1 |
| **Magnesium** | **220** | | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:08 | 1 |
| **Manganese** | **0.66** | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:08 | 1 |
| **Potassium** | **4.4** | | 0.50 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:08 | 1 |
| **Sodium** | **2600** | | 5.0 | | mg/L | | 10/23/23 06:31 | 10/26/23 20:09 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.48** | | 0.10 | | mg/L | | 10/25/23 08:52 | 10/28/23 10:31 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:22 | 5 |
| **Arsenic** | **0.0027** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:22 | 5 |
| **Barium** | **0.0037** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:22 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:22 | 5 |
| **Chromium** | **0.014** | | 0.0050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:22 | 5 |
| **Cobalt** | **0.020** | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:22 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:22 | 5 |
| **Molybdenum** | **0.031** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:22 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:22 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 18:22 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/24/23 13:22 | 10/24/23 16:40 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia (EPA 350.1) | ND | | 0.050 | | mg/L | | | 11/01/23 14:08 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/25/23 14:30 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **190** | | 6.0 | | mg/L | | | 10/24/23 16:34 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:34 | 1 |

## Client Sample ID: CH-CCR-W303-1023

**Lab Sample ID: 550-209476-19**
**Date Collected: 10/19/23 13:35**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **190** | | 6.0 | | mg/L | | | 10/24/23 16:34 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:34 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:34 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **11000** | | 100 | | mg/L | | | 10/24/23 11:20 | 1 |
| **pH (SM 4500 H+ B)** | **7.5** | **H5** | 1.7 | | SU | | | 10/26/23 09:00 | 1 |
| **Temperature (SM 4500 H+ B)** | **8.1** | **H5 T5** | 0.1 | | Degrees C | | | 10/26/23 09:00 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon (SM 5310B)** | **1.6** | | 0.50 | | mg/L | | | 11/08/23 05:40 | 1 |
| **Dissolved Organic Carbon - Duplicate (SM 5310B)** | **1.6** | | 0.50 | | mg/L | | | 11/08/23 05:40 | 1 |
| **Dissolved Organic Carbon - Quad (SM 5310B)** | **1.6** | | 0.50 | | mg/L | | | 11/08/23 05:40 | 1 |

## Client Sample ID: CH-CCR-W303-1023

**Lab Sample ID: 550-209476-20**
**Date Collected: 10/19/23 13:35**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:11 | 1 |
| **Manganese** | **0.66** | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 19:11 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **2.8** | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 18:24 | 5 |
| **Cobalt** | **20** | | 2.5 | | ug/L | | 10/23/23 09:48 | 10/24/23 18:24 | 5 |

## Client Sample ID: CH-CCR-W306-1023

**Lab Sample ID: 550-209476-21**
**Date Collected: 10/19/23 10:30**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2100** | **D2** | 100 | | mg/L | | | 10/24/23 16:09 | 50 |
| **Fluoride** | **1.3** | **D2** | 0.80 | | mg/L | | | 10/24/23 15:50 | 2 |
| **Sulfate** | **11000** | **D2** | 400 | | mg/L | | | 10/28/23 21:59 | 200 |

### Method: SW846 9056A - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **1.0** | | 0.40 | | mg/L | | | 10/30/23 14:27 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Beryllium** | **0.010** | | 0.0010 | | mg/L | | 10/23/23 06:49 | 10/24/23 19:07 | 1 |
| **Boron** | **1.0** | | 0.050 | | mg/L | | 10/23/23 06:49 | 10/24/23 19:07 | 1 |
| **Calcium** | **420** | | 2.0 | | mg/L | | 10/23/23 06:49 | 10/24/23 19:07 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:49 | 10/24/23 19:07 | 1 |

## Client Sample ID: CH-CCR-W306-1023

**Date Collected: 10/19/23 10:30**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209476-21

**Matrix: Water**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Magnesium** | **230** | | 2.0 | | mg/L | | 10/23/23 06:49 | 10/24/23 19:07 | 1 |
| **Manganese** | **0.013** | | 0.010 | | mg/L | | 10/23/23 06:49 | 10/24/23 19:07 | 1 |
| **Potassium** | **6.4** | | 0.50 | | mg/L | | 10/23/23 06:49 | 10/24/23 19:07 | 1 |
| **Sodium** | **5800** | | 10 | | mg/L | | 10/23/23 06:49 | 10/26/23 20:23 | 20 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.93** | | 0.050 | | mg/L | | 10/25/23 08:52 | 10/27/23 20:13 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:42 | 5 |
| **Arsenic** | **0.0065** | | 0.0025 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:42 | 5 |
| **Barium** | **0.012** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:42 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:42 | 5 |
| Chromium | ND | | 0.0050 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:42 | 5 |
| Cobalt | ND | | 0.0025 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:42 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:42 | 5 |
| **Molybdenum** | **0.047** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:42 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:42 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:42 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/24/23 13:22 | 10/24/23 16:42 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia (EPA 350.1) | ND | | 0.050 | | mg/L | | | 11/01/23 14:10 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/25/23 14:32 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **120** | | 6.0 | | mg/L | | | 10/24/23 16:41 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:41 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **120** | | 6.0 | | mg/L | | | 10/24/23 16:41 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:41 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 10/24/23 16:41 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **18000** | | 200 | | mg/L | | | 10/24/23 11:20 | 1 |
| **pH (SM 4500 H+ B)** | **7.9** | **H5** | 1.7 | | SU | | | 10/26/23 09:03 | 1 |
| **Temperature (SM 4500 H+ B)** | **8.6** | **H5 T5** | 0.1 | | Degrees C | | | 10/26/23 09:03 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon (SM 5310B)** | **2.4** | | 0.50 | | mg/L | | | 11/08/23 06:02 | 1 |
| **Dissolved Organic Carbon - Duplicate (SM 5310B)** | **2.4** | | 0.50 | | mg/L | | | 11/08/23 06:02 | 1 |
| **Dissolved Organic Carbon - Quad (SM 5310B)** | **2.4** | | 0.50 | | mg/L | | | 11/08/23 06:02 | 1 |

## Client Sample ID: CH-CCR-W306-1023

**Lab Sample ID: 550-209476-22**

**Date Collected: 10/19/23 10:30**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:49 | 10/24/23 19:10 | 1 |
| **Manganese** | **0.010** | | 0.010 | | mg/L | | 10/23/23 06:49 | 10/24/23 19:10 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **6.5** | | 2.5 | | ug/L | | 10/23/23 09:30 | 10/24/23 16:44 | 5 |
| Cobalt | ND | | 2.5 | | ug/L | | 10/23/23 09:30 | 10/24/23 16:44 | 5 |

## Client Sample ID: CH-CCR-W314-1023

**Lab Sample ID: 550-209476-23**

**Date Collected: 10/19/23 08:45**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2300** | **D2** | 100 | | mg/L | | | 10/24/23 17:48 | 50 |
| **Fluoride** | **0.97** | **D2** | 0.80 | | mg/L | | | 10/24/23 16:27 | 2 |
| **Sulfate** | **2600** | **D2** | 100 | | mg/L | | | 10/24/23 17:48 | 50 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:49 | 10/24/23 19:13 | 1 |
| **Boron** | **1.5** | | 0.050 | | mg/L | | 10/23/23 06:49 | 10/24/23 19:13 | 1 |
| **Calcium** | **670** | | 2.0 | | mg/L | | 10/23/23 06:49 | 10/24/23 19:13 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:49 | 10/24/23 19:13 | 1 |
| **Manganese** | **0.24** | | 0.010 | | mg/L | | 10/23/23 06:49 | 10/24/23 19:13 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.36** | | 0.10 | | mg/L | | 10/25/23 08:52 | 10/28/23 10:39 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:46 | 5 |
| **Arsenic** | **0.0025** | | 0.0025 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:46 | 5 |
| **Barium** | **0.0090** | **L3** | 0.0025 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:46 | 5 |
| **Cadmium** | **0.00059** | | 0.00050 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:46 | 5 |
| **Chromium** | **0.039** | | 0.0050 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:46 | 5 |
| **Cobalt** | **0.045** | | 0.0025 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:46 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:46 | 5 |
| **Molybdenum** | **0.019** | **T5** | 0.0025 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:46 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:46 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/23/23 09:30 | 10/24/23 16:46 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/24/23 13:22 | 10/24/23 16:44 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia (EPA 350.1) | ND | | 0.050 | | mg/L | | | 10/30/23 13:45 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/25/23 14:34 | 1 |

## Client Sample ID: CH-CCR-W314-1023

**Lab Sample ID: 550-209476-23**
**Date Collected: 10/19/23 08:45**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 7600 | | 100 | | mg/L | | | 10/24/23 11:20 | 1 |
| pH (SM 4500 H+ B) | 7.5 | H5 | 1.7 | | SU | | | 10/26/23 09:05 | 1 |
| Temperature (SM 4500 H+ B) | 7.9 | H5 T5 | 0.1 | | Degrees C | | | 10/26/23 09:05 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon (SM 5310B) | 1.3 | | 0.50 | | mg/L | | | 11/08/23 06:19 | 1 |
| Dissolved Organic Carbon - Duplicate (SM 5310B) | 1.3 | | 0.50 | | mg/L | | | 11/08/23 06:19 | 1 |
| Dissolved Organic Carbon - Quad (SM 5310B) | 1.3 | | 0.50 | | mg/L | | | 11/08/23 06:19 | 1 |

## Client Sample ID: CH-CCR-W314-1023

**Lab Sample ID: 550-209476-24**
**Date Collected: 10/19/23 08:45**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:49 | 10/24/23 19:15 | 1 |
| Manganese | 0.26 | | 0.010 | | mg/L | | 10/23/23 06:49 | 10/24/23 19:15 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.5 | | 2.5 | | ug/L | | 10/23/23 09:30 | 10/24/23 16:48 | 5 |
| Cobalt | 47 | | 2.5 | | ug/L | | 10/23/23 09:30 | 10/24/23 16:48 | 5 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 550-309841/2**
**Matrix: Water**
**Analysis Batch: 309841**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 10/21/23 14:43 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 10/21/23 14:43 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 10/21/23 14:43 | 1 |

**Lab Sample ID: LCS 550-309841/5**
**Matrix: Water**
**Analysis Batch: 309841**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 20.1 | | mg/L | | 101 | 90 - 110 | | |
| Fluoride | | | 4.00 | 4.22 | | mg/L | | 105 | 90 - 110 | | |
| Sulfate | | | 20.0 | 20.1 | | mg/L | | 100 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-309841/6**
**Matrix: Water**
**Analysis Batch: 309841**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 20.0 | | mg/L | | 100 | 90 - 110 | 0 | 20 |
| Fluoride | | | 4.00 | 4.21 | | mg/L | | 105 | 90 - 110 | 0 | 20 |
| Sulfate | | | 20.0 | 20.0 | | mg/L | | 100 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 550-209146-A-19 MS ^10**
**Matrix: Water**
**Analysis Batch: 309841**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1600 | M3 | 200 | 1740 | M3 | mg/L | | 78 | 80 - 120 | | |
| Fluoride | ND | | 40.0 | 40.6 | | mg/L | | 102 | 80 - 120 | | |
| Sulfate | 640 | M1 | 200 | 832 | | mg/L | | 97 | 80 - 120 | | |

**Lab Sample ID: 550-209146-A-19 MSD ^10**
**Matrix: Water**
**Analysis Batch: 309841**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1600 | M3 | 200 | 2040 | E2 M3 | mg/L | | 231 | 80 - 120 | 16 | 20 |
| Fluoride | ND | | 40.0 | 40.4 | | mg/L | | 101 | 80 - 120 | 1 | 20 |
| Sulfate | 640 | M1 | 200 | 979 | M1 | mg/L | | 170 | 80 - 120 | 16 | 20 |

**Lab Sample ID: MB 550-309850/2**
**Matrix: Water**
**Analysis Batch: 309850**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 10/21/23 14:27 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 10/21/23 14:27 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 10/21/23 14:27 | 1 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 550-309850/5**
**Matrix: Water**
**Analysis Batch: 309850**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 21.0 | | mg/L | | 105 | 90 - 110 | | |
| Fluoride | | | 4.00 | 4.31 | | mg/L | | 108 | 90 - 110 | | |
| Sulfate | | | 20.0 | 21.1 | | mg/L | | 105 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-309850/6**
**Matrix: Water**
**Analysis Batch: 309850**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 21.0 | | mg/L | | 105 | 90 - 110 | 0 | 20 |
| Fluoride | | | 4.00 | 4.35 | | mg/L | | 109 | 90 - 110 | 1 | 20 |
| Sulfate | | | 20.0 | 21.1 | | mg/L | | 105 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 550-209102-A-1 MS ^10**
**Matrix: Water**
**Analysis Batch: 309850**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 290 | D2 | 200 | 500 | D2 | mg/L | | 103 | 80 - 120 | | |
| Fluoride | ND | | 40.0 | 43.1 | D2 | mg/L | | 105 | 80 - 120 | | |
| Sulfate | 480 | D2 | 200 | 670 | D2 | mg/L | | 96 | 80 - 120 | | |

**Lab Sample ID: 550-209102-A-1 MSD ^10**
**Matrix: Water**
**Analysis Batch: 309850**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 290 | D2 | 200 | 499 | D2 | mg/L | | 103 | 80 - 120 | 0 | 20 |
| Fluoride | ND | | 40.0 | 43.0 | D2 | mg/L | | 105 | 80 - 120 | 0 | 20 |
| Sulfate | 480 | D2 | 200 | 670 | D2 | mg/L | | 95 | 80 - 120 | 0 | 20 |

**Lab Sample ID: MB 550-309930/2**
**Matrix: Water**
**Analysis Batch: 309930**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 10/24/23 12:02 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 10/24/23 12:02 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 10/24/23 12:02 | 1 |

**Lab Sample ID: LCS 550-309930/5**
**Matrix: Water**
**Analysis Batch: 309930**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 20.8 | | mg/L | | 104 | 90 - 110 | | |
| Fluoride | | | 4.00 | 4.16 | | mg/L | | 104 | 90 - 110 | | |
| Sulfate | | | 20.0 | 20.8 | | mg/L | | 104 | 90 - 110 | | |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCSD 550-309930/6**
**Matrix: Water**
**Analysis Batch: 309930**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 20.7 | | mg/L | | 104 | 90 - 110 | 0 | 20 |
| Fluoride | | | 4.00 | 4.19 | | mg/L | | 105 | 90 - 110 | 1 | 20 |
| Sulfate | | | 20.0 | 20.8 | | mg/L | | 104 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 550-209520-E-1 MS**
**Matrix: Water**
**Analysis Batch: 309930**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 96 | M3 | 20.0 | 109 | E2 M3 | mg/L | | 67 | 80 - 120 |
| Fluoride | 1.1 | | 4.00 | 5.07 | | mg/L | | 98 | 80 - 120 |
| Sulfate | 430 | E2 M3 | 20.0 | 426 | E2 M3 | mg/L | | -12 | 80 - 120 |

**Lab Sample ID: 550-209520-E-1 MSD**
**Matrix: Water**
**Analysis Batch: 309930**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 96 | M3 | 20.0 | 110 | E2 M3 | mg/L | | 70 | 80 - 120 | 1 | 20 |
| Fluoride | 1.1 | | 4.00 | 4.78 | | mg/L | | 91 | 80 - 120 | 6 | 20 |
| Sulfate | 430 | E2 M3 | 20.0 | 426 | E2 M3 | mg/L | | -12 | 80 - 120 | 0 | 20 |

**Lab Sample ID: MB 550-309960/2**
**Matrix: Water**
**Analysis Batch: 309960**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 10/24/23 12:15 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 10/24/23 12:15 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 10/24/23 12:15 | 1 |

**Lab Sample ID: LCS 550-309960/5**
**Matrix: Water**
**Analysis Batch: 309960**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.7 | | mg/L | | 98 | 90 - 110 |
| Fluoride | | | 4.00 | 4.13 | | mg/L | | 103 | 90 - 110 |
| Sulfate | | | 20.0 | 19.2 | | mg/L | | 96 | 90 - 110 |

**Lab Sample ID: LCSD 550-309960/6**
**Matrix: Water**
**Analysis Batch: 309960**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.4 | | mg/L | | 97 | 90 - 110 | 1 | 20 |
| Fluoride | | | 4.00 | 4.06 | | mg/L | | 102 | 90 - 110 | 2 | 20 |
| Sulfate | | | 20.0 | 19.0 | | mg/L | | 95 | 90 - 110 | 1 | 20 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 550-209537-B-1 MS**
**Matrix: Water**
**Analysis Batch: 309960**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 200 | M3 | 20.0 | 295 | E2 M3 | mg/L | | 477 | 80 - 120 |
| Fluoride | 0.43 | | 4.00 | 4.17 | | mg/L | | 93 | 80 - 120 |
| Sulfate | 81 | M3 | 20.0 | 208 | E2 M3 | mg/L | | 631 | 80 - 120 |

**Lab Sample ID: 550-209537-B-1 MSD**
**Matrix: Water**
**Analysis Batch: 309960**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 200 | M3 | 20.0 | 305 | E2 M3 | mg/L | | 531 | 80 - 120 | 4 | 20 |
| Fluoride | 0.43 | | 4.00 | 4.20 | | mg/L | | 94 | 80 - 120 | 1 | 20 |
| Sulfate | 81 | M3 | 20.0 | 223 | E2 M3 | mg/L | | 707 | 80 - 120 | 7 | 20 |

**Lab Sample ID: MB 550-310131/2**
**Matrix: Water**
**Analysis Batch: 310131**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | mg/L | | | 10/27/23 12:54 | 1 |
| Fluoride | ND | | 0.40 | mg/L | | | 10/27/23 12:54 | 1 |
| Sulfate | ND | | 2.0 | mg/L | | | 10/27/23 12:54 | 1 |

**Lab Sample ID: LCS 550-310131/5**
**Matrix: Water**
**Analysis Batch: 310131**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Chloride | 20.0 | 19.4 | | mg/L | | 97 | 90 - 110 |
| Fluoride | 4.00 | 4.11 | | mg/L | | 103 | 90 - 110 |
| Sulfate | 20.0 | 19.7 | | mg/L | | 98 | 90 - 110 |

**Lab Sample ID: LCSD 550-310131/6**
**Matrix: Water**
**Analysis Batch: 310131**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 20.0 | 19.4 | | mg/L | | 97 | 90 - 110 | 0 | 20 |
| Fluoride | 4.00 | 4.09 | | mg/L | | 102 | 90 - 110 | 0 | 20 |
| Sulfate | 20.0 | 19.7 | | mg/L | | 98 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 550-209662-A-2 MS**
**Matrix: Water**
**Analysis Batch: 310131**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 210 | E2 M3 | 20.0 | 218 | E2 M3 | mg/L | | 44 | 80 - 120 |
| Fluoride | 3.5 | | 4.00 | 7.43 | | mg/L | | 98 | 80 - 120 |
| Sulfate | 280 | E2 M3 | 20.0 | 283 | E2 M3 | mg/L | | 32 | 80 - 120 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 550-209662-A-2 MSD**
**Matrix: Water**
**Analysis Batch: 310131**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 210 | E2 M3 | 20.0 | 218 | E2 M3 | mg/L | | 45 | 80 - 120 | 0 | 20 |
| Fluoride | 3.5 | | 4.00 | 7.56 | | mg/L | | 101 | 80 - 120 | 2 | 20 |
| Sulfate | 280 | E2 M3 | 20.0 | 283 | E2 M3 | mg/L | | 34 | 80 - 120 | 0 | 20 |

**Lab Sample ID: 550-209060-O-1 DU ^10**
**Matrix: Water**
**Analysis Batch: 310132**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Chloride | 380 | | 380 | | mg/L | | 0.7 | 20 |
| Fluoride | ND | | ND | | mg/L | | 3 | 20 |
| Sulfate | ND | | ND | | mg/L | | 4 | 20 |

**Lab Sample ID: MB 550-310138/2**
**Matrix: Water**
**Analysis Batch: 310138**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | mg/L | | | 10/28/23 15:51 | 1 |
| Fluoride | ND | | 0.40 | mg/L | | | 10/28/23 15:51 | 1 |
| Sulfate | ND | | 2.0 | mg/L | | | 10/28/23 15:51 | 1 |

**Lab Sample ID: LCS 550-310138/5**
**Matrix: Water**
**Analysis Batch: 310138**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Chloride | 20.0 | 19.6 | | mg/L | | 98 | 90 - 110 |
| Fluoride | 4.00 | 4.16 | | mg/L | | 104 | 90 - 110 |
| Sulfate | 20.0 | 19.8 | | mg/L | | 99 | 90 - 110 |

**Lab Sample ID: LCSD 550-310138/6**
**Matrix: Water**
**Analysis Batch: 310138**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 20.0 | 19.6 | | mg/L | | 98 | 90 - 110 | 0 | 20 |
| Fluoride | 4.00 | 4.16 | | mg/L | | 104 | 90 - 110 | 0 | 20 |
| Sulfate | 20.0 | 19.9 | | mg/L | | 99 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 550-209214-E-3 MS ^5**
**Matrix: Water**
**Analysis Batch: 310138**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 5300 | E2 M3 | 100 | 4070 | E2 M3 | mg/L | | -1210 | 80 - 120 |
| Fluoride | 43 | | 20.0 | 60.0 | | mg/L | | 85 | 80 - 120 |
| Sulfate | 8100 | E2 M3 | 100 | 6210 | E2 M3 | mg/L | | -1887 | 80 - 120 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 550-209214-E-3 MSD ^5**
**Matrix: Water**
**Analysis Batch: 310138**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 5300 | E2 M3 | 100 | 4060 | E2 M3 | mg/L | | -1222 | 80 - 120 | 0 | 20 |
| Fluoride | 43 | | 20.0 | 59.9 | | mg/L | | 85 | 80 - 120 | 0 | 20 |
| Sulfate | 8100 | E2 M3 | 100 | 6200 | E2 M3 | mg/L | | -1900 | 80 - 120 | 0 | 20 |

**Lab Sample ID: MB 550-310443/2**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 11/02/23 09:54 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 11/02/23 09:54 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 11/02/23 09:54 | 1 |

**Lab Sample ID: LCS 550-310443/5**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 20.8 | | mg/L | | 104 | 90 - 110 | | |
| Fluoride | | | 4.00 | 4.11 | | mg/L | | 103 | 90 - 110 | | |
| Sulfate | | | 20.0 | 20.9 | | mg/L | | 104 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-310443/6**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 20.8 | | mg/L | | 104 | 90 - 110 | 0 | 20 |
| Fluoride | | | 4.00 | 4.07 | | mg/L | | 102 | 90 - 110 | 1 | 20 |
| Sulfate | | | 20.0 | 20.9 | | mg/L | | 104 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 550-209471-A-4 MS ^2**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1800 | E2 M3 | 40.0 | 1770 | E2 M3 | mg/L | | 9 | 80 - 120 | | |
| Fluoride | 1.1 | | 8.00 | 8.87 | | mg/L | | 98 | 80 - 120 | | |
| Sulfate | 1300 | E2 M3 | 40.0 | 1340 | E2 M3 | mg/L | | 29 | 80 - 120 | | |

**Lab Sample ID: 550-209471-A-4 MSD ^2**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1800 | E2 M3 | 40.0 | 1760 | E2 M3 | mg/L | | -5 | 80 - 120 | 0 | 20 |
| Fluoride | 1.1 | | 8.00 | 8.72 | | mg/L | | 96 | 80 - 120 | 2 | 20 |
| Sulfate | 1300 | E2 M3 | 40.0 | 1340 | E2 M3 | mg/L | | 11 | 80 - 120 | 1 | 20 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 550-209876-D-1 MS**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 360 | E2 M3 | 20.0 | 357 | E2 M3 | mg/L | | -7 | 80 - 120 | | |
| Fluoride | ND | | 4.00 | 4.27 | | mg/L | | 100 | 80 - 120 | | |
| Sulfate | 320 | E2 M3 | 20.0 | 322 | E2 M3 | mg/L | | 12 | 80 - 120 | | |

**Lab Sample ID: 550-209876-D-1 MSD**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 360 | E2 M3 | 20.0 | 357 | E2 M3 | mg/L | | -6 | 80 - 120 | 0 | 20 |
| Fluoride | ND | | 4.00 | 4.33 | | mg/L | | 101 | 80 - 120 | 1 | 20 |
| Sulfate | 320 | E2 M3 | 20.0 | 322 | E2 M3 | mg/L | | 12 | 80 - 120 | 0 | 20 |

**Lab Sample ID: 550-209471-A-4 DU ^2**
**Matrix: Water**
**Analysis Batch: 310443**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Chloride | 1800 | E2 M3 | 1750 | E2 | mg/L | | 0.9 | 20 |
| Fluoride | 1.1 | | 1.04 | | mg/L | | 1 | 20 |
| Sulfate | 1300 | E2 M3 | 1320 | E2 | mg/L | | 1 | 20 |

## Method: 9056A - Anions, Ion Chromatography

**Lab Sample ID: MB 550-310132/2**
**Matrix: Water**
**Analysis Batch: 310132**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Fluoride | ND | | 0.40 | | mg/L | | | 10/27/23 12:38 | 1 |

**Lab Sample ID: LCS 550-310132/5**
**Matrix: Water**
**Analysis Batch: 310132**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | | | 4.00 | 4.19 | | mg/L | | 105 | 80 - 120 | | |

**Lab Sample ID: LCSD 550-310132/6**
**Matrix: Water**
**Analysis Batch: 310132**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | | | 4.00 | 4.20 | | mg/L | | 105 | 80 - 120 | 0 | 20 |

## Method: 9056A - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 550-209060-G-2 MS**
**Matrix: Water**
**Analysis Batch: 310132**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | ND | | 4.00 | 4.43 | | mg/L | | 106 | 80 - 120 | | |

**Lab Sample ID: 550-209060-G-2 MSD**
**Matrix: Water**
**Analysis Batch: 310132**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | ND | | 4.00 | 4.44 | | mg/L | | 106 | 80 - 120 | 0 | 20 |

**Lab Sample ID: MB 550-310213/2**
**Matrix: Water**
**Analysis Batch: 310213**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Fluoride | ND | | 0.40 | | mg/L | | | 10/30/23 10:46 | 1 |

**Lab Sample ID: LCS 550-310213/5**
**Matrix: Water**
**Analysis Batch: 310213**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | | | 4.00 | 4.23 | | mg/L | | 106 | 80 - 120 | | |

**Lab Sample ID: LCSD 550-310213/6**
**Matrix: Water**
**Analysis Batch: 310213**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | | | 4.00 | 4.23 | | mg/L | | 106 | 80 - 120 | 0 | 20 |

**Lab Sample ID: 550-209476-15 MS**
**Matrix: Water**
**Analysis Batch: 310213**

**Client Sample ID: CH-CCR-MW77A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 0.50 | | 4.00 | 4.12 | | mg/L | | 90 | 80 - 120 | | |

**Lab Sample ID: 550-209476-15 MSD**
**Matrix: Water**
**Analysis Batch: 310213**

**Client Sample ID: CH-CCR-MW77A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 0.50 | | 4.00 | 4.23 | | mg/L | | 93 | 80 - 120 | 3 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 550-309746/1-A**
**Matrix: Water**
**Analysis Batch: 309988**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 309746**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:31 | 10/25/23 17:57 | 1 |
| Boron | ND | | 0.050 | | mg/L | | 10/23/23 06:31 | 10/25/23 17:57 | 1 |
| Calcium | ND | | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 17:57 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:31 | 10/25/23 17:57 | 1 |
| Magnesium | ND | | 2.0 | | mg/L | | 10/23/23 06:31 | 10/25/23 17:57 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 10/23/23 06:31 | 10/25/23 17:57 | 1 |
| Potassium | ND | | 0.50 | | mg/L | | 10/23/23 06:31 | 10/25/23 17:57 | 1 |
| Sodium | ND | | 0.50 | | mg/L | | 10/23/23 06:31 | 10/25/23 17:57 | 1 |

**Lab Sample ID: LCS 550-309746/2-A**
**Matrix: Water**
**Analysis Batch: 309988**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 309746**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | | | 1.00 | 0.966 | | mg/L | | 97 | 85 - 115 | | |
| Boron | | | 1.00 | 1.03 | | mg/L | | 103 | 85 - 115 | | |
| Calcium | | | 21.0 | 20.7 | | mg/L | | 98 | 85 - 115 | | |
| Iron | | | 1.00 | 0.820 | | mg/L | | 82 | 85 - 115 | | |
| Magnesium | | | 21.0 | 19.8 | | mg/L | | 94 | 85 - 115 | | |
| Manganese | | | 1.00 | 0.946 | | mg/L | | 95 | 85 - 115 | | |
| Potassium | | | 20.0 | 19.2 | | mg/L | | 96 | 85 - 115 | | |
| Sodium | | | 20.0 | 18.5 | | mg/L | | 92 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-309746/3-A**
**Matrix: Water**
**Analysis Batch: 309988**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 309746**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | | | 1.00 | 0.966 | | mg/L | | 97 | 85 - 115 | 0 | 20 |
| Boron | | | 1.00 | 1.02 | | mg/L | | 102 | 85 - 115 | 1 | 20 |
| Calcium | | | 21.0 | 20.5 | | mg/L | | 98 | 85 - 115 | 1 | 20 |
| Iron | | | 1.00 | 0.823 | | mg/L | | 82 | 85 - 115 | 0 | 20 |
| Magnesium | | | 21.0 | 20.0 | | mg/L | | 95 | 85 - 115 | 1 | 20 |
| Manganese | | | 1.00 | 0.932 | | mg/L | | 93 | 85 - 115 | 2 | 20 |
| Potassium | | | 20.0 | 19.2 | | mg/L | | 96 | 85 - 115 | 0 | 20 |
| Sodium | | | 20.0 | 18.6 | | mg/L | | 93 | 85 - 115 | 1 | 20 |

**Lab Sample ID: 550-209476-1 MS**
**Matrix: Water**
**Analysis Batch: 309988**

**Client Sample ID: CH-CCR-M53A-1023**
**Prep Type: Total/NA**
**Prep Batch: 309746**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 1.00 | 1.01 | | mg/L | | 101 | 70 - 130 | | |
| Boron | 3.8 | | 1.00 | 4.75 | | mg/L | | 99 | 70 - 130 | | |
| Calcium | 580 | M3 | 21.0 | 574 | M3 | mg/L | | -20 | 70 - 130 | | |
| Iron | ND | | 1.00 | 0.977 | | mg/L | | 98 | 70 - 130 | | |
| Magnesium | 200 | | 21.0 | 216 | M3 | mg/L | | 75 | 70 - 130 | | |
| Manganese | 5.1 | | 1.00 | 6.13 | M3 | mg/L | | 104 | 70 - 130 | | |
| Potassium | 12 | | 20.0 | 34.5 | | mg/L | | 110 | 70 - 130 | | |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: 550-209476-1 MSD** — **Client Sample ID: CH-CCR-M53A-1023**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 309988** — **Prep Batch: 309746**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 1.00 | 1.03 | | mg/L | | 103 | 70 - 130 | 2 | 20 |
| Boron | 3.8 | | 1.00 | 4.76 | | mg/L | | 101 | 70 - 130 | 0 | 20 |
| Calcium | 580 | M3 | 21.0 | 585 | M3 | mg/L | | 34 | 70 - 130 | 2 | 20 |
| Iron | ND | | 1.00 | 0.989 | | mg/L | | 99 | 70 - 130 | 1 | 20 |
| Magnesium | 200 | | 21.0 | 218 | M3 | mg/L | | 82 | 70 - 130 | 1 | 20 |
| Manganese | 5.1 | | 1.00 | 6.16 | M3 | mg/L | | 108 | 70 - 130 | 1 | 20 |
| Potassium | 12 | | 20.0 | 35.2 | | mg/L | | 114 | 70 - 130 | 2 | 20 |

**Lab Sample ID: MB 550-309748/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 309919** — **Prep Batch: 309748**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/23/23 06:49 | 10/24/23 18:36 | 1 |
| Boron | ND | | 0.050 | | mg/L | | 10/23/23 06:49 | 10/24/23 18:36 | 1 |
| Calcium | ND | | 2.0 | | mg/L | | 10/23/23 06:49 | 10/24/23 18:36 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 10/23/23 06:49 | 10/24/23 18:36 | 1 |
| Magnesium | ND | | 2.0 | | mg/L | | 10/23/23 06:49 | 10/24/23 18:36 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 10/23/23 06:49 | 10/24/23 18:36 | 1 |
| Potassium | ND | | 0.50 | | mg/L | | 10/23/23 06:49 | 10/24/23 18:36 | 1 |
| Sodium | ND | V1 | 0.50 | | mg/L | | 10/23/23 06:49 | 10/24/23 18:36 | 1 |

**Lab Sample ID: LCS 550-309748/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 309919** — **Prep Batch: 309748**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | | | 1.00 | 0.983 | | mg/L | | 98 | 85 - 115 | | |
| Boron | | | 1.00 | 1.05 | | mg/L | | 105 | 85 - 115 | | |
| Calcium | | | 21.0 | 21.0 | | mg/L | | 100 | 85 - 115 | | |
| Iron | | | 1.00 | 0.908 | | mg/L | | 91 | 85 - 115 | | |
| Magnesium | | | 21.0 | 20.8 | | mg/L | | 99 | 85 - 115 | | |
| Manganese | | | 1.00 | 0.980 | | mg/L | | 98 | 85 - 115 | | |
| Potassium | | | 20.0 | 18.8 | | mg/L | | 94 | 85 - 115 | | |
| Sodium | | | 20.0 | 20.3 | V1 | mg/L | | 102 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-309748/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 309919** — **Prep Batch: 309748**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | | | 1.00 | 0.964 | | mg/L | | 96 | 85 - 115 | 2 | 20 |
| Boron | | | 1.00 | 1.04 | | mg/L | | 104 | 85 - 115 | 1 | 20 |
| Calcium | | | 21.0 | 20.7 | | mg/L | | 99 | 85 - 115 | 2 | 20 |
| Iron | | | 1.00 | 0.897 | | mg/L | | 90 | 85 - 115 | 1 | 20 |
| Magnesium | | | 21.0 | 20.5 | | mg/L | | 98 | 85 - 115 | 1 | 20 |
| Manganese | | | 1.00 | 0.964 | | mg/L | | 96 | 85 - 115 | 2 | 20 |
| Potassium | | | 20.0 | 18.6 | | mg/L | | 93 | 85 - 115 | 1 | 20 |
| Sodium | | | 20.0 | 20.1 | V1 | mg/L | | 101 | 85 - 115 | 1 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: 550-209344-D-1-B MS**
**Matrix: Water**
**Analysis Batch: 309919**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 309748**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 1.00 | 0.993 | | mg/L | | 99 | 70 - 130 |
| Boron | ND | | 1.00 | 1.10 | | mg/L | | 107 | 70 - 130 |
| Calcium | 5.2 | | 21.0 | 26.4 | | mg/L | | 101 | 70 - 130 |
| Iron | 1.7 | M1 | 1.00 | 2.93 | | mg/L | | 124 | 70 - 130 |
| Magnesium | 6.1 | | 21.0 | 27.1 | | mg/L | | 100 | 70 - 130 |
| Manganese | 0.013 | | 1.00 | 0.987 | | mg/L | | 97 | 70 - 130 |
| Potassium | 1.8 | | 20.0 | 21.7 | | mg/L | | 99 | 70 - 130 |
| Sodium | 220 | V1 | 20.0 | 235 | M3 V1 | mg/L | | 73 | 70 - 130 |

**Lab Sample ID: 550-209344-D-1-C MSD**
**Matrix: Water**
**Analysis Batch: 309919**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 309748**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 1.00 | 1.02 | | mg/L | | 102 | 70 - 130 | 2 | 20 |
| Boron | ND | | 1.00 | 1.10 | | mg/L | | 108 | 70 - 130 | 0 | 20 |
| Calcium | 5.2 | | 21.0 | 27.1 | | mg/L | | 104 | 70 - 130 | 3 | 20 |
| Iron | 1.7 | M1 | 1.00 | 3.02 | M1 | mg/L | | 132 | 70 - 130 | 3 | 20 |
| Magnesium | 6.1 | | 21.0 | 27.8 | | mg/L | | 103 | 70 - 130 | 2 | 20 |
| Manganese | 0.013 | | 1.00 | 0.987 | | mg/L | | 97 | 70 - 130 | 0 | 20 |
| Potassium | 1.8 | | 20.0 | 22.1 | | mg/L | | 102 | 70 - 130 | 2 | 20 |
| Sodium | 220 | V1 | 20.0 | 240 | M3 V1 | mg/L | | 99 | 70 - 130 | 2 | 20 |

**Lab Sample ID: MB 570-377008/1-A**
**Matrix: Water**
**Analysis Batch: 379064**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 377008**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 0.050 | | mg/L | | 10/25/23 08:52 | 10/31/23 18:00 | 1 |

**Lab Sample ID: LCS 570-377008/2-A**
**Matrix: Water**
**Analysis Batch: 379064**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 377008**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 0.500 | 0.522 | | mg/L | | 104 | 85 - 115 |

**Lab Sample ID: LCSD 570-377008/3-A**
**Matrix: Water**
**Analysis Batch: 379064**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total Recoverable**
**Prep Batch: 377008**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 0.500 | 0.522 | | mg/L | | 104 | 85 - 115 | 0 | 20 |

**Lab Sample ID: 550-209476-1 MS**
**Matrix: Water**
**Analysis Batch: 378187**

**Client Sample ID: CH-CCR-M53A-1023**
**Prep Type: Total Recoverable**
**Prep Batch: 377008**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.28 | | 0.500 | 0.793 | | mg/L | | 102 | 80 - 120 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: 550-209476-1 MS**
**Matrix: Water**
**Analysis Batch: 378187**

**Client Sample ID: CH-CCR-M53A-1023**
**Prep Type: Total Recoverable**
**Prep Batch: 377008**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.28 | | 0.500 | 0.793 | | mg/L | | 102 | 80 - 120 |

**Lab Sample ID: 550-209476-1 MSD**
**Matrix: Water**
**Analysis Batch: 378187**

**Client Sample ID: CH-CCR-M53A-1023**
**Prep Type: Total Recoverable**
**Prep Batch: 377008**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.28 | | 0.500 | 0.830 | | mg/L | | 110 | 80 - 120 | 5 | 20 |
| Lithium | 0.28 | | 0.500 | 0.830 | | mg/L | | 110 | 80 - 120 | 5 | 20 |

**Lab Sample ID: 550-209476-19 MS**
**Matrix: Water**
**Analysis Batch: 378187**

**Client Sample ID: CH-CCR-W303-1023**
**Prep Type: Total Recoverable**
**Prep Batch: 377008**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.48 | | 0.500 | 1.05 | | mg/L | | 113 | 80 - 120 |

**Lab Sample ID: 550-209476-19 MSD**
**Matrix: Water**
**Analysis Batch: 378187**

**Client Sample ID: CH-CCR-W303-1023**
**Prep Type: Total Recoverable**
**Prep Batch: 377008**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.48 | | 0.500 | 1.04 | | mg/L | | 113 | 80 - 120 | 0 | 20 |

## Method: 200.8 LL - Metals (ICP/MS)

**Lab Sample ID: MB 550-309752/1-A**
**Matrix: Water**
**Analysis Batch: 309934**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 309752**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 10/23/23 09:30 | 10/24/23 15:56 | 1 |
| Arsenic | ND | | 0.00050 | | mg/L | | 10/23/23 09:30 | 10/24/23 15:56 | 1 |
| Barium | ND | | 0.00050 | | mg/L | | 10/23/23 09:30 | 10/24/23 15:56 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 10/23/23 09:30 | 10/24/23 15:56 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 10/23/23 09:30 | 10/24/23 15:56 | 1 |
| Cobalt | ND | | 0.00050 | | mg/L | | 10/23/23 09:30 | 10/24/23 15:56 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 10/23/23 09:30 | 10/24/23 15:56 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 10/23/23 09:30 | 10/24/23 15:56 | 1 |
| Selenium | ND | | 0.00050 | | mg/L | | 10/23/23 09:30 | 10/24/23 15:56 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 10/23/23 09:30 | 10/24/23 15:56 | 1 |

**Lab Sample ID: LCS 550-309752/2-A**
**Matrix: Water**
**Analysis Batch: 309934**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 309752**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Antimony | 0.100 | 0.0994 | | mg/L | | 99 | 85 - 115 |
| Arsenic | 0.100 | 0.0970 | | mg/L | | 97 | 85 - 115 |
| Barium | 0.100 | 0.116 | L3 | mg/L | | 116 | 85 - 115 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 550-309752/2-A**
**Matrix: Water**
**Analysis Batch: 309934**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 309752**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cadmium | | | 0.100 | 0.0982 | | mg/L | | 98 | 85 - 115 | | |
| Chromium | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | | |
| Cobalt | | | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 | | |
| Lead | | | 0.100 | 0.103 | | mg/L | | 103 | 85 - 115 | | |
| Molybdenum | | | 0.100 | 0.0969 | | mg/L | | 97 | 85 - 115 | | |
| Selenium | | | 0.100 | 0.0954 | | mg/L | | 95 | 85 - 115 | | |
| Thallium | | | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-309752/3-A**
**Matrix: Water**
**Analysis Batch: 309934**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 309752**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.0999 | | mg/L | | 100 | 85 - 115 | 1 | 20 |
| Arsenic | | | 0.100 | 0.0981 | | mg/L | | 98 | 85 - 115 | 1 | 20 |
| Barium | | | 0.100 | 0.117 | L3 | mg/L | | 117 | 85 - 115 | 1 | 20 |
| Cadmium | | | 0.100 | 0.0989 | | mg/L | | 99 | 85 - 115 | 1 | 20 |
| Chromium | | | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | 1 | 20 |
| Cobalt | | | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 | 1 | 20 |
| Lead | | | 0.100 | 0.0998 | | mg/L | | 100 | 85 - 115 | 3 | 20 |
| Molybdenum | | | 0.100 | 0.0988 | | mg/L | | 99 | 85 - 115 | 2 | 20 |
| Selenium | | | 0.100 | 0.0964 | | mg/L | | 96 | 85 - 115 | 1 | 20 |
| Thallium | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | 4 | 20 |

**Lab Sample ID: 550-209464-A-1-A MS**
**Matrix: Water**
**Analysis Batch: 309934**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 309752**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.104 | | mg/L | | 104 | 70 - 130 | | |
| Arsenic | 0.0040 | | 0.100 | 0.103 | | mg/L | | 99 | 70 - 130 | | |
| Barium | 0.0088 | L3 | 0.100 | 0.128 | | mg/L | | 119 | 70 - 130 | | |
| Cadmium | ND | | 0.100 | 0.0989 | | mg/L | | 99 | 70 - 130 | | |
| Chromium | 0.0072 | | 0.100 | 0.105 | | mg/L | | 98 | 70 - 130 | | |
| Cobalt | ND | | 0.100 | 0.100 | | mg/L | | 100 | 70 - 130 | | |
| Lead | ND | | 0.100 | 0.0960 | | mg/L | | 96 | 70 - 130 | | |
| Molybdenum | 0.0059 | | 0.100 | 0.109 | | mg/L | | 103 | 70 - 130 | | |
| Selenium | 0.00058 | | 0.100 | 0.0979 | | mg/L | | 97 | 70 - 130 | | |
| Thallium | ND | | 0.100 | 0.0984 | | mg/L | | 98 | 70 - 130 | | |

**Lab Sample ID: 550-209464-A-1-B MSD**
**Matrix: Water**
**Analysis Batch: 309934**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 309752**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.103 | | mg/L | | 103 | 70 - 130 | 1 | 20 |
| Arsenic | 0.0040 | | 0.100 | 0.101 | | mg/L | | 97 | 70 - 130 | 2 | 20 |
| Barium | 0.0088 | L3 | 0.100 | 0.126 | | mg/L | | 117 | 70 - 130 | 2 | 20 |
| Cadmium | ND | | 0.100 | 0.0973 | | mg/L | | 97 | 70 - 130 | 2 | 20 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: 550-209464-A-1-B MSD**
**Matrix: Water**
**Analysis Batch: 309934**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 309752**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 0.0072 | | 0.100 | 0.103 | | mg/L | | 96 | 70 - 130 | 1 | 20 |
| Cobalt | ND | | 0.100 | 0.0991 | | mg/L | | 99 | 70 - 130 | 1 | 20 |
| Lead | ND | | 0.100 | 0.0986 | | mg/L | | 99 | 70 - 130 | 3 | 20 |
| Molybdenum | 0.0059 | | 0.100 | 0.108 | | mg/L | | 102 | 70 - 130 | 1 | 20 |
| Selenium | 0.00058 | | 0.100 | 0.0946 | | mg/L | | 94 | 70 - 130 | 3 | 20 |
| Thallium | ND | | 0.100 | 0.0968 | | mg/L | | 97 | 70 - 130 | 2 | 20 |

**Lab Sample ID: MB 550-309755/1-A**
**Matrix: Water**
**Analysis Batch: 309935**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 309755**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:14 | 1 |
| Arsenic | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:14 | 1 |
| Barium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:14 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:14 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:14 | 1 |
| Cobalt | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:14 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:14 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:14 | 1 |
| Selenium | ND | | 0.00050 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:14 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 10/23/23 09:48 | 10/24/23 17:14 | 1 |

**Lab Sample ID: LCS 550-309755/2-A**
**Matrix: Water**
**Analysis Batch: 309935**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 309755**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.0998 | | mg/L | | 100 | 85 - 115 | | |
| Arsenic | | | 0.100 | 0.0956 | | mg/L | | 96 | 85 - 115 | | |
| Barium | | | 0.100 | 0.116 | L3 | mg/L | | 116 | 85 - 115 | | |
| Cadmium | | | 0.100 | 0.0982 | | mg/L | | 98 | 85 - 115 | | |
| Chromium | | | 0.100 | 0.0993 | | mg/L | | 99 | 85 - 115 | | |
| Cobalt | | | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 | | |
| Lead | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | | |
| Molybdenum | | | 0.100 | 0.0969 | | mg/L | | 97 | 85 - 115 | | |
| Selenium | | | 0.100 | 0.0929 | | mg/L | | 93 | 85 - 115 | | |
| Thallium | | | 0.100 | 0.0987 | | mg/L | | 99 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-309755/3-A**
**Matrix: Water**
**Analysis Batch: 309935**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 309755**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.0999 | | mg/L | | 100 | 85 - 115 | 0 | 20 |
| Arsenic | | | 0.100 | 0.0953 | | mg/L | | 95 | 85 - 115 | 0 | 20 |
| Barium | | | 0.100 | 0.116 | L3 | mg/L | | 116 | 85 - 115 | 0 | 20 |
| Cadmium | | | 0.100 | 0.0973 | | mg/L | | 97 | 85 - 115 | 1 | 20 |
| Chromium | | | 0.100 | 0.0997 | | mg/L | | 100 | 85 - 115 | 0 | 20 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCSD 550-309755/3-A**
**Matrix: Water**
**Analysis Batch: 309935**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 309755**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | | | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 | 0 | 20 |
| Lead | | | 0.100 | 0.0989 | | mg/L | | 99 | 85 - 115 | 2 | 20 |
| Molybdenum | | | 0.100 | 0.0972 | | mg/L | | 97 | 85 - 115 | 0 | 20 |
| Selenium | | | 0.100 | 0.0934 | | mg/L | | 93 | 85 - 115 | 0 | 20 |
| Thallium | | | 0.100 | 0.100 | | mg/L | | 100 | 85 - 115 | 1 | 20 |

**Lab Sample ID: 550-209476-3 MS**
**Matrix: Water**
**Analysis Batch: 309935**

**Client Sample ID: CH-CCR-MW69A-1023**
**Prep Type: Total/NA**
**Prep Batch: 309755**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.0930 | | mg/L | | 93 | 70 - 130 | | |
| Arsenic | 0.0025 | | 0.100 | 0.0944 | | mg/L | | 92 | 70 - 130 | | |
| Barium | 0.019 | L3 | 0.100 | 0.124 | | mg/L | | 106 | 70 - 130 | | |
| Cadmium | ND | | 0.100 | 0.0860 | | mg/L | | 86 | 70 - 130 | | |
| Chromium | ND | | 0.100 | 0.0957 | | mg/L | | 92 | 70 - 130 | | |
| Cobalt | 0.015 | | 0.100 | 0.108 | | mg/L | | 93 | 70 - 130 | | |
| Lead | ND | | 0.100 | 0.0889 | | mg/L | | 89 | 70 - 130 | | |
| Molybdenum | 0.029 | T5 | 0.100 | 0.119 | | mg/L | | 90 | 70 - 130 | | |
| Selenium | ND | | 0.100 | 0.0851 | | mg/L | | 85 | 70 - 130 | | |
| Thallium | ND | | 0.100 | 0.0869 | | mg/L | | 87 | 70 - 130 | | |

**Lab Sample ID: 550-209476-3 MSD**
**Matrix: Water**
**Analysis Batch: 309935**

**Client Sample ID: CH-CCR-MW69A-1023**
**Prep Type: Total/NA**
**Prep Batch: 309755**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.0968 | | mg/L | | 97 | 70 - 130 | 4 | 20 |
| Arsenic | 0.0025 | | 0.100 | 0.0950 | | mg/L | | 92 | 70 - 130 | 1 | 20 |
| Barium | 0.019 | L3 | 0.100 | 0.131 | | mg/L | | 112 | 70 - 130 | 5 | 20 |
| Cadmium | ND | | 0.100 | 0.0893 | | mg/L | | 89 | 70 - 130 | 4 | 20 |
| Chromium | ND | | 0.100 | 0.0955 | | mg/L | | 91 | 70 - 130 | 0 | 20 |
| Cobalt | 0.015 | | 0.100 | 0.107 | | mg/L | | 92 | 70 - 130 | 1 | 20 |
| Lead | ND | | 0.100 | 0.0909 | | mg/L | | 91 | 70 - 130 | 2 | 20 |
| Molybdenum | 0.029 | T5 | 0.100 | 0.122 | | mg/L | | 93 | 70 - 130 | 3 | 20 |
| Selenium | ND | | 0.100 | 0.0898 | | mg/L | | 90 | 70 - 130 | 5 | 20 |
| Thallium | ND | | 0.100 | 0.0889 | | mg/L | | 89 | 70 - 130 | 2 | 20 |

## Method: 245.1 - Mercury (CVAA)

**Lab Sample ID: MB 550-309852/1-A**
**Matrix: Water**
**Analysis Batch: 309876**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 309852**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/24/23 13:22 | 10/24/23 15:53 | 1 |

## Method: 245.1 - Mercury (CVAA) (Continued)

**Lab Sample ID: LCS 550-309852/2-A**
**Matrix: Water**
**Analysis Batch: 309876**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 309852**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00469 | | mg/L | | 94 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-309852/3-A**
**Matrix: Water**
**Analysis Batch: 309876**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 309852**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00478 | | mg/L | | 96 | 85 - 115 | 2 | 20 |

**Lab Sample ID: 550-209436-A-1-C MSD**
**Matrix: Water**
**Analysis Batch: 309876**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 309852**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00521 | | mg/L | | 104 | 70 - 130 | 4 | 20 |

**Lab Sample ID: 550-209476-13 MS**
**Matrix: Water**
**Analysis Batch: 309876**

**Client Sample ID: CH-CCR-MW74M-1023**
**Prep Type: Total/NA**
**Prep Batch: 309852**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00570 | | mg/L | | 114 | 70 - 130 | | |

## Method: 350.1 - Nitrogen, Ammonia (Low Level)

**Lab Sample ID: MB 550-310263/110**
**Matrix: Water**
**Analysis Batch: 310263**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | ND | | 0.050 | | mg/L | | | 10/30/23 13:14 | 1 |

**Lab Sample ID: MB 550-310263/159**
**Matrix: Water**
**Analysis Batch: 310263**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | ND | | 0.050 | | mg/L | | | 10/30/23 14:33 | 1 |

**Lab Sample ID: LCS 550-310263/111**
**Matrix: Water**
**Analysis Batch: 310263**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 1.00 | 0.990 | | mg/L | | 99 | 90 - 110 | | |

## Method: 350.1 - Nitrogen, Ammonia (Low Level) (Continued)

**Lab Sample ID: LCS 550-310263/160**
**Matrix: Water**
**Analysis Batch: 310263**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 1.00 | 0.916 | | mg/L | | 92 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-310263/112**
**Matrix: Water**
**Analysis Batch: 310263**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 1.00 | 1.02 | | mg/L | | 102 | 90 - 110 | 3 | 20 |

**Lab Sample ID: LCSD 550-310263/161**
**Matrix: Water**
**Analysis Batch: 310263**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 1.00 | 0.936 | | mg/L | | 94 | 90 - 110 | 2 | 20 |

**Lab Sample ID: 550-209471-B-1 MS**
**Matrix: Water**
**Analysis Batch: 310263**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.37 | | 1.00 | 1.40 | | mg/L | | 103 | 90 - 110 | | |

**Lab Sample ID: 550-209471-B-1 MSD**
**Matrix: Water**
**Analysis Batch: 310263**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.37 | | 1.00 | 1.36 | | mg/L | | 99 | 90 - 110 | 3 | 20 |

**Lab Sample ID: 550-209476-23 MS**
**Matrix: Water**
**Analysis Batch: 310263**

**Client Sample ID: CH-CCR-W314-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | ND | | 1.00 | 1.00 | | mg/L | | 100 | 90 - 110 | | |

**Lab Sample ID: 550-209476-23 MSD**
**Matrix: Water**
**Analysis Batch: 310263**

**Client Sample ID: CH-CCR-W314-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | ND | | 1.00 | 0.932 | | mg/L | | 93 | 90 - 110 | 7 | 20 |

**Lab Sample ID: MB 550-310375/60**
**Matrix: Water**
**Analysis Batch: 310375**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | ND | | 0.050 | | mg/L | | | 11/01/23 13:22 | 1 |

## Method: 350.1 - Nitrogen, Ammonia (Low Level)

**Lab Sample ID: LCS 550-310375/61**
**Matrix: Water**
**Analysis Batch: 310375**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 1.00 | 0.980 | | mg/L | | 98 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-310375/62**
**Matrix: Water**
**Analysis Batch: 310375**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 1.00 | 0.993 | | mg/L | | 99 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 550-209476-3 MS**
**Matrix: Water**
**Analysis Batch: 310375**

**Client Sample ID: CH-CCR-MW69A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.055 | | 1.00 | 1.11 | | mg/L | | 106 | 90 - 110 | | |

**Lab Sample ID: 550-209476-3 MSD**
**Matrix: Water**
**Analysis Batch: 310375**

**Client Sample ID: CH-CCR-MW69A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.055 | | 1.00 | 1.03 | | mg/L | | 97 | 90 - 110 | 8 | 20 |

## Method: 353.2 - Nitrogen, Nitrate-Nitrite

**Lab Sample ID: MB 280-631180/22**
**Matrix: Water**
**Analysis Batch: 631180**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | ND | | 0.10 | | mg/L | | | 10/25/23 12:52 | 1 |

**Lab Sample ID: MB 280-631180/60**
**Matrix: Water**
**Analysis Batch: 631180**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | ND | | 0.10 | | mg/L | | | 10/25/23 14:08 | 1 |

**Lab Sample ID: LCS 280-631180/21**
**Matrix: Water**
**Analysis Batch: 631180**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | | | 5.00 | 5.01 | | mg/L | | 100 | 90 - 110 | | |

## Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

**Lab Sample ID: LCS 280-631180/59**
**Matrix: Water**
**Analysis Batch: 631180**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | | | 5.00 | 4.98 | | mg/L | | 100 | 90 - 110 | | |

**Lab Sample ID: 550-209476-1 MS**
**Matrix: Water**
**Analysis Batch: 631180**

**Client Sample ID: CH-CCR-M53A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | ND | | 4.00 | 3.97 | | mg/L | | 99 | 90 - 110 | | |

**Lab Sample ID: 550-209476-1 MSD**
**Matrix: Water**
**Analysis Batch: 631180**

**Client Sample ID: CH-CCR-M53A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | ND | | 4.00 | 3.98 | | mg/L | | 99 | 90 - 110 | 0 | 10 |

**Lab Sample ID: 550-209476-15 MS**
**Matrix: Water**
**Analysis Batch: 631180**

**Client Sample ID: CH-CCR-MW77A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | ND | | 4.00 | 4.02 | | mg/L | | 99 | 90 - 110 | | |

**Lab Sample ID: 550-209476-15 MSD**
**Matrix: Water**
**Analysis Batch: 631180**

**Client Sample ID: CH-CCR-MW77A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | ND | | 4.00 | 3.97 | | mg/L | | 98 | 90 - 110 | 1 | 10 |

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 550-309886/4**
**Matrix: Water**
**Analysis Batch: 309886**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 10/24/23 14:15 | 1 |
| Alkalinity, Phenolphthalein | ND | | 6.0 | | mg/L | | | 10/24/23 14:15 | 1 |
| Bicarbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 10/24/23 14:15 | 1 |
| Carbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 10/24/23 14:15 | 1 |
| Hydroxide Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 10/24/23 14:15 | 1 |

**Lab Sample ID: LCS 550-309886/3**
**Matrix: Water**
**Analysis Batch: 309886**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 247 | | mg/L | | 99 | 90 - 110 | | |

## Method: SM 2320B - Alkalinity (Continued)

**Lab Sample ID: LCSD 550-309886/10**
**Matrix: Water**
**Analysis Batch: 309886**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 242 | | mg/L | | 97 | 90 - 110 | 2 | 20 |

**Lab Sample ID: 550-209476-3 DU**
**Matrix: Water**
**Analysis Batch: 309886**

**Client Sample ID: CH-CCR-MW69A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | 140 | | | 142 | | mg/L | | | | 0.5 | 20 |
| Alkalinity, Phenolphthalein | ND | | | ND | | mg/L | | | | NC | 20 |
| Bicarbonate Alkalinity as CaCO3 | 140 | | | 142 | | mg/L | | | | 0.5 | 20 |
| Carbonate Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |
| Hydroxide Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 550-309802/1**
**Matrix: Water**
**Analysis Batch: 309802**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 10/23/23 15:06 | 1 |

**Lab Sample ID: LCS 550-309802/2**
**Matrix: Water**
**Analysis Batch: 309802**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 998 | | mg/L | | 100 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-309802/3**
**Matrix: Water**
**Analysis Batch: 309802**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 992 | | mg/L | | 99 | 90 - 110 | 1 | 10 |

**Lab Sample ID: 550-209471-B-4 DU**
**Matrix: Water**
**Analysis Batch: 309802**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 12000 | | | 11900 | | mg/L | | | | 1 | 10 |

**Lab Sample ID: MB 550-309843/1**
**Matrix: Water**
**Analysis Batch: 309843**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 10/24/23 11:20 | 1 |

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

**Lab Sample ID: LCS 550-309843/2**
**Matrix: Water**
**Analysis Batch: 309843**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1000 | | mg/L | | 100 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-309843/3**
**Matrix: Water**
**Analysis Batch: 309843**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 988 | | mg/L | | 99 | 90 - 110 | 1 | 10 |

**Lab Sample ID: 550-209453-E-1 DU**
**Matrix: Water**
**Analysis Batch: 309843**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1300 | | | 1250 | | mg/L | | | | 1 | 10 |

**Lab Sample ID: 550-209476-21 DU**
**Matrix: Water**
**Analysis Batch: 309843**

**Client Sample ID: CH-CCR-W306-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 18000 | | | 18600 | | mg/L | | | | 0.5 | 10 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: LCSSRM 550-310003/1**
**Matrix: Water**
**Analysis Batch: 310003**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.0 | | SU | | 99.7 | 98.5 - 101.5 | | |

**Lab Sample ID: LCSSRM 550-310003/13**
**Matrix: Water**
**Analysis Batch: 310003**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.0 | | SU | | 100.0 | 98.5 - 101.5 | | |

**Lab Sample ID: LCSSRM 550-310003/25**
**Matrix: Water**
**Analysis Batch: 310003**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.0 | | SU | | 100.0 | 98.5 - 101.5 | | |

## Method: SM 4500 H+ B - pH (Continued)

**Lab Sample ID: 550-209476-1 DU**
**Matrix: Water**
**Analysis Batch: 310003**

**Client Sample ID: CH-CCR-M53A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| pH | 7.5 | H5 | 7.5 | | SU | | 0.1 | 5 |
| Temperature | 6.9 | H5 T5 | 6.8 | | Degrees C | | 1 | |

**Lab Sample ID: 550-209476-21 DU**
**Matrix: Water**
**Analysis Batch: 310003**

**Client Sample ID: CH-CCR-W306-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| pH | 7.9 | H5 | 7.9 | | SU | | 0.1 | 5 |
| Temperature | 8.6 | H5 T5 | 8.6 | | Degrees C | | 0 | |

## Method: SM 5310B - Organic Carbon, Dissolved (DOC)

**Lab Sample ID: MB 550-310716/3**
**Matrix: Water**
**Analysis Batch: 310716**

**Client Sample ID: Method Blank**
**Prep Type: Dissolved**

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | ND | | 0.50 | mg/L | | | 11/07/23 22:41 | 1 |
| Dissolved Organic Carbon - Duplicate | ND | | 0.50 | mg/L | | | 11/07/23 22:41 | 1 |
| Dissolved Organic Carbon - Quad | ND | | 0.50 | mg/L | | | 11/07/23 22:41 | 1 |

**Lab Sample ID: LCS 550-310716/5**
**Matrix: Water**
**Analysis Batch: 310716**

**Client Sample ID: Lab Control Sample**
**Prep Type: Dissolved**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | 20.0 | 19.6 | | mg/L | | 98 | 90 - 110 |
| Dissolved Organic Carbon - Duplicate | 20.0 | 19.3 | | mg/L | | 97 | 90 - 110 |
| Dissolved Organic Carbon - Quad | 20.0 | 19.6 | | mg/L | | 98 | 90 - 110 |

**Lab Sample ID: LCSD 550-310716/30**
**Matrix: Water**
**Analysis Batch: 310716**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Dissolved**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | 20.0 | 19.3 | | mg/L | | 96 | 90 - 110 | 1 | 20 |
| Dissolved Organic Carbon - Duplicate | 20.0 | 19.0 | | mg/L | | 95 | 90 - 110 | 2 | 20 |
| Dissolved Organic Carbon - Quad | 20.0 | 19.3 | | mg/L | | 96 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 550-209471-G-12 MSD**
**Matrix: Water**
**Analysis Batch: 310716**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | 2.7 | | 20.0 | 21.4 | | mg/L | | 93 | 90 - 110 | 6 | 20 |

## Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

**Lab Sample ID: 550-209471-G-12 MSD**
**Matrix: Water**
**Analysis Batch: 310716**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Duplicate | 2.7 | | 20.0 | 21.4 | | mg/L | | 93 | 90 - 110 | 6 | 20 |
| Dissolved Organic Carbon - Quad | 2.7 | | 20.0 | 21.4 | | mg/L | | 93 | 90 - 110 | 6 | 20 |

**Lab Sample ID: 550-209471-I-12 MS**
**Matrix: Water**
**Analysis Batch: 310716**

**Client Sample ID: Matrix Spike**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | 2.7 | | 20.0 | 22.8 | | mg/L | | 100 | 90 - 110 |
| Dissolved Organic Carbon - Duplicate | 2.7 | | 20.0 | 22.8 | | mg/L | | 100 | 90 - 110 |
| Dissolved Organic Carbon - Quad | 2.7 | | 20.0 | 22.8 | | mg/L | | 100 | 90 - 110 |

**Lab Sample ID: MB 550-310867/3**
**Matrix: Water**
**Analysis Batch: 310867**

**Client Sample ID: Method Blank**
**Prep Type: Dissolved**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | ND | | 0.50 | | mg/L | | | 11/08/23 19:23 | 1 |
| Dissolved Organic Carbon - Duplicate | ND | | 0.50 | | mg/L | | | 11/08/23 19:23 | 1 |
| Dissolved Organic Carbon - Quad | ND | | 0.50 | | mg/L | | | 11/08/23 19:23 | 1 |

**Lab Sample ID: LCS 550-310867/5**
**Matrix: Water**
**Analysis Batch: 310867**

**Client Sample ID: Lab Control Sample**
**Prep Type: Dissolved**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | | | 20.0 | 18.7 | | mg/L | | 94 | 90 - 110 |
| Dissolved Organic Carbon - Duplicate | | | 20.0 | 18.7 | | mg/L | | 93 | 90 - 110 |
| Dissolved Organic Carbon - Quad | | | 20.0 | 18.7 | | mg/L | | 94 | 90 - 110 |

**Lab Sample ID: LCSD 550-310867/6**
**Matrix: Water**
**Analysis Batch: 310867**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Dissolved**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | | | 20.0 | 18.3 | | mg/L | | 92 | 90 - 110 | 2 | 20 |
| Dissolved Organic Carbon - Duplicate | | | 20.0 | 18.7 | | mg/L | | 93 | 90 - 110 | 0 | 20 |
| Dissolved Organic Carbon - Quad | | | 20.0 | 18.3 | | mg/L | | 92 | 90 - 110 | 2 | 20 |

## Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

**Lab Sample ID: 550-209476-9 MS**
**Matrix: Water**
**Analysis Batch: 310867**

**Client Sample ID: CH-CCR-MW72M-1023**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | 0.55 | M2 | 20.0 | 18.1 | M2 | mg/L | | 88 | 90 - 110 | | |
| Dissolved Organic Carbon - Duplicate | 0.56 | M2 | 20.0 | 18.1 | M2 | mg/L | | 88 | 90 - 110 | | |
| Dissolved Organic Carbon - Quad | 0.55 | M2 | 20.0 | 18.1 | M2 | mg/L | | 88 | 90 - 110 | | |

**Lab Sample ID: 550-209476-9 MSD**
**Matrix: Water**
**Analysis Batch: 310867**

**Client Sample ID: CH-CCR-MW72M-1023**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | 0.55 | M2 | 20.0 | 17.5 | M2 | mg/L | | 85 | 90 - 110 | 3 | 20 |
| Dissolved Organic Carbon - Duplicate | 0.56 | M2 | 20.0 | 17.5 | M2 | mg/L | | 85 | 90 - 110 | 3 | 20 |
| Dissolved Organic Carbon - Quad | 0.55 | M2 | 20.0 | 17.5 | M2 | mg/L | | 85 | 90 - 110 | 3 | 20 |

## HPLC/IC

### Analysis Batch: 309841

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-15 | CH-CCR-MW77A-1023 | Total/NA | Water | 300.0 | |
| 550-209476-15 | CH-CCR-MW77A-1023 | Total/NA | Water | 300.0 | |
| 550-209476-17 | CH-CCR-W301-1023 | Total/NA | Water | 300.0 | |
| 550-209476-17 | CH-CCR-W301-1023 | Total/NA | Water | 300.0 | |
| MB 550-309841/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-309841/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-309841/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-209146-A-19 MS ^10 | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-209146-A-19 MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

### Analysis Batch: 309850

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-1 | CH-CCR-M53A-1023 | Total/NA | Water | 300.0 | |
| 550-209476-1 | CH-CCR-M53A-1023 | Total/NA | Water | 300.0 | |
| 550-209476-3 | CH-CCR-MW69A-1023 | Total/NA | Water | 300.0 | |
| 550-209476-3 | CH-CCR-MW69A-1023 | Total/NA | Water | 300.0 | |
| 550-209476-5 | CH-CCR-MW70M-1023 | Total/NA | Water | 300.0 | |
| 550-209476-5 | CH-CCR-MW70M-1023 | Total/NA | Water | 300.0 | |
| 550-209476-7 | CH-CCR-MW71A-1023 | Total/NA | Water | 300.0 | |
| 550-209476-7 | CH-CCR-MW71A-1023 | Total/NA | Water | 300.0 | |
| 550-209476-9 | CH-CCR-MW72M-1023 | Total/NA | Water | 300.0 | |
| 550-209476-9 | CH-CCR-MW72M-1023 | Total/NA | Water | 300.0 | |
| 550-209476-11 | CH-CCR-MW73A-1023 | Total/NA | Water | 300.0 | |
| 550-209476-11 | CH-CCR-MW73A-1023 | Total/NA | Water | 300.0 | |
| 550-209476-13 | CH-CCR-MW74M-1023 | Total/NA | Water | 300.0 | |
| 550-209476-13 | CH-CCR-MW74M-1023 | Total/NA | Water | 300.0 | |
| MB 550-309850/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-309850/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-309850/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-209102-A-1 MS ^10 | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-209102-A-1 MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

### Analysis Batch: 309930

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-21 | CH-CCR-W306-1023 | Total/NA | Water | 300.0 | |
| 550-209476-21 | CH-CCR-W306-1023 | Total/NA | Water | 300.0 | |
| 550-209476-23 | CH-CCR-W314-1023 | Total/NA | Water | 300.0 | |
| 550-209476-23 | CH-CCR-W314-1023 | Total/NA | Water | 300.0 | |
| MB 550-309930/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-309930/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-309930/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-209520-E-1 MS | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-209520-E-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

### Analysis Batch: 309960

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-19 | CH-CCR-W303-1023 | Total/NA | Water | 300.0 | |
| 550-209476-19 | CH-CCR-W303-1023 | Total/NA | Water | 300.0 | |
| MB 550-309960/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-309960/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-309960/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |

## HPLC/IC (Continued)

### Analysis Batch: 309960 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209537-B-1 MS | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-209537-B-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

### Analysis Batch: 310131

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 550-310131/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-310131/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-310131/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-209662-A-2 MS | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-209662-A-2 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

### Analysis Batch: 310132

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 550-310132/2 | Method Blank | Total/NA | Water | 9056A | |
| LCS 550-310132/5 | Lab Control Sample | Total/NA | Water | 9056A | |
| LCSD 550-310132/6 | Lab Control Sample Dup | Total/NA | Water | 9056A | |
| 550-209060-G-2 MS | Matrix Spike | Total/NA | Water | 9056A | |
| 550-209060-G-2 MSD | Matrix Spike Duplicate | Total/NA | Water | 9056A | |
| 550-209060-O-1 DU ^10 | Duplicate | Total/NA | Water | 300.0 | |

### Analysis Batch: 310138

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-9 | CH-CCR-MW72M-1023 | Total/NA | Water | 300.0 | |
| 550-209476-9 | CH-CCR-MW72M-1023 | Total/NA | Water | 9056A | |
| 550-209476-21 | CH-CCR-W306-1023 | Total/NA | Water | 300.0 | |
| MB 550-310138/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-310138/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-310138/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-209214-E-3 MS ^5 | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-209214-E-3 MSD ^5 | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

### Analysis Batch: 310213

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-15 | CH-CCR-MW77A-1023 | Total/NA | Water | 9056A | |
| 550-209476-21 | CH-CCR-W306-1023 | Total/NA | Water | 9056A | |
| MB 550-310213/2 | Method Blank | Total/NA | Water | 9056A | |
| LCS 550-310213/5 | Lab Control Sample | Total/NA | Water | 9056A | |
| LCSD 550-310213/6 | Lab Control Sample Dup | Total/NA | Water | 9056A | |
| 550-209476-15 MS | CH-CCR-MW77A-1023 | Total/NA | Water | 9056A | |
| 550-209476-15 MSD | CH-CCR-MW77A-1023 | Total/NA | Water | 9056A | |

### Analysis Batch: 310443

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-1 | CH-CCR-M53A-1023 | Total/NA | Water | 9056A | |
| 550-209476-7 | CH-CCR-MW71A-1023 | Total/NA | Water | 9056A | |
| 550-209476-11 | CH-CCR-MW73A-1023 | Total/NA | Water | 9056A | |
| 550-209476-13 | CH-CCR-MW74M-1023 | Total/NA | Water | 9056A | |
| MB 550-310443/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-310443/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-310443/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-209471-A-4 MS ^2 | Matrix Spike | Total/NA | Water | 300.0 | |

## HPLC/IC (Continued)

### Analysis Batch: 310443 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209471-A-4 MSD ^2 | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |
| 550-209876-D-1 MS | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-209876-D-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |
| 550-209471-A-4 DU ^2 | Duplicate | Total/NA | Water | 300.0 | |

## Metals

### Prep Batch: 309746

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-1 | CH-CCR-M53A-1023 | Total/NA | Water | 200.7 | |
| 550-209476-2 | CH-CCR-M53A-1023 | Dissolved | Water | 200.7 | |
| 550-209476-3 | CH-CCR-MW69A-1023 | Total/NA | Water | 200.7 | |
| 550-209476-4 | CH-CCR-MW69A-1023 | Dissolved | Water | 200.7 | |
| 550-209476-5 | CH-CCR-MW70M-1023 | Total/NA | Water | 200.7 | |
| 550-209476-6 | CH-CCR-MW70M-1023 | Dissolved | Water | 200.7 | |
| 550-209476-7 | CH-CCR-MW71A-1023 | Total/NA | Water | 200.7 | |
| 550-209476-8 | CH-CCR-MW71A-1023 | Dissolved | Water | 200.7 | |
| 550-209476-9 | CH-CCR-MW72M-1023 | Total/NA | Water | 200.7 | |
| 550-209476-10 | CH-CCR-MW72M-1023 | Dissolved | Water | 200.7 | |
| 550-209476-11 | CH-CCR-MW73A-1023 | Total/NA | Water | 200.7 | |
| 550-209476-12 | CH-CCR-MW73A-1023 | Dissolved | Water | 200.7 | |
| 550-209476-13 | CH-CCR-MW74M-1023 | Total/NA | Water | 200.7 | |
| 550-209476-14 | CH-CCR-MW74M-1023 | Dissolved | Water | 200.7 | |
| 550-209476-15 | CH-CCR-MW77A-1023 | Total/NA | Water | 200.7 | |
| 550-209476-16 | CH-CCR-MW77A-1023 | Dissolved | Water | 200.7 | |
| 550-209476-17 | CH-CCR-W301-1023 | Total/NA | Water | 200.7 | |
| 550-209476-18 | CH-CCR-W301-1023 | Dissolved | Water | 200.7 | |
| 550-209476-19 | CH-CCR-W303-1023 | Total/NA | Water | 200.7 | |
| 550-209476-20 | CH-CCR-W303-1023 | Dissolved | Water | 200.7 | |
| MB 550-309746/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-309746/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-309746/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-209476-1 MS | CH-CCR-M53A-1023 | Total/NA | Water | 200.7 | |
| 550-209476-1 MSD | CH-CCR-M53A-1023 | Total/NA | Water | 200.7 | |

### Prep Batch: 309748

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-21 | CH-CCR-W306-1023 | Total/NA | Water | 200.7 | |
| 550-209476-22 | CH-CCR-W306-1023 | Dissolved | Water | 200.7 | |
| 550-209476-23 | CH-CCR-W314-1023 | Total/NA | Water | 200.7 | |
| 550-209476-24 | CH-CCR-W314-1023 | Dissolved | Water | 200.7 | |
| MB 550-309748/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-309748/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-309748/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-209344-D-1-B MS | Matrix Spike | Total/NA | Water | 200.7 | |
| 550-209344-D-1-C MSD | Matrix Spike Duplicate | Total/NA | Water | 200.7 | |

### Prep Batch: 309752

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-21 | CH-CCR-W306-1023 | Total/NA | Water | 200.8 | |
| 550-209476-22 | CH-CCR-W306-1023 | Dissolved | Water | 200.8 | |

## Metals (Continued)

### Prep Batch: 309752 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-23 | CH-CCR-W314-1023 | Total/NA | Water | 200.8 | |
| 550-209476-24 | CH-CCR-W314-1023 | Dissolved | Water | 200.8 | |
| MB 550-309752/1-A | Method Blank | Total/NA | Water | 200.8 | |
| LCS 550-309752/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-309752/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-209464-A-1-A MS | Matrix Spike | Total/NA | Water | 200.8 | |
| 550-209464-A-1-B MSD | Matrix Spike Duplicate | Total/NA | Water | 200.8 | |

### Prep Batch: 309755

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-1 | CH-CCR-M53A-1023 | Total/NA | Water | 200.8 | |
| 550-209476-2 | CH-CCR-M53A-1023 | Dissolved | Water | 200.8 | |
| 550-209476-3 | CH-CCR-MW69A-1023 | Total/NA | Water | 200.8 | |
| 550-209476-4 | CH-CCR-MW69A-1023 | Dissolved | Water | 200.8 | |
| 550-209476-5 | CH-CCR-MW70M-1023 | Total/NA | Water | 200.8 | |
| 550-209476-6 | CH-CCR-MW70M-1023 | Dissolved | Water | 200.8 | |
| 550-209476-7 | CH-CCR-MW71A-1023 | Total/NA | Water | 200.8 | |
| 550-209476-8 | CH-CCR-MW71A-1023 | Dissolved | Water | 200.8 | |
| 550-209476-9 | CH-CCR-MW72M-1023 | Total/NA | Water | 200.8 | |
| 550-209476-10 | CH-CCR-MW72M-1023 | Dissolved | Water | 200.8 | |
| 550-209476-11 | CH-CCR-MW73A-1023 | Total/NA | Water | 200.8 | |
| 550-209476-12 | CH-CCR-MW73A-1023 | Dissolved | Water | 200.8 | |
| 550-209476-13 | CH-CCR-MW74M-1023 | Total/NA | Water | 200.8 | |
| 550-209476-14 | CH-CCR-MW74M-1023 | Dissolved | Water | 200.8 | |
| 550-209476-15 | CH-CCR-MW77A-1023 | Total/NA | Water | 200.8 | |
| 550-209476-16 | CH-CCR-MW77A-1023 | Dissolved | Water | 200.8 | |
| 550-209476-17 | CH-CCR-W301-1023 | Total/NA | Water | 200.8 | |
| 550-209476-18 | CH-CCR-W301-1023 | Dissolved | Water | 200.8 | |
| 550-209476-19 | CH-CCR-W303-1023 | Total/NA | Water | 200.8 | |
| 550-209476-20 | CH-CCR-W303-1023 | Dissolved | Water | 200.8 | |
| MB 550-309755/1-A | Method Blank | Total/NA | Water | 200.8 | |
| LCS 550-309755/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-309755/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-209476-3 MS | CH-CCR-MW69A-1023 | Total/NA | Water | 200.8 | |
| 550-209476-3 MSD | CH-CCR-MW69A-1023 | Total/NA | Water | 200.8 | |

### Prep Batch: 309852

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-1 | CH-CCR-M53A-1023 | Total/NA | Water | 245.1 | |
| 550-209476-3 | CH-CCR-MW69A-1023 | Total/NA | Water | 245.1 | |
| 550-209476-5 | CH-CCR-MW70M-1023 | Total/NA | Water | 245.1 | |
| 550-209476-7 | CH-CCR-MW71A-1023 | Total/NA | Water | 245.1 | |
| 550-209476-9 | CH-CCR-MW72M-1023 | Total/NA | Water | 245.1 | |
| 550-209476-11 | CH-CCR-MW73A-1023 | Total/NA | Water | 245.1 | |
| 550-209476-13 | CH-CCR-MW74M-1023 | Total/NA | Water | 245.1 | |
| 550-209476-15 | CH-CCR-MW77A-1023 | Total/NA | Water | 245.1 | |
| 550-209476-17 | CH-CCR-W301-1023 | Total/NA | Water | 245.1 | |
| 550-209476-19 | CH-CCR-W303-1023 | Total/NA | Water | 245.1 | |
| 550-209476-21 | CH-CCR-W306-1023 | Total/NA | Water | 245.1 | |
| 550-209476-23 | CH-CCR-W314-1023 | Total/NA | Water | 245.1 | |
| MB 550-309852/1-A | Method Blank | Total/NA | Water | 245.1 | |

## Metals (Continued)

### Prep Batch: 309852 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 550-309852/2-A | Lab Control Sample | Total/NA | Water | 245.1 | |
| LCSD 550-309852/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | |
| 550-209436-A-1-C MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | |
| 550-209476-13 MS | CH-CCR-MW74M-1023 | Total/NA | Water | 245.1 | |

### Analysis Batch: 309876

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-1 | CH-CCR-M53A-1023 | Total/NA | Water | 245.1 | 309852 |
| 550-209476-3 | CH-CCR-MW69A-1023 | Total/NA | Water | 245.1 | 309852 |
| 550-209476-5 | CH-CCR-MW70M-1023 | Total/NA | Water | 245.1 | 309852 |
| 550-209476-7 | CH-CCR-MW71A-1023 | Total/NA | Water | 245.1 | 309852 |
| 550-209476-9 | CH-CCR-MW72M-1023 | Total/NA | Water | 245.1 | 309852 |
| 550-209476-11 | CH-CCR-MW73A-1023 | Total/NA | Water | 245.1 | 309852 |
| 550-209476-13 | CH-CCR-MW74M-1023 | Total/NA | Water | 245.1 | 309852 |
| 550-209476-15 | CH-CCR-MW77A-1023 | Total/NA | Water | 245.1 | 309852 |
| 550-209476-17 | CH-CCR-W301-1023 | Total/NA | Water | 245.1 | 309852 |
| 550-209476-19 | CH-CCR-W303-1023 | Total/NA | Water | 245.1 | 309852 |
| 550-209476-21 | CH-CCR-W306-1023 | Total/NA | Water | 245.1 | 309852 |
| 550-209476-23 | CH-CCR-W314-1023 | Total/NA | Water | 245.1 | 309852 |
| MB 550-309852/1-A | Method Blank | Total/NA | Water | 245.1 | 309852 |
| LCS 550-309852/2-A | Lab Control Sample | Total/NA | Water | 245.1 | 309852 |
| LCSD 550-309852/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | 309852 |
| 550-209436-A-1-C MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | 309852 |
| 550-209476-13 MS | CH-CCR-MW74M-1023 | Total/NA | Water | 245.1 | 309852 |

### Analysis Batch: 309919

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-21 | CH-CCR-W306-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309748 |
| 550-209476-22 | CH-CCR-W306-1023 | Dissolved | Water | 200.7 | 309748 |
| 550-209476-23 | CH-CCR-W314-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309748 |
| 550-209476-24 | CH-CCR-W314-1023 | Dissolved | Water | 200.7 | 309748 |
| MB 550-309748/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 309748 |
| LCS 550-309748/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 309748 |
| LCSD 550-309748/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 309748 |
| 550-209344-D-1-B MS | Matrix Spike | Total/NA | Water | 200.7 Rev 4.4 | 309748 |
| 550-209344-D-1-C MSD | Matrix Spike Duplicate | Total/NA | Water | 200.7 Rev 4.4 | 309748 |

### Analysis Batch: 309934

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-21 | CH-CCR-W306-1023 | Total/NA | Water | 200.8 LL | 309752 |
| 550-209476-22 | CH-CCR-W306-1023 | Dissolved | Water | 200.8 LL | 309752 |
| 550-209476-23 | CH-CCR-W314-1023 | Total/NA | Water | 200.8 LL | 309752 |
| 550-209476-24 | CH-CCR-W314-1023 | Dissolved | Water | 200.8 LL | 309752 |
| MB 550-309752/1-A | Method Blank | Total/NA | Water | 200.8 LL | 309752 |
| LCS 550-309752/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 309752 |
| LCSD 550-309752/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 309752 |
| 550-209464-A-1-A MS | Matrix Spike | Total/NA | Water | 200.8 LL | 309752 |
| 550-209464-A-1-B MSD | Matrix Spike Duplicate | Total/NA | Water | 200.8 LL | 309752 |

## Metals

### Analysis Batch: 309935

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-1 | CH-CCR-M53A-1023 | Total/NA | Water | 200.8 LL | 309755 |
| 550-209476-2 | CH-CCR-M53A-1023 | Dissolved | Water | 200.8 LL | 309755 |
| 550-209476-3 | CH-CCR-MW69A-1023 | Total/NA | Water | 200.8 LL | 309755 |
| 550-209476-4 | CH-CCR-MW69A-1023 | Dissolved | Water | 200.8 LL | 309755 |
| 550-209476-5 | CH-CCR-MW70M-1023 | Total/NA | Water | 200.8 LL | 309755 |
| 550-209476-6 | CH-CCR-MW70M-1023 | Dissolved | Water | 200.8 LL | 309755 |
| 550-209476-7 | CH-CCR-MW71A-1023 | Total/NA | Water | 200.8 LL | 309755 |
| 550-209476-8 | CH-CCR-MW71A-1023 | Dissolved | Water | 200.8 LL | 309755 |
| 550-209476-9 | CH-CCR-MW72M-1023 | Total/NA | Water | 200.8 LL | 309755 |
| 550-209476-10 | CH-CCR-MW72M-1023 | Dissolved | Water | 200.8 LL | 309755 |
| 550-209476-11 | CH-CCR-MW73A-1023 | Total/NA | Water | 200.8 LL | 309755 |
| 550-209476-12 | CH-CCR-MW73A-1023 | Dissolved | Water | 200.8 LL | 309755 |
| 550-209476-13 | CH-CCR-MW74M-1023 | Total/NA | Water | 200.8 LL | 309755 |
| 550-209476-14 | CH-CCR-MW74M-1023 | Dissolved | Water | 200.8 LL | 309755 |
| 550-209476-15 | CH-CCR-MW77A-1023 | Total/NA | Water | 200.8 LL | 309755 |
| 550-209476-16 | CH-CCR-MW77A-1023 | Dissolved | Water | 200.8 LL | 309755 |
| 550-209476-17 | CH-CCR-W301-1023 | Total/NA | Water | 200.8 LL | 309755 |
| 550-209476-18 | CH-CCR-W301-1023 | Dissolved | Water | 200.8 LL | 309755 |
| 550-209476-19 | CH-CCR-W303-1023 | Total/NA | Water | 200.8 LL | 309755 |
| 550-209476-20 | CH-CCR-W303-1023 | Dissolved | Water | 200.8 LL | 309755 |
| MB 550-309755/1-A | Method Blank | Total/NA | Water | 200.8 LL | 309755 |
| LCS 550-309755/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 309755 |
| LCSD 550-309755/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 309755 |
| 550-209476-3 MS | CH-CCR-MW69A-1023 | Total/NA | Water | 200.8 LL | 309755 |
| 550-209476-3 MSD | CH-CCR-MW69A-1023 | Total/NA | Water | 200.8 LL | 309755 |

### Analysis Batch: 309988

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-1 | CH-CCR-M53A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-2 | CH-CCR-M53A-1023 | Dissolved | Water | 200.7 | 309746 |
| 550-209476-3 | CH-CCR-MW69A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-4 | CH-CCR-MW69A-1023 | Dissolved | Water | 200.7 | 309746 |
| 550-209476-5 | CH-CCR-MW70M-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-6 | CH-CCR-MW70M-1023 | Dissolved | Water | 200.7 | 309746 |
| 550-209476-7 | CH-CCR-MW71A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-8 | CH-CCR-MW71A-1023 | Dissolved | Water | 200.7 | 309746 |
| 550-209476-11 | CH-CCR-MW73A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-12 | CH-CCR-MW73A-1023 | Dissolved | Water | 200.7 | 309746 |
| 550-209476-13 | CH-CCR-MW74M-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-14 | CH-CCR-MW74M-1023 | Dissolved | Water | 200.7 | 309746 |
| 550-209476-15 | CH-CCR-MW77A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-16 | CH-CCR-MW77A-1023 | Dissolved | Water | 200.7 | 309746 |
| 550-209476-17 | CH-CCR-W301-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-18 | CH-CCR-W301-1023 | Dissolved | Water | 200.7 | 309746 |
| 550-209476-19 | CH-CCR-W303-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-20 | CH-CCR-W303-1023 | Dissolved | Water | 200.7 | 309746 |
| MB 550-309746/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| LCS 550-309746/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| LCSD 550-309746/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-1 MS | CH-CCR-M53A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-1 MSD | CH-CCR-M53A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |

## Metals

### Analysis Batch: 310148

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-3 | CH-CCR-MW69A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-5 | CH-CCR-MW70M-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-7 | CH-CCR-MW71A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-9 | CH-CCR-MW72M-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-10 | CH-CCR-MW72M-1023 | Dissolved | Water | 200.7 | 309746 |
| 550-209476-11 | CH-CCR-MW73A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-13 | CH-CCR-MW74M-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-15 | CH-CCR-MW77A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-17 | CH-CCR-W301-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |
| 550-209476-19 | CH-CCR-W303-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |

### Analysis Batch: 310150

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-21 | CH-CCR-W306-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309748 |

### Analysis Batch: 310222

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-9 | CH-CCR-MW72M-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309746 |

### Prep Batch: 377008

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-1 | CH-CCR-M53A-1023 | Total Recoverable | Water | 200.7 | |
| 550-209476-3 | CH-CCR-MW69A-1023 | Total Recoverable | Water | 200.7 | |
| 550-209476-5 | CH-CCR-MW70M-1023 | Total Recoverable | Water | 200.7 | |
| 550-209476-7 | CH-CCR-MW71A-1023 | Total Recoverable | Water | 200.7 | |
| 550-209476-9 | CH-CCR-MW72M-1023 | Total Recoverable | Water | 200.7 | |
| 550-209476-11 | CH-CCR-MW73A-1023 | Total Recoverable | Water | 200.7 | |
| 550-209476-13 | CH-CCR-MW74M-1023 | Total Recoverable | Water | 200.7 | |
| 550-209476-15 | CH-CCR-MW77A-1023 | Total Recoverable | Water | 200.7 | |
| 550-209476-17 | CH-CCR-W301-1023 | Total Recoverable | Water | 200.7 | |
| 550-209476-19 | CH-CCR-W303-1023 | Total Recoverable | Water | 200.7 | |
| 550-209476-21 | CH-CCR-W306-1023 | Total Recoverable | Water | 200.7 | |
| 550-209476-23 | CH-CCR-W314-1023 | Total Recoverable | Water | 200.7 | |
| MB 570-377008/1-A | Method Blank | Total Recoverable | Water | 200.7 | |
| LCS 570-377008/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 | |
| LCSD 570-377008/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.7 | |
| 550-209476-1 MS | CH-CCR-M53A-1023 | Total Recoverable | Water | 200.7 | |
| 550-209476-1 MSD | CH-CCR-M53A-1023 | Total Recoverable | Water | 200.7 | |
| 550-209476-19 MS | CH-CCR-W303-1023 | Total Recoverable | Water | 200.7 | |
| 550-209476-19 MSD | CH-CCR-W303-1023 | Total Recoverable | Water | 200.7 | |

### Analysis Batch: 378187

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-1 | CH-CCR-M53A-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |
| 550-209476-3 | CH-CCR-MW69A-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |
| 550-209476-5 | CH-CCR-MW70M-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |
| 550-209476-7 | CH-CCR-MW71A-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |
| 550-209476-11 | CH-CCR-MW73A-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |
| 550-209476-13 | CH-CCR-MW74M-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |
| 550-209476-15 | CH-CCR-MW77A-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |
| 550-209476-17 | CH-CCR-W301-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |

## Metals (Continued)

### Analysis Batch: 378187 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-19 | CH-CCR-W303-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |
| 550-209476-21 | CH-CCR-W306-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |
| 550-209476-23 | CH-CCR-W314-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |
| 550-209476-1 MS | CH-CCR-M53A-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |
| 550-209476-1 MSD | CH-CCR-M53A-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |
| 550-209476-19 MS | CH-CCR-W303-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |
| 550-209476-19 MSD | CH-CCR-W303-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |

### Analysis Batch: 379064

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-9 | CH-CCR-MW72M-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |
| MB 570-377008/1-A | Method Blank | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |
| LCS 570-377008/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |
| LCSD 570-377008/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.7 Rev 4.4 | 377008 |

## General Chemistry

### Analysis Batch: 309802

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-15 | CH-CCR-MW77A-1023 | Total/NA | Water | SM 2540C | |
| MB 550-309802/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-309802/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-309802/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-209471-B-4 DU | Duplicate | Total/NA | Water | SM 2540C | |

### Analysis Batch: 309843

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-1 | CH-CCR-M53A-1023 | Total/NA | Water | SM 2540C | |
| 550-209476-3 | CH-CCR-MW69A-1023 | Total/NA | Water | SM 2540C | |
| 550-209476-5 | CH-CCR-MW70M-1023 | Total/NA | Water | SM 2540C | |
| 550-209476-7 | CH-CCR-MW71A-1023 | Total/NA | Water | SM 2540C | |
| 550-209476-9 | CH-CCR-MW72M-1023 | Total/NA | Water | SM 2540C | |
| 550-209476-11 | CH-CCR-MW73A-1023 | Total/NA | Water | SM 2540C | |
| 550-209476-13 | CH-CCR-MW74M-1023 | Total/NA | Water | SM 2540C | |
| 550-209476-17 | CH-CCR-W301-1023 | Total/NA | Water | SM 2540C | |
| 550-209476-19 | CH-CCR-W303-1023 | Total/NA | Water | SM 2540C | |
| 550-209476-21 | CH-CCR-W306-1023 | Total/NA | Water | SM 2540C | |
| 550-209476-23 | CH-CCR-W314-1023 | Total/NA | Water | SM 2540C | |
| MB 550-309843/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-309843/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-309843/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-209453-E-1 DU | Duplicate | Total/NA | Water | SM 2540C | |
| 550-209476-21 DU | CH-CCR-W306-1023 | Total/NA | Water | SM 2540C | |

### Analysis Batch: 309886

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-3 | CH-CCR-MW69A-1023 | Total/NA | Water | SM 2320B | |
| 550-209476-5 | CH-CCR-MW70M-1023 | Total/NA | Water | SM 2320B | |
| 550-209476-7 | CH-CCR-MW71A-1023 | Total/NA | Water | SM 2320B | |
| 550-209476-9 | CH-CCR-MW72M-1023 | Total/NA | Water | SM 2320B | |
| 550-209476-11 | CH-CCR-MW73A-1023 | Total/NA | Water | SM 2320B | |

## General Chemistry (Continued)

### Analysis Batch: 309886 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-13 | CH-CCR-MW74M-1023 | Total/NA | Water | SM 2320B | |
| 550-209476-15 | CH-CCR-MW77A-1023 | Total/NA | Water | SM 2320B | |
| 550-209476-17 | CH-CCR-W301-1023 | Total/NA | Water | SM 2320B | |
| 550-209476-19 | CH-CCR-W303-1023 | Total/NA | Water | SM 2320B | |
| 550-209476-21 | CH-CCR-W306-1023 | Total/NA | Water | SM 2320B | |
| MB 550-309886/4 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 550-309886/3 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| LCSD 550-309886/10 | Lab Control Sample Dup | Total/NA | Water | SM 2320B | |
| 550-209476-3 DU | CH-CCR-MW69A-1023 | Total/NA | Water | SM 2320B | |

### Analysis Batch: 310003

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-1 | CH-CCR-M53A-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209476-3 | CH-CCR-MW69A-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209476-5 | CH-CCR-MW70M-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209476-7 | CH-CCR-MW71A-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209476-9 | CH-CCR-MW72M-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209476-11 | CH-CCR-MW73A-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209476-13 | CH-CCR-MW74M-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209476-15 | CH-CCR-MW77A-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209476-17 | CH-CCR-W301-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209476-19 | CH-CCR-W303-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209476-21 | CH-CCR-W306-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209476-23 | CH-CCR-W314-1023 | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-310003/1 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-310003/13 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-310003/25 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| 550-209476-1 DU | CH-CCR-M53A-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209476-21 DU | CH-CCR-W306-1023 | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 310263

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-1 | CH-CCR-M53A-1023 | Total/NA | Water | 350.1 | |
| 550-209476-23 | CH-CCR-W314-1023 | Total/NA | Water | 350.1 | |
| MB 550-310263/110 | Method Blank | Total/NA | Water | 350.1 | |
| MB 550-310263/159 | Method Blank | Total/NA | Water | 350.1 | |
| LCS 550-310263/111 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCS 550-310263/160 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCSD 550-310263/112 | Lab Control Sample Dup | Total/NA | Water | 350.1 | |
| LCSD 550-310263/161 | Lab Control Sample Dup | Total/NA | Water | 350.1 | |
| 550-209471-B-1 MS | Matrix Spike | Total/NA | Water | 350.1 | |
| 550-209471-B-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 350.1 | |
| 550-209476-23 MS | CH-CCR-W314-1023 | Total/NA | Water | 350.1 | |
| 550-209476-23 MSD | CH-CCR-W314-1023 | Total/NA | Water | 350.1 | |

### Analysis Batch: 310375

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-3 | CH-CCR-MW69A-1023 | Total/NA | Water | 350.1 | |
| 550-209476-5 | CH-CCR-MW70M-1023 | Total/NA | Water | 350.1 | |
| 550-209476-7 | CH-CCR-MW71A-1023 | Total/NA | Water | 350.1 | |
| 550-209476-9 | CH-CCR-MW72M-1023 | Total/NA | Water | 350.1 | |

## General Chemistry (Continued)

### Analysis Batch: 310375 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-11 | CH-CCR-MW73A-1023 | Total/NA | Water | 350.1 | |
| 550-209476-13 | CH-CCR-MW74M-1023 | Total/NA | Water | 350.1 | |
| 550-209476-15 | CH-CCR-MW77A-1023 | Total/NA | Water | 350.1 | |
| 550-209476-17 | CH-CCR-W301-1023 | Total/NA | Water | 350.1 | |
| 550-209476-19 | CH-CCR-W303-1023 | Total/NA | Water | 350.1 | |
| 550-209476-21 | CH-CCR-W306-1023 | Total/NA | Water | 350.1 | |
| MB 550-310375/60 | Method Blank | Total/NA | Water | 350.1 | |
| LCS 550-310375/61 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCSD 550-310375/62 | Lab Control Sample Dup | Total/NA | Water | 350.1 | |
| 550-209476-3 MS | CH-CCR-MW69A-1023 | Total/NA | Water | 350.1 | |
| 550-209476-3 MSD | CH-CCR-MW69A-1023 | Total/NA | Water | 350.1 | |

### Analysis Batch: 310716

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-1 | CH-CCR-M53A-1023 | Dissolved | Water | SM 5310B | |
| 550-209476-3 | CH-CCR-MW69A-1023 | Dissolved | Water | SM 5310B | |
| 550-209476-7 | CH-CCR-MW71A-1023 | Dissolved | Water | SM 5310B | |
| 550-209476-11 | CH-CCR-MW73A-1023 | Dissolved | Water | SM 5310B | |
| 550-209476-13 | CH-CCR-MW74M-1023 | Dissolved | Water | SM 5310B | |
| 550-209476-15 | CH-CCR-MW77A-1023 | Dissolved | Water | SM 5310B | |
| 550-209476-17 | CH-CCR-W301-1023 | Dissolved | Water | SM 5310B | |
| 550-209476-19 | CH-CCR-W303-1023 | Dissolved | Water | SM 5310B | |
| 550-209476-21 | CH-CCR-W306-1023 | Dissolved | Water | SM 5310B | |
| 550-209476-23 | CH-CCR-W314-1023 | Dissolved | Water | SM 5310B | |
| MB 550-310716/3 | Method Blank | Dissolved | Water | SM 5310B | |
| LCS 550-310716/5 | Lab Control Sample | Dissolved | Water | SM 5310B | |
| LCSD 550-310716/30 | Lab Control Sample Dup | Dissolved | Water | SM 5310B | |
| 550-209471-G-12 MSD | Matrix Spike Duplicate | Dissolved | Water | SM 5310B | |
| 550-209471-I-12 MS | Matrix Spike | Dissolved | Water | SM 5310B | |

### Analysis Batch: 310867

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-5 | CH-CCR-MW70M-1023 | Dissolved | Water | SM 5310B | |
| 550-209476-9 | CH-CCR-MW72M-1023 | Dissolved | Water | SM 5310B | |
| MB 550-310867/3 | Method Blank | Dissolved | Water | SM 5310B | |
| LCS 550-310867/5 | Lab Control Sample | Dissolved | Water | SM 5310B | |
| LCSD 550-310867/6 | Lab Control Sample Dup | Dissolved | Water | SM 5310B | |
| 550-209476-9 MS | CH-CCR-MW72M-1023 | Dissolved | Water | SM 5310B | |
| 550-209476-9 MSD | CH-CCR-MW72M-1023 | Dissolved | Water | SM 5310B | |

### Analysis Batch: 631180

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-1 | CH-CCR-M53A-1023 | Total/NA | Water | 353.2 | |
| 550-209476-3 | CH-CCR-MW69A-1023 | Total/NA | Water | 353.2 | |
| 550-209476-5 | CH-CCR-MW70M-1023 | Total/NA | Water | 353.2 | |
| 550-209476-7 | CH-CCR-MW71A-1023 | Total/NA | Water | 353.2 | |
| 550-209476-9 | CH-CCR-MW72M-1023 | Total/NA | Water | 353.2 | |
| 550-209476-11 | CH-CCR-MW73A-1023 | Total/NA | Water | 353.2 | |
| 550-209476-13 | CH-CCR-MW74M-1023 | Total/NA | Water | 353.2 | |
| 550-209476-15 | CH-CCR-MW77A-1023 | Total/NA | Water | 353.2 | |
| 550-209476-17 | CH-CCR-W301-1023 | Total/NA | Water | 353.2 | |

## General Chemistry (Continued)

### Analysis Batch: 631180 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209476-19 | CH-CCR-W303-1023 | Total/NA | Water | 353.2 | |
| 550-209476-21 | CH-CCR-W306-1023 | Total/NA | Water | 353.2 | |
| 550-209476-23 | CH-CCR-W314-1023 | Total/NA | Water | 353.2 | |
| MB 280-631180/22 | Method Blank | Total/NA | Water | 353.2 | |
| MB 280-631180/60 | Method Blank | Total/NA | Water | 353.2 | |
| LCS 280-631180/21 | Lab Control Sample | Total/NA | Water | 353.2 | |
| LCS 280-631180/59 | Lab Control Sample | Total/NA | Water | 353.2 | |
| 550-209476-1 MS | CH-CCR-M53A-1023 | Total/NA | Water | 353.2 | |
| 550-209476-1 MSD | CH-CCR-M53A-1023 | Total/NA | Water | 353.2 | |
| 550-209476-15 MS | CH-CCR-MW77A-1023 | Total/NA | Water | 353.2 | |
| 550-209476-15 MSD | CH-CCR-MW77A-1023 | Total/NA | Water | 353.2 | |

## Client Sample ID: CH-CCR-M53A-1023

**Lab Sample ID: 550-209476-1**

**Date Collected: 10/19/23 11:48**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309850 | MMH | EET PHX | 10/22/23 03:13 |
| Total/NA | Analysis | 300.0 | | 50 | 309850 | MMH | EET PHX | 10/22/23 03:31 |
| Total/NA | Analysis | 9056A | | 2 | 310443 | SMA | EET PHX | 11/02/23 20:20 |
| Total Recoverable | Prep | 200.7 | | | 377008 | JP8N | EET CAL 4 | 10/25/23 08:52 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 378187 | P1R | EET CAL 4 | 10/28/23 09:56 |
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309988 | GLW | EET PHX | 10/25/23 18:11 |
| Total/NA | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 17:43 |
| Total/NA | Prep | 245.1 | | | 309852 | HHL | EET PHX | 10/24/23 13:22 |
| Total/NA | Analysis | 245.1 | | 1 | 309876 | HHL | EET PHX | 10/24/23 16:15 |
| Total/NA | Analysis | 350.1 | | 1 | 310263 | MAN | EET PHX | 10/30/23 14:54 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 13:30 |
| Total/NA | Analysis | SM 2540C | | 1 | 309843 | KMG | EET PHX | 10/24/23 11:20 - 10/30/23 17:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 08:46 |
| Dissolved | Analysis | SM 5310B | | 1 | 310716 | SMA | EET PHX | 11/08/23 01:37 |

## Client Sample ID: CH-CCR-M53A-1023

**Lab Sample ID: 550-209476-2**

**Date Collected: 10/19/23 11:48**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Dissolved | Analysis | 200.7 | | 1 | 309988 | GLW | EET PHX | 10/25/23 18:14 |
| Dissolved | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 17:46 |

## Client Sample ID: CH-CCR-MW69A-1023

**Lab Sample ID: 550-209476-3**

**Date Collected: 10/19/23 09:11**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309850 | MMH | EET PHX | 10/22/23 03:50 |
| Total/NA | Analysis | 300.0 | | 50 | 309850 | MMH | EET PHX | 10/22/23 04:08 |
| Total Recoverable | Prep | 200.7 | | | 377008 | JP8N | EET CAL 4 | 10/25/23 08:52 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 378187 | P1R | EET CAL 4 | 10/28/23 10:04 |
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309988 | GLW | EET PHX | 10/25/23 18:17 |
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310148 | GLW | EET PHX | 10/26/23 19:38 |
| Total/NA | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 17:39 |
| Total/NA | Prep | 245.1 | | | 309852 | HHL | EET PHX | 10/24/23 13:22 |
| Total/NA | Analysis | 245.1 | | 1 | 309876 | HHL | EET PHX | 10/24/23 16:17 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-MW69A-1023
**Date Collected: 10/19/23 09:11**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209476-3
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 13:53 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 13:42 |
| Total/NA | Analysis | SM 2320B | | 1 | 309886 | MAN | EET PHX | 10/24/23 15:35 |
| Total/NA | Analysis | SM 2540C | | 1 | 309843 | KMG | EET PHX | 10/24/23 11:20 - 10/30/23 17:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 08:48 |
| Dissolved | Analysis | SM 5310B | | 1 | 310716 | SMA | EET PHX | 11/08/23 02:00 |

## Client Sample ID: CH-CCR-MW69A-1023
**Date Collected: 10/19/23 09:11**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209476-4
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Dissolved | Analysis | 200.7 | | 1 | 309988 | GLW | EET PHX | 10/25/23 18:20 |
| Dissolved | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 17:41 |

## Client Sample ID: CH-CCR-MW70M-1023
**Date Collected: 10/18/23 15:43**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209476-5
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309850 | MMH | EET PHX | 10/22/23 04:27 |
| Total/NA | Analysis | 300.0 | | 50 | 309850 | MMH | EET PHX | 10/22/23 04:45 |
| Total Recoverable | Prep | 200.7 | | | 377008 | JP8N | EET CAL 4 | 10/25/23 08:52 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 378187 | P1R | EET CAL 4 | 10/28/23 10:06 |
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309988 | GLW | EET PHX | 10/25/23 18:23 |
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310148 | GLW | EET PHX | 10/26/23 19:41 |
| Total/NA | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 17:48 |
| Total/NA | Prep | 245.1 | | | 309852 | HHL | EET PHX | 10/24/23 13:22 |
| Total/NA | Analysis | 245.1 | | 1 | 309876 | HHL | EET PHX | 10/24/23 16:19 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 13:58 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 13:44 |
| Total/NA | Analysis | SM 2320B | | 1 | 309886 | MAN | EET PHX | 10/24/23 15:49 |
| Total/NA | Analysis | SM 2540C | | 1 | 309843 | KMG | EET PHX | 10/24/23 11:20 - 10/30/23 17:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 08:50 |
| Dissolved | Analysis | SM 5310B | | 1 | 310867 | SMA | EET PHX | 11/08/23 22:03 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-MW70M-1023
**Date Collected: 10/18/23 15:43**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209476-6
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Dissolved | Analysis | 200.7 | | 1 | 309988 | GLW | EET PHX | 10/25/23 18:26 |
| Dissolved | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 17:50 |

## Client Sample ID: CH-CCR-MW71A-1023
**Date Collected: 10/18/23 13:12**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209476-7
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309850 | MMH | EET PHX | 10/22/23 05:03 |
| Total/NA | Analysis | 300.0 | | 20 | 309850 | MMH | EET PHX | 10/22/23 05:22 |
| Total/NA | Analysis | 9056A | | 2 | 310443 | SMA | EET PHX | 11/02/23 20:39 |
| Total Recoverable | Prep | 200.7 | | | 377008 | JP8N | EET CAL 4 | 10/25/23 08:52 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 378187 | P1R | EET CAL 4 | 10/28/23 10:08 |
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309988 | GLW | EET PHX | 10/25/23 18:28 |
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310148 | GLW | EET PHX | 10/26/23 19:43 |
| Total/NA | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 17:52 |
| Total/NA | Prep | 245.1 | | | 309852 | HHL | EET PHX | 10/24/23 13:22 |
| Total/NA | Analysis | 245.1 | | 1 | 309876 | HHL | EET PHX | 10/24/23 16:21 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 13:59 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 13:58 |
| Total/NA | Analysis | SM 2320B | | 1 | 309886 | MAN | EET PHX | 10/24/23 15:56 |
| Total/NA | Analysis | SM 2540C | | 1 | 309843 | KMG | EET PHX | 10/24/23 11:20 - 10/30/23 17:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 08:51 |
| Dissolved | Analysis | SM 5310B | | 1 | 310716 | SMA | EET PHX | 11/08/23 02:44 |

## Client Sample ID: CH-CCR-MW71A-1023
**Date Collected: 10/18/23 13:12**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209476-8
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Dissolved | Analysis | 200.7 | | 1 | 309988 | GLW | EET PHX | 10/25/23 18:31 |
| Dissolved | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 17:54 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-MW72M-1023

**Lab Sample ID: 550-209476-9**
**Date Collected: 10/18/23 14:02**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309850 | MMH | EET PHX | 10/22/23 05:40 |
| Total/NA | Analysis | 300.0 | | 20 | 309850 | MMH | EET PHX | 10/22/23 06:54 |
| Total/NA | Analysis | 300.0 | | 200 | 310138 | SMA | EET PHX | 10/28/23 21:03 |
| Total/NA | Analysis | 9056A | | 200 | 310138 | SMA | EET PHX | 10/28/23 21:03 |
| Total Recoverable | Prep | 200.7 | | | 377008 | JP8N | EET CAL 4 | 10/25/23 08:52 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 20 | 379064 | P1R | EET CAL 4 | 10/31/23 18:18 |
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310148 | GLW | EET PHX | 10/26/23 19:46 |
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 20 | 310222 | GLW | EET PHX | 10/30/23 14:56 |
| Total/NA | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 17:56 |
| Total/NA | Prep | 245.1 | | | 309852 | HHL | EET PHX | 10/24/23 13:22 |
| Total/NA | Analysis | 245.1 | | 1 | 309876 | HHL | EET PHX | 10/24/23 16:23 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 14:01 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 14:00 |
| Total/NA | Analysis | SM 2320B | | 1 | 309886 | MAN | EET PHX | 10/24/23 16:02 |
| Total/NA | Analysis | SM 2540C | | 1 | 309843 | KMG | EET PHX | 10/24/23 11:20 - 10/30/23 17:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 08:53 |
| Dissolved | Analysis | SM 5310B | | 1 | 310867 | SMA | EET PHX | 11/08/23 21:02 |

## Client Sample ID: CH-CCR-MW72M-1023

**Lab Sample ID: 550-209476-10**
**Date Collected: 10/18/23 14:02**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Dissolved | Analysis | 200.7 | | 10 | 310148 | GLW | EET PHX | 10/26/23 19:49 |
| Dissolved | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 17:58 |

## Client Sample ID: CH-CCR-MW73A-1023

**Lab Sample ID: 550-209476-11**
**Date Collected: 10/18/23 11:00**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309850 | MMH | EET PHX | 10/22/23 07:12 |
| Total/NA | Analysis | 300.0 | | 50 | 309850 | MMH | EET PHX | 10/22/23 07:31 |
| Total/NA | Analysis | 9056A | | 2 | 310443 | SMA | EET PHX | 11/02/23 20:57 |
| Total Recoverable | Prep | 200.7 | | | 377008 | JP8N | EET CAL 4 | 10/25/23 08:52 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 378187 | P1R | EET CAL 4 | 10/28/23 10:13 |
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309988 | GLW | EET PHX | 10/25/23 18:45 |

## Client Sample ID: CH-CCR-MW73A-1023

**Lab Sample ID: 550-209476-11**
**Matrix: Water**
**Date Collected: 10/18/23 11:00**
**Date Received: 10/20/23 15:01**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310148 | GLW | EET PHX | 10/26/23 19:58 |
| Total/NA | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 18:06 |
| Total/NA | Prep | 245.1 | | | 309852 | HHL | EET PHX | 10/24/23 13:22 |
| Total/NA | Analysis | 245.1 | | 1 | 309876 | HHL | EET PHX | 10/24/23 16:25 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 14:02 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 14:02 |
| Total/NA | Analysis | SM 2320B | | 1 | 309886 | MAN | EET PHX | 10/24/23 16:06 |
| Total/NA | Analysis | SM 2540C | | 1 | 309843 | KMG | EET PHX | 10/24/23 11:20 - 10/30/23 17:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 08:55 |
| Dissolved | Analysis | SM 5310B | | 1 | 310716 | SMA | EET PHX | 11/08/23 04:12 |

## Client Sample ID: CH-CCR-MW73A-1023

**Lab Sample ID: 550-209476-12**
**Matrix: Water**
**Date Collected: 10/18/23 11:00**
**Date Received: 10/20/23 15:01**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Dissolved | Analysis | 200.7 | | 1 | 309988 | GLW | EET PHX | 10/25/23 18:48 |
| Dissolved | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 18:08 |

## Client Sample ID: CH-CCR-MW74M-1023

**Lab Sample ID: 550-209476-13**
**Matrix: Water**
**Date Collected: 10/18/23 10:00**
**Date Received: 10/20/23 15:01**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309850 | MMH | EET PHX | 10/22/23 07:49 |
| Total/NA | Analysis | 300.0 | | 50 | 309850 | MMH | EET PHX | 10/22/23 08:08 |
| Total/NA | Analysis | 9056A | | 2 | 310443 | SMA | EET PHX | 11/02/23 21:16 |
| Total Recoverable | Prep | 200.7 | | | 377008 | JP8N | EET CAL 4 | 10/25/23 08:52 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 378187 | P1R | EET CAL 4 | 10/28/23 10:16 |
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309988 | GLW | EET PHX | 10/25/23 18:51 |
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310148 | GLW | EET PHX | 10/26/23 20:01 |
| Total/NA | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 18:10 |
| Total/NA | Prep | 245.1 | | | 309852 | HHL | EET PHX | 10/24/23 13:22 |
| Total/NA | Analysis | 245.1 | | 1 | 309876 | HHL | EET PHX | 10/24/23 16:32 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 14:04 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 14:04 |
| Total/NA | Analysis | SM 2320B | | 1 | 309886 | MAN | EET PHX | 10/24/23 16:13 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-MW74M-1023
**Date Collected: 10/18/23 10:00**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209476-13
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540C | | 1 | 309843 | KMG | EET PHX | 10/24/23 11:20 - 10/30/23 17:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 08:56 |
| Dissolved | Analysis | SM 5310B | | 1 | 310716 | SMA | EET PHX | 11/08/23 04:33 |

## Client Sample ID: CH-CCR-MW74M-1023
**Date Collected: 10/18/23 10:00**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209476-14
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Dissolved | Analysis | 200.7 | | 1 | 309988 | GLW | EET PHX | 10/25/23 18:54 |
| Dissolved | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 18:12 |

## Client Sample ID: CH-CCR-MW77A-1023
**Date Collected: 10/17/23 14:54**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209476-15
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309841 | MMH | EET PHX | 10/22/23 07:30 |
| Total/NA | Analysis | 300.0 | | 50 | 309841 | MMH | EET PHX | 10/22/23 09:22 |
| Total/NA | Analysis | 9056A | | 1 | 310213 | MMH | EET PHX | 10/30/23 12:18 |
| Total Recoverable | Prep | 200.7 | | | 377008 | JP8N | EET CAL 4 | 10/25/23 08:52 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 378187 | P1R | EET CAL 4 | 10/28/23 10:18 |
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309988 | GLW | EET PHX | 10/25/23 18:57 |
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310148 | GLW | EET PHX | 10/26/23 20:04 |
| Total/NA | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 18:14 |
| Total/NA | Prep | 245.1 | | | 309852 | HHL | EET PHX | 10/24/23 13:22 |
| Total/NA | Analysis | 245.1 | | 1 | 309876 | HHL | EET PHX | 10/24/23 16:36 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 14:05 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 14:10 |
| Total/NA | Analysis | SM 2320B | | 1 | 309886 | MAN | EET PHX | 10/24/23 16:19 |
| Total/NA | Analysis | SM 2540C | | 1 | 309802 | KMG | EET PHX | 10/23/23 15:06 - 10/27/23 12:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 08:57 |
| Dissolved | Analysis | SM 5310B | | 1 | 310716 | SMA | EET PHX | 11/08/23 04:55 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-MW77A-1023

**Lab Sample ID: 550-209476-16**

**Date Collected: 10/17/23 14:54**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Dissolved | Analysis | 200.7 | | 1 | 309988 | GLW | EET PHX | 10/25/23 19:00 |
| Dissolved | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 18:16 |

## Client Sample ID: CH-CCR-W301-1023

**Lab Sample ID: 550-209476-17**

**Date Collected: 10/19/23 15:52**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309841 | MMH | EET PHX | 10/22/23 09:49 |
| Total/NA | Analysis | 300.0 | | 50 | 309841 | MMH | EET PHX | 10/22/23 10:17 |
| Total Recoverable | Prep | 200.7 | | | 377008 | JP8N | EET CAL 4 | 10/25/23 08:52 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 378187 | P1R | EET CAL 4 | 10/28/23 10:29 |
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309988 | GLW | EET PHX | 10/25/23 19:02 |
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310148 | GLW | EET PHX | 10/26/23 20:06 |
| Total/NA | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 18:18 |
| Total/NA | Prep | 245.1 | | | 309852 | HHL | EET PHX | 10/24/23 13:22 |
| Total/NA | Analysis | 245.1 | | 1 | 309876 | HHL | EET PHX | 10/24/23 16:38 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 14:07 |
| Total/NA | Analysis | 353.2 | | 2 | 631180 | BCR | EET DEN | 10/25/23 14:16 |
| Total/NA | Analysis | SM 2320B | | 1 | 309886 | MAN | EET PHX | 10/24/23 16:27 |
| Total/NA | Analysis | SM 2540C | | 1 | 309843 | KMG | EET PHX | 10/24/23 11:20 - 10/30/23 17:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 08:59 |
| Dissolved | Analysis | SM 5310B | | 1 | 310716 | SMA | EET PHX | 11/08/23 05:17 |

## Client Sample ID: CH-CCR-W301-1023

**Lab Sample ID: 550-209476-18**

**Date Collected: 10/19/23 15:52**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Dissolved | Analysis | 200.7 | | 1 | 309988 | GLW | EET PHX | 10/25/23 19:05 |
| Dissolved | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 18:20 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-W303-1023

**Lab Sample ID: 550-209476-19**

**Date Collected: 10/19/23 13:35**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309960 | MMH | EET PHX | 10/24/23 18:34 |
| Total/NA | Analysis | 300.0 | | 50 | 309960 | MMH | EET PHX | 10/24/23 19:02 |
| Total Recoverable | Prep | 200.7 | | | 377008 | JP8N | EET CAL 4 | 10/25/23 08:52 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 378187 | P1R | EET CAL 4 | 10/28/23 10:31 |
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309988 | GLW | EET PHX | 10/25/23 19:08 |
| Total/NA | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310148 | GLW | EET PHX | 10/26/23 20:09 |
| Total/NA | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 18:22 |
| Total/NA | Prep | 245.1 | | | 309852 | HHL | EET PHX | 10/24/23 13:22 |
| Total/NA | Analysis | 245.1 | | 1 | 309876 | HHL | EET PHX | 10/24/23 16:40 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 14:08 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 14:30 |
| Total/NA | Analysis | SM 2320B | | 1 | 309886 | MAN | EET PHX | 10/24/23 16:34 |
| Total/NA | Analysis | SM 2540C | | 1 | 309843 | KMG | EET PHX | 10/24/23 11:20 - 10/30/23 17:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 09:00 |
| Dissolved | Analysis | SM 5310B | | 1 | 310716 | SMA | EET PHX | 11/08/23 05:40 |

## Client Sample ID: CH-CCR-W303-1023

**Lab Sample ID: 550-209476-20**

**Date Collected: 10/19/23 13:35**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309746 | SGO | EET PHX | 10/23/23 06:31 |
| Dissolved | Analysis | 200.7 | | 1 | 309988 | GLW | EET PHX | 10/25/23 19:11 |
| Dissolved | Prep | 200.8 | | | 309755 | SGO | EET PHX | 10/23/23 09:48 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309935 | DSJ | EET PHX | 10/24/23 18:24 |

## Client Sample ID: CH-CCR-W306-1023

**Lab Sample ID: 550-209476-21**

**Date Collected: 10/19/23 10:30**
**Matrix: Water**
**Date Received: 10/20/23 15:01**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309930 | MMH | EET PHX | 10/24/23 15:50 |
| Total/NA | Analysis | 300.0 | | 50 | 309930 | MMH | EET PHX | 10/24/23 16:09 |
| Total/NA | Analysis | 300.0 | | 200 | 310138 | SMA | EET PHX | 10/28/23 21:59 |
| Total/NA | Analysis | 9056A | | 1 | 310213 | MMH | EET PHX | 10/30/23 14:27 |
| Total Recoverable | Prep | 200.7 | | | 377008 | JP8N | EET CAL 4 | 10/25/23 08:52 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 378187 | P1R | EET CAL 4 | 10/27/23 20:13 |
| Total/NA | Prep | 200.7 | | | 309748 | SGO | EET PHX | 10/23/23 06:49 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309919 | GLW | EET PHX | 10/24/23 19:07 |
| Total/NA | Prep | 200.7 | | | 309748 | SGO | EET PHX | 10/23/23 06:49 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 20 | 310150 | GLW | EET PHX | 10/26/23 20:23 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-W306-1023
**Date Collected: 10/19/23 10:30**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209476-21
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.8 | | | 309752 | SGO | EET PHX | 10/23/23 09:30 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309934 | DSJ | EET PHX | 10/24/23 16:42 |
| Total/NA | Prep | 245.1 | | | 309852 | HHL | EET PHX | 10/24/23 13:22 |
| Total/NA | Analysis | 245.1 | | 1 | 309876 | HHL | EET PHX | 10/24/23 16:42 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 14:10 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 14:32 |
| Total/NA | Analysis | SM 2320B | | 1 | 309886 | MAN | EET PHX | 10/24/23 16:41 |
| Total/NA | Analysis | SM 2540C | | 1 | 309843 | KMG | EET PHX | 10/24/23 11:20 - 10/30/23 17:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 09:03 |
| Dissolved | Analysis | SM 5310B | | 1 | 310716 | SMA | EET PHX | 11/08/23 06:02 |

## Client Sample ID: CH-CCR-W306-1023
**Date Collected: 10/19/23 10:30**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209476-22
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309748 | SGO | EET PHX | 10/23/23 06:49 |
| Dissolved | Analysis | 200.7 | | 1 | 309919 | GLW | EET PHX | 10/24/23 19:10 |
| Dissolved | Prep | 200.8 | | | 309752 | SGO | EET PHX | 10/23/23 09:30 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309934 | DSJ | EET PHX | 10/24/23 16:44 |

## Client Sample ID: CH-CCR-W314-1023
**Date Collected: 10/19/23 08:45**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209476-23
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 309930 | MMH | EET PHX | 10/24/23 16:27 |
| Total/NA | Analysis | 300.0 | | 50 | 309930 | MMH | EET PHX | 10/24/23 17:48 |
| Total Recoverable | Prep | 200.7 | | | 377008 | JP8N | EET CAL 4 | 10/25/23 08:52 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 378187 | P1R | EET CAL 4 | 10/28/23 10:39 |
| Total/NA | Prep | 200.7 | | | 309748 | SGO | EET PHX | 10/23/23 06:49 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 309919 | GLW | EET PHX | 10/24/23 19:13 |
| Total/NA | Prep | 200.8 | | | 309752 | SGO | EET PHX | 10/23/23 09:30 |
| Total/NA | Analysis | 200.8 LL | | 5 | 309934 | DSJ | EET PHX | 10/24/23 16:46 |
| Total/NA | Prep | 245.1 | | | 309852 | HHL | EET PHX | 10/24/23 13:22 |
| Total/NA | Analysis | 245.1 | | 1 | 309876 | HHL | EET PHX | 10/24/23 16:44 |
| Total/NA | Analysis | 350.1 | | 1 | 310263 | MAN | EET PHX | 10/30/23 13:45 |
| Total/NA | Analysis | 353.2 | | 1 | 631180 | BCR | EET DEN | 10/25/23 14:34 |
| Total/NA | Analysis | SM 2540C | | 1 | 309843 | KMG | EET PHX | 10/24/23 11:20 - 10/30/23 17:11 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310003 | MAN | EET PHX | 10/26/23 09:05 |
| Dissolved | Analysis | SM 5310B | | 1 | 310716 | SMA | EET PHX | 11/08/23 06:19 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-W314-1023

**Date Collected: 10/19/23 08:45**
**Date Received: 10/20/23 15:01**

## Lab Sample ID: 550-209476-24

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309748 | SGO | EET PHX | 10/23/23 06:49 |
| Dissolved | Analysis | 200.7 | | 1 | 309919 | GLW | EET PHX | 10/24/23 19:15 |
| Dissolved | Prep | 200.8 | | | 309752 | SGO | EET PHX | 10/23/23 09:30 |
| Dissolved | Analysis | 200.8 LL | | 5 | 309934 | DSJ | EET PHX | 10/24/23 16:48 |

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

**Laboratory References:**

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494
EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

# Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

## Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0728 | 06-10-24 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 200.8 LL | 200.8 | Water | Molybdenum |
| SM 4500 H+ B | | Water | Temperature |

## Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0830 | 11-16-23 |
| California | SCAQMD LAP | 17LA0919 | 11-30-23 |
| California | State | 3082 | 07-31-24 |
| Nevada | State | CA00111 | 07-31-24 |
| Oregon | NELAP | 4175 | 02-02-24 |
| USDA | US Federal Programs | P330-22-00059 | 06-08-26 |
| Washington | State | C916-18 | 10-11-23 * |

## Laboratory: Eurofins Denver

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0713 | 12-20-23 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209476-1
SDG: APS Cholla Power Plant (BAP)

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 300.0 | Anions, Ion Chromatography | EPA | EET PHX |
| 9056A | Anions, Ion Chromatography | SW846 | EET PHX |
| 200.7 | Dissolved Metals by ICP | EPA | EET PHX |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET CAL 4 |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET PHX |
| 200.8 LL | Metals (ICP/MS) | EPA | EET PHX |
| 245.1 | Mercury (CVAA) | EPA | EET PHX |
| 350.1 | Nitrogen, Ammonia (Low Level) | EPA | EET PHX |
| 353.2 | Nitrogen, Nitrate-Nitrite | EPA | EET DEN |
| SM 2320B | Alkalinity | SM | EET PHX |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET PHX |
| SM 4500 H+ B | pH | SM | EET PHX |
| SM 5310B | Organic Carbon, Dissolved (DOC) | SM | EET PHX |
| 200.7 | Preparation, Total Recoverable Metals | EPA | EET CAL 4 |
| 200.7 | Preparation, Total Metals | EPA | EET PHX |
| 200.8 | Preparation, Total Metals | EPA | EET PHX |
| 245.1 | Preparation, Mercury | EPA | EET PHX |

**Protocol References:**

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EET CAL 4 = Eurofins Calscience  Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR 209476

**TestAmerica Laboratories, Inc.**

11/14/2023

| Client Contact | Natalie Chrisman | Pam Norris (505) 598-8781 | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | (602) 250-3608 | Lab Contact: Danielle Roberts | Carrier: | 1 of 2 COCs |
| 4801 Cholla Lake Rd | Analysis Turnaround Time | | | Sampler: |
| Joseph City, AZ 86032 | ☑ CALENDAR DAYS ☑ WORKING DAYS | | | For Lab Use Only: |
| (928) 587-0319 Phone | TAT if different from Below _____ | | | Walk-in Client: |
| FAX | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | |
| Site: APS Cholla Power Plant (BAP) | ☐ 2 days | | | Job / SDG No.: |
| PO #: 300592358 | ☐ 1 day | | | |

| Sample Identification | | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y / N) | Perform MS / MSD (Y / N) | EPA 300.0 (Cl, F, SO4) | EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K) | EPA 200.7 - Totals (B, Ca, Be, Fe, Mn) | EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na) | EPA 200.7 - Total Lithium | EPA 200.7 - Dissolved (Fe, Mn) | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | EPA 200.8 - Dissolved (As, Co) | EPA 245.1 - Totals (Hg) | SM 4500-HB (pH) | SM 2540C (TDS) | SM 5310B (DOC) | SM 4500-NH3 D (NH3 as N) | 353.2 (NO3+NO2 as N) | SM 2320B (HCO3 Alk. as CaCO3) | 9056A - Fluoride | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CH-CCR-M53A-1023 | 1+2 | 10/19/23 | 1148 | G | W | 11 | * | | X | | X | | X | X | X | X | X | X | X | X | X | X | | X | Low Flow |
| CH-CCR-MW69A-1023 | 3+4 | 10/19/23 | 911 | G | W | 10 | * | | X | | | X | X | X | X | X | X | X | X | X | X | X | X | | " |
| CH-CCR-MW70M-1023 | 5+6 | 10/18/23 | 1543 | G | W | 10 | * | | X | | | X | X | X | X | X | X | X | X | X | X | X | X | | " |
| CH-CCR-MW71A-1023 | 7+8 | 10/18/23 | 1312 | G | W | 11 | * | | X | | | X | X | X | X | X | X | X | X | X | X | X | X | X | " |
| CH-CCR-MW72M-1023 | 9+10 | 10/18/23 | 1402 | G | W | 11 | * | | X | | | X | X | X | X | X | X | X | X | X | X | X | X | X | " |
| CH-CCR-MW73A-1023 | 11+12 | 10/18/23 | 1100 | G | W | 11 | * | | X | | | X | X | X | X | X | X | X | X | X | X | X | X | X | " |
| CH-CCR-MW74M-1023 | 13+14 | 10/18/23 | 1000 | G | W | 11 | * | | X | | | X | X | X | X | X | X | X | X | X | X | X | X | X | " |
| CH-CCR-MW77A-1023 | 15+16 | 10/17/23 | 1454 | G | W | 11 | * | | X | | | X | X | X | X | X | X | X | X | X | X | X | X | X | " |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____** | | | | | | | | | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 1 | 2 | 3 | 3 | 1 | | |

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☐ Return to Client ☑ Disposal by Lab

550-209476 Chain of Custody

**Special Instructions/QC Requirements & Comments:**

*Perform Method 200.8 with collision cell; *As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
|---|---|---|---|---|---|
| [signature] | WSP | 10-20-23 1501 | | | |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| | | | | | |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: | Date/Time: |
| | | | [signature] | EETA PHX | 10/20/23 15:01 |

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

1.9 | 2.3 | 3.1 | 3.2 | 4.6 | 2.1

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR 209476

**TestAmerica Laboratories, Inc.**

| Client Contact | Natalie Chrisman | Pam Norris (505) 598-8781 | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | (602) 250-3608 | Lab Contact: Danielle Robert | Carrier: | 2 of 2 COCs |
| 4801 Cholla Lake Rd | Analysis Turnaround Time | | | Sampler: |
| Joseph City, AZ 86032 | ☑ CALENDAR DAYS ☑ WORKING DAYS | | | For Lab Use Only: |
| (928) 587-0319 Phone | TAT if different from Below _____ | | | Walk-in Client: |
| FAX | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | |
| Site: APS Cholla Power Plant (BAP) | ☐ 2 days | | | Job / SDG No.: |
| PO #: 300592358 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y / N) | Perform MS / MSD (Y / N) | EPA 300.0 (Cl, F, SO4) | EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na) | EPA 200.7 - Totals (B, Ca, Be, Fe, Mn) | EPA 200.7 - Totals (B, Ca, Be) | EPA 200.7 - Total Lithium | EPA 200.7 - Dissolved (Fe, Mn) | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | EPA 200.8 - Dissolved (As, Co) | EPA 245.1 - Totals (Hg) | SM 4500-HB (pH) | SM 2540C (TDS) | SM 5310B (DOC) | SM 4500-NH3 D (NH3 as N) | 353.2 (NO3+NO2 as N) | SM 2320B (HCO3 Alk. as CaCO3) | 9056A - Fluoride | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CH-CCR-W301-1023 17 HK | 10/19/23 | 1552 | G | W | 10 | * | | X | X | | | X | X | X | X | X | X | X | X | X | X | X | | Low Flow |
| CH-CCR-W303-1023 19 20 | 10/19/23 | 1335 | G | W | 10 | * | | X | X | | | X | X | X | X | X | X | X | X | X | X | X | | " |
| CH-CCR-W306-1023 21 22 | 10/19/23 | 1030 | G | W | 11 | * | | X | X | | | X | X | X | X | X | X | X | X | X | X | X | X | " |
| CH-CCR-W314-1023 23 24 | 10/18/23 | 845 | G | W | 10 | * | | X | | X | | X | X | X | X | X | X | X | X | X | | | | " |
| | | | | | | | | | | | | | | | | | | | | | | | | |
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| **Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____** | | | | | | | | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 1 | 2 | 3 | 3 | 1 | | |

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

**Special Instructions/QC Requirements & Comments:**

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
|---|---|---|---|---|---|
| MSL | WSP | 10-20-23 1501 | | | |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: | Date/Time: |
| | | | Jorge Vela | FEETA PHX | 10/20/23 15:0 |

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

1.9 | 2.3 | 3.1 | 3.2 | 4.6 | 5.1

11/14/2023

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins | Environment Testing

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No. 550-38074.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 1 of 2 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-209476-1 |
| Address: 4955 Yarrow Street, , | Due Date Requested: 11/2/2023 | | | |
| City: Arvada | TAT Requested (days): | | | |
| State, Zip: CO, 80002 | | | | |
| Phone: 303-736-0100(Tel) 303-431-7171(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 353.2_Pres | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| CH-CCR-M53A-1023 (550-209476-1) | 10/19/23 | 11:48 Arizona | | Water | | | X | 1 | |
| CH-CCR-MW69A-1023 (550-209476-3) | 10/19/23 | 09:11 Arizona | | Water | | | X | 1 | |
| CH-CCR-MW70M-1023 (550-209476-5) | 10/18/23 | 15:43 Arizona | | Water | | | X | 1 | |
| CH-CCR-MW71A-1023 (550-209476-7) | 10/18/23 | 13:12 Arizona | | Water | | | X | 1 | |
| CH-CCR-MW72M-1023 (550-209476-9) | 10/18/23 | 14:02 Arizona | | Water | | | X | 1 | |
| CH-CCR-MW73A-1023 (550-209476-11) | 10/18/23 | 11:00 Arizona | | Water | | | X | 1 | |
| CH-CCR-MW74M-1023 (550-209476-13) | 10/18/23 | 10:00 Arizona | | Water | | | X | 1 | |
| CH-CCR-MW77A-1023 (550-209476-15) | 10/17/23 | 14:54 Arizona | | Water | | | X | 1 | |
| CH-CCR-W301-1023 (550-209476-17) | 10/19/23 | 15:52 Arizona | | Water | | | X | 1 | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

| *Possible Hazard Identification* | *Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)* |
|---|---|
| *Unconfirmed* | ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months* |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|---|
| | 10-23-23 | 15:30 | EETSW | Fedex | | |
| | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| | | | | | 10/24/23 0840 | EETSW |
| | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| | | | | | | |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.6 IR Manno CF0.3 |
|---|---|---|

Ver: 06/08/2021

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone. 602-437-3340

# Chain of Custody Record

eurofins | Environment Testing

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-38074.2 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 2 of 2 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-209476-1 |
| Address: 4955 Yarrow Street, | Due Date Requested: 11/2/2023 | Analysis Requested | | Preservation Codes: |
| City: Arvada | TAT Requested (days): | | | A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify) |
| State, Zip: CO, 80002 | | | | |
| Phone: 303-736-0100(Tel) 303-431-7171(Fax) | PO # | | | Other: |
| Email: | WO # | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | |

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 353.2_Pres | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| CH-CCR-W303-1023 (550-209476-19) | 10/19/23 | 13:35 Arizona | | Water | | | X | 1 | |
| CH-CCR-W306-1023 (550-209476-21) | 10/19/23 | 10:30 Arizona | | Water | | | X | 1 | |
| CH-CCR-W314-1023 (550-209476-23) | 10/19/23 | 08:45 Arizona | | Water | | | X | 1 | |

Note. Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

| Possible Hazard Identification | Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) |
|---|---|
| Unconfirmed | ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by: | Date/Time | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| 10-23-23 | 15:30 | EET | FedEx | | |
| Relinquished by | Date/Time | Company | Received by: | Date/Time: | Company |
| | | | | 01/24/23 0940 | EET PHX |
| Relinquished by | Date/Time. | Company | Received by: | Date/Time: | Company |
| | | | | | |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

Ver: 06/08/2021

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins

| | | | | |
|---|---|---|---|---|
| **Client Information (Sub Contract Lab)** | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-38073.1 |
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 1 of 2 |
| Company: Eurofins Environment Testing Southwest, | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-209476-1 |
| Address: 2841 Dow Avenue, Suite 100, , | Due Date Requested: 11/2/2023 | | | |
| City: Tustin | TAT Requested (days): | | | |
| State, Zip: CA, 92780 | | | | |
| Phone: 714-895-5494(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | |

**Analysis Requested**

Preservation C
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Custom 200.7 Metals List | Total Number of containers | Special |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| CH-CCR-M53A-1023 (550-209476-1) | 10/19/23 | 11:48 Arizona | | Water | | | X | 1 | |
| CH-CCR-MW69A-1023 (550-209476-3) | 10/19/23 | 09:11 Arizona | | Water | | | X | 1 | |
| CH-CCR-MW70M-1023 (550-209476-5) | 10/18/23 | 15:43 Arizona | | Water | | | X | 1 | |
| CH-CCR-MW71A-1023 (550-209476-7) | 10/18/23 | 13:12 Arizona | | Water | | | X | 1 | |
| CH-CCR-MW72M-1023 (550-209476-9) | 10/18/23 | 14:02 Arizona | | Water | | | X | 1 | |
| CH-CCR-MW73A-1023 (550-209476-11) | 10/18/23 | 11:00 Arizona | | Water | | | X | 1 | |
| CH-CCR-MW74M-1023 (550-209476-13) | 10/18/23 | 10:00 Arizona | | Water | | | X | 1 | |
| CH-CCR-MW77A-1023 (550-209476-15) | 10/17/23 | 14:54 Arizona | | Water | | | X | 1 | |
| CH-CCR-W301-1023 (550-209476-17) | 10/19/23 | 15:52 Arizona | | Water | | | X | 1 | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under ch laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be pro accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testir

| | | | |
|---|---|---|---|
| ***Possible Hazard Identification*** *Unconfirmed* | | ***Sample Disposal ( A fee may be assessed if samples are retained longer than*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ | |
| Deliverable Requested: I, II, III, IV, Other (specify) | Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: | |
| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |

| | | | | |
|---|---|---|---|---|
| Relinquished by: [signature] | Date/Time: 10-23-23 15:30 | Company: EETSW | Received by: Fedex | Date/Time: |
| Relinquished by: | Date/Time: | Company | Received by: [signature] | Date/Time: 10/24/23 0935 |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: |

| | | |
|---|---|---|
| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 542 1.6/1- |

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofin

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-38073.2 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 2 of 2 |
| Company: Eurofins Environment Testing Southwest, | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-209476-1 |
| Address: 2841 Dow Avenue, Suite 100, , | Due Date Requested: 11/2/2023 | | | |
| City: Tustin | TAT Requested (days): | | | |
| State, Zip: CA, 92780 | | | | |
| Phone: 714-895-5494(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | |

**Analysis Requested**

Preservation C
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Custom 200.7 Metals List | Total Number of containers | Special |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| CH-CCR-W303-1023 (550-209476-19) | 10/19/23 | 13:35 Arizona | | Water | | | X | 1 | |
| CH-CCR-W306-1023 (550-209476-21) | 10/19/23 | 10:30 Arizona | | Water | | | X | 1 | |
| CH-CCR-W314-1023 (550-209476-23) | 10/19/23 | 08:45 Arizona | | Water | | | X | 1 | |

Note: Since laboratory accreditations are subject to change. Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under ch laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be pro accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testir

| *Possible Hazard Identification* | *Sample Disposal ( A fee may be assessed if samples are retained longer than* |
|---|---|
| *Unconfirmed* | ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Relinquished by: [illegible] 10-23-23 | Date/Time: 15:30 EDT | Company | Received by: Fedex | Date/Time: | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: 10/24/23 0935 | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|


TestAmerica
THE LEADER IN ENVIRONMENTAL TESTI
eurofins | Environment Testing TestAmerica
2219793
ORIGIN ID:INWA (602) 437-3340
TESTAMERICA-PHOENIX
TESTAMERICA
4625 E COTTON CENTER BLVD
SUITE 189
PHOENIX, AZ 85040
UNITED STATES US
SHIP DATE: 23OCT23
ACTWGT: 52.60 LB
CAD: 0875926/CAFE3
DIMS: 25x13x14 IN
BILL RECIPIENT
TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING SOUT
2841 DOW AVENUE, SUITE 100
TUSTIN CA 92780
(714) 895-5494
REF: S550-86672
PO: YES
DEPT: SAMPLE RECEIVING
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TRK# 0201 6388 9413 2200
QZ DTHA
CA-U
Custody Seal
DATE 10-23-23
SIGNATURE
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550-209476 Waybill

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-209476-1
SDG Number: APS Cholla Power Plant (BAP)

**Login Number: 209476**
**List Number: 1**
**Creator: Maycock, Lisa**

**List Source: Eurofins Phoenix**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | False | Check done at department level as required. |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-209476-1
SDG Number: APS Cholla Power Plant (BAP)

**Login Number: 209476**
**List Number: 2**
**Creator: Khana, Piyush**

**List Source: Eurofins Calscience**
**List Creation: 10/24/23 01:37 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | 2219793 |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 1.5 |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | False | Received project as a subcontract. |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-209476-1
SDG Number: APS Cholla Power Plant (BAP)

**Login Number: 209476**
**List Number: 3**
**Creator: Rystrom, Joshua R**

**List Source: Eurofins Denver**
**List Creation: 10/24/23 05:29 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

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## JOB DESCRIPTION

CCR Groundwater Monitoring
APS Cholla Power Plant (BAP)

## JOB NUMBER

550-209609-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.



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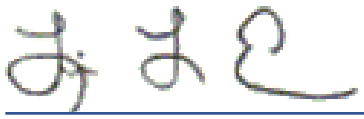
## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

## Authorization



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Authorized for release by
Linda Eshelman, Project Manager II
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(602)659-7681

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## Qualifiers

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| D2 | Sample required dilution due to high concentration of analyte. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| B1 | Target analyte detected in method blank at or above the method reporting limit. |
| M2 | Matrix spike recovery was low, the associated blank spike recovery was acceptable. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |
| T5 | Laboratory not licensed for this parameter |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| D2 | Sample required dilution due to high concentration of analyte. |
| H5 | This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time. |
| M2 | Matrix spike recovery was low, the associated blank spike recovery was acceptable. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |
| T5 | Laboratory not licensed for this parameter |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

## Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| TNTC | Too Numerous To Count |

## Job ID: 550-209609-1

### Laboratory: Eurofins Phoenix

**Narrative**

**Job Narrative**
**550-209609-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**
The samples were received on 10/25/2023 1:44 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.1°C, 1.4°C, 1.6°C and 3.2°C

**HPLC/IC**
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**Metals**
Method 200.8_CWA_LL: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following samples: CH-CCR-MW78A-1023 (550-209609-1), CH-CCR-MW78A-1023 (550-209609-2), CH-CCR-BAPTD-1023 (550-209609-3), CH-CCR-BAPTD-1023 (550-209609-4), CH-CCR-Petroglyph-1023 (550-209609-5), CH-CCR-Petroglyph-1023 (550-209609-6), CH-CCR-TannerWash-1023 (550-209609-7), CH-CCR-TannerWash-1023 (550-209609-8), CH-CCR-TWX3-1023 (550-209609-9), CH-CCR-TWX3-1023 (550-209609-10), (550-209609-F-1-A MS) and (550-209609-F-1-B MSD).

Method 200.8_CWA_LL: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following samples: CH-CCR-MW78A-1023 (550-209609-1), CH-CCR-TWX5-1023 (550-209609-11), CH-CCR-TWX5-1023 (550-209609-12), CH-CCR-TWX7-1023 (550-209609-13), CH-CCR-TWX7-1023 (550-209609-14), CH-CCR-TWX9-1023 (550-209609-15), CH-CCR-TWX9-1023 (550-209609-16), CH-CCR-TWX10-1023 (550-209609-17), CH-CCR-TWX10-1023 (550-209609-18), CH-CCR-EB01-1023 (550-209609-19), CH-CCR-EB01-1023 (550-209609-20), (550-209609-F-1-A MS ^5) and (550-209609-F-1-B MSD ^5).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**General Chemistry**
Method SM5310_DOC_B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 550-310867 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 550-209609-1 | CH-CCR-MW78A-1023 | Water | 10/23/23 13:00 | 10/25/23 13:44 |
| 550-209609-2 | CH-CCR-MW78A-1023 | Water | 10/23/23 13:00 | 10/25/23 13:44 |
| 550-209609-3 | CH-CCR-BAPTD-1023 | Water | 10/24/23 08:42 | 10/25/23 13:44 |
| 550-209609-4 | CH-CCR-BAPTD-1023 | Water | 10/24/23 08:42 | 10/25/23 13:44 |
| 550-209609-5 | CH-CCR-Petroglyph-1023 | Water | 10/24/23 09:09 | 10/25/23 13:44 |
| 550-209609-6 | CH-CCR-Petroglyph-1023 | Water | 10/24/23 09:09 | 10/25/23 13:44 |
| 550-209609-7 | CH-CCR-TannerWash-1023 | Water | 10/24/23 09:28 | 10/25/23 13:44 |
| 550-209609-8 | CH-CCR-TannerWash-1023 | Water | 10/24/23 09:28 | 10/25/23 13:44 |
| 550-209609-9 | CH-CCR-TWX3-1023 | Water | 10/24/23 10:07 | 10/25/23 13:44 |
| 550-209609-10 | CH-CCR-TWX3-1023 | Water | 10/24/23 10:07 | 10/25/23 13:44 |
| 550-209609-11 | CH-CCR-TWX5-1023 | Water | 10/24/23 10:25 | 10/25/23 13:44 |
| 550-209609-12 | CH-CCR-TWX5-1023 | Water | 10/24/23 10:25 | 10/25/23 13:44 |
| 550-209609-13 | CH-CCR-TWX7-1023 | Water | 10/24/23 10:41 | 10/25/23 13:44 |
| 550-209609-14 | CH-CCR-TWX7-1023 | Water | 10/24/23 10:41 | 10/25/23 13:44 |
| 550-209609-15 | CH-CCR-TWX9-1023 | Water | 10/24/23 15:41 | 10/25/23 13:44 |
| 550-209609-16 | CH-CCR-TWX9-1023 | Water | 10/24/23 15:41 | 10/25/23 13:44 |
| 550-209609-17 | CH-CCR-TWX10-1023 | Water | 10/24/23 15:59 | 10/25/23 13:44 |
| 550-209609-18 | CH-CCR-TWX10-1023 | Water | 10/24/23 15:59 | 10/25/23 13:44 |
| 550-209609-19 | CH-CCR-EB01-1023 | Water | 10/25/23 08:15 | 10/25/23 13:44 |
| 550-209609-20 | CH-CCR-EB01-1023 | Water | 10/25/23 08:15 | 10/25/23 13:44 |

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-MW78A-1023 — Lab Sample ID: 550-209609-1

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2700 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Sulfate | 2300 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 0.42 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 750 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 130 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 5.6 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 9.0 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1700 | B1 | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.24 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.00086 | M2 | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Barium | 0.0022 | M2 | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0014 | M2 T5 | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Selenium | 0.00077 | M2 | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Ammonia | 0.36 | | 0.050 | | mg/L | 1 | | 350.1 | Total/NA |
| Alkalinity as CaCO3 | 140 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 140 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 7900 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.2 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 10.3 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: CH-CCR-MW78A-1023 — Lab Sample ID: 550-209609-2

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 0.11 | | 0.10 | | mg/L | 1 | | 200.7 | Dissolved |
| Manganese | 5.7 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 0.80 | | 0.50 | | ug/L | 1 | | 200.8 LL | Dissolved |
| Dissolved Organic Carbon | 0.63 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 0.62 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 0.63 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-BAPTD-1023 — Lab Sample ID: 550-209609-3

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2400 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Fluoride | 2.5 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 3100 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 4.9 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 700 | M3 | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.56 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 260 | M3 | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 3.0 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 16 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1700 | B1 M3 | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.23 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.00079 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Barium | 0.0023 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Cadmium | 0.00052 | | 0.00010 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Cobalt | 0.0013 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Lead | 0.00077 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0044 | T5 | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: CH-CCR-BAPTD-1023 (Continued) — Lab Sample ID: 550-209609-3

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Selenium | 0.0013 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Ammonia | 0.088 | | 0.050 | | mg/L | 1 | | 350.1 | Total/NA |
| Alkalinity as CaCO3 | 150 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 150 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 8700 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 9.9 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Total Organic Carbon | 1.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |
| Total Organic Carbon - Duplicates | 1.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |
| Total Organic Carbon - Quad | 1.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |

## Client Sample ID: CH-CCR-BAPTD-1023 — Lab Sample ID: 550-209609-4

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 3.0 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 0.70 | | 0.50 | | ug/L | 1 | | 200.8 LL | Dissolved |
| Cobalt | 1.3 | | 0.50 | | ug/L | 1 | | 200.8 LL | Dissolved |
| Dissolved Organic Carbon | 1.2 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 1.2 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 1.2 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-Petroglyph-1023 — Lab Sample ID: 550-209609-5

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2200 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Fluoride | 2.9 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 3000 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 4.0 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 700 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.23 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 250 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 1.1 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 26 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1600 | B1 | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.21 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.00086 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Barium | 0.0053 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Cobalt | 0.0025 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0094 | T5 | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Ammonia | 0.089 | | 0.050 | | mg/L | 1 | | 350.1 | Total/NA |
| Nitrate Nitrite as N | 0.31 | | 0.10 | | mg/L | 1 | | 353.2 | Total/NA |
| Alkalinity as CaCO3 | 85 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 85 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 8100 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.4 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 9.8 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Total Organic Carbon | 1.2 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |
| Total Organic Carbon - Duplicates | 1.2 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |
| Total Organic Carbon - Quad | 1.2 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-Petroglyph-1023 — Lab Sample ID: 550-209609-6

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 1.1 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 0.64 | | 0.50 | | ug/L | 1 | | 200.8 LL | Dissolved |
| Dissolved Organic Carbon | 1.4 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 1.4 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 1.4 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-TannerWash-1023 — Lab Sample ID: 550-209609-7

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2100 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Fluoride | 32 | | 4.0 | | mg/L | 10 | | 300.0 | Total/NA |
| Sulfate | 3000 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 4.2 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 690 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.75 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 280 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 1.8 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 18 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1500 | B1 | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.20 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0012 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Barium | 0.0020 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Cobalt | 0.0024 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0037 | T5 | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Ammonia | 0.079 | | 0.050 | | mg/L | 1 | | 350.1 | Total/NA |
| Nitrate Nitrite as N | 0.14 | | 0.10 | | mg/L | 1 | | 353.2 | Total/NA |
| Alkalinity as CaCO3 | 80 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 80 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 7700 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.3 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 10.2 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Total Organic Carbon | 0.92 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |
| Total Organic Carbon - Duplicates | 0.92 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |
| Total Organic Carbon - Quad | 0.92 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |

## Client Sample ID: CH-CCR-TannerWash-1023 — Lab Sample ID: 550-209609-8

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 1.5 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 0.75 | | 0.50 | | ug/L | 1 | | 200.8 LL | Dissolved |
| Cobalt | 2.4 | | 0.50 | | ug/L | 1 | | 200.8 LL | Dissolved |
| Dissolved Organic Carbon | 1.0 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 1.0 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 1.0 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-TWX3-1023 — Lab Sample ID: 550-209609-9

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2100 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Fluoride | 2.8 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 3000 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 3.9 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |

This Detection Summary does not include radiochemical test results.

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## Client Sample ID: CH-CCR-TWX3-1023 (Continued) — Lab Sample ID: 550-209609-9

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 680 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.33 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 240 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 4.0 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 17 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1400 | B1 | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.22 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.00087 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Barium | 0.0020 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Chromium | 0.0038 | | 0.0010 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Cobalt | 0.0025 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0070 | T5 | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Ammonia | 0.29 | | 0.050 | | mg/L | 1 | | 350.1 | Total/NA |
| Alkalinity as CaCO3 | 75 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 75 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 7700 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.4 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 10.5 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Total Organic Carbon | 1.8 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |
| Total Organic Carbon - Duplicates | 0.78 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |
| Total Organic Carbon - Quad | 1.8 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |

## Client Sample ID: CH-CCR-TWX3-1023 — Lab Sample ID: 550-209609-10

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 3.8 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 0.78 | | 0.50 | | ug/L | 1 | | 200.8 LL | Dissolved |
| Cobalt | 2.5 | | 0.50 | | ug/L | 1 | | 200.8 LL | Dissolved |
| Dissolved Organic Carbon | 0.95 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 0.92 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 0.95 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-TWX5-1023 — Lab Sample ID: 550-209609-11

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2000 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Fluoride | 2.8 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 2900 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 4.0 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 690 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.55 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 250 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 4.0 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 17 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1500 | B1 | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.21 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0053 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.010 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Chromium | 0.022 | | 0.0050 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cobalt | 0.014 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: CH-CCR-TWX5-1023 (Continued) — Lab Sample ID: 550-209609-11

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Lead | 0.0027 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.039 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Ammonia | 0.33 | | 0.050 | | mg/L | 1 | | 350.1 | Total/NA |
| Alkalinity as CaCO3 | 76 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 76 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 7700 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.3 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 11.5 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Total Organic Carbon | 0.92 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |
| Total Organic Carbon - Duplicates | 0.94 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |
| Total Organic Carbon - Quad | 0.92 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |

## Client Sample ID: CH-CCR-TWX5-1023 — Lab Sample ID: 550-209609-12

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 3.9 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 3.8 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |
| Cobalt | 13 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |
| Dissolved Organic Carbon | 0.81 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 0.81 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 0.81 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-TWX7-1023 — Lab Sample ID: 550-209609-13

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2100 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Fluoride | 2.7 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 2900 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 3.9 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 690 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.21 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 240 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 3.2 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 16 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1500 | B1 | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.21 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0043 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.0042 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Chromium | 0.022 | | 0.0050 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cobalt | 0.013 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.042 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Ammonia | 0.32 | | 0.050 | | mg/L | 1 | | 350.1 | Total/NA |
| Alkalinity as CaCO3 | 76 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 76 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 7700 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 11.6 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Total Organic Carbon | 0.78 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |
| Total Organic Carbon - Duplicates | 0.78 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |
| Total Organic Carbon - Quad | 0.78 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-TWX7-1023 — Lab Sample ID: 550-209609-14

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 3.1 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 4.0 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |
| Cobalt | 13 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |
| Dissolved Organic Carbon | 0.91 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 0.91 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 0.91 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-TWX9-1023 — Lab Sample ID: 550-209609-15

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2600 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Fluoride | 1.3 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 2900 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 2.7 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 770 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 3.6 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 230 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 6.8 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 14 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1900 | B1 | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.33 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0083 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cadmium | 0.00050 | | 0.00050 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Chromium | 0.94 | | 0.0050 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cobalt | 0.024 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.18 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Ammonia | 0.080 | | 0.050 | | mg/L | 1 | | 350.1 | Total/NA |
| Alkalinity as CaCO3 | 110 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 110 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 8600 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.7 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 12.2 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Total Organic Carbon | 1.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |
| Total Organic Carbon - Duplicates | 1.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |
| Total Organic Carbon - Quad | 1.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |

## Client Sample ID: CH-CCR-TWX9-1023 — Lab Sample ID: 550-209609-16

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 0.58 | | 0.10 | | mg/L | 1 | | 200.7 | Dissolved |
| Manganese | 7.8 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 6.0 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |
| Cobalt | 11 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |
| Dissolved Organic Carbon | 1.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 1.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 1.1 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-TWX10-1023 — Lab Sample ID: 550-209609-17

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 3100 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Fluoride | 0.45 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |

This Detection Summary does not include radiochemical test results.

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## Client Sample ID: CH-CCR-TWX10-1023 (Continued)

## Lab Sample ID: 550-209609-17

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 2800 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 0.37 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 750 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.29 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 170 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.075 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 6.0 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 2100 | B1 | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.49 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0034 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Barium | 0.0097 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Chromium | 0.015 | | 0.0050 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Cobalt | 0.015 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Molybdenum | 0.013 | T5 | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| Nitrate Nitrite as N | 0.11 | | 0.10 | | mg/L | 1 | | 353.2 | Total/NA |
| Alkalinity as CaCO3 | 74 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 74 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 9300 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.7 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 11.5 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |
| Total Organic Carbon | 1.3 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |
| Total Organic Carbon - Duplicates | 1.3 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |
| Total Organic Carbon - Quad | 1.3 | | 0.50 | | mg/L | 1 | | SM 5310B | Total/NA |

## Client Sample ID: CH-CCR-TWX10-1023

## Lab Sample ID: 550-209609-18

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 0.021 | | 0.010 | | mg/L | 1 | | 200.7 | Dissolved |
| Arsenic | 3.5 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |
| Cobalt | 15 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |
| Dissolved Organic Carbon | 1.4 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Duplicate | 1.4 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |
| Dissolved Organic Carbon - Quad | 1.4 | | 0.50 | | mg/L | 1 | | SM 5310B | Dissolved |

## Client Sample ID: CH-CCR-EB01-1023

## Lab Sample ID: 550-209609-19

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.0029 | | 0.0025 | | mg/L | 5 | | 200.8 LL | Total/NA |
| pH | 5.9 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 12.5 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: CH-CCR-EB01-1023

## Lab Sample ID: 550-209609-20

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 3.2 | | 2.5 | | ug/L | 5 | | 200.8 LL | Dissolved |

This Detection Summary does not include radiochemical test results.

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-MW78A-1023

**Date Collected: 10/23/23 13:00**
**Date Received: 10/25/23 13:44**

## Lab Sample ID: 550-209609-1

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2700** | **D2** | 200 | | mg/L | | | 10/30/23 14:22 | 100 |
| Fluoride | ND | | 0.40 | | mg/L | | | 10/30/23 13:54 | 1 |
| **Sulfate** | **2300** | **D2** | 200 | | mg/L | | | 10/30/23 14:22 | 100 |

### Method: SW846 9056A - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Fluoride | ND | | 0.40 | | mg/L | | | 10/30/23 13:54 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:06 | 1 |
| **Boron** | **0.42** | | 0.050 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:06 | 1 |
| **Calcium** | **750** | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:06 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:06 | 1 |
| **Magnesium** | **130** | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:06 | 1 |
| **Manganese** | **5.6** | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:06 | 1 |
| **Potassium** | **9.0** | | 0.50 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:06 | 1 |
| **Sodium** | **1700** | **B1** | 5.0 | | mg/L | | 10/26/23 05:56 | 11/06/23 13:25 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.24** | | 0.10 | | mg/L | | 11/01/23 07:39 | 11/02/23 13:41 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | M2 | 0.0010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:20 | 1 |
| **Arsenic** | **0.00086** | **M2** | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:20 | 1 |
| **Barium** | **0.0022** | **M2** | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:20 | 1 |
| Cadmium | ND | M2 | 0.00010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:20 | 1 |
| Chromium | ND | M2 | 0.0010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:20 | 1 |
| Cobalt | ND | M2 | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:20 | 1 |
| Lead | ND | M2 | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:20 | 1 |
| **Molybdenum** | **0.0014** | **M2 T5** | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:20 | 1 |
| **Selenium** | **0.00077** | **M2** | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:20 | 1 |
| Thallium | ND | M2 | 0.00010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:20 | 1 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/27/23 11:38 | 10/27/23 15:45 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia (EPA 350.1)** | **0.36** | | 0.050 | | mg/L | | | 11/01/23 13:26 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/31/23 16:35 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **140** | | 6.0 | | mg/L | | | 11/01/23 12:20 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 12:20 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **140** | | 6.0 | | mg/L | | | 11/01/23 12:20 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 12:20 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 12:20 | 1 |

## Client Sample ID: CH-CCR-MW78A-1023

**Lab Sample ID: 550-209609-1**

**Date Collected: 10/23/23 13:00**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 7900 | | 100 | | mg/L | | | 10/27/23 12:51 | 1 |
| pH (SM 4500 H+ B) | 7.2 | H5 | 1.7 | | SU | | | 10/29/23 12:54 | 1 |
| Temperature (SM 4500 H+ B) | 10.3 | H5 T5 | 0.1 | | Degrees C | | | 10/29/23 12:54 | 1 |

## Client Sample ID: CH-CCR-MW78A-1023

**Lab Sample ID: 550-209609-2**

**Date Collected: 10/23/23 13:00**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 0.11 | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:08 | 1 |
| Manganese | 5.7 | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:08 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.80 | | 0.50 | | ug/L | | 10/26/23 05:13 | 10/27/23 19:22 | 1 |
| Cobalt | ND | | 0.50 | | ug/L | | 10/26/23 05:13 | 10/27/23 19:22 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon (SM 5310B) | 0.63 | | 0.50 | | mg/L | | | 11/08/23 22:29 | 1 |
| Dissolved Organic Carbon - Duplicate (SM 5310B) | 0.62 | | 0.50 | | mg/L | | | 11/08/23 22:29 | 1 |
| Dissolved Organic Carbon - Quad (SM 5310B) | 0.63 | | 0.50 | | mg/L | | | 11/08/23 22:29 | 1 |

## Client Sample ID: CH-CCR-BAPTD-1023

**Lab Sample ID: 550-209609-3**

**Date Collected: 10/24/23 08:42**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2400 | D2 | 200 | | mg/L | | | 10/30/23 15:18 | 100 |
| Fluoride | 2.5 | | 0.40 | | mg/L | | | 10/30/23 14:50 | 1 |
| Sulfate | 3100 | D2 | 200 | | mg/L | | | 10/30/23 15:18 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:00 | 1 |
| Boron | 4.9 | | 0.050 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:00 | 1 |
| Calcium | 700 | M3 | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:00 | 1 |
| Iron | 0.56 | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:00 | 1 |
| Magnesium | 260 | M3 | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:00 | 1 |
| Manganese | 3.0 | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:00 | 1 |
| Potassium | 16 | | 0.50 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:00 | 1 |
| Sodium | 1700 | B1 M3 | 5.0 | | mg/L | | 10/26/23 05:56 | 11/06/23 13:22 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.23 | | 0.10 | | mg/L | | 11/01/23 07:39 | 11/02/23 13:44 | 2 |

## Client Sample ID: CH-CCR-BAPTD-1023

**Lab Sample ID: 550-209609-3**

**Date Collected: 10/24/23 08:42**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:24 | 1 |
| **Arsenic** | **0.00079** | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:24 | 1 |
| **Barium** | **0.0023** | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:24 | 1 |
| **Cadmium** | **0.00052** | | 0.00010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:24 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:24 | 1 |
| **Cobalt** | **0.0013** | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:24 | 1 |
| **Lead** | **0.00077** | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:24 | 1 |
| **Molybdenum** | **0.0044** | **T5** | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:24 | 1 |
| **Selenium** | **0.0013** | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:24 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:24 | 1 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/27/23 11:38 | 10/27/23 15:43 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia (EPA 350.1)** | **0.088** | | 0.050 | | mg/L | | | 11/01/23 13:31 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 10/31/23 16:37 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **150** | | 6.0 | | mg/L | | | 11/01/23 12:34 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 12:34 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **150** | | 6.0 | | mg/L | | | 11/01/23 12:34 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 12:34 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 12:34 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **8700** | | 100 | | mg/L | | | 10/27/23 15:46 | 1 |
| **pH (SM 4500 H+ B)** | **7.5** | **H5** | 1.7 | | SU | | | 10/29/23 12:56 | 1 |
| **Temperature (SM 4500 H+ B)** | **9.9** | **H5 T5** | 0.1 | | Degrees C | | | 10/29/23 12:56 | 1 |
| **Total Organic Carbon (SM 5310B)** | **1.1** | | 0.50 | | mg/L | | | 11/14/23 01:15 | 1 |
| **Total Organic Carbon - Duplicates (SM 5310B)** | **1.1** | | 0.50 | | mg/L | | | 11/14/23 01:15 | 1 |
| **Total Organic Carbon - Quad (SM 5310B)** | **1.1** | | 0.50 | | mg/L | | | 11/14/23 01:15 | 1 |

## Client Sample ID: CH-CCR-BAPTD-1023

**Lab Sample ID: 550-209609-4**

**Date Collected: 10/24/23 08:42**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:03 | 1 |
| **Manganese** | **3.0** | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:03 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **0.70** | | 0.50 | | ug/L | | 10/26/23 05:13 | 10/27/23 19:26 | 1 |
| **Cobalt** | **1.3** | | 0.50 | | ug/L | | 10/26/23 05:13 | 10/27/23 19:26 | 1 |

## Client Sample ID: CH-CCR-BAPTD-1023

**Lab Sample ID: 550-209609-4**

**Date Collected: 10/24/23 08:42**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon (SM 5310B) | 1.2 | | 0.50 | | mg/L | | | 11/08/23 22:49 | 1 |
| Dissolved Organic Carbon - Duplicate (SM 5310B) | 1.2 | | 0.50 | | mg/L | | | 11/08/23 22:49 | 1 |
| Dissolved Organic Carbon - Quad (SM 5310B) | 1.2 | | 0.50 | | mg/L | | | 11/08/23 22:49 | 1 |

## Client Sample ID: CH-CCR-Petroglyph-1023

**Lab Sample ID: 550-209609-5**

**Date Collected: 10/24/23 09:09**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2200 | D2 | 200 | | mg/L | | | 10/30/23 16:14 | 100 |
| Fluoride | 2.9 | | 0.40 | | mg/L | | | 10/30/23 15:46 | 1 |
| Sulfate | 3000 | D2 | 200 | | mg/L | | | 10/30/23 16:14 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:11 | 1 |
| Boron | 4.0 | | 0.050 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:11 | 1 |
| Calcium | 700 | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:11 | 1 |
| Iron | 0.23 | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:11 | 1 |
| Magnesium | 250 | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:11 | 1 |
| Manganese | 1.1 | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:11 | 1 |
| Potassium | 26 | | 0.50 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:11 | 1 |
| Sodium | 1600 | B1 | 5.0 | | mg/L | | 10/26/23 05:56 | 11/06/23 13:28 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.21 | | 0.10 | | mg/L | | 11/01/23 07:39 | 11/02/23 13:46 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:28 | 1 |
| Arsenic | 0.00086 | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:28 | 1 |
| Barium | 0.0053 | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:28 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:28 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:28 | 1 |
| Cobalt | 0.0025 | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:28 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:28 | 1 |
| Molybdenum | 0.0094 | T5 | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:28 | 1 |
| Selenium | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:28 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:28 | 1 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/27/23 11:38 | 10/27/23 15:33 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia (EPA 350.1) | 0.089 | | 0.050 | | mg/L | | | 11/01/23 13:32 | 1 |

## Client Sample ID: CH-CCR-Petroglyph-1023

**Lab Sample ID: 550-209609-5**

**Date Collected: 10/24/23 09:09**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N (EPA 353.2) | 0.31 | | 0.10 | | mg/L | | | 10/31/23 16:51 | 1 |
| Alkalinity as CaCO3 (SM 2320B) | 85 | | 6.0 | | mg/L | | | 11/01/23 12:41 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 12:41 | 1 |
| Bicarbonate Alkalinity as CaCO3 (SM 2320B) | 85 | | 6.0 | | mg/L | | | 11/01/23 12:41 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 12:41 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 12:41 | 1 |
| Total Dissolved Solids (SM 2540C) | 8100 | | 100 | | mg/L | | | 10/27/23 15:46 | 1 |
| pH (SM 4500 H+ B) | 7.4 | H5 | 1.7 | | SU | | | 10/29/23 12:57 | 1 |
| Temperature (SM 4500 H+ B) | 9.8 | H5 T5 | 0.1 | | Degrees C | | | 10/29/23 12:57 | 1 |
| Total Organic Carbon (SM 5310B) | 1.2 | | 0.50 | | mg/L | | | 11/14/23 01:36 | 1 |
| Total Organic Carbon - Duplicates (SM 5310B) | 1.2 | | 0.50 | | mg/L | | | 11/14/23 01:36 | 1 |
| Total Organic Carbon - Quad (SM 5310B) | 1.2 | | 0.50 | | mg/L | | | 11/14/23 01:36 | 1 |

## Client Sample ID: CH-CCR-Petroglyph-1023

**Lab Sample ID: 550-209609-6**

**Date Collected: 10/24/23 09:09**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:14 | 1 |
| Manganese | 1.1 | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:14 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.64 | | 0.50 | | ug/L | | 10/26/23 05:13 | 10/27/23 19:30 | 1 |
| Cobalt | ND | | 0.50 | | ug/L | | 10/26/23 05:13 | 10/27/23 19:30 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon (SM 5310B) | 1.4 | | 0.50 | | mg/L | | | 11/08/23 23:06 | 1 |
| Dissolved Organic Carbon - Duplicate (SM 5310B) | 1.4 | | 0.50 | | mg/L | | | 11/08/23 23:06 | 1 |
| Dissolved Organic Carbon - Quad (SM 5310B) | 1.4 | | 0.50 | | mg/L | | | 11/08/23 23:06 | 1 |

## Client Sample ID: CH-CCR-TannerWash-1023

**Lab Sample ID: 550-209609-7**

**Date Collected: 10/24/23 09:28**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2100 | D2 | 200 | | mg/L | | | 10/30/23 18:34 | 100 |
| Fluoride | 32 | | 4.0 | | mg/L | | | 10/30/23 18:06 | 10 |
| Sulfate | 3000 | D2 | 200 | | mg/L | | | 10/30/23 18:34 | 100 |

## Client Sample ID: CH-CCR-TannerWash-1023

**Date Collected: 10/24/23 09:28**
**Date Received: 10/25/23 13:44**

## Lab Sample ID: 550-209609-7

**Matrix: Water**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:17 | 1 |
| **Boron** | **4.2** | | 0.050 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:17 | 1 |
| **Calcium** | **690** | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:17 | 1 |
| **Iron** | **0.75** | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:17 | 1 |
| **Magnesium** | **280** | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:17 | 1 |
| **Manganese** | **1.8** | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:17 | 1 |
| **Potassium** | **18** | | 0.50 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:17 | 1 |
| **Sodium** | **1500** | **B1** | 5.0 | | mg/L | | 10/26/23 05:56 | 11/06/23 13:31 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.20** | | 0.10 | | mg/L | | 11/01/23 07:39 | 11/02/23 13:48 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:32 | 1 |
| **Arsenic** | **0.0012** | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:32 | 1 |
| **Barium** | **0.0020** | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:32 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:32 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:32 | 1 |
| **Cobalt** | **0.0024** | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:32 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:32 | 1 |
| **Molybdenum** | **0.0037** | **T5** | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:32 | 1 |
| Selenium | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:32 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:32 | 1 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/27/23 11:38 | 10/27/23 15:47 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia (EPA 350.1)** | **0.079** | | 0.050 | | mg/L | | | 11/01/23 13:34 | 1 |
| **Nitrate Nitrite as N (EPA 353.2)** | **0.14** | | 0.10 | | mg/L | | | 11/01/23 14:13 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **80** | | 6.0 | | mg/L | | | 11/01/23 12:47 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 12:47 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **80** | | 6.0 | | mg/L | | | 11/01/23 12:47 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 12:47 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 12:47 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **7700** | | 100 | | mg/L | | | 10/27/23 15:46 | 1 |
| **pH (SM 4500 H+ B)** | **7.3** | **H5** | 1.7 | | SU | | | 10/29/23 12:58 | 1 |
| **Temperature (SM 4500 H+ B)** | **10.2** | **H5 T5** | 0.1 | | Degrees C | | | 10/29/23 12:58 | 1 |
| **Total Organic Carbon (SM 5310B)** | **0.92** | | 0.50 | | mg/L | | | 11/14/23 01:57 | 1 |
| **Total Organic Carbon - Duplicates (SM 5310B)** | **0.92** | | 0.50 | | mg/L | | | 11/14/23 01:57 | 1 |
| **Total Organic Carbon - Quad (SM 5310B)** | **0.92** | | 0.50 | | mg/L | | | 11/14/23 01:57 | 1 |

## Client Sample ID: CH-CCR-TannerWash-1023

**Lab Sample ID: 550-209609-8**

**Date Collected: 10/24/23 09:28**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:20 | 1 |
| **Manganese** | **1.5** | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:20 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **0.75** | | 0.50 | | ug/L | | 10/26/23 05:13 | 10/27/23 19:34 | 1 |
| **Cobalt** | **2.4** | | 0.50 | | ug/L | | 10/26/23 05:13 | 10/27/23 19:34 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon (SM 5310B)** | **1.0** | | 0.50 | | mg/L | | | 11/08/23 23:27 | 1 |
| **Dissolved Organic Carbon - Duplicate (SM 5310B)** | **1.0** | | 0.50 | | mg/L | | | 11/08/23 23:27 | 1 |
| **Dissolved Organic Carbon - Quad (SM 5310B)** | **1.0** | | 0.50 | | mg/L | | | 11/08/23 23:27 | 1 |

## Client Sample ID: CH-CCR-TWX3-1023

**Lab Sample ID: 550-209609-9**

**Date Collected: 10/24/23 10:07**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2100** | **D2** | 200 | | mg/L | | | 10/30/23 19:30 | 100 |
| **Fluoride** | **2.8** | | 0.40 | | mg/L | | | 10/30/23 19:02 | 1 |
| **Sulfate** | **3000** | **D2** | 200 | | mg/L | | | 10/30/23 19:30 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:23 | 1 |
| **Boron** | **3.9** | | 0.050 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:23 | 1 |
| **Calcium** | **680** | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:23 | 1 |
| **Iron** | **0.33** | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:23 | 1 |
| **Magnesium** | **240** | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:23 | 1 |
| **Manganese** | **4.0** | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:23 | 1 |
| **Potassium** | **17** | | 0.50 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:23 | 1 |
| **Sodium** | **1400** | **B1** | 5.0 | | mg/L | | 10/26/23 05:56 | 11/06/23 13:34 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.22** | | 0.10 | | mg/L | | 11/01/23 07:39 | 11/02/23 13:51 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:36 | 1 |
| **Arsenic** | **0.00087** | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:36 | 1 |
| **Barium** | **0.0020** | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:36 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:36 | 1 |
| **Chromium** | **0.0038** | | 0.0010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:36 | 1 |
| **Cobalt** | **0.0025** | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:36 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:36 | 1 |
| **Molybdenum** | **0.0070** | **T5** | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:36 | 1 |

## Client Sample ID: CH-CCR-TWX3-1023

**Lab Sample ID: 550-209609-9**

**Date Collected: 10/24/23 10:07**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Selenium | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:36 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:36 | 1 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/27/23 11:38 | 10/27/23 15:49 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia (EPA 350.1)** | **0.29** | | 0.050 | | mg/L | | | 11/01/23 13:35 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 11/01/23 14:15 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **75** | | 6.0 | | mg/L | | | 11/01/23 12:54 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 12:54 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **75** | | 6.0 | | mg/L | | | 11/01/23 12:54 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 12:54 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 12:54 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **7700** | | 100 | | mg/L | | | 10/27/23 15:46 | 1 |
| **pH (SM 4500 H+ B)** | **7.4** | **H5** | 1.7 | | SU | | | 10/29/23 12:59 | 1 |
| **Temperature (SM 4500 H+ B)** | **10.5** | **H5 T5** | 0.1 | | Degrees C | | | 10/29/23 12:59 | 1 |
| **Total Organic Carbon (SM 5310B)** | **1.8** | | 0.50 | | mg/L | | | 11/14/23 02:13 | 1 |
| **Total Organic Carbon - Duplicates (SM 5310B)** | **0.78** | | 0.50 | | mg/L | | | 11/14/23 02:13 | 1 |
| **Total Organic Carbon - Quad (SM 5310B)** | **1.8** | | 0.50 | | mg/L | | | 11/14/23 02:13 | 1 |

## Client Sample ID: CH-CCR-TWX3-1023

**Lab Sample ID: 550-209609-10**

**Date Collected: 10/24/23 10:07**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:26 | 1 |
| **Manganese** | **3.8** | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:26 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **0.78** | | 0.50 | | ug/L | | 10/26/23 05:13 | 10/27/23 19:38 | 1 |
| **Cobalt** | **2.5** | | 0.50 | | ug/L | | 10/26/23 05:13 | 10/27/23 19:38 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon (SM 5310B)** | **0.95** | | 0.50 | | mg/L | | | 11/13/23 16:43 | 1 |
| **Dissolved Organic Carbon - Duplicate (SM 5310B)** | **0.92** | | 0.50 | | mg/L | | | 11/13/23 16:43 | 1 |
| **Dissolved Organic Carbon - Quad (SM 5310B)** | **0.95** | | 0.50 | | mg/L | | | 11/13/23 16:43 | 1 |

## Client Sample ID: CH-CCR-TWX5-1023

**Date Collected: 10/24/23 10:25**
**Date Received: 10/25/23 13:44**

## Lab Sample ID: 550-209609-11

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2000** | **D2** | 200 | | mg/L | | | 10/30/23 20:26 | 100 |
| **Fluoride** | **2.8** | | 0.40 | | mg/L | | | 10/30/23 19:58 | 1 |
| **Sulfate** | **2900** | **D2** | 200 | | mg/L | | | 10/30/23 20:26 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:34 | 1 |
| **Boron** | **4.0** | | 0.050 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:34 | 1 |
| **Calcium** | **690** | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:34 | 1 |
| **Iron** | **0.55** | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:34 | 1 |
| **Magnesium** | **250** | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:34 | 1 |
| **Manganese** | **4.0** | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:34 | 1 |
| **Potassium** | **17** | | 0.50 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:34 | 1 |
| **Sodium** | **1500** | **B1** | 5.0 | | mg/L | | 10/26/23 05:56 | 11/06/23 13:37 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.21** | | 0.10 | | mg/L | | 11/01/23 07:39 | 11/02/23 13:53 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:55 | 5 |
| **Arsenic** | **0.0053** | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:55 | 5 |
| **Barium** | **0.010** | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:55 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:55 | 5 |
| **Chromium** | **0.022** | | 0.0050 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:55 | 5 |
| **Cobalt** | **0.014** | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:55 | 5 |
| **Lead** | **0.0027** | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:55 | 5 |
| **Molybdenum** | **0.039** | **T5** | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:55 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:55 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:55 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/27/23 11:38 | 10/27/23 15:51 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia (EPA 350.1)** | **0.33** | | 0.050 | | mg/L | | | 11/01/23 13:37 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 11/01/23 14:17 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **76** | | 6.0 | | mg/L | | | 11/01/23 13:00 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 13:00 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **76** | | 6.0 | | mg/L | | | 11/01/23 13:00 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 13:00 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 13:00 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **7700** | | 100 | | mg/L | | | 10/27/23 15:46 | 1 |
| **pH (SM 4500 H+ B)** | **7.3** | **H5** | 1.7 | | SU | | | 10/29/23 13:00 | 1 |
| **Temperature (SM 4500 H+ B)** | **11.5** | **H5 T5** | 0.1 | | Degrees C | | | 10/29/23 13:00 | 1 |

## Client Sample ID: CH-CCR-TWX5-1023

**Lab Sample ID: 550-209609-11**

**Date Collected: 10/24/23 10:25**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Organic Carbon (SM 5310B) | 0.92 | | 0.50 | | mg/L | | | 11/14/23 02:34 | 1 |
| Total Organic Carbon - Duplicates (SM 5310B) | 0.94 | | 0.50 | | mg/L | | | 11/14/23 02:34 | 1 |
| Total Organic Carbon - Quad (SM 5310B) | 0.92 | | 0.50 | | mg/L | | | 11/14/23 02:34 | 1 |

## Client Sample ID: CH-CCR-TWX5-1023

**Lab Sample ID: 550-209609-12**

**Date Collected: 10/24/23 10:25**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:37 | 1 |
| Manganese | 3.9 | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:37 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 3.8 | | 2.5 | | ug/L | | 10/26/23 05:13 | 11/03/23 14:57 | 5 |
| Cobalt | 13 | | 2.5 | | ug/L | | 10/26/23 05:13 | 11/03/23 14:57 | 5 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon (SM 5310B) | 0.81 | | 0.50 | | mg/L | | | 11/13/23 17:45 | 1 |
| Dissolved Organic Carbon - Duplicate (SM 5310B) | 0.81 | | 0.50 | | mg/L | | | 11/13/23 17:45 | 1 |
| Dissolved Organic Carbon - Quad (SM 5310B) | 0.81 | | 0.50 | | mg/L | | | 11/13/23 17:45 | 1 |

## Client Sample ID: CH-CCR-TWX7-1023

**Lab Sample ID: 550-209609-13**

**Date Collected: 10/24/23 10:41**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2100 | D2 | 200 | | mg/L | | | 10/30/23 21:22 | 100 |
| Fluoride | 2.7 | | 0.40 | | mg/L | | | 10/30/23 20:54 | 1 |
| Sulfate | 2900 | D2 | 200 | | mg/L | | | 10/30/23 21:22 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:40 | 1 |
| Boron | 3.9 | | 0.050 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:40 | 1 |
| Calcium | 690 | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:40 | 1 |
| Iron | 0.21 | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:40 | 1 |
| Magnesium | 240 | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:40 | 1 |
| Manganese | 3.2 | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:40 | 1 |
| Potassium | 16 | | 0.50 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:40 | 1 |
| Sodium | 1500 | B1 | 5.0 | | mg/L | | 10/26/23 05:56 | 11/06/23 13:39 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.21 | | 0.10 | | mg/L | | 11/01/23 07:39 | 11/02/23 13:56 | 2 |

## Client Sample ID: CH-CCR-TWX7-1023

**Lab Sample ID: 550-209609-13**

**Date Collected: 10/24/23 10:41**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:59 | 5 |
| **Arsenic** | **0.0043** | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:59 | 5 |
| **Barium** | **0.0042** | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:59 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:59 | 5 |
| **Chromium** | **0.022** | | 0.0050 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:59 | 5 |
| **Cobalt** | **0.013** | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:59 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:59 | 5 |
| **Molybdenum** | **0.042** | **T5** | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:59 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:59 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:59 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/27/23 11:38 | 10/27/23 15:53 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia (EPA 350.1)** | **0.32** | | 0.050 | | mg/L | | | 11/01/23 13:38 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 11/01/23 14:19 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **76** | | 6.0 | | mg/L | | | 11/01/23 13:07 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 13:07 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **76** | | 6.0 | | mg/L | | | 11/01/23 13:07 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 13:07 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 13:07 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **7700** | | 100 | | mg/L | | | 10/27/23 15:46 | 1 |
| **pH (SM 4500 H+ B)** | **7.5** | **H5** | 1.7 | | SU | | | 10/29/23 13:01 | 1 |
| **Temperature (SM 4500 H+ B)** | **11.6** | **H5 T5** | 0.1 | | Degrees C | | | 10/29/23 13:01 | 1 |
| **Total Organic Carbon (SM 5310B)** | **0.78** | | 0.50 | | mg/L | | | 11/14/23 02:55 | 1 |
| **Total Organic Carbon - Duplicates (SM 5310B)** | **0.78** | | 0.50 | | mg/L | | | 11/14/23 02:55 | 1 |
| **Total Organic Carbon - Quad (SM 5310B)** | **0.78** | | 0.50 | | mg/L | | | 11/14/23 02:55 | 1 |

## Client Sample ID: CH-CCR-TWX7-1023

**Lab Sample ID: 550-209609-14**

**Date Collected: 10/24/23 10:41**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:43 | 1 |
| **Manganese** | **3.1** | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:43 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **4.0** | | 2.5 | | ug/L | | 10/26/23 05:13 | 11/03/23 15:01 | 5 |
| **Cobalt** | **13** | | 2.5 | | ug/L | | 10/26/23 05:13 | 11/03/23 15:01 | 5 |

## Client Sample ID: CH-CCR-TWX7-1023

**Lab Sample ID: 550-209609-14**

**Date Collected: 10/24/23 10:41**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon (SM 5310B) | 0.91 | | 0.50 | | mg/L | | | 11/13/23 18:02 | 1 |
| Dissolved Organic Carbon - Duplicate (SM 5310B) | 0.91 | | 0.50 | | mg/L | | | 11/13/23 18:02 | 1 |
| Dissolved Organic Carbon - Quad (SM 5310B) | 0.91 | | 0.50 | | mg/L | | | 11/13/23 18:02 | 1 |

## Client Sample ID: CH-CCR-TWX9-1023

**Lab Sample ID: 550-209609-15**

**Date Collected: 10/24/23 15:41**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2600 | D2 | 200 | | mg/L | | | 10/30/23 23:42 | 100 |
| Fluoride | 1.3 | | 0.40 | | mg/L | | | 10/30/23 21:50 | 1 |
| Sulfate | 2900 | D2 | 200 | | mg/L | | | 10/30/23 23:42 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:45 | 1 |
| Boron | 2.7 | | 0.050 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:45 | 1 |
| Calcium | 770 | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:45 | 1 |
| Iron | 3.6 | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:45 | 1 |
| Magnesium | 230 | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:45 | 1 |
| Manganese | 6.8 | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:45 | 1 |
| Potassium | 14 | | 0.50 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:45 | 1 |
| Sodium | 1900 | B1 | 5.0 | | mg/L | | 10/26/23 05:56 | 11/06/23 13:42 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.33 | | 0.10 | | mg/L | | 11/01/23 07:39 | 11/02/23 13:58 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:03 | 5 |
| Arsenic | 0.0083 | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:03 | 5 |
| Barium | ND | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:03 | 5 |
| Cadmium | 0.00050 | | 0.00050 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:03 | 5 |
| Chromium | 0.94 | | 0.0050 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:03 | 5 |
| Cobalt | 0.024 | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:03 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:03 | 5 |
| Molybdenum | 0.18 | T5 | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:03 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:03 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:03 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/27/23 11:38 | 10/27/23 15:55 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia (EPA 350.1) | 0.080 | | 0.050 | | mg/L | | | 11/01/23 13:40 | 1 |

## Client Sample ID: CH-CCR-TWX9-1023

**Lab Sample ID: 550-209609-15**

**Date Collected: 10/24/23 15:41**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 11/01/23 14:33 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **110** | | 6.0 | | mg/L | | | 11/01/23 13:13 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 13:13 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **110** | | 6.0 | | mg/L | | | 11/01/23 13:13 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 13:13 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 13:13 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **8600** | | 100 | | mg/L | | | 10/27/23 15:46 | 1 |
| **pH (SM 4500 H+ B)** | **7.7** | **H5** | 1.7 | | SU | | | 10/29/23 13:02 | 1 |
| **Temperature (SM 4500 H+ B)** | **12.2** | **H5 T5** | 0.1 | | Degrees C | | | 10/29/23 13:02 | 1 |
| **Total Organic Carbon (SM 5310B)** | **1.1** | | 0.50 | | mg/L | | | 11/14/23 03:11 | 1 |
| **Total Organic Carbon - Duplicates (SM 5310B)** | **1.1** | | 0.50 | | mg/L | | | 11/14/23 03:11 | 1 |
| **Total Organic Carbon - Quad (SM 5310B)** | **1.1** | | 0.50 | | mg/L | | | 11/14/23 03:11 | 1 |

## Client Sample ID: CH-CCR-TWX9-1023

**Lab Sample ID: 550-209609-16**

**Date Collected: 10/24/23 15:41**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Iron** | **0.58** | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:48 | 1 |
| **Manganese** | **7.8** | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:48 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **6.0** | | 2.5 | | ug/L | | 10/26/23 05:13 | 11/03/23 15:54 | 5 |
| **Cobalt** | **11** | | 2.5 | | ug/L | | 10/26/23 05:13 | 11/03/23 15:54 | 5 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon (SM 5310B)** | **1.1** | | 0.50 | | mg/L | | | 11/13/23 18:18 | 1 |
| **Dissolved Organic Carbon - Duplicate (SM 5310B)** | **1.1** | | 0.50 | | mg/L | | | 11/13/23 18:18 | 1 |
| **Dissolved Organic Carbon - Quad (SM 5310B)** | **1.1** | | 0.50 | | mg/L | | | 11/13/23 18:18 | 1 |

## Client Sample ID: CH-CCR-TWX10-1023

**Lab Sample ID: 550-209609-17**

**Date Collected: 10/24/23 15:59**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **3100** | **D2** | 200 | | mg/L | | | 10/31/23 00:38 | 100 |
| **Fluoride** | **0.45** | | 0.40 | | mg/L | | | 10/31/23 00:10 | 1 |
| **Sulfate** | **2800** | **D2** | 200 | | mg/L | | | 10/31/23 00:38 | 100 |

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-TWX10-1023

**Date Collected: 10/24/23 15:59**
**Date Received: 10/25/23 13:44**

## Lab Sample ID: 550-209609-17

**Matrix: Water**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:51 | 1 |
| **Boron** | **0.37** | | 0.050 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:51 | 1 |
| **Calcium** | **750** | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:51 | 1 |
| **Iron** | **0.29** | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:51 | 1 |
| **Magnesium** | **170** | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:51 | 1 |
| **Manganese** | **0.075** | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:51 | 1 |
| **Potassium** | **6.0** | | 0.50 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:51 | 1 |
| **Sodium** | **2100** | **B1** | 5.0 | | mg/L | | 10/26/23 05:56 | 11/06/23 13:45 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.49** | | 0.10 | | mg/L | | 11/01/23 07:39 | 11/02/23 14:19 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:56 | 5 |
| **Arsenic** | **0.0034** | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:56 | 5 |
| **Barium** | **0.0097** | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:56 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:56 | 5 |
| **Chromium** | **0.015** | | 0.0050 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:56 | 5 |
| **Cobalt** | **0.015** | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:56 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:56 | 5 |
| **Molybdenum** | **0.013** | **T5** | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:56 | 5 |
| Selenium | ND | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:56 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 11/03/23 15:56 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/27/23 11:38 | 10/27/23 15:57 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia (EPA 350.1) | ND | | 0.050 | | mg/L | | | 11/01/23 13:41 | 1 |
| **Nitrate Nitrite as N (EPA 353.2)** | **0.11** | | 0.10 | | mg/L | | | 11/01/23 14:37 | 1 |
| **Alkalinity as CaCO3 (SM 2320B)** | **74** | | 6.0 | | mg/L | | | 11/01/23 13:20 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 13:20 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **74** | | 6.0 | | mg/L | | | 11/01/23 13:20 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 13:20 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 13:20 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **9300** | | 100 | | mg/L | | | 10/27/23 15:46 | 1 |
| **pH (SM 4500 H+ B)** | **7.7** | **H5** | 1.7 | | SU | | | 10/29/23 13:03 | 1 |
| **Temperature (SM 4500 H+ B)** | **11.5** | **H5 T5** | 0.1 | | Degrees C | | | 10/29/23 13:03 | 1 |
| **Total Organic Carbon (SM 5310B)** | **1.3** | | 0.50 | | mg/L | | | 11/14/23 03:28 | 1 |
| **Total Organic Carbon - Duplicates (SM 5310B)** | **1.3** | | 0.50 | | mg/L | | | 11/14/23 03:28 | 1 |
| **Total Organic Carbon - Quad (SM 5310B)** | **1.3** | | 0.50 | | mg/L | | | 11/14/23 03:28 | 1 |

## Client Sample ID: CH-CCR-TWX10-1023

**Lab Sample ID: 550-209609-18**

**Date Collected: 10/24/23 15:59**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:54 | 1 |
| **Manganese** | **0.021** | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:54 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **3.5** | | 2.5 | | ug/L | | 10/26/23 05:13 | 11/03/23 15:58 | 5 |
| **Cobalt** | **15** | | 2.5 | | ug/L | | 10/26/23 05:13 | 11/03/23 15:58 | 5 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon (SM 5310B)** | **1.4** | | 0.50 | | mg/L | | | 11/13/23 18:39 | 1 |
| **Dissolved Organic Carbon - Duplicate (SM 5310B)** | **1.4** | | 0.50 | | mg/L | | | 11/13/23 18:39 | 1 |
| **Dissolved Organic Carbon - Quad (SM 5310B)** | **1.4** | | 0.50 | | mg/L | | | 11/13/23 18:39 | 1 |

## Client Sample ID: CH-CCR-EB01-1023

**Lab Sample ID: 550-209609-19**

**Date Collected: 10/25/23 08:15**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 10/31/23 05:45 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 10/31/23 05:45 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 10/31/23 05:45 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:57 | 1 |
| Boron | ND | | 0.050 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:57 | 1 |
| Calcium | ND | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:57 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:57 | 1 |
| Magnesium | ND | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:57 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:57 | 1 |
| Potassium | ND | | 0.50 | | mg/L | | 10/26/23 05:56 | 10/31/23 01:57 | 1 |
| Sodium | ND | | 5.0 | | mg/L | | 10/26/23 05:56 | 11/06/23 13:48 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 0.050 | | mg/L | | 11/01/23 07:39 | 11/02/23 14:22 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0050 | | mg/L | | 10/26/23 05:13 | 11/03/23 16:00 | 5 |
| **Arsenic** | **0.0029** | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 16:00 | 5 |
| Barium | ND | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 16:00 | 5 |
| Cadmium | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 11/03/23 16:00 | 5 |
| Chromium | ND | | 0.0050 | | mg/L | | 10/26/23 05:13 | 11/03/23 16:00 | 5 |
| Cobalt | ND | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 16:00 | 5 |
| Lead | ND | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 16:00 | 5 |
| Molybdenum | ND | T5 | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 16:00 | 5 |

## Client Sample ID: CH-CCR-EB01-1023

**Lab Sample ID: 550-209609-19**

**Date Collected: 10/25/23 08:15**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Selenium | ND | | 0.0025 | | mg/L | | 10/26/23 05:13 | 11/03/23 16:00 | 5 |
| Thallium | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 11/03/23 16:00 | 5 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/27/23 11:38 | 10/27/23 15:59 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia (EPA 350.1) | ND | | 0.050 | | mg/L | | | 11/01/23 13:43 | 1 |
| Nitrate Nitrite as N (EPA 353.2) | ND | | 0.10 | | mg/L | | | 11/01/23 14:35 | 1 |
| Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 13:26 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 13:26 | 1 |
| Bicarbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 13:26 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 13:26 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/01/23 13:26 | 1 |
| Total Dissolved Solids (SM 2540C) | ND | | 20 | | mg/L | | | 10/30/23 09:33 | 1 |
| **pH (SM 4500 H+ B)** | **5.9** | **H5** | 1.7 | | SU | | | 10/29/23 13:04 | 1 |
| **Temperature (SM 4500 H+ B)** | **12.5** | **H5 T5** | 0.1 | | Degrees C | | | 10/29/23 13:04 | 1 |
| Total Organic Carbon (SM 5310B) | ND | | 0.50 | | mg/L | | | 11/14/23 03:48 | 1 |
| Total Organic Carbon - Duplicates (SM 5310B) | ND | | 0.50 | | mg/L | | | 11/14/23 03:48 | 1 |
| Total Organic Carbon - Quad (SM 5310B) | ND | | 0.50 | | mg/L | | | 11/14/23 03:48 | 1 |

## Client Sample ID: CH-CCR-EB01-1023

**Lab Sample ID: 550-209609-20**

**Date Collected: 10/25/23 08:15**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

### Method: EPA 200.7 - Dissolved Metals by ICP - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 02:00 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 02:00 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **3.2** | | 2.5 | | ug/L | | 10/26/23 05:13 | 11/03/23 16:02 | 5 |
| Cobalt | ND | | 2.5 | | ug/L | | 10/26/23 05:13 | 11/03/23 16:02 | 5 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon (SM 5310B) | ND | | 0.50 | | mg/L | | | 11/08/23 23:51 | 1 |
| Dissolved Organic Carbon - Duplicate (SM 5310B) | ND | | 0.50 | | mg/L | | | 11/08/23 23:51 | 1 |
| Dissolved Organic Carbon - Quad (SM 5310B) | ND | | 0.50 | | mg/L | | | 11/08/23 23:51 | 1 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 550-310211/2**
**Matrix: Water**
**Analysis Batch: 310211**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 10/30/23 10:10 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 10/30/23 10:10 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 10/30/23 10:10 | 1 |

**Lab Sample ID: LCS 550-310211/5**
**Matrix: Water**
**Analysis Batch: 310211**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 18.9 | | mg/L | | 94 | 90 - 110 | | |
| Fluoride | | | 4.00 | 4.01 | | mg/L | | 100 | 90 - 110 | | |
| Sulfate | | | 20.0 | 19.0 | | mg/L | | 95 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-310211/6**
**Matrix: Water**
**Analysis Batch: 310211**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 18.9 | | mg/L | | 95 | 90 - 110 | 0 | 20 |
| Fluoride | | | 4.00 | 4.01 | | mg/L | | 100 | 90 - 110 | 0 | 20 |
| Sulfate | | | 20.0 | 19.0 | | mg/L | | 95 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 550-209568-B-5 MS ^10**
**Matrix: Water**
**Analysis Batch: 310211**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 29 | | 200 | 221 | | mg/L | | 96 | 80 - 120 | | |
| Fluoride | ND | | 40.0 | 41.0 | | mg/L | | 101 | 80 - 120 | | |
| Sulfate | 340 | | 200 | 514 | | mg/L | | 86 | 80 - 120 | | |

**Lab Sample ID: 550-209568-B-5 MSD ^10**
**Matrix: Water**
**Analysis Batch: 310211**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 29 | | 200 | 222 | | mg/L | | 97 | 80 - 120 | 0 | 20 |
| Fluoride | ND | | 40.0 | 41.3 | | mg/L | | 101 | 80 - 120 | 1 | 20 |
| Sulfate | 340 | | 200 | 511 | | mg/L | | 85 | 80 - 120 | 1 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 550-309969/1-A**
**Matrix: Water**
**Analysis Batch: 310235**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 309969**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 10/26/23 05:56 | 10/31/23 00:46 | 1 |
| Boron | ND | | 0.050 | | mg/L | | 10/26/23 05:56 | 10/31/23 00:46 | 1 |
| Calcium | ND | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 00:46 | 1 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: MB 550-309969/1-A**
**Matrix: Water**
**Analysis Batch: 310235**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 309969**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | | 0.10 | | mg/L | | 10/26/23 05:56 | 10/31/23 00:46 | 1 |
| Magnesium | ND | | 2.0 | | mg/L | | 10/26/23 05:56 | 10/31/23 00:46 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 10/26/23 05:56 | 10/31/23 00:46 | 1 |
| Potassium | ND | | 0.50 | | mg/L | | 10/26/23 05:56 | 10/31/23 00:46 | 1 |
| Sodium | 0.696 | B1 | 0.50 | | mg/L | | 10/26/23 05:56 | 10/31/23 00:46 | 1 |

**Lab Sample ID: LCS 550-309969/2-A**
**Matrix: Water**
**Analysis Batch: 310235**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 309969**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | | | 1.00 | 0.989 | | mg/L | | 99 | 85 - 115 | | |
| Boron | | | 1.00 | 1.02 | | mg/L | | 102 | 85 - 115 | | |
| Calcium | | | 21.0 | 21.8 | | mg/L | | 104 | 85 - 115 | | |
| Iron | | | 1.00 | 0.961 | | mg/L | | 96 | 85 - 115 | | |
| Magnesium | | | 21.0 | 20.8 | | mg/L | | 99 | 85 - 115 | | |
| Manganese | | | 1.00 | 0.968 | | mg/L | | 97 | 85 - 115 | | |
| Potassium | | | 20.0 | 19.8 | | mg/L | | 99 | 85 - 115 | | |
| Sodium | | | 20.0 | 20.5 | | mg/L | | 102 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-309969/3-A**
**Matrix: Water**
**Analysis Batch: 310235**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 309969**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | | | 1.00 | 1.01 | | mg/L | | 101 | 85 - 115 | 2 | 20 |
| Boron | | | 1.00 | 1.04 | | mg/L | | 104 | 85 - 115 | 2 | 20 |
| Calcium | | | 21.0 | 22.3 | | mg/L | | 106 | 85 - 115 | 2 | 20 |
| Iron | | | 1.00 | 0.989 | | mg/L | | 99 | 85 - 115 | 3 | 20 |
| Magnesium | | | 21.0 | 21.2 | | mg/L | | 101 | 85 - 115 | 2 | 20 |
| Manganese | | | 1.00 | 0.991 | | mg/L | | 99 | 85 - 115 | 2 | 20 |
| Potassium | | | 20.0 | 20.2 | | mg/L | | 101 | 85 - 115 | 2 | 20 |
| Sodium | | | 20.0 | 20.9 | | mg/L | | 105 | 85 - 115 | 2 | 20 |

**Lab Sample ID: 550-209609-3 MS**
**Matrix: Water**
**Analysis Batch: 310235**

**Client Sample ID: CH-CCR-BAPTD-1023**
**Prep Type: Total/NA**
**Prep Batch: 309969**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 1.00 | 1.04 | | mg/L | | 104 | 70 - 130 | | |
| Boron | 4.9 | | 1.00 | 5.80 | M3 | mg/L | | 86 | 70 - 130 | | |
| Calcium | 700 | M3 | 21.0 | 675 | M3 | mg/L | | -97 | 70 - 130 | | |
| Iron | 0.56 | | 1.00 | 1.55 | | mg/L | | 99 | 70 - 130 | | |
| Magnesium | 260 | M3 | 21.0 | 268 | M3 | mg/L | | 29 | 70 - 130 | | |
| Manganese | 3.0 | | 1.00 | 3.74 | | mg/L | | 78 | 70 - 130 | | |
| Potassium | 16 | | 20.0 | 37.9 | | mg/L | | 112 | 70 - 130 | | |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: 550-209609-3 MS**
**Matrix: Water**
**Analysis Batch: 310603**

**Client Sample ID: CH-CCR-BAPTD-1023**
**Prep Type: Total/NA**
**Prep Batch: 309969**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 1700 | B1 M3 | 20.0 | 1600 | M3 | mg/L | | -450 | 70 - 130 |

**Lab Sample ID: 550-209609-3 MSD**
**Matrix: Water**
**Analysis Batch: 310235**

**Client Sample ID: CH-CCR-BAPTD-1023**
**Prep Type: Total/NA**
**Prep Batch: 309969**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 1.00 | 1.03 | | mg/L | | 103 | 70 - 130 | 1 | 20 |
| Boron | 4.9 | | 1.00 | 5.76 | M3 | mg/L | | 83 | 70 - 130 | 1 | 20 |
| Calcium | 700 | M3 | 21.0 | 677 | M3 | mg/L | | -83 | 70 - 130 | 0 | 20 |
| Iron | 0.56 | | 1.00 | 1.54 | | mg/L | | 98 | 70 - 130 | 0 | 20 |
| Magnesium | 260 | M3 | 21.0 | 270 | M3 | mg/L | | 34 | 70 - 130 | 0 | 20 |
| Manganese | 3.0 | | 1.00 | 3.71 | | mg/L | | 75 | 70 - 130 | 1 | 20 |
| Potassium | 16 | | 20.0 | 38.0 | | mg/L | | 112 | 70 - 130 | 0 | 20 |

**Lab Sample ID: 550-209609-3 MSD**
**Matrix: Water**
**Analysis Batch: 310603**

**Client Sample ID: CH-CCR-BAPTD-1023**
**Prep Type: Total/NA**
**Prep Batch: 309969**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sodium | 1700 | B1 M3 | 20.0 | 1610 | M3 | mg/L | | -410 | 70 - 130 | 1 | 20 |

**Lab Sample ID: MB 570-379148/1-A**
**Matrix: Water**
**Analysis Batch: 379787**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 379148**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 0.050 | | mg/L | | 11/01/23 07:39 | 11/02/23 13:28 | 1 |

**Lab Sample ID: LCS 570-379148/2-A**
**Matrix: Water**
**Analysis Batch: 379787**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 379148**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 0.500 | 0.494 | | mg/L | | 99 | 85 - 115 |

**Lab Sample ID: LCSD 570-379148/3-A**
**Matrix: Water**
**Analysis Batch: 379787**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total Recoverable**
**Prep Batch: 379148**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 0.500 | 0.494 | | mg/L | | 99 | 85 - 115 | 0 | 20 |

**Lab Sample ID: 550-209609-15 MS**
**Matrix: Water**
**Analysis Batch: 379787**

**Client Sample ID: CH-CCR-TWX9-1023**
**Prep Type: Total Recoverable**
**Prep Batch: 379148**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.33 | | 0.500 | 0.829 | | mg/L | | 100 | 80 - 120 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: 550-209609-15 MSD**
**Matrix: Water**
**Analysis Batch: 379787**

**Client Sample ID: CH-CCR-TWX9-1023**
**Prep Type: Total Recoverable**
**Prep Batch: 379148**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.33 | | 0.500 | 0.856 | | mg/L | | 105 | 80 - 120 | 3 | 20 |

## Method: 200.8 LL - Metals (ICP/MS)

**Lab Sample ID: MB 550-309967/1-A**
**Matrix: Water**
**Analysis Batch: 310202**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 309967**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:05 | 1 |
| Arsenic | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:05 | 1 |
| Barium | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:05 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:05 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:05 | 1 |
| Cobalt | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:05 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:05 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:05 | 1 |
| Selenium | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:05 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 10/26/23 05:13 | 10/27/23 19:05 | 1 |

**Lab Sample ID: MB 550-309967/1-A**
**Matrix: Water**
**Analysis Batch: 310541**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 309967**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:34 | 1 |
| Arsenic | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:34 | 1 |
| Barium | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:34 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:34 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:34 | 1 |
| Cobalt | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:34 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:34 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:34 | 1 |
| Selenium | ND | | 0.00050 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:34 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 10/26/23 05:13 | 11/03/23 14:34 | 1 |

**Lab Sample ID: LCS 550-309967/2-A**
**Matrix: Water**
**Analysis Batch: 310202**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 309967**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.0943 | | mg/L | | 94 | 85 - 115 | | |
| Arsenic | | | 0.100 | 0.0953 | | mg/L | | 95 | 85 - 115 | | |
| Barium | | | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | | |
| Cadmium | | | 0.100 | 0.0964 | | mg/L | | 96 | 85 - 115 | | |
| Chromium | | | 0.100 | 0.0965 | | mg/L | | 97 | 85 - 115 | | |
| Cobalt | | | 0.100 | 0.0961 | | mg/L | | 96 | 85 - 115 | | |
| Lead | | | 0.100 | 0.103 | | mg/L | | 103 | 85 - 115 | | |
| Molybdenum | | | 0.100 | 0.0974 | | mg/L | | 97 | 85 - 115 | | |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 550-309967/2-A**
**Matrix: Water**
**Analysis Batch: 310202**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 309967**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Selenium | 0.100 | 0.0928 | | mg/L | | 93 | 85 - 115 |
| Thallium | 0.100 | 0.100 | | mg/L | | 100 | 85 - 115 |

**Lab Sample ID: LCS 550-309967/2-A**
**Matrix: Water**
**Analysis Batch: 310541**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 309967**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Antimony | 0.100 | 0.0940 | | mg/L | | 94 | 85 - 115 |
| Arsenic | 0.100 | 0.0959 | | mg/L | | 96 | 85 - 115 |
| Barium | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 |
| Cadmium | 0.100 | 0.0968 | | mg/L | | 97 | 85 - 115 |
| Chromium | 0.100 | 0.0970 | | mg/L | | 97 | 85 - 115 |
| Cobalt | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 |
| Lead | 0.100 | 0.0984 | | mg/L | | 98 | 85 - 115 |
| Molybdenum | 0.100 | 0.0995 | | mg/L | | 99 | 85 - 115 |
| Selenium | 0.100 | 0.0953 | | mg/L | | 95 | 85 - 115 |
| Thallium | 0.100 | 0.0945 | | mg/L | | 95 | 85 - 115 |

**Lab Sample ID: LCSD 550-309967/3-A**
**Matrix: Water**
**Analysis Batch: 310202**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 309967**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.100 | 0.0929 | | mg/L | | 93 | 85 - 115 | 1 | 20 |
| Arsenic | 0.100 | 0.0935 | | mg/L | | 94 | 85 - 115 | 2 | 20 |
| Barium | 0.100 | 0.0998 | | mg/L | | 100 | 85 - 115 | 2 | 20 |
| Cadmium | 0.100 | 0.0952 | | mg/L | | 95 | 85 - 115 | 1 | 20 |
| Chromium | 0.100 | 0.0945 | | mg/L | | 94 | 85 - 115 | 2 | 20 |
| Cobalt | 0.100 | 0.0949 | | mg/L | | 95 | 85 - 115 | 1 | 20 |
| Lead | 0.100 | 0.100 | | mg/L | | 100 | 85 - 115 | 2 | 20 |
| Molybdenum | 0.100 | 0.0947 | | mg/L | | 95 | 85 - 115 | 3 | 20 |
| Selenium | 0.100 | 0.0913 | | mg/L | | 91 | 85 - 115 | 2 | 20 |
| Thallium | 0.100 | 0.0981 | | mg/L | | 98 | 85 - 115 | 2 | 20 |

**Lab Sample ID: LCSD 550-309967/3-A**
**Matrix: Water**
**Analysis Batch: 310541**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 309967**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.100 | 0.0950 | | mg/L | | 95 | 85 - 115 | 1 | 20 |
| Arsenic | 0.100 | 0.0968 | | mg/L | | 97 | 85 - 115 | 1 | 20 |
| Barium | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | 0 | 20 |
| Cadmium | 0.100 | 0.0966 | | mg/L | | 97 | 85 - 115 | 0 | 20 |
| Chromium | 0.100 | 0.0986 | | mg/L | | 99 | 85 - 115 | 2 | 20 |
| Cobalt | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | 1 | 20 |
| Lead | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | 2 | 20 |
| Molybdenum | 0.100 | 0.0997 | | mg/L | | 100 | 85 - 115 | 0 | 20 |
| Selenium | 0.100 | 0.0954 | | mg/L | | 95 | 85 - 115 | 0 | 20 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCSD 550-309967/3-A**
**Matrix: Water**
**Analysis Batch: 310541**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 309967**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Thallium | | | 0.100 | 0.0960 | | mg/L | | 96 | 85 - 115 | 2 | 20 |

**Lab Sample ID: 550-209609-1 MS**
**Matrix: Water**
**Analysis Batch: 310202**

**Client Sample ID: CH-CCR-MW78A-1023**
**Prep Type: Total/NA**
**Prep Batch: 309967**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | M2 | 0.100 | 0.0185 | M2 | mg/L | | 18 | 70 - 130 |
| Arsenic | 0.00086 | M2 | 0.100 | 0.0191 | M2 | mg/L | | 18 | 70 - 130 |
| Barium | 0.0022 | M2 | 0.100 | 0.0215 | M2 | mg/L | | 19 | 70 - 130 |
| Cadmium | ND | M2 | 0.100 | 0.0179 | M2 | mg/L | | 18 | 70 - 130 |
| Chromium | ND | M2 | 0.100 | 0.0173 | M2 | mg/L | | 17 | 70 - 130 |
| Cobalt | ND | M2 | 0.100 | 0.0176 | M2 | mg/L | | 17 | 70 - 130 |
| Lead | ND | M2 | 0.100 | 0.0177 | M2 | mg/L | | 18 | 70 - 130 |
| Molybdenum | 0.0014 | T5 M2 | 0.100 | 0.0202 | M2 | mg/L | | 19 | 70 - 130 |
| Selenium | 0.00077 | M2 | 0.100 | 0.0176 | M2 | mg/L | | 17 | 70 - 130 |
| Thallium | ND | M2 | 0.100 | 0.0175 | M2 | mg/L | | 17 | 70 - 130 |

**Lab Sample ID: 550-209609-1 MS**
**Matrix: Water**
**Analysis Batch: 310541**

**Client Sample ID: CH-CCR-MW78A-1023**
**Prep Type: Total/NA**
**Prep Batch: 309967**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.0925 | | mg/L | | 92 | 70 - 130 |
| Arsenic | 0.0036 | | 0.100 | 0.0974 | | mg/L | | 94 | 70 - 130 |
| Barium | 0.011 | | 0.100 | 0.107 | | mg/L | | 96 | 70 - 130 |
| Cadmium | ND | | 0.100 | 0.0898 | | mg/L | | 90 | 70 - 130 |
| Chromium | ND | | 0.100 | 0.0911 | | mg/L | | 91 | 70 - 130 |
| Cobalt | ND | | 0.100 | 0.0955 | | mg/L | | 94 | 70 - 130 |
| Lead | ND | | 0.100 | 0.0880 | | mg/L | | 88 | 70 - 130 |
| Molybdenum | 0.0071 | T5 | 0.100 | 0.103 | | mg/L | | 96 | 70 - 130 |
| Selenium | ND | | 0.100 | 0.0896 | | mg/L | | 90 | 70 - 130 |
| Thallium | ND | | 0.100 | 0.0840 | | mg/L | | 84 | 70 - 130 |

**Lab Sample ID: 550-209609-1 MSD**
**Matrix: Water**
**Analysis Batch: 310202**

**Client Sample ID: CH-CCR-MW78A-1023**
**Prep Type: Total/NA**
**Prep Batch: 309967**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | M2 | 0.100 | 0.0189 | M2 | mg/L | | 19 | 70 - 130 | 2 | 20 |
| Arsenic | 0.00086 | M2 | 0.100 | 0.0194 | M2 | mg/L | | 19 | 70 - 130 | 2 | 20 |
| Barium | 0.0022 | M2 | 0.100 | 0.0223 | M2 | mg/L | | 20 | 70 - 130 | 4 | 20 |
| Cadmium | ND | M2 | 0.100 | 0.0182 | M2 | mg/L | | 18 | 70 - 130 | 2 | 20 |
| Chromium | ND | M2 | 0.100 | 0.0180 | M2 | mg/L | | 18 | 70 - 130 | 4 | 20 |
| Cobalt | ND | M2 | 0.100 | 0.0182 | M2 | mg/L | | 18 | 70 - 130 | 3 | 20 |
| Lead | ND | M2 | 0.100 | 0.0187 | M2 | mg/L | | 19 | 70 - 130 | 5 | 20 |
| Molybdenum | 0.0014 | T5 M2 | 0.100 | 0.0209 | M2 | mg/L | | 20 | 70 - 130 | 3 | 20 |
| Selenium | 0.00077 | M2 | 0.100 | 0.0181 | M2 | mg/L | | 17 | 70 - 130 | 3 | 20 |
| Thallium | ND | M2 | 0.100 | 0.0181 | M2 | mg/L | | 18 | 70 - 130 | 3 | 20 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: 550-209609-1 MSD** — **Client Sample ID: CH-CCR-MW78A-1023**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 310541** — **Prep Batch: 309967**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.0936 | | mg/L | | 93 | 70 - 130 | 1 | 20 |
| Arsenic | 0.0036 | | 0.100 | 0.0978 | | mg/L | | 94 | 70 - 130 | 0 | 20 |
| Barium | 0.011 | | 0.100 | 0.110 | | mg/L | | 99 | 70 - 130 | 3 | 20 |
| Cadmium | ND | | 0.100 | 0.0896 | | mg/L | | 89 | 70 - 130 | 0 | 20 |
| Chromium | ND | | 0.100 | 0.0913 | | mg/L | | 91 | 70 - 130 | 0 | 20 |
| Cobalt | ND | | 0.100 | 0.0956 | | mg/L | | 94 | 70 - 130 | 0 | 20 |
| Lead | ND | | 0.100 | 0.0886 | | mg/L | | 89 | 70 - 130 | 1 | 20 |
| Molybdenum | 0.0071 | T5 | 0.100 | 0.106 | | mg/L | | 99 | 70 - 130 | 3 | 20 |
| Selenium | ND | | 0.100 | 0.0891 | | mg/L | | 89 | 70 - 130 | 1 | 20 |
| Thallium | ND | | 0.100 | 0.0843 | | mg/L | | 84 | 70 - 130 | 0 | 20 |

## Method: 245.1 - Mercury (CVAA)

**Lab Sample ID: MB 550-310101/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 310123** — **Prep Batch: 310101**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 10/27/23 11:38 | 10/27/23 15:03 | 1 |

**Lab Sample ID: LCS 550-310101/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 310123** — **Prep Batch: 310101**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00469 | | mg/L | | 94 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-310101/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 310123** — **Prep Batch: 310101**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00463 | | mg/L | | 93 | 85 - 115 | 1 | 20 |

**Lab Sample ID: 550-209622-F-1-B MS** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 310123** — **Prep Batch: 310101**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00629 | | mg/L | | 126 | 70 - 130 | | |

**Lab Sample ID: 550-209622-F-1-C MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 310123** — **Prep Batch: 310101**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00612 | | mg/L | | 122 | 70 - 130 | 3 | 20 |

## Method: 245.1 - Mercury (CVAA) (Continued)

**Lab Sample ID: 550-209624-F-1-C MS** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 310123** — **Prep Batch: 310101**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00560 | | mg/L | | 112 | 70 - 130 | | |

## Method: 350.1 - Nitrogen, Ammonia (Low Level)

**Lab Sample ID: MB 550-310375/60** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 310375**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | ND | | 0.050 | | mg/L | | | 11/01/23 13:22 | 1 |

**Lab Sample ID: LCS 550-310375/61** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 310375**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 1.00 | 0.980 | | mg/L | | 98 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-310375/62** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 310375**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 1.00 | 0.993 | | mg/L | | 99 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 550-209609-1 MS** — **Client Sample ID: CH-CCR-MW78A-1023**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 310375**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.36 | | 1.00 | 1.40 | | mg/L | | 104 | 90 - 110 | | |

**Lab Sample ID: 550-209609-1 MSD** — **Client Sample ID: CH-CCR-MW78A-1023**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 310375**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.36 | | 1.00 | 1.30 | | mg/L | | 94 | 90 - 110 | 8 | 20 |

## Method: 353.2 - Nitrogen, Nitrate-Nitrite

**Lab Sample ID: MB 280-631959/104** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 631959**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | ND | | 0.10 | | mg/L | | | 10/31/23 15:45 | 1 |

## Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

**Lab Sample ID: MB 280-631959/60**
**Matrix: Water**
**Analysis Batch: 631959**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | ND | | 0.10 | | mg/L | | | 10/31/23 14:17 | 1 |

**Lab Sample ID: LCS 280-631959/103**
**Matrix: Water**
**Analysis Batch: 631959**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | | | 5.00 | 4.73 | | mg/L | | 95 | 90 - 110 | | |

**Lab Sample ID: 550-209610-G-11 MS**
**Matrix: Water**
**Analysis Batch: 631959**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | ND | | 4.00 | 3.80 | | mg/L | | 93 | 90 - 110 | | |

**Lab Sample ID: 550-209610-G-11 MSD**
**Matrix: Water**
**Analysis Batch: 631959**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | ND | | 4.00 | 3.87 | | mg/L | | 94 | 90 - 110 | 2 | 10 |

**Lab Sample ID: MB 280-632151/23**
**Matrix: Water**
**Analysis Batch: 632151**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | ND | | 0.10 | | mg/L | | | 11/01/23 13:58 | 1 |

**Lab Sample ID: LCS 280-632151/21**
**Matrix: Water**
**Analysis Batch: 632151**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | | | 5.00 | 5.15 | | mg/L | | 103 | 90 - 110 | | |

**Lab Sample ID: LCSD 280-632151/22**
**Matrix: Water**
**Analysis Batch: 632151**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | | | 5.00 | 5.05 | | mg/L | | 101 | 90 - 110 | 2 | 10 |

**Lab Sample ID: 550-209609-17 MS**
**Matrix: Water**
**Analysis Batch: 632151**

**Client Sample ID: CH-CCR-TWX10-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | 0.11 | | 4.00 | 4.18 | | mg/L | | 102 | 90 - 110 | | |

## Method: 353.2 - Nitrogen, Nitrate-Nitrite

**Lab Sample ID: 550-209609-17 MSD**
**Matrix: Water**
**Analysis Batch: 632151**

**Client Sample ID: CH-CCR-TWX10-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | 0.11 | | 4.00 | 4.16 | | mg/L | | 101 | 90 - 110 | 1 | 10 |

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 550-310379/3**
**Matrix: Water**
**Analysis Batch: 310379**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 11/01/23 11:51 | 1 |
| Alkalinity, Phenolphthalein | ND | | 6.0 | | mg/L | | | 11/01/23 11:51 | 1 |
| Bicarbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 11/01/23 11:51 | 1 |
| Carbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 11/01/23 11:51 | 1 |
| Hydroxide Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 11/01/23 11:51 | 1 |

**Lab Sample ID: LCS 550-310379/4**
**Matrix: Water**
**Analysis Batch: 310379**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 249 | | mg/L | | 100 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-310379/17**
**Matrix: Water**
**Analysis Batch: 310379**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 242 | | mg/L | | 97 | 90 - 110 | 3 | 20 |

**Lab Sample ID: 550-209609-1 DU**
**Matrix: Water**
**Analysis Batch: 310379**

**Client Sample ID: CH-CCR-MW78A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | 140 | | | 139 | | mg/L | | | | 0.3 | 20 |
| Alkalinity, Phenolphthalein | ND | | | ND | | mg/L | | | | NC | 20 |
| Bicarbonate Alkalinity as CaCO3 | 140 | | | 139 | | mg/L | | | | 0.3 | 20 |
| Carbonate Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |
| Hydroxide Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 550-310111/1**
**Matrix: Water**
**Analysis Batch: 310111**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 10/27/23 12:51 | 1 |

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

**Lab Sample ID: LCS 550-310111/2**
**Matrix: Water**
**Analysis Batch: 310111**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 984 | | mg/L | | 98 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-310111/3**
**Matrix: Water**
**Analysis Batch: 310111**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 966 | | mg/L | | 97 | 90 - 110 | 2 | 10 |

**Lab Sample ID: 550-209609-1 DU**
**Matrix: Water**
**Analysis Batch: 310111**

**Client Sample ID: CH-CCR-MW78A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 7900 | | | 7720 | | mg/L | | | | 2 | 10 |

**Lab Sample ID: MB 550-310120/1**
**Matrix: Water**
**Analysis Batch: 310120**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 10/27/23 15:46 | 1 |

**Lab Sample ID: LCS 550-310120/2**
**Matrix: Water**
**Analysis Batch: 310120**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 980 | | mg/L | | 98 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-310120/3**
**Matrix: Water**
**Analysis Batch: 310120**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 956 | | mg/L | | 96 | 90 - 110 | 2 | 10 |

**Lab Sample ID: 550-209599-C-3 DU**
**Matrix: Water**
**Analysis Batch: 310120**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1900 | | | 1920 | | mg/L | | | | 1 | 10 |

**Lab Sample ID: MB 550-310159/1**
**Matrix: Water**
**Analysis Batch: 310159**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 10/30/23 09:33 | 1 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: LCS 550-310159/2**
**Matrix: Water**
**Analysis Batch: 310159**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 982 | | mg/L | | 98 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-310159/3**
**Matrix: Water**
**Analysis Batch: 310159**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 990 | | mg/L | | 99 | 90 - 110 | 1 | 10 |

**Lab Sample ID: 550-209578-K-1 DU**
**Matrix: Water**
**Analysis Batch: 310159**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 680 | | | 674 | | mg/L | | | | 1 | 10 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: LCSSRM 550-310142/37**
**Matrix: Water**
**Analysis Batch: 310142**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.0 | | SU | | 100.0 | 98.5 - 101.5 | | |

**Lab Sample ID: LCSSRM 550-310142/49**
**Matrix: Water**
**Analysis Batch: 310142**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.0 | | SU | | 100.0 | 98.5 - 101.5 | | |

**Lab Sample ID: 550-209609-1 DU**
**Matrix: Water**
**Analysis Batch: 310142**

**Client Sample ID: CH-CCR-MW78A-1023**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | 7.2 | H5 | | 7.2 | | SU | | | | 0.1 | 5 |
| Temperature | 10.3 | H5 T5 | | 10.2 | | Degrees C | | | | 1 | |

## Method: SM 5310B - Organic Carbon, Total (TOC)

**Lab Sample ID: MB 550-311093/5**
**Matrix: Water**
**Analysis Batch: 311093**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Organic Carbon | ND | | 0.50 | | mg/L | | | 11/13/23 19:36 | 1 |
| Total Organic Carbon - Duplicates | ND | | 0.50 | | mg/L | | | 11/13/23 19:36 | 1 |

## Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

**Lab Sample ID: MB 550-311093/5**
**Matrix: Water**
**Analysis Batch: 311093**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Organic Carbon - Quad | ND | | 0.50 | | mg/L | | | 11/13/23 19:36 | 1 |

**Lab Sample ID: LCS 550-311093/2**
**Matrix: Water**
**Analysis Batch: 311093**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Organic Carbon | | | 20.0 | 18.4 | | mg/L | | 92 | 90 - 110 | | |
| Total Organic Carbon - Duplicates | | | 20.0 | 18.4 | | mg/L | | 92 | 90 - 110 | | |
| Total Organic Carbon - Quad | | | 20.0 | 18.4 | | mg/L | | 92 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-311093/3**
**Matrix: Water**
**Analysis Batch: 311093**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Organic Carbon | | | 20.0 | 19.6 | | mg/L | | 98 | 90 - 110 | 6 | 20 |
| Total Organic Carbon - Duplicates | | | 20.0 | 19.1 | | mg/L | | 96 | 90 - 110 | 4 | 20 |
| Total Organic Carbon - Quad | | | 20.0 | 19.6 | | mg/L | | 98 | 90 - 110 | 6 | 20 |

**Lab Sample ID: 550-209656-F-1 MSD ^2**
**Matrix: Water**
**Analysis Batch: 311093**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Organic Carbon | 430 | M3 D2 | 40.0 | 501 | D2 M3 | mg/L | | 173 | 90 - 110 | 7 | 20 |
| Total Organic Carbon - Duplicates | 430 | M3 D2 | 40.0 | 501 | D2 M3 | mg/L | | 173 | 90 - 110 | 7 | 20 |
| Total Organic Carbon - Quad | 430 | M3 D2 | 40.0 | 501 | D2 M3 | mg/L | | 173 | 90 - 110 | 7 | 20 |

**Lab Sample ID: 550-209656-G-1 MS ^2**
**Matrix: Water**
**Analysis Batch: 311093**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Organic Carbon | 430 | M3 D2 | 40.0 | 466 | D2 M3 | mg/L | | 86 | 90 - 110 | | |
| Total Organic Carbon - Duplicates | 430 | M3 D2 | 40.0 | 466 | D2 M3 | mg/L | | 86 | 90 - 110 | | |
| Total Organic Carbon - Quad | 430 | M3 D2 | 40.0 | 466 | D2 M3 | mg/L | | 86 | 90 - 110 | | |

## Method: SM 5310B - Organic Carbon, Dissolved (DOC)

**Lab Sample ID: MB 550-310867/3**
**Matrix: Water**
**Analysis Batch: 310867**

**Client Sample ID: Method Blank**
**Prep Type: Dissolved**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | ND | | 0.50 | | mg/L | | | 11/08/23 19:23 | 1 |
| Dissolved Organic Carbon - Duplicate | ND | | 0.50 | | mg/L | | | 11/08/23 19:23 | 1 |

## Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

**Lab Sample ID: MB 550-310867/3**
**Matrix: Water**
**Analysis Batch: 310867**

**Client Sample ID: Method Blank**
**Prep Type: Dissolved**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | ND | | 0.50 | | mg/L | | | 11/08/23 19:23 | 1 |

**Lab Sample ID: LCS 550-310867/5**
**Matrix: Water**
**Analysis Batch: 310867**

**Client Sample ID: Lab Control Sample**
**Prep Type: Dissolved**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | | | 20.0 | 18.7 | | mg/L | | 94 | 90 - 110 | | |
| Dissolved Organic Carbon - Duplicate | | | 20.0 | 18.7 | | mg/L | | 93 | 90 - 110 | | |
| Dissolved Organic Carbon - Quad | | | 20.0 | 18.7 | | mg/L | | 94 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-310867/6**
**Matrix: Water**
**Analysis Batch: 310867**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Dissolved**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | | | 20.0 | 18.3 | | mg/L | | 92 | 90 - 110 | 2 | 20 |
| Dissolved Organic Carbon - Duplicate | | | 20.0 | 18.7 | | mg/L | | 93 | 90 - 110 | 0 | 20 |
| Dissolved Organic Carbon - Quad | | | 20.0 | 18.3 | | mg/L | | 92 | 90 - 110 | 2 | 20 |

**Lab Sample ID: 550-209476-G-9 MS**
**Matrix: Water**
**Analysis Batch: 310867**

**Client Sample ID: Matrix Spike**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | 0.55 | M2 | 20.0 | 18.1 | M2 | mg/L | | 88 | 90 - 110 | | |
| Dissolved Organic Carbon - Duplicate | 0.56 | M2 | 20.0 | 18.1 | M2 | mg/L | | 88 | 90 - 110 | | |
| Dissolved Organic Carbon - Quad | 0.55 | M2 | 20.0 | 18.1 | M2 | mg/L | | 88 | 90 - 110 | | |

**Lab Sample ID: 550-209476-J-9 MSD**
**Matrix: Water**
**Analysis Batch: 310867**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | 0.55 | M2 | 20.0 | 17.5 | M2 | mg/L | | 85 | 90 - 110 | 3 | 20 |
| Dissolved Organic Carbon - Duplicate | 0.56 | M2 | 20.0 | 17.5 | M2 | mg/L | | 85 | 90 - 110 | 3 | 20 |
| Dissolved Organic Carbon - Quad | 0.55 | M2 | 20.0 | 17.5 | M2 | mg/L | | 85 | 90 - 110 | 3 | 20 |

**Lab Sample ID: MB 550-311092/3**
**Matrix: Water**
**Analysis Batch: 311092**

**Client Sample ID: Method Blank**
**Prep Type: Dissolved**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | ND | | 0.50 | | mg/L | | | 11/13/23 12:02 | 1 |

## Method: SM 5310B - Organic Carbon, Dissolved (DOC) (Continued)

**Lab Sample ID: MB 550-311092/3**
**Matrix: Water**
**Analysis Batch: 311092**

**Client Sample ID: Method Blank**
**Prep Type: Dissolved**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Duplicate | ND | | 0.50 | | mg/L | | | 11/13/23 12:02 | 1 |
| Dissolved Organic Carbon - Quad | ND | | 0.50 | | mg/L | | | 11/13/23 12:02 | 1 |

**Lab Sample ID: LCS 550-311092/5**
**Matrix: Water**
**Analysis Batch: 311092**

**Client Sample ID: Lab Control Sample**
**Prep Type: Dissolved**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | | | 20.0 | 18.4 | | mg/L | | 92 | 90 - 110 | | |
| Dissolved Organic Carbon - Duplicate | | | 20.0 | 18.4 | | mg/L | | 92 | 90 - 110 | | |
| Dissolved Organic Carbon - Quad | | | 20.0 | 18.4 | | mg/L | | 92 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-311092/6**
**Matrix: Water**
**Analysis Batch: 311092**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Dissolved**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | | | 20.0 | 19.6 | | mg/L | | 98 | 90 - 110 | 6 | 20 |
| Dissolved Organic Carbon - Duplicate | | | 20.0 | 19.1 | | mg/L | | 96 | 90 - 110 | 4 | 20 |
| Dissolved Organic Carbon - Quad | | | 20.0 | 19.6 | | mg/L | | 98 | 90 - 110 | 6 | 20 |

**Lab Sample ID: 550-209610-B-6 MSD**
**Matrix: Water**
**Analysis Batch: 311092**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | 2.0 | | 20.0 | 21.6 | | mg/L | | 98 | 90 - 110 | 2 | 20 |
| Dissolved Organic Carbon - Duplicate | 2.0 | | 20.0 | 21.6 | | mg/L | | 98 | 90 - 110 | 3 | 20 |
| Dissolved Organic Carbon - Quad | 2.0 | | 20.0 | 21.6 | | mg/L | | 98 | 90 - 110 | 2 | 20 |

**Lab Sample ID: 550-209610-C-6 MS**
**Matrix: Water**
**Analysis Batch: 311092**

**Client Sample ID: Matrix Spike**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon | 2.0 | | 20.0 | 21.2 | | mg/L | | 96 | 90 - 110 | | |
| Dissolved Organic Carbon - Duplicate | 2.0 | | 20.0 | 21.0 | | mg/L | | 95 | 90 - 110 | | |
| Dissolved Organic Carbon - Quad | 2.0 | | 20.0 | 21.2 | | mg/L | | 96 | 90 - 110 | | |

## HPLC/IC

### Analysis Batch: 310211

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-1 | CH-CCR-MW78A-1023 | Total/NA | Water | 300.0 | |
| 550-209609-1 | CH-CCR-MW78A-1023 | Total/NA | Water | 300.0 | |
| 550-209609-1 | CH-CCR-MW78A-1023 | Total/NA | Water | 9056A | |
| 550-209609-3 | CH-CCR-BAPTD-1023 | Total/NA | Water | 300.0 | |
| 550-209609-3 | CH-CCR-BAPTD-1023 | Total/NA | Water | 300.0 | |
| 550-209609-5 | CH-CCR-Petroglyph-1023 | Total/NA | Water | 300.0 | |
| 550-209609-5 | CH-CCR-Petroglyph-1023 | Total/NA | Water | 300.0 | |
| 550-209609-7 | CH-CCR-TannerWash-1023 | Total/NA | Water | 300.0 | |
| 550-209609-7 | CH-CCR-TannerWash-1023 | Total/NA | Water | 300.0 | |
| 550-209609-9 | CH-CCR-TWX3-1023 | Total/NA | Water | 300.0 | |
| 550-209609-9 | CH-CCR-TWX3-1023 | Total/NA | Water | 300.0 | |
| 550-209609-11 | CH-CCR-TWX5-1023 | Total/NA | Water | 300.0 | |
| 550-209609-11 | CH-CCR-TWX5-1023 | Total/NA | Water | 300.0 | |
| 550-209609-13 | CH-CCR-TWX7-1023 | Total/NA | Water | 300.0 | |
| 550-209609-13 | CH-CCR-TWX7-1023 | Total/NA | Water | 300.0 | |
| 550-209609-15 | CH-CCR-TWX9-1023 | Total/NA | Water | 300.0 | |
| 550-209609-15 | CH-CCR-TWX9-1023 | Total/NA | Water | 300.0 | |
| 550-209609-17 | CH-CCR-TWX10-1023 | Total/NA | Water | 300.0 | |
| 550-209609-17 | CH-CCR-TWX10-1023 | Total/NA | Water | 300.0 | |
| 550-209609-19 | CH-CCR-EB01-1023 | Total/NA | Water | 300.0 | |
| MB 550-310211/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-310211/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-310211/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-209568-B-5 MS ^10 | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-209568-B-5 MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

## Metals

### Prep Batch: 309967

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-1 | CH-CCR-MW78A-1023 | Total/NA | Water | 200.8 | |
| 550-209609-2 | CH-CCR-MW78A-1023 | Dissolved | Water | 200.8 | |
| 550-209609-3 | CH-CCR-BAPTD-1023 | Total/NA | Water | 200.8 | |
| 550-209609-4 | CH-CCR-BAPTD-1023 | Dissolved | Water | 200.8 | |
| 550-209609-5 | CH-CCR-Petroglyph-1023 | Total/NA | Water | 200.8 | |
| 550-209609-6 | CH-CCR-Petroglyph-1023 | Dissolved | Water | 200.8 | |
| 550-209609-7 | CH-CCR-TannerWash-1023 | Total/NA | Water | 200.8 | |
| 550-209609-8 | CH-CCR-TannerWash-1023 | Dissolved | Water | 200.8 | |
| 550-209609-9 | CH-CCR-TWX3-1023 | Total/NA | Water | 200.8 | |
| 550-209609-10 | CH-CCR-TWX3-1023 | Dissolved | Water | 200.8 | |
| 550-209609-11 | CH-CCR-TWX5-1023 | Total/NA | Water | 200.8 | |
| 550-209609-12 | CH-CCR-TWX5-1023 | Dissolved | Water | 200.8 | |
| 550-209609-13 | CH-CCR-TWX7-1023 | Total/NA | Water | 200.8 | |
| 550-209609-14 | CH-CCR-TWX7-1023 | Dissolved | Water | 200.8 | |
| 550-209609-15 | CH-CCR-TWX9-1023 | Total/NA | Water | 200.8 | |
| 550-209609-16 | CH-CCR-TWX9-1023 | Dissolved | Water | 200.8 | |
| 550-209609-17 | CH-CCR-TWX10-1023 | Total/NA | Water | 200.8 | |
| 550-209609-18 | CH-CCR-TWX10-1023 | Dissolved | Water | 200.8 | |
| 550-209609-19 | CH-CCR-EB01-1023 | Total/NA | Water | 200.8 | |
| 550-209609-20 | CH-CCR-EB01-1023 | Dissolved | Water | 200.8 | |
| MB 550-309967/1-A | Method Blank | Total/NA | Water | 200.8 | |

## Metals (Continued)

### Prep Batch: 309967 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 550-309967/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-309967/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-209609-1 MS | CH-CCR-MW78A-1023 | Total/NA | Water | 200.8 | |
| 550-209609-1 MSD | CH-CCR-MW78A-1023 | Total/NA | Water | 200.8 | |

### Prep Batch: 309969

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-1 | CH-CCR-MW78A-1023 | Total/NA | Water | 200.7 | |
| 550-209609-2 | CH-CCR-MW78A-1023 | Dissolved | Water | 200.7 | |
| 550-209609-3 | CH-CCR-BAPTD-1023 | Total/NA | Water | 200.7 | |
| 550-209609-4 | CH-CCR-BAPTD-1023 | Dissolved | Water | 200.7 | |
| 550-209609-5 | CH-CCR-Petroglyph-1023 | Total/NA | Water | 200.7 | |
| 550-209609-6 | CH-CCR-Petroglyph-1023 | Dissolved | Water | 200.7 | |
| 550-209609-7 | CH-CCR-TannerWash-1023 | Total/NA | Water | 200.7 | |
| 550-209609-8 | CH-CCR-TannerWash-1023 | Dissolved | Water | 200.7 | |
| 550-209609-9 | CH-CCR-TWX3-1023 | Total/NA | Water | 200.7 | |
| 550-209609-10 | CH-CCR-TWX3-1023 | Dissolved | Water | 200.7 | |
| 550-209609-11 | CH-CCR-TWX5-1023 | Total/NA | Water | 200.7 | |
| 550-209609-12 | CH-CCR-TWX5-1023 | Dissolved | Water | 200.7 | |
| 550-209609-13 | CH-CCR-TWX7-1023 | Total/NA | Water | 200.7 | |
| 550-209609-14 | CH-CCR-TWX7-1023 | Dissolved | Water | 200.7 | |
| 550-209609-15 | CH-CCR-TWX9-1023 | Total/NA | Water | 200.7 | |
| 550-209609-16 | CH-CCR-TWX9-1023 | Dissolved | Water | 200.7 | |
| 550-209609-17 | CH-CCR-TWX10-1023 | Total/NA | Water | 200.7 | |
| 550-209609-18 | CH-CCR-TWX10-1023 | Dissolved | Water | 200.7 | |
| 550-209609-19 | CH-CCR-EB01-1023 | Total/NA | Water | 200.7 | |
| 550-209609-20 | CH-CCR-EB01-1023 | Dissolved | Water | 200.7 | |
| MB 550-309969/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-309969/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-309969/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-209609-3 MS | CH-CCR-BAPTD-1023 | Total/NA | Water | 200.7 | |
| 550-209609-3 MSD | CH-CCR-BAPTD-1023 | Total/NA | Water | 200.7 | |

### Prep Batch: 310101

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-1 | CH-CCR-MW78A-1023 | Total/NA | Water | 245.1 | |
| 550-209609-3 | CH-CCR-BAPTD-1023 | Total/NA | Water | 245.1 | |
| 550-209609-5 | CH-CCR-Petroglyph-1023 | Total/NA | Water | 245.1 | |
| 550-209609-7 | CH-CCR-TannerWash-1023 | Total/NA | Water | 245.1 | |
| 550-209609-9 | CH-CCR-TWX3-1023 | Total/NA | Water | 245.1 | |
| 550-209609-11 | CH-CCR-TWX5-1023 | Total/NA | Water | 245.1 | |
| 550-209609-13 | CH-CCR-TWX7-1023 | Total/NA | Water | 245.1 | |
| 550-209609-15 | CH-CCR-TWX9-1023 | Total/NA | Water | 245.1 | |
| 550-209609-17 | CH-CCR-TWX10-1023 | Total/NA | Water | 245.1 | |
| 550-209609-19 | CH-CCR-EB01-1023 | Total/NA | Water | 245.1 | |
| MB 550-310101/1-A | Method Blank | Total/NA | Water | 245.1 | |
| LCS 550-310101/2-A | Lab Control Sample | Total/NA | Water | 245.1 | |
| LCSD 550-310101/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | |
| 550-209622-F-1-B MS | Matrix Spike | Total/NA | Water | 245.1 | |
| 550-209622-F-1-C MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | |
| 550-209624-F-1-C MS | Matrix Spike | Total/NA | Water | 245.1 | |

## Metals

### Analysis Batch: 310123

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-1 | CH-CCR-MW78A-1023 | Total/NA | Water | 245.1 | 310101 |
| 550-209609-3 | CH-CCR-BAPTD-1023 | Total/NA | Water | 245.1 | 310101 |
| 550-209609-5 | CH-CCR-Petroglyph-1023 | Total/NA | Water | 245.1 | 310101 |
| 550-209609-7 | CH-CCR-TannerWash-1023 | Total/NA | Water | 245.1 | 310101 |
| 550-209609-9 | CH-CCR-TWX3-1023 | Total/NA | Water | 245.1 | 310101 |
| 550-209609-11 | CH-CCR-TWX5-1023 | Total/NA | Water | 245.1 | 310101 |
| 550-209609-13 | CH-CCR-TWX7-1023 | Total/NA | Water | 245.1 | 310101 |
| 550-209609-15 | CH-CCR-TWX9-1023 | Total/NA | Water | 245.1 | 310101 |
| 550-209609-17 | CH-CCR-TWX10-1023 | Total/NA | Water | 245.1 | 310101 |
| 550-209609-19 | CH-CCR-EB01-1023 | Total/NA | Water | 245.1 | 310101 |
| MB 550-310101/1-A | Method Blank | Total/NA | Water | 245.1 | 310101 |
| LCS 550-310101/2-A | Lab Control Sample | Total/NA | Water | 245.1 | 310101 |
| LCSD 550-310101/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | 310101 |
| 550-209622-F-1-B MS | Matrix Spike | Total/NA | Water | 245.1 | 310101 |
| 550-209622-F-1-C MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | 310101 |
| 550-209624-F-1-C MS | Matrix Spike | Total/NA | Water | 245.1 | 310101 |

### Analysis Batch: 310202

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-1 | CH-CCR-MW78A-1023 | Total/NA | Water | 200.8 LL | 309967 |
| 550-209609-2 | CH-CCR-MW78A-1023 | Dissolved | Water | 200.8 LL | 309967 |
| 550-209609-3 | CH-CCR-BAPTD-1023 | Total/NA | Water | 200.8 LL | 309967 |
| 550-209609-4 | CH-CCR-BAPTD-1023 | Dissolved | Water | 200.8 LL | 309967 |
| 550-209609-5 | CH-CCR-Petroglyph-1023 | Total/NA | Water | 200.8 LL | 309967 |
| 550-209609-6 | CH-CCR-Petroglyph-1023 | Dissolved | Water | 200.8 LL | 309967 |
| 550-209609-7 | CH-CCR-TannerWash-1023 | Total/NA | Water | 200.8 LL | 309967 |
| 550-209609-8 | CH-CCR-TannerWash-1023 | Dissolved | Water | 200.8 LL | 309967 |
| 550-209609-9 | CH-CCR-TWX3-1023 | Total/NA | Water | 200.8 LL | 309967 |
| 550-209609-10 | CH-CCR-TWX3-1023 | Dissolved | Water | 200.8 LL | 309967 |
| MB 550-309967/1-A | Method Blank | Total/NA | Water | 200.8 LL | 309967 |
| LCS 550-309967/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 309967 |
| LCSD 550-309967/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 309967 |
| 550-209609-1 MS | CH-CCR-MW78A-1023 | Total/NA | Water | 200.8 LL | 309967 |
| 550-209609-1 MSD | CH-CCR-MW78A-1023 | Total/NA | Water | 200.8 LL | 309967 |

### Analysis Batch: 310235

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-1 | CH-CCR-MW78A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-2 | CH-CCR-MW78A-1023 | Dissolved | Water | 200.7 | 309969 |
| 550-209609-3 | CH-CCR-BAPTD-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-4 | CH-CCR-BAPTD-1023 | Dissolved | Water | 200.7 | 309969 |
| 550-209609-5 | CH-CCR-Petroglyph-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-6 | CH-CCR-Petroglyph-1023 | Dissolved | Water | 200.7 | 309969 |
| 550-209609-7 | CH-CCR-TannerWash-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-8 | CH-CCR-TannerWash-1023 | Dissolved | Water | 200.7 | 309969 |
| 550-209609-9 | CH-CCR-TWX3-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-10 | CH-CCR-TWX3-1023 | Dissolved | Water | 200.7 | 309969 |
| 550-209609-11 | CH-CCR-TWX5-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-12 | CH-CCR-TWX5-1023 | Dissolved | Water | 200.7 | 309969 |
| 550-209609-13 | CH-CCR-TWX7-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-14 | CH-CCR-TWX7-1023 | Dissolved | Water | 200.7 | 309969 |

## Metals (Continued)

### Analysis Batch: 310235 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-15 | CH-CCR-TWX9-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-16 | CH-CCR-TWX9-1023 | Dissolved | Water | 200.7 | 309969 |
| 550-209609-17 | CH-CCR-TWX10-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-18 | CH-CCR-TWX10-1023 | Dissolved | Water | 200.7 | 309969 |
| 550-209609-19 | CH-CCR-EB01-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-20 | CH-CCR-EB01-1023 | Dissolved | Water | 200.7 | 309969 |
| MB 550-309969/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| LCS 550-309969/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| LCSD 550-309969/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-3 MS | CH-CCR-BAPTD-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-3 MSD | CH-CCR-BAPTD-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |

### Analysis Batch: 310541

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-11 | CH-CCR-TWX5-1023 | Total/NA | Water | 200.8 LL | 309967 |
| 550-209609-12 | CH-CCR-TWX5-1023 | Dissolved | Water | 200.8 LL | 309967 |
| 550-209609-13 | CH-CCR-TWX7-1023 | Total/NA | Water | 200.8 LL | 309967 |
| 550-209609-14 | CH-CCR-TWX7-1023 | Dissolved | Water | 200.8 LL | 309967 |
| 550-209609-15 | CH-CCR-TWX9-1023 | Total/NA | Water | 200.8 LL | 309967 |
| 550-209609-16 | CH-CCR-TWX9-1023 | Dissolved | Water | 200.8 LL | 309967 |
| 550-209609-17 | CH-CCR-TWX10-1023 | Total/NA | Water | 200.8 LL | 309967 |
| 550-209609-18 | CH-CCR-TWX10-1023 | Dissolved | Water | 200.8 LL | 309967 |
| 550-209609-19 | CH-CCR-EB01-1023 | Total/NA | Water | 200.8 LL | 309967 |
| 550-209609-20 | CH-CCR-EB01-1023 | Dissolved | Water | 200.8 LL | 309967 |
| MB 550-309967/1-A | Method Blank | Total/NA | Water | 200.8 LL | 309967 |
| LCS 550-309967/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 309967 |
| LCSD 550-309967/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 309967 |
| 550-209609-1 MS | CH-CCR-MW78A-1023 | Total/NA | Water | 200.8 LL | 309967 |
| 550-209609-1 MSD | CH-CCR-MW78A-1023 | Total/NA | Water | 200.8 LL | 309967 |

### Analysis Batch: 310603

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-1 | CH-CCR-MW78A-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-3 | CH-CCR-BAPTD-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-5 | CH-CCR-Petroglyph-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-7 | CH-CCR-TannerWash-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-9 | CH-CCR-TWX3-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-11 | CH-CCR-TWX5-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-13 | CH-CCR-TWX7-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-15 | CH-CCR-TWX9-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-17 | CH-CCR-TWX10-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-19 | CH-CCR-EB01-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-3 MS | CH-CCR-BAPTD-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |
| 550-209609-3 MSD | CH-CCR-BAPTD-1023 | Total/NA | Water | 200.7 Rev 4.4 | 309969 |

### Prep Batch: 379148

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-1 | CH-CCR-MW78A-1023 | Total Recoverable | Water | 200.7 | |
| 550-209609-3 | CH-CCR-BAPTD-1023 | Total Recoverable | Water | 200.7 | |
| 550-209609-5 | CH-CCR-Petroglyph-1023 | Total Recoverable | Water | 200.7 | |
| 550-209609-7 | CH-CCR-TannerWash-1023 | Total Recoverable | Water | 200.7 | |

## Metals (Continued)

### Prep Batch: 379148 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-9 | CH-CCR-TWX3-1023 | Total Recoverable | Water | 200.7 | |
| 550-209609-11 | CH-CCR-TWX5-1023 | Total Recoverable | Water | 200.7 | |
| 550-209609-13 | CH-CCR-TWX7-1023 | Total Recoverable | Water | 200.7 | |
| 550-209609-15 | CH-CCR-TWX9-1023 | Total Recoverable | Water | 200.7 | |
| 550-209609-17 | CH-CCR-TWX10-1023 | Total Recoverable | Water | 200.7 | |
| 550-209609-19 | CH-CCR-EB01-1023 | Total Recoverable | Water | 200.7 | |
| MB 570-379148/1-A | Method Blank | Total Recoverable | Water | 200.7 | |
| LCS 570-379148/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 | |
| LCSD 570-379148/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.7 | |
| 550-209609-15 MS | CH-CCR-TWX9-1023 | Total Recoverable | Water | 200.7 | |
| 550-209609-15 MSD | CH-CCR-TWX9-1023 | Total Recoverable | Water | 200.7 | |

### Analysis Batch: 379787

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-1 | CH-CCR-MW78A-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 379148 |
| 550-209609-3 | CH-CCR-BAPTD-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 379148 |
| 550-209609-5 | CH-CCR-Petroglyph-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 379148 |
| 550-209609-7 | CH-CCR-TannerWash-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 379148 |
| 550-209609-9 | CH-CCR-TWX3-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 379148 |
| 550-209609-11 | CH-CCR-TWX5-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 379148 |
| 550-209609-13 | CH-CCR-TWX7-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 379148 |
| 550-209609-15 | CH-CCR-TWX9-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 379148 |
| 550-209609-17 | CH-CCR-TWX10-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 379148 |
| 550-209609-19 | CH-CCR-EB01-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 379148 |
| MB 570-379148/1-A | Method Blank | Total Recoverable | Water | 200.7 Rev 4.4 | 379148 |
| LCS 570-379148/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 Rev 4.4 | 379148 |
| LCSD 570-379148/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.7 Rev 4.4 | 379148 |
| 550-209609-15 MS | CH-CCR-TWX9-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 379148 |
| 550-209609-15 MSD | CH-CCR-TWX9-1023 | Total Recoverable | Water | 200.7 Rev 4.4 | 379148 |

## General Chemistry

### Analysis Batch: 310111

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-1 | CH-CCR-MW78A-1023 | Total/NA | Water | SM 2540C | |
| MB 550-310111/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-310111/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-310111/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-209609-1 DU | CH-CCR-MW78A-1023 | Total/NA | Water | SM 2540C | |

### Analysis Batch: 310120

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-3 | CH-CCR-BAPTD-1023 | Total/NA | Water | SM 2540C | |
| 550-209609-5 | CH-CCR-Petroglyph-1023 | Total/NA | Water | SM 2540C | |
| 550-209609-7 | CH-CCR-TannerWash-1023 | Total/NA | Water | SM 2540C | |
| 550-209609-9 | CH-CCR-TWX3-1023 | Total/NA | Water | SM 2540C | |
| 550-209609-11 | CH-CCR-TWX5-1023 | Total/NA | Water | SM 2540C | |
| 550-209609-13 | CH-CCR-TWX7-1023 | Total/NA | Water | SM 2540C | |
| 550-209609-15 | CH-CCR-TWX9-1023 | Total/NA | Water | SM 2540C | |
| 550-209609-17 | CH-CCR-TWX10-1023 | Total/NA | Water | SM 2540C | |
| MB 550-310120/1 | Method Blank | Total/NA | Water | SM 2540C | |

## General Chemistry (Continued)

### Analysis Batch: 310120 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 550-310120/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-310120/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-209599-C-3 DU | Duplicate | Total/NA | Water | SM 2540C | |

### Analysis Batch: 310142

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-1 | CH-CCR-MW78A-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209609-3 | CH-CCR-BAPTD-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209609-5 | CH-CCR-Petroglyph-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209609-7 | CH-CCR-TannerWash-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209609-9 | CH-CCR-TWX3-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209609-11 | CH-CCR-TWX5-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209609-13 | CH-CCR-TWX7-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209609-15 | CH-CCR-TWX9-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209609-17 | CH-CCR-TWX10-1023 | Total/NA | Water | SM 4500 H+ B | |
| 550-209609-19 | CH-CCR-EB01-1023 | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-310142/37 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-310142/49 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| 550-209609-1 DU | CH-CCR-MW78A-1023 | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 310159

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-19 | CH-CCR-EB01-1023 | Total/NA | Water | SM 2540C | |
| MB 550-310159/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-310159/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-310159/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-209578-K-1 DU | Duplicate | Total/NA | Water | SM 2540C | |

### Analysis Batch: 310375

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-1 | CH-CCR-MW78A-1023 | Total/NA | Water | 350.1 | |
| 550-209609-3 | CH-CCR-BAPTD-1023 | Total/NA | Water | 350.1 | |
| 550-209609-5 | CH-CCR-Petroglyph-1023 | Total/NA | Water | 350.1 | |
| 550-209609-7 | CH-CCR-TannerWash-1023 | Total/NA | Water | 350.1 | |
| 550-209609-9 | CH-CCR-TWX3-1023 | Total/NA | Water | 350.1 | |
| 550-209609-11 | CH-CCR-TWX5-1023 | Total/NA | Water | 350.1 | |
| 550-209609-13 | CH-CCR-TWX7-1023 | Total/NA | Water | 350.1 | |
| 550-209609-15 | CH-CCR-TWX9-1023 | Total/NA | Water | 350.1 | |
| 550-209609-17 | CH-CCR-TWX10-1023 | Total/NA | Water | 350.1 | |
| 550-209609-19 | CH-CCR-EB01-1023 | Total/NA | Water | 350.1 | |
| MB 550-310375/60 | Method Blank | Total/NA | Water | 350.1 | |
| LCS 550-310375/61 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCSD 550-310375/62 | Lab Control Sample Dup | Total/NA | Water | 350.1 | |
| 550-209609-1 MS | CH-CCR-MW78A-1023 | Total/NA | Water | 350.1 | |
| 550-209609-1 MSD | CH-CCR-MW78A-1023 | Total/NA | Water | 350.1 | |

### Analysis Batch: 310379

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-1 | CH-CCR-MW78A-1023 | Total/NA | Water | SM 2320B | |
| 550-209609-3 | CH-CCR-BAPTD-1023 | Total/NA | Water | SM 2320B | |
| 550-209609-5 | CH-CCR-Petroglyph-1023 | Total/NA | Water | SM 2320B | |

## General Chemistry (Continued)

### Analysis Batch: 310379 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-7 | CH-CCR-TannerWash-1023 | Total/NA | Water | SM 2320B | |
| 550-209609-9 | CH-CCR-TWX3-1023 | Total/NA | Water | SM 2320B | |
| 550-209609-11 | CH-CCR-TWX5-1023 | Total/NA | Water | SM 2320B | |
| 550-209609-13 | CH-CCR-TWX7-1023 | Total/NA | Water | SM 2320B | |
| 550-209609-15 | CH-CCR-TWX9-1023 | Total/NA | Water | SM 2320B | |
| 550-209609-17 | CH-CCR-TWX10-1023 | Total/NA | Water | SM 2320B | |
| 550-209609-19 | CH-CCR-EB01-1023 | Total/NA | Water | SM 2320B | |
| MB 550-310379/3 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 550-310379/4 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| LCSD 550-310379/17 | Lab Control Sample Dup | Total/NA | Water | SM 2320B | |
| 550-209609-1 DU | CH-CCR-MW78A-1023 | Total/NA | Water | SM 2320B | |

### Analysis Batch: 310867

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-2 | CH-CCR-MW78A-1023 | Dissolved | Water | SM 5310B | |
| 550-209609-4 | CH-CCR-BAPTD-1023 | Dissolved | Water | SM 5310B | |
| 550-209609-6 | CH-CCR-Petroglyph-1023 | Dissolved | Water | SM 5310B | |
| 550-209609-8 | CH-CCR-TannerWash-1023 | Dissolved | Water | SM 5310B | |
| 550-209609-20 | CH-CCR-EB01-1023 | Dissolved | Water | SM 5310B | |
| MB 550-310867/3 | Method Blank | Dissolved | Water | SM 5310B | |
| LCS 550-310867/5 | Lab Control Sample | Dissolved | Water | SM 5310B | |
| LCSD 550-310867/6 | Lab Control Sample Dup | Dissolved | Water | SM 5310B | |
| 550-209476-G-9 MS | Matrix Spike | Dissolved | Water | SM 5310B | |
| 550-209476-J-9 MSD | Matrix Spike Duplicate | Dissolved | Water | SM 5310B | |

### Analysis Batch: 311092

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-10 | CH-CCR-TWX3-1023 | Dissolved | Water | SM 5310B | |
| 550-209609-12 | CH-CCR-TWX5-1023 | Dissolved | Water | SM 5310B | |
| 550-209609-14 | CH-CCR-TWX7-1023 | Dissolved | Water | SM 5310B | |
| 550-209609-16 | CH-CCR-TWX9-1023 | Dissolved | Water | SM 5310B | |
| 550-209609-18 | CH-CCR-TWX10-1023 | Dissolved | Water | SM 5310B | |
| MB 550-311092/3 | Method Blank | Dissolved | Water | SM 5310B | |
| LCS 550-311092/5 | Lab Control Sample | Dissolved | Water | SM 5310B | |
| LCSD 550-311092/6 | Lab Control Sample Dup | Dissolved | Water | SM 5310B | |
| 550-209610-B-6 MSD | Matrix Spike Duplicate | Dissolved | Water | SM 5310B | |
| 550-209610-C-6 MS | Matrix Spike | Dissolved | Water | SM 5310B | |

### Analysis Batch: 311093

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-3 | CH-CCR-BAPTD-1023 | Total/NA | Water | SM 5310B | |
| 550-209609-5 | CH-CCR-Petroglyph-1023 | Total/NA | Water | SM 5310B | |
| 550-209609-7 | CH-CCR-TannerWash-1023 | Total/NA | Water | SM 5310B | |
| 550-209609-9 | CH-CCR-TWX3-1023 | Total/NA | Water | SM 5310B | |
| 550-209609-11 | CH-CCR-TWX5-1023 | Total/NA | Water | SM 5310B | |
| 550-209609-13 | CH-CCR-TWX7-1023 | Total/NA | Water | SM 5310B | |
| 550-209609-15 | CH-CCR-TWX9-1023 | Total/NA | Water | SM 5310B | |
| 550-209609-17 | CH-CCR-TWX10-1023 | Total/NA | Water | SM 5310B | |
| 550-209609-19 | CH-CCR-EB01-1023 | Total/NA | Water | SM 5310B | |
| MB 550-311093/5 | Method Blank | Total/NA | Water | SM 5310B | |
| LCS 550-311093/2 | Lab Control Sample | Total/NA | Water | SM 5310B | |

## General Chemistry (Continued)

### Analysis Batch: 311093 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCSD 550-311093/3 | Lab Control Sample Dup | Total/NA | Water | SM 5310B | |
| 550-209656-F-1 MSD ^2 | Matrix Spike Duplicate | Total/NA | Water | SM 5310B | |
| 550-209656-G-1 MS ^2 | Matrix Spike | Total/NA | Water | SM 5310B | |

### Analysis Batch: 631959

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-1 | CH-CCR-MW78A-1023 | Total/NA | Water | 353.2 | |
| 550-209609-3 | CH-CCR-BAPTD-1023 | Total/NA | Water | 353.2 | |
| 550-209609-5 | CH-CCR-Petroglyph-1023 | Total/NA | Water | 353.2 | |
| MB 280-631959/104 | Method Blank | Total/NA | Water | 353.2 | |
| MB 280-631959/60 | Method Blank | Total/NA | Water | 353.2 | |
| LCS 280-631959/103 | Lab Control Sample | Total/NA | Water | 353.2 | |
| 550-209610-G-11 MS | Matrix Spike | Total/NA | Water | 353.2 | |
| 550-209610-G-11 MSD | Matrix Spike Duplicate | Total/NA | Water | 353.2 | |

### Analysis Batch: 632151

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-209609-7 | CH-CCR-TannerWash-1023 | Total/NA | Water | 353.2 | |
| 550-209609-9 | CH-CCR-TWX3-1023 | Total/NA | Water | 353.2 | |
| 550-209609-11 | CH-CCR-TWX5-1023 | Total/NA | Water | 353.2 | |
| 550-209609-13 | CH-CCR-TWX7-1023 | Total/NA | Water | 353.2 | |
| 550-209609-15 | CH-CCR-TWX9-1023 | Total/NA | Water | 353.2 | |
| 550-209609-17 | CH-CCR-TWX10-1023 | Total/NA | Water | 353.2 | |
| 550-209609-19 | CH-CCR-EB01-1023 | Total/NA | Water | 353.2 | |
| MB 280-632151/23 | Method Blank | Total/NA | Water | 353.2 | |
| LCS 280-632151/21 | Lab Control Sample | Total/NA | Water | 353.2 | |
| LCSD 280-632151/22 | Lab Control Sample Dup | Total/NA | Water | 353.2 | |
| 550-209609-17 MS | CH-CCR-TWX10-1023 | Total/NA | Water | 353.2 | |
| 550-209609-17 MSD | CH-CCR-TWX10-1023 | Total/NA | Water | 353.2 | |

## Client Sample ID: CH-CCR-MW78A-1023

**Lab Sample ID: 550-209609-1**

**Date Collected: 10/23/23 13:00**

**Matrix: Water**

**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 310211 | SMA | EET PHX | 10/30/23 13:54 |
| Total/NA | Analysis | 300.0 | | 100 | 310211 | SMA | EET PHX | 10/30/23 14:22 |
| Total/NA | Analysis | 9056A | | 1 | 310211 | SMA | EET PHX | 10/30/23 13:54 |
| Total Recoverable | Prep | 200.7 | | | 379148 | JP8N | EET CAL 4 | 11/01/23 07:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 379787 | K1UV | EET CAL 4 | 11/02/23 13:41 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:06 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310603 | GLW | EET PHX | 11/06/23 13:25 |
| Total/NA | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Total/NA | Analysis | 200.8 LL | | 1 | 310202 | DSJ | EET PHX | 10/27/23 19:20 |
| Total/NA | Prep | 245.1 | | | 310101 | HHL | EET PHX | 10/27/23 11:38 |
| Total/NA | Analysis | 245.1 | | 1 | 310123 | HHL | EET PHX | 10/27/23 15:45 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 13:26 |
| Total/NA | Analysis | 353.2 | | 1 | 631959 | BCR | EET DEN | 10/31/23 16:35 |
| Total/NA | Analysis | SM 2320B | | 1 | 310379 | MAN | EET PHX | 11/01/23 12:20 |
| Total/NA | Analysis | SM 2540C | | 1 | 310111 | KMG | EET PHX | 10/27/23 12:51 - 11/01/23 10:56 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310142 | MAN | EET PHX | 10/29/23 12:54 |

## Client Sample ID: CH-CCR-MW78A-1023

**Lab Sample ID: 550-209609-2**

**Date Collected: 10/23/23 13:00**

**Matrix: Water**

**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Dissolved | Analysis | 200.7 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:08 |
| Dissolved | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Dissolved | Analysis | 200.8 LL | | 1 | 310202 | DSJ | EET PHX | 10/27/23 19:22 |
| Dissolved | Analysis | SM 5310B | | 1 | 310867 | SMA | EET PHX | 11/08/23 22:29 |

## Client Sample ID: CH-CCR-BAPTD-1023

**Lab Sample ID: 550-209609-3**

**Date Collected: 10/24/23 08:42**

**Matrix: Water**

**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 310211 | SMA | EET PHX | 10/30/23 14:50 |
| Total/NA | Analysis | 300.0 | | 100 | 310211 | SMA | EET PHX | 10/30/23 15:18 |
| Total Recoverable | Prep | 200.7 | | | 379148 | JP8N | EET CAL 4 | 11/01/23 07:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 379787 | K1UV | EET CAL 4 | 11/02/23 13:44 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:00 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310603 | GLW | EET PHX | 11/06/23 13:22 |

## Client Sample ID: CH-CCR-BAPTD-1023

**Lab Sample ID: 550-209609-3**

**Date Collected: 10/24/23 08:42**

**Matrix: Water**

**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Total/NA | Analysis | 200.8 LL | | 1 | 310202 | DSJ | EET PHX | 10/27/23 19:24 |
| Total/NA | Prep | 245.1 | | | 310101 | HHL | EET PHX | 10/27/23 11:38 |
| Total/NA | Analysis | 245.1 | | 1 | 310123 | HHL | EET PHX | 10/27/23 15:43 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 13:31 |
| Total/NA | Analysis | 353.2 | | 1 | 631959 | BCR | EET DEN | 10/31/23 16:37 |
| Total/NA | Analysis | SM 2320B | | 1 | 310379 | MAN | EET PHX | 11/01/23 12:34 |
| Total/NA | Analysis | SM 2540C | | 1 | 310120 | KMG | EET PHX | 10/27/23 15:46 - 11/02/23 10:50 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310142 | MAN | EET PHX | 10/29/23 12:56 |
| Total/NA | Analysis | SM 5310B | | 1 | 311093 | SMA | EET PHX | 11/14/23 01:15 |

## Client Sample ID: CH-CCR-BAPTD-1023

**Lab Sample ID: 550-209609-4**

**Date Collected: 10/24/23 08:42**

**Matrix: Water**

**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Dissolved | Analysis | 200.7 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:03 |
| Dissolved | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Dissolved | Analysis | 200.8 LL | | 1 | 310202 | DSJ | EET PHX | 10/27/23 19:26 |
| Dissolved | Analysis | SM 5310B | | 1 | 310867 | SMA | EET PHX | 11/08/23 22:49 |

## Client Sample ID: CH-CCR-Petroglyph-1023

**Lab Sample ID: 550-209609-5**

**Date Collected: 10/24/23 09:09**

**Matrix: Water**

**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 310211 | SMA | EET PHX | 10/30/23 15:46 |
| Total/NA | Analysis | 300.0 | | 100 | 310211 | SMA | EET PHX | 10/30/23 16:14 |
| Total Recoverable | Prep | 200.7 | | | 379148 | JP8N | EET CAL 4 | 11/01/23 07:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 379787 | K1UV | EET CAL 4 | 11/02/23 13:46 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:11 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310603 | GLW | EET PHX | 11/06/23 13:28 |
| Total/NA | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Total/NA | Analysis | 200.8 LL | | 1 | 310202 | DSJ | EET PHX | 10/27/23 19:28 |
| Total/NA | Prep | 245.1 | | | 310101 | HHL | EET PHX | 10/27/23 11:38 |
| Total/NA | Analysis | 245.1 | | 1 | 310123 | HHL | EET PHX | 10/27/23 15:33 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 13:32 |
| Total/NA | Analysis | 353.2 | | 1 | 631959 | BCR | EET DEN | 10/31/23 16:51 |
| Total/NA | Analysis | SM 2320B | | 1 | 310379 | MAN | EET PHX | 11/01/23 12:41 |
| Total/NA | Analysis | SM 2540C | | 1 | 310120 | KMG | EET PHX | 10/27/23 15:46 - 11/02/23 10:50 [1] |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-Petroglyph-1023

**Lab Sample ID: 550-209609-5**
**Date Collected: 10/24/23 09:09**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310142 | MAN | EET PHX | 10/29/23 12:57 |
| Total/NA | Analysis | SM 5310B | | 1 | 311093 | SMA | EET PHX | 11/14/23 01:36 |

## Client Sample ID: CH-CCR-Petroglyph-1023

**Lab Sample ID: 550-209609-6**
**Date Collected: 10/24/23 09:09**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Dissolved | Analysis | 200.7 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:14 |
| Dissolved | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Dissolved | Analysis | 200.8 LL | | 1 | 310202 | DSJ | EET PHX | 10/27/23 19:30 |
| Dissolved | Analysis | SM 5310B | | 1 | 310867 | SMA | EET PHX | 11/08/23 23:06 |

## Client Sample ID: CH-CCR-TannerWash-1023

**Lab Sample ID: 550-209609-7**
**Date Collected: 10/24/23 09:28**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 10 | 310211 | SMA | EET PHX | 10/30/23 18:06 |
| Total/NA | Analysis | 300.0 | | 100 | 310211 | SMA | EET PHX | 10/30/23 18:34 |
| Total Recoverable | Prep | 200.7 | | | 379148 | JP8N | EET CAL 4 | 11/01/23 07:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 379787 | K1UV | EET CAL 4 | 11/02/23 13:48 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:17 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310603 | GLW | EET PHX | 11/06/23 13:31 |
| Total/NA | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Total/NA | Analysis | 200.8 LL | | 1 | 310202 | DSJ | EET PHX | 10/27/23 19:32 |
| Total/NA | Prep | 245.1 | | | 310101 | HHL | EET PHX | 10/27/23 11:38 |
| Total/NA | Analysis | 245.1 | | 1 | 310123 | HHL | EET PHX | 10/27/23 15:47 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 13:34 |
| Total/NA | Analysis | 353.2 | | 1 | 632151 | BCR | EET DEN | 11/01/23 14:13 |
| Total/NA | Analysis | SM 2320B | | 1 | 310379 | MAN | EET PHX | 11/01/23 12:47 |
| Total/NA | Analysis | SM 2540C | | 1 | 310120 | KMG | EET PHX | 10/27/23 15:46 - 11/02/23 10:50 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310142 | MAN | EET PHX | 10/29/23 12:58 |
| Total/NA | Analysis | SM 5310B | | 1 | 311093 | SMA | EET PHX | 11/14/23 01:57 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-TannerWash-1023

**Lab Sample ID: 550-209609-8**

**Date Collected: 10/24/23 09:28**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Dissolved | Analysis | 200.7 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:20 |
| Dissolved | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Dissolved | Analysis | 200.8 LL | | 1 | 310202 | DSJ | EET PHX | 10/27/23 19:34 |
| Dissolved | Analysis | SM 5310B | | 1 | 310867 | SMA | EET PHX | 11/08/23 23:27 |

## Client Sample ID: CH-CCR-TWX3-1023

**Lab Sample ID: 550-209609-9**

**Date Collected: 10/24/23 10:07**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 310211 | SMA | EET PHX | 10/30/23 19:02 |
| Total/NA | Analysis | 300.0 | | 100 | 310211 | SMA | EET PHX | 10/30/23 19:30 |
| Total Recoverable | Prep | 200.7 | | | 379148 | JP8N | EET CAL 4 | 11/01/23 07:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 379787 | K1UV | EET CAL 4 | 11/02/23 13:51 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:23 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310603 | GLW | EET PHX | 11/06/23 13:34 |
| Total/NA | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Total/NA | Analysis | 200.8 LL | | 1 | 310202 | DSJ | EET PHX | 10/27/23 19:36 |
| Total/NA | Prep | 245.1 | | | 310101 | HHL | EET PHX | 10/27/23 11:38 |
| Total/NA | Analysis | 245.1 | | 1 | 310123 | HHL | EET PHX | 10/27/23 15:49 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 13:35 |
| Total/NA | Analysis | 353.2 | | 1 | 632151 | BCR | EET DEN | 11/01/23 14:15 |
| Total/NA | Analysis | SM 2320B | | 1 | 310379 | MAN | EET PHX | 11/01/23 12:54 |
| Total/NA | Analysis | SM 2540C | | 1 | 310120 | KMG | EET PHX | 10/27/23 15:46 - 11/02/23 10:50 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310142 | MAN | EET PHX | 10/29/23 12:59 |
| Total/NA | Analysis | SM 5310B | | 1 | 311093 | SMA | EET PHX | 11/14/23 02:13 |

## Client Sample ID: CH-CCR-TWX3-1023

**Lab Sample ID: 550-209609-10**

**Date Collected: 10/24/23 10:07**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Dissolved | Analysis | 200.7 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:26 |
| Dissolved | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Dissolved | Analysis | 200.8 LL | | 1 | 310202 | DSJ | EET PHX | 10/27/23 19:38 |
| Dissolved | Analysis | SM 5310B | | 1 | 311092 | SMA | EET PHX | 11/13/23 16:43 |

## Client Sample ID: CH-CCR-TWX5-1023

**Lab Sample ID: 550-209609-11**

**Date Collected: 10/24/23 10:25**

**Matrix: Water**

**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 310211 | SMA | EET PHX | 10/30/23 19:58 |
| Total/NA | Analysis | 300.0 | | 100 | 310211 | SMA | EET PHX | 10/30/23 20:26 |
| Total Recoverable | Prep | 200.7 | | | 379148 | JP8N | EET CAL 4 | 11/01/23 07:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 379787 | K1UV | EET CAL 4 | 11/02/23 13:53 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:34 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310603 | GLW | EET PHX | 11/06/23 13:37 |
| Total/NA | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Total/NA | Analysis | 200.8 LL | | 5 | 310541 | DSJ | EET PHX | 11/03/23 14:55 |
| Total/NA | Prep | 245.1 | | | 310101 | HHL | EET PHX | 10/27/23 11:38 |
| Total/NA | Analysis | 245.1 | | 1 | 310123 | HHL | EET PHX | 10/27/23 15:51 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 13:37 |
| Total/NA | Analysis | 353.2 | | 1 | 632151 | BCR | EET DEN | 11/01/23 14:17 |
| Total/NA | Analysis | SM 2320B | | 1 | 310379 | MAN | EET PHX | 11/01/23 13:00 |
| Total/NA | Analysis | SM 2540C | | 1 | 310120 | KMG | EET PHX | 10/27/23 15:46 - 11/02/23 10:50 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310142 | MAN | EET PHX | 10/29/23 13:00 |
| Total/NA | Analysis | SM 5310B | | 1 | 311093 | SMA | EET PHX | 11/14/23 02:34 |

## Client Sample ID: CH-CCR-TWX5-1023

**Lab Sample ID: 550-209609-12**

**Date Collected: 10/24/23 10:25**

**Matrix: Water**

**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Dissolved | Analysis | 200.7 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:37 |
| Dissolved | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Dissolved | Analysis | 200.8 LL | | 5 | 310541 | DSJ | EET PHX | 11/03/23 14:57 |
| Dissolved | Analysis | SM 5310B | | 1 | 311092 | SMA | EET PHX | 11/13/23 17:45 |

## Client Sample ID: CH-CCR-TWX7-1023

**Lab Sample ID: 550-209609-13**

**Date Collected: 10/24/23 10:41**

**Matrix: Water**

**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 310211 | SMA | EET PHX | 10/30/23 20:54 |
| Total/NA | Analysis | 300.0 | | 100 | 310211 | SMA | EET PHX | 10/30/23 21:22 |
| Total Recoverable | Prep | 200.7 | | | 379148 | JP8N | EET CAL 4 | 11/01/23 07:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 379787 | K1UV | EET CAL 4 | 11/02/23 13:56 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:40 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310603 | GLW | EET PHX | 11/06/23 13:39 |

## Client Sample ID: CH-CCR-TWX7-1023

**Lab Sample ID: 550-209609-13**

**Date Collected: 10/24/23 10:41**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Total/NA | Analysis | 200.8 LL | | 5 | 310541 | DSJ | EET PHX | 11/03/23 14:59 |
| Total/NA | Prep | 245.1 | | | 310101 | HHL | EET PHX | 10/27/23 11:38 |
| Total/NA | Analysis | 245.1 | | 1 | 310123 | HHL | EET PHX | 10/27/23 15:53 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 13:38 |
| Total/NA | Analysis | 353.2 | | 1 | 632151 | BCR | EET DEN | 11/01/23 14:19 |
| Total/NA | Analysis | SM 2320B | | 1 | 310379 | MAN | EET PHX | 11/01/23 13:07 |
| Total/NA | Analysis | SM 2540C | | 1 | 310120 | KMG | EET PHX | 10/27/23 15:46 - 11/02/23 10:50 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310142 | MAN | EET PHX | 10/29/23 13:01 |
| Total/NA | Analysis | SM 5310B | | 1 | 311093 | SMA | EET PHX | 11/14/23 02:55 |

## Client Sample ID: CH-CCR-TWX7-1023

**Lab Sample ID: 550-209609-14**

**Date Collected: 10/24/23 10:41**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Dissolved | Analysis | 200.7 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:43 |
| Dissolved | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Dissolved | Analysis | 200.8 LL | | 5 | 310541 | DSJ | EET PHX | 11/03/23 15:01 |
| Dissolved | Analysis | SM 5310B | | 1 | 311092 | SMA | EET PHX | 11/13/23 18:02 |

## Client Sample ID: CH-CCR-TWX9-1023

**Lab Sample ID: 550-209609-15**

**Date Collected: 10/24/23 15:41**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 310211 | SMA | EET PHX | 10/30/23 21:50 |
| Total/NA | Analysis | 300.0 | | 100 | 310211 | SMA | EET PHX | 10/30/23 23:42 |
| Total Recoverable | Prep | 200.7 | | | 379148 | JP8N | EET CAL 4 | 11/01/23 07:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 379787 | K1UV | EET CAL 4 | 11/02/23 13:58 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:45 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310603 | GLW | EET PHX | 11/06/23 13:42 |
| Total/NA | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Total/NA | Analysis | 200.8 LL | | 5 | 310541 | DSJ | EET PHX | 11/03/23 15:03 |
| Total/NA | Prep | 245.1 | | | 310101 | HHL | EET PHX | 10/27/23 11:38 |
| Total/NA | Analysis | 245.1 | | 1 | 310123 | HHL | EET PHX | 10/27/23 15:55 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 13:40 |
| Total/NA | Analysis | 353.2 | | 1 | 632151 | BCR | EET DEN | 11/01/23 14:33 |
| Total/NA | Analysis | SM 2320B | | 1 | 310379 | MAN | EET PHX | 11/01/23 13:13 |
| Total/NA | Analysis | SM 2540C | | 1 | 310120 | KMG | EET PHX | 10/27/23 15:46 - 11/02/23 10:50 [1] |

## Client Sample ID: CH-CCR-TWX9-1023

**Lab Sample ID: 550-209609-15**

**Date Collected: 10/24/23 15:41**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310142 | MAN | EET PHX | 10/29/23 13:02 |
| Total/NA | Analysis | SM 5310B | | 1 | 311093 | SMA | EET PHX | 11/14/23 03:11 |

## Client Sample ID: CH-CCR-TWX9-1023

**Lab Sample ID: 550-209609-16**

**Date Collected: 10/24/23 15:41**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Dissolved | Analysis | 200.7 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:48 |
| Dissolved | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Dissolved | Analysis | 200.8 LL | | 5 | 310541 | DSJ | EET PHX | 11/03/23 15:54 |
| Dissolved | Analysis | SM 5310B | | 1 | 311092 | SMA | EET PHX | 11/13/23 18:18 |

## Client Sample ID: CH-CCR-TWX10-1023

**Lab Sample ID: 550-209609-17**

**Date Collected: 10/24/23 15:59**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 310211 | SMA | EET PHX | 10/31/23 00:10 |
| Total/NA | Analysis | 300.0 | | 100 | 310211 | SMA | EET PHX | 10/31/23 00:38 |
| Total Recoverable | Prep | 200.7 | | | 379148 | JP8N | EET CAL 4 | 11/01/23 07:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 379787 | K1UV | EET CAL 4 | 11/02/23 14:19 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:51 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310603 | GLW | EET PHX | 11/06/23 13:45 |
| Total/NA | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Total/NA | Analysis | 200.8 LL | | 5 | 310541 | DSJ | EET PHX | 11/03/23 15:56 |
| Total/NA | Prep | 245.1 | | | 310101 | HHL | EET PHX | 10/27/23 11:38 |
| Total/NA | Analysis | 245.1 | | 1 | 310123 | HHL | EET PHX | 10/27/23 15:57 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 13:41 |
| Total/NA | Analysis | 353.2 | | 1 | 632151 | BCR | EET DEN | 11/01/23 14:37 |
| Total/NA | Analysis | SM 2320B | | 1 | 310379 | MAN | EET PHX | 11/01/23 13:20 |
| Total/NA | Analysis | SM 2540C | | 1 | 310120 | KMG | EET PHX | 10/27/23 15:46 - 11/02/23 10:50 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310142 | MAN | EET PHX | 10/29/23 13:03 |
| Total/NA | Analysis | SM 5310B | | 1 | 311093 | SMA | EET PHX | 11/14/23 03:28 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

## Client Sample ID: CH-CCR-TWX10-1023

**Lab Sample ID: 550-209609-18**

**Date Collected: 10/24/23 15:59**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Dissolved | Analysis | 200.7 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:54 |
| Dissolved | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Dissolved | Analysis | 200.8 LL | | 5 | 310541 | DSJ | EET PHX | 11/03/23 15:58 |
| Dissolved | Analysis | SM 5310B | | 1 | 311092 | SMA | EET PHX | 11/13/23 18:39 |

## Client Sample ID: CH-CCR-EB01-1023

**Lab Sample ID: 550-209609-19**

**Date Collected: 10/25/23 08:15**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 310211 | SMA | EET PHX | 10/31/23 05:45 |
| Total Recoverable | Prep | 200.7 | | | 379148 | JP8N | EET CAL 4 | 11/01/23 07:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 379787 | K1UV | EET CAL 4 | 11/02/23 14:22 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 310235 | GLW | EET PHX | 10/31/23 01:57 |
| Total/NA | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 310603 | GLW | EET PHX | 11/06/23 13:48 |
| Total/NA | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Total/NA | Analysis | 200.8 LL | | 5 | 310541 | DSJ | EET PHX | 11/03/23 16:00 |
| Total/NA | Prep | 245.1 | | | 310101 | HHL | EET PHX | 10/27/23 11:38 |
| Total/NA | Analysis | 245.1 | | 1 | 310123 | HHL | EET PHX | 10/27/23 15:59 |
| Total/NA | Analysis | 350.1 | | 1 | 310375 | MAN | EET PHX | 11/01/23 13:43 |
| Total/NA | Analysis | 353.2 | | 1 | 632151 | BCR | EET DEN | 11/01/23 14:35 |
| Total/NA | Analysis | SM 2320B | | 1 | 310379 | MAN | EET PHX | 11/01/23 13:26 |
| Total/NA | Analysis | SM 2540C | | 1 | 310159 | KMG | EET PHX | 10/30/23 09:33 - 11/01/23 13:00 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 310142 | MAN | EET PHX | 10/29/23 13:04 |
| Total/NA | Analysis | SM 5310B | | 1 | 311093 | SMA | EET PHX | 11/14/23 03:48 |

## Client Sample ID: CH-CCR-EB01-1023

**Lab Sample ID: 550-209609-20**

**Date Collected: 10/25/23 08:15**
**Matrix: Water**
**Date Received: 10/25/23 13:44**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Dissolved | Prep | 200.7 | | | 309969 | SGO | EET PHX | 10/26/23 05:56 |
| Dissolved | Analysis | 200.7 | | 1 | 310235 | GLW | EET PHX | 10/31/23 02:00 |
| Dissolved | Prep | 200.8 | | | 309967 | SGO | EET PHX | 10/26/23 05:13 |
| Dissolved | Analysis | 200.8 LL | | 5 | 310541 | DSJ | EET PHX | 11/03/23 16:02 |
| Dissolved | Analysis | SM 5310B | | 1 | 310867 | SMA | EET PHX | 11/08/23 23:51 |

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

**Laboratory References:**

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

# Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

## Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0728 | 06-10-24 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 200.8 LL | 200.8 | Water | Molybdenum |
| SM 4500 H+ B | | Water | Temperature |

## Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0830 | 11-16-23 |
| California | SCAQMD LAP | 17LA0919 | 11-30-23 |
| California | State | 3082 | 07-31-24 |
| Nevada | State | CA00111 | 07-31-24 |
| Oregon | NELAP | 4175 | 02-02-24 |
| USDA | US Federal Programs | P330-22-00059 | 06-08-26 |
| Washington | State | C916-18 | 10-11-23 * |

## Laboratory: Eurofins Denver

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0713 | 12-20-23 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-209609-1
SDG: APS Cholla Power Plant (BAP)

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 300.0 | Anions, Ion Chromatography | EPA | EET PHX |
| 9056A | Anions, Ion Chromatography | SW846 | EET PHX |
| 200.7 | Dissolved Metals by ICP | EPA | EET PHX |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET CAL 4 |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET PHX |
| 200.8 LL | Metals (ICP/MS) | EPA | EET PHX |
| 245.1 | Mercury (CVAA) | EPA | EET PHX |
| 350.1 | Nitrogen, Ammonia (Low Level) | EPA | EET PHX |
| 353.2 | Nitrogen, Nitrate-Nitrite | EPA | EET DEN |
| SM 2320B | Alkalinity | SM | EET PHX |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET PHX |
| SM 4500 H+ B | pH | SM | EET PHX |
| SM 5310B | Organic Carbon, Dissolved (DOC) | SM | EET PHX |
| SM 5310B | Organic Carbon, Total (TOC) | SM | EET PHX |
| 200.7 | Preparation, Total Recoverable Metals | EPA | EET CAL 4 |
| 200.7 | Preparation, Total Metals | EPA | EET PHX |
| 200.8 | Preparation, Total Metals | EPA | EET PHX |
| 245.1 | Preparation, Mercury | EPA | EET PHX |

**Protocol References:**

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EET CAL 4 = Eurofins Calscience  Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR 209609

**TestAmerica Laboratories, Inc.**

| Client Contact | Natalie Chrisman | Pam Norris (505) 598-8781 | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | (602) 250-3608 | Lab Contact: Danielle Roberts | Carrier: | 1 of 2 COCs |
| 4801 Cholla Lake Rd | **Analysis Turnaround Time** | | | Sampler: |
| Joseph City, AZ 86032 | ☑ CALENDAR DAYS ☑ WORKING DAYS | | | **For Lab Use Only:** |
| (928) 587-0319 Phone | TAT if different from Below _____ | | | Walk-in Client: |
| FAX | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | |
| Site: APS Cholla Power Plant **(BAP)** | ☐ 2 days | | | Job / SDG No.: |
| PO #: 300592358 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y / N) | Perform MS / MSD (Y / N) | EPA 300.0 (Cl, F, SO4) | EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K) | EPA 200.7 - Totals (B, Ca, Be, Fe, Mn) | EPA 200.7 - Totals (B, Ca, Be, Fe, Mn, K, Mg, Na) | EPA 200.7 - Total Lithium | EPA 200.7 - Dissolved (Fe, Mn) | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | EPA 200.8 - Dissolved (As, Co) | EPA 245.1 - Totals (Hg) | SM 4500-HB (pH) | SM 2540C (TDS) | SM 5310B (DOC) | SM 4500-NH3 D (NH3 as N) | 353.2 (NO3+NO2 as N) | SM 2320B (HCO3 Alk. as CaCO3) | 9056A - Fluoride | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CH-CCR-MW78A-1023 1+2 | 10/23/23 | 1300 | G | W | 11 | * | | X | | | X | X | X | X | X | X | X | X | X | X | X | X | X | Low Flow |
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| **Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____** | | | | | | | | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 1 | 2 | 3 | 3 | 1 | | |

550-209609 Chain of Custody

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

**Special Instructions/QC Requirements & Comments:**

*Perform Method 200.8 with collision cell; *As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

1.4 | 1.1 | 1.6 | 3.2 ON ICE-CDU

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
|---|---|---|---|---|---|
| BSLC | WSP | 10-25-23 1314 | | | |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: | Date/Time: |
| | | | | EETA PHX | 10/26/23 1344 |

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

2096609

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

**TestAmerica Laboratories, Inc.**

| Client Contact | Natalie Chrisman | Pam Norris (505) 598-8781 | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | (602) 250-3608 | Lab Contact: Danielle Roberts | Carrier: | 2 of 2 COCs |
| 4801 Cholla Lake Rd | Analysis Turnaround Time | | | Sampler: |
| Joseph City, AZ 86032 | ☑ CALENDAR DAYS ☑ WORKING DAYS | | | For Lab Use Only: |
| (928) 587-0319 Phone | TAT if different from Below _____ | | | Walk-in Client: |
| FAX | ☐ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | |
| Site: APS Cholla Power Plant (BAP) | ☐ 2 days | | | Job / SDG No.: |
| PO #: 300592358 | ☐ 1 day | | | |

| Sample Identification | | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y / N) | Perform MS / MSD (Y / N) | EPA 300.0 (Cl, F, SO4) | EPA 200.7 - Totals (B, Ca, Be, Li, Fe, Mn, K, Mg, Na) | EPA 200.7 - Total Lithium | EPA 200.7 - Dissolved (Fe, Mn) | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | EPA 200.8 - Dissolved (As, Co) | SM 4500-HB (pH) | SM 2540C (TDS) | SM 5410B (TOC) | SM 5310B (DOC) | SM 4500-NH3 D (NH3 as N) | 353.2 (NO3+NO2 as N) | SM 2320B (CO3 Alk. as CaCO3) | SM 2320B (HCO3 Alk. as CaCO3) | | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CH-CCR-BAPTD-1023 | 3+4 | 10/24/23 | 842 | G | W | 14 | * | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | Seepage Pump Port Sample |
| CH-CCR-Petroglyph-1023 | 5+6 | 10/24/23 | 909 | G | W | 14 | * | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | " |
| CH-CCR-TannerWash-1023 | 7+8 | 10/24/23 | 928 | G | W | 14 | * | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | " |
| CH-CCR-TWX3-1023 | 9+10 | 10/24/23 | 1007 | G | W | 14 | * | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | " |
| CH-CCR-TWX5-1023 | 11+12 | 10/24/23 | 1025 | G | W | 14 | * | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | " |
| CH-CCR-TWX7-1023 | 13+14 | 10/24/23 | 1041 | G | W | 14 | * | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | " |
| CH-CCR-TWX9-1023 | 15+16 | 10/24/23 | 1541 | G | W | 14 | * | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | " |
| CH-CCR-TWX10-1023 | 17+18 | 10/24/23 | 1559 | G | W | 14 | * | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | " |
| CH-CCR-EB01-1023 | 19+20 | 10/25/23 | 815 | G | W | 14 | * | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | Equipment Blank |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| **Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____** | | | | | | | | | 1 | 4 | 4 | 4 | 4 | 4 | 1 | 1 | 2 | 2 | 3 | 3 | 1 | 1 | | |

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

**Special Instructions/QC Requirements & Comments:**

*Perform Method 200.8 with collision cell; * As marked on the bottle; perform dissolved analyses with sample provided in bottles marked 'field filtered'*

1.4/1.1 | 1.6/3.2 ONICE LDO

| Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____ | | |
|---|---|---|---|---|---|
| Relinquished by: | Company: WSP | Date/Time: 10-23-23 1344 | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: EETA PHX | Date/Time: 10/25/23 1344 |

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

159469-434 MTW EXP 04/24

550-209609 Waybill

ORIGIN ID:INWA (602) 437-3340
TESTAMERICA-PHOENIX
TESTAMERICA
4625 E COTTON CENTER BLVD
SUITE 189
PHOENIX, AZ 85040
UNITED STATES US

SHIP DATE: 26OCT23
ACTWGT: 48.10 LB MAN
CAD: 0875926/CAFE3755
DIMS: 25x14x13 IN

BILL RECIPIENT

TO **SHIPPING/RECEIVING**
**EUROFINS ENVIRONMENT TESTING SOUTHW**
**2841 DOW AVENUE, SUITE 100**

**TUSTIN CA 92780**
(714) 895-5494 REF: 8550-86764
PO: YES DEPT: SAMPLE RECEIVING

585C1/BCBB/AED7

FedEx Express

E

J233023051201uv

TRK# 0201 6388 9413 2894

FRI - 27 OCT 10:30A
PRIORITY OVERNIGHT

**QZ DTHA**

92780
CA-US SNA

RT 678 5 D
ST 5.2 10:30
2894
10.27

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins | Environment Testing

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-38110.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 1 of 2 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-209609-1 |
| Address: 4955 Yarrow Street, , | Due Date Requested: 11/7/2023 | | | |
| City: Arvada | TAT Requested (days): | | | |
| State, Zip: CO, 80002 | | | | |
| Phone: 303-736-0100(Tel) 303-431-7171(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 353.2_Pres | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| CH-CCR-MW78A-1023 (550-209609-1) | 10/23/23 | 13:00 Arizona | | Water | | | X | 1 | |
| CH-CCR-BAPTD-1023 (550-209609-3) | 10/24/23 | 08:42 Arizona | | Water | | | X | 1 | |
| CH-CCR-Petroglyph-1023 (550-209609-5) | 10/24/23 | 09:09 Arizona | | Water | | | X | 1 | |
| CH-CCR-TannerWash-1023 (550-209609-7) | 10/24/23 | 09:28 Arizona | | Water | | | X | 1 | |
| CH-CCR-TWX3-1023 (550-209609-9) | 10/24/23 | 10:07 Arizona | | Water | | | X | 1 | |
| CH-CCR-TWX5-1023 (550-209609-11) | 10/24/23 | 10:25 Arizona | | Water | | | X | 1 | |
| CH-CCR-TWX7-1023 (550-209609-13) | 10/24/23 | 10:41 Arizona | | Water | | | X | 1 | |
| CH-CCR-TWX9-1023 (550-209609-15) | 10/24/23 | 15:41 Arizona | | Water | | | X | 1 | |
| CH-CCR-TWX10-1023 (550-209609-17) | 10/24/23 | 15:59 Arizona | | Water | | | X | 1 | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

| ***Possible Hazard Identification*** | ***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*** |
|---|---|
| *Unconfirmed* | ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months* |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by | Date/Time | Company | Received by | Date/Time | Company |
|---|---|---|---|---|---|---|
| 1 | 10-26-23 | 15:30 | EESW | Fedex | | |
| 2 | | | | | 10-27-23 0945 | EETDEN |
| 3 | | | | | | |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 0.7 & 0.3 R MOMO |
|---|---|---|

Ver: 06/08/2021

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins | Environment Testing

| | | | | |
|---|---|---|---|---|
| **Client Information (Sub Contract Lab)** | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-38110.2 |
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 2 of 2 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-209609-1 |
| Address: 4955 Yarrow Street, , | Due Date Requested: 11/7/2023 | | | |
| City: Arvada | TAT Requested (days): | | | |
| State, Zip: CO, 80002 | | | | |
| Phone: 303-736-0100(Tel) 303-431-7171(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 353.2_Pres | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| CH-CCR-EB01-1023 (550-209609-19) | 10/25/23 | 08:15 Arizona | | Water | | | X | 1 | |

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

| | |
|---|---|
| ***Possible Hazard Identification*** *Unconfirmed* | ***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months* |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by | Date/Time | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| Eme 10-26-23 | 15:30 | EETSW | Fedex | | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: 10-27-23 0945 | Company EETDEN |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 0.7 CF 0.3 IR MOMO |
|---|---|---|

Ver: 06/08/2021

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins | Environment Testing

Loc: 550
209609

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-38106.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 1 of 2 |
| Company: Eurofins Environment Testing Southwest, | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-209609-1 |
| Address: 2841 Dow Avenue, Suite 100, | Due Date Requested: 11/7/2023 | | | |
| City: Tustin | TAT Requested (days): | | | |
| State, Zip: CA, 92780 | | | | |
| Phone: 714-895-5494(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Custom 200.7 Metals List | Total Number of containers | Special Instructi |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| CH-CCR-MW78A-1023 (550-209609-1) | 10/23/23 | 13:00 Arizona | | Water | | | X | 1 | |
| CH-CCR-BAPTD-1023 (550-209609-3) | 10/24/23 | 08:42 Arizona | | Water | | | X | 1 | |
| CH-CCR-Petroglyph-1023 (550-209609-5) | 10/24/23 | 09:09 Arizona | | Water | | | X | 1 | |
| CH-CCR-TannerWash-1023 (550-209609-7) | 10/24/23 | 09:28 Arizona | | Water | | | X | 1 | |
| CH-CCR-TWX3-1023 (550-209609-9) | 10/24/23 | 10:07 Arizona | | Water | | | X | 1 | |
| CH-CCR-TWX5-1023 (550-209609-11) | 10/24/23 | 10:25 Arizona | | Water | | | X | 1 | |
| CH-CCR-TWX7-1023 (550-209609-13) | 10/24/23 | 10:41 Arizona | | Water | | | X | 1 | |
| CH-CCR-TWX9-1023 (550-209609-15) | 10/24/23 | 15:41 Arizona | | Water | | | X | 1 | |
| CH-CCR-TWX10-1023 (550-209609-17) | 10/24/23 | 15:59 Arizona | | Water | | | X | 1 | |

550-209609 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

| *Possible Hazard Identification* | *Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)* |
|---|---|
| *Unconfirmed* | ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months* |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|---|
| 1 | Eric 10-26-23 15:00 | CESW | | Fedex | | |
| 2 | | | | | 10/27/23 9:40 | EC |
| 3 | | | | | | |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 2.1/2.0 SC 12 |
|---|---|---|

Ver: 06/08/2021



11/22/2023

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins Environment Testing

| | | | | |
|---|---|---|---|---|
| **Client Information (Sub Contract Lab)** | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-38106.2 |
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 2 of 2 |
| Company: Eurofins Environment Testing Southwest, | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-209609-1 |
| Address: 2841 Dow Avenue, Suite 100, , | Due Date Requested: 11/7/2023 | | | |
| City: Tustin | TAT Requested (days): | | | |
| State, Zip: CA, 92780 | | | | |
| Phone: 714-895-5494(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Custom 200.7 Metals List | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| CH-CCR-EB01-1023 (550-209609-19) | 10/25/23 | 08:15 Arizona | | Water | | | X | 1 | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

| | |
|---|---|
| ***Possible Hazard Identification*** *Unconfirmed* | ***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months* |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| | | | | | |
|---|---|---|---|---|---|
| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: | | |
| Relinquished by: [signature] | Date/Time: 10-26-23 15:00 | Company: EETSW | Received by: [signature] | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: [signature] | Date/Time: 10/27/23 9:40 | Company: EC |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| | | |
|---|---|---|
| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |

Ver: 06/08/2021

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-209609-1
SDG Number: APS Cholla Power Plant (BAP)

**Login Number: 209609**
**List Number: 1**
**Creator: Maycock, Lisa**

**List Source: Eurofins Phoenix**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | False | Check done at department level as required. |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-209609-1
SDG Number: APS Cholla Power Plant (BAP)

**Login Number: 209609**
**List Number: 2**
**Creator: Khana, Piyush**

**List Source: Eurofins Calscience**
**List Creation: 10/27/23 12:32 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | 2219810 |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 2.0 |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | False | Received project as a subcontract. |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-209609-1
SDG Number: APS Cholla Power Plant (BAP)

**Login Number: 209609**
**List Number: 3**
**Creator: Martinez, Anthony**

**List Source: Eurofins Denver**
**List Creation: 10/28/23 01:12 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

eurofins | Environment Testing

1 2 3 4 5 6 7 8 9 10 11 12 13 14

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 4/10/2024 8:44:30 AM Revision 1

## JOB DESCRIPTION

CCR Groundwater Monitoring

## JOB NUMBER

550-210429-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.



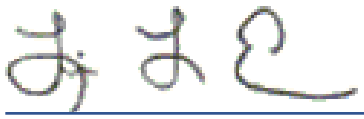
my EOL

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

## Authorization



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Revision 1

Authorized for release by
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# Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210429-1

## Qualifiers

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| D2 | Sample required dilution due to high concentration of analyte. |
| E2 | Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix. |
| M2 | Matrix spike recovery was low, the associated blank spike recovery was acceptable. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |
| R4 | MS/MSD RPD exceeded the method control limit. Recovery met acceptance criteria. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |
| T5 | Laboratory not licensed for this parameter |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| H5 | This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time. |
| T5 | Laboratory not licensed for this parameter |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

## Job ID: 550-210429-1 — Eurofins Phoenix

**Job Narrative**
**550-210429-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**
The samples were received on 11/10/2023 2:28 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.8°C and 2.4°C

**HPLC/IC**
Method 300_ORGFMS: Spike compounds were inadvertently omitted during the extraction process for the matrix spike (MS); therefore, matrix spike recoveries are unavailable for analytical batch 550-311323. The associated laboratory control sample (LCS) met acceptance criteria.

Method 300_ORGFMS: The matrix spike / matrix spike duplicate (MS/MSD) precision for analytical batch 550-311323 was outside control limits. Spike omitted from matrix spike (MS). Laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**Metals**
Method 200.8_CWA_LL: The laboratory control sample (LCS) associated with preparation batch 550-311057 and analytical batch 550-311226 was outside acceptance criteria for the analytes Barium and Lead. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. FC-CCR-MW52-1123 (550-210429-1), FC-CCR-MW61-1123 (550-210429-2) and FC-CCR-MW75-1123 (550-210429-3)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**General Chemistry**
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**Revision**
The report being provided is a revision of the original report sent on 12/11/2023. The report (revision 1) is being revised due to: Client questioned the 9056 result, upon review, it was found that the dilution factor was entered incorrect..

# Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210429-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 550-210429-1 | FC-CCR-MW52-1123 | Water | 11/08/23 14:40 | 11/10/23 14:28 |
| 550-210429-2 | FC-CCR-MW61-1123 | Water | 11/09/23 12:50 | 11/10/23 14:28 |
| 550-210429-3 | FC-CCR-MW75-1123 | Water | 11/08/23 15:39 | 11/10/23 14:28 |
| 550-210429-4 | FC-CCR-FD03-1123 | Water | 11/08/23 16:11 | 11/10/23 14:28 |

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210429-1

## Client Sample ID: FC-CCR-MW52-1123 — Lab Sample ID: 550-210429-1

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 11 | M3 | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 100 | | 0.50 | | ug/L | 1 | | 200.8 LL | Total/NA |
| Molybdenum | 2.2 | T5 | 0.50 | | ug/L | 1 | | 200.8 LL | Total/NA |

## Client Sample ID: FC-CCR-MW61-1123 — Lab Sample ID: 550-210429-2

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 360 | D2 | 40 | | mg/L | 20 | | 300.0 | Total/NA |
| Fluoride | 1.3 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 3700 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 49 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 620 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 190 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 28 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1200 | | 2.5 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.50 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0016 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Barium | 0.023 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Cadmium | 0.0011 | | 0.00010 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Chromium | 0.0018 | | 0.0010 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Cobalt | 0.027 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Lead | 0.0015 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Molybdenum | 0.11 | T5 | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Selenium | 0.0020 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Thallium | 0.00028 | | 0.00010 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 99 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 99 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 6000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 8.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 12.2 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW75-1123 — Lab Sample ID: 550-210429-3

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 1.2 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 4600 | | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 1.2 | | 0.80 | | mg/L | 2 | | 9056A | Total/NA |
| Boron | 27 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 530 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 290 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 29 | | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1500 | | 2.5 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.50 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0012 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Barium | 0.020 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Cadmium | 0.0018 | | 0.00010 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Cobalt | 0.058 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Lead | 0.0035 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Molybdenum | 0.18 | T5 | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Selenium | 0.0045 | | 0.00050 | | mg/L | 1 | | 200.8 LL | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-MW75-1123 (Continued)

## Lab Sample ID: 550-210429-3

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Thallium | 0.00025 | | 0.00010 | | mg/L | 1 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 100 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 100 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 7100 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 8.3 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 12.2 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-FD03-1123

## Lab Sample ID: 550-210429-4

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 10 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 99 | | 2.0 | | ug/L | 4 | | 200.8 LL | Total/NA |
| Molybdenum | 2.7 | T5 | 0.50 | | ug/L | 1 | | 200.8 LL | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-MW52-1123

**Lab Sample ID: 550-210429-1**

**Date Collected: 11/08/23 14:40**

**Matrix: Water**

**Date Received: 11/10/23 14:28**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 11 | M3 | 0.050 | | mg/L | | 11/14/23 10:09 | 11/20/23 16:49 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 100 | | 0.50 | | ug/L | | 11/14/23 08:56 | 11/16/23 00:37 | 1 |
| Molybdenum | 2.2 | T5 | 0.50 | | ug/L | | 11/14/23 08:56 | 11/16/23 00:37 | 1 |

## Client Sample ID: FC-CCR-MW61-1123

**Lab Sample ID: 550-210429-2**

**Date Collected: 11/09/23 12:50**

**Matrix: Water**

**Date Received: 11/10/23 14:28**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 360 | D2 | 40 | | mg/L | | | 11/30/23 21:01 | 20 |
| Fluoride | 1.3 | D2 | 0.80 | | mg/L | | | 11/17/23 17:12 | 2 |
| Sulfate | 3700 | D2 | 400 | | mg/L | | | 11/17/23 18:26 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 11/14/23 10:09 | 11/20/23 16:51 | 1 |
| Boron | 49 | | 0.050 | | mg/L | | 11/14/23 10:09 | 11/20/23 16:51 | 1 |
| Calcium | 620 | | 2.0 | | mg/L | | 11/14/23 10:09 | 11/20/23 16:51 | 1 |
| Magnesium | 190 | | 2.0 | | mg/L | | 11/14/23 10:09 | 11/20/23 16:51 | 1 |
| Potassium | 28 | | 0.50 | | mg/L | | 11/14/23 10:09 | 11/20/23 16:51 | 1 |
| Sodium | 1200 | | 2.5 | | mg/L | | 11/14/23 10:09 | 11/21/23 12:06 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 0.50 | | 0.050 | | mg/L | | 11/15/23 07:10 | 11/16/23 19:30 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:39 | 1 |
| Arsenic | 0.0016 | | 0.00050 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:39 | 1 |
| Barium | 0.023 | | 0.00050 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:39 | 1 |
| Cadmium | 0.0011 | | 0.00010 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:39 | 1 |
| Chromium | 0.0018 | | 0.0010 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:39 | 1 |
| Cobalt | 0.027 | | 0.00050 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:39 | 1 |
| Lead | 0.0015 | | 0.00050 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:39 | 1 |
| Molybdenum | 0.11 | T5 | 0.00050 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:39 | 1 |
| Selenium | 0.0020 | | 0.00050 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:39 | 1 |
| Thallium | 0.00028 | | 0.00010 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:39 | 1 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 11/14/23 13:28 | 11/14/23 17:35 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 (SM 2320B) | 99 | | 6.0 | | mg/L | | | 11/15/23 16:57 | 1 |
| Bicarbonate Alkalinity as CaCO3 (SM 2320B) | 99 | | 6.0 | | mg/L | | | 11/15/23 16:57 | 1 |

## Client Sample ID: FC-CCR-MW61-1123

**Lab Sample ID: 550-210429-2**

**Date Collected: 11/09/23 12:50**

**Matrix: Water**

**Date Received: 11/10/23 14:28**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/15/23 16:57 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/15/23 16:57 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/15/23 16:57 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **6000** | | 100 | | mg/L | | | 11/15/23 11:03 | 1 |
| **pH (SM 4500 H+ B)** | **8.5** | **H5** | 1.7 | | SU | | | 11/15/23 13:46 | 1 |
| **Temperature (SM 4500 H+ B)** | **12.2** | **H5 T5** | 0.1 | | Degrees C | | | 11/15/23 13:46 | 1 |

## Client Sample ID: FC-CCR-MW75-1123

**Lab Sample ID: 550-210429-3**

**Date Collected: 11/08/23 15:39**

**Matrix: Water**

**Date Received: 11/10/23 14:28**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 400 | | mg/L | | | 11/17/23 19:03 | 200 |
| **Fluoride** | **1.2** | **D2** | 0.80 | | mg/L | | | 11/17/23 18:44 | 2 |
| **Sulfate** | **4600** | | 400 | | mg/L | | | 11/17/23 19:03 | 200 |

### Method: SW846 9056A - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **1.2** | | 0.80 | | mg/L | | | 12/01/23 10:12 | 2 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 11/14/23 10:09 | 11/20/23 16:54 | 1 |
| **Boron** | **27** | | 0.050 | | mg/L | | 11/14/23 10:09 | 11/20/23 16:54 | 1 |
| **Calcium** | **530** | | 2.0 | | mg/L | | 11/14/23 10:09 | 11/20/23 16:54 | 1 |
| **Magnesium** | **290** | | 2.0 | | mg/L | | 11/14/23 10:09 | 11/20/23 16:54 | 1 |
| **Potassium** | **29** | | 0.50 | | mg/L | | 11/14/23 10:09 | 11/20/23 16:54 | 1 |
| **Sodium** | **1500** | | 2.5 | | mg/L | | 11/14/23 10:09 | 11/21/23 12:09 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.50** | | 0.050 | | mg/L | | 11/15/23 07:10 | 11/16/23 19:32 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:41 | 1 |
| **Arsenic** | **0.0012** | | 0.00050 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:41 | 1 |
| **Barium** | **0.020** | | 0.00050 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:41 | 1 |
| **Cadmium** | **0.0018** | | 0.00010 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:41 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:41 | 1 |
| **Cobalt** | **0.058** | | 0.00050 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:41 | 1 |
| **Lead** | **0.0035** | | 0.00050 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:41 | 1 |
| **Molybdenum** | **0.18** | **T5** | 0.00050 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:41 | 1 |
| **Selenium** | **0.0045** | | 0.00050 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:41 | 1 |
| **Thallium** | **0.00025** | | 0.00010 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:41 | 1 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 11/14/23 13:28 | 11/14/23 17:37 | 1 |

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210429-1

## Client Sample ID: FC-CCR-MW75-1123

**Lab Sample ID: 550-210429-3**

**Date Collected: 11/08/23 15:39**
**Matrix: Water**
**Date Received: 11/10/23 14:28**

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **100** | | 6.0 | | mg/L | | | 11/15/23 17:03 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **100** | | 6.0 | | mg/L | | | 11/15/23 17:03 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/15/23 17:03 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/15/23 17:03 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 11/15/23 17:03 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **7100** | | 100 | | mg/L | | | 11/14/23 11:18 | 1 |
| **pH (SM 4500 H+ B)** | **8.3** | **H5** | 1.7 | | SU | | | 11/15/23 13:48 | 1 |
| **Temperature (SM 4500 H+ B)** | **12.2** | **H5 T5** | 0.1 | | Degrees C | | | 11/15/23 13:48 | 1 |

## Client Sample ID: FC-CCR-FD03-1123

**Lab Sample ID: 550-210429-4**

**Date Collected: 11/08/23 16:11**
**Matrix: Water**
**Date Received: 11/10/23 14:28**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **10** | | 0.050 | | mg/L | | 11/14/23 10:09 | 11/20/23 16:57 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cobalt** | **99** | | 2.0 | | ug/L | | 11/14/23 08:56 | 11/20/23 15:15 | 4 |
| **Molybdenum** | **2.7** | **T5** | 0.50 | | ug/L | | 11/14/23 08:56 | 11/16/23 00:43 | 1 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 550-311323/2**
**Matrix: Water**
**Analysis Batch: 311323**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 11/17/23 13:13 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 11/17/23 13:13 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 11/17/23 13:13 | 1 |

**Lab Sample ID: LCS 550-311323/69**
**Matrix: Water**
**Analysis Batch: 311323**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 20.7 | | mg/L | | 103 | 90 - 110 | | |
| Fluoride | | | 4.00 | 4.21 | | mg/L | | 105 | 90 - 110 | | |
| Sulfate | | | 20.0 | 20.8 | | mg/L | | 104 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-311323/70**
**Matrix: Water**
**Analysis Batch: 311323**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 20.7 | | mg/L | | 103 | 90 - 110 | 0 | 20 |
| Fluoride | | | 4.00 | 4.25 | | mg/L | | 106 | 90 - 110 | 1 | 20 |
| Sulfate | | | 20.0 | 20.9 | | mg/L | | 104 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 550-210428-A-19 MS ^200**
**Matrix: Water**
**Analysis Batch: 311323**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1600 | M2 | 4000 | ND | M2 | mg/L | | 0 | 80 - 120 | | |
| Fluoride | ND | M2 | 800 | ND | M2 | mg/L | | 0 | 80 - 120 | | |
| Sulfate | 25000 | E2 M3 R4 | 4000 | 805 | M3 | mg/L | | -593 | 80 - 120 | | |

**Lab Sample ID: 550-210428-A-19 MSD ^200**
**Matrix: Water**
**Analysis Batch: 311323**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1600 | M2 | 4000 | 5830 | | mg/L | | 106 | 80 - 120 | NC | 20 |
| Fluoride | ND | M2 | 800 | 817 | | mg/L | | 102 | 80 - 120 | NC | 20 |
| Sulfate | 25000 | E2 M3 R4 | 4000 | 27900 | E2 M3 R4 | mg/L | | 84 | 80 - 120 | 189 | 20 |

**Lab Sample ID: MB 550-312090/2**
**Matrix: Water**
**Analysis Batch: 312090**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 11/30/23 16:06 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 11/30/23 16:06 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 11/30/23 16:06 | 1 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 550-312090/5**
**Matrix: Water**
**Analysis Batch: 312090**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 21.2 | | mg/L | | 106 | 90 - 110 | | |
| Fluoride | | | 4.00 | 4.26 | | mg/L | | 107 | 90 - 110 | | |
| Sulfate | | | 20.0 | 21.4 | | mg/L | | 107 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-312090/6**
**Matrix: Water**
**Analysis Batch: 312090**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 21.2 | | mg/L | | 106 | 90 - 110 | 0 | 20 |
| Fluoride | | | 4.00 | 4.29 | | mg/L | | 107 | 90 - 110 | 1 | 20 |
| Sulfate | | | 20.0 | 21.4 | | mg/L | | 107 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 550-211106-A-2 MS**
**Matrix: Water**
**Analysis Batch: 312090**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 670 | E2 M3 | 20.0 | 663 | E2 M3 | mg/L | | -60 | 80 - 120 | | |
| Fluoride | 1.9 | | 4.00 | 5.90 | | mg/L | | 99 | 80 - 120 | | |
| Sulfate | 700 | E2 M3 | 20.0 | 690 | E2 M3 | mg/L | | -50 | 80 - 120 | | |

**Lab Sample ID: 550-211106-A-2 MSD**
**Matrix: Water**
**Analysis Batch: 312090**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 670 | E2 M3 | 20.0 | 663 | E2 M3 | mg/L | | -61 | 80 - 120 | 0 | 20 |
| Fluoride | 1.9 | | 4.00 | 5.98 | | mg/L | | 101 | 80 - 120 | 1 | 20 |
| Sulfate | 700 | E2 M3 | 20.0 | 689 | E2 M3 | mg/L | | -54 | 80 - 120 | 0 | 20 |

## Method: 9056A - Anions, Ion Chromatography

**Lab Sample ID: MB 550-312000/1-A**
**Matrix: Water**
**Analysis Batch: 312091**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Fluoride | ND | | 4.0 | | mg/L | | | 12/01/23 03:09 | 1 |

**Lab Sample ID: MB 550-312091/2**
**Matrix: Water**
**Analysis Batch: 312091**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Fluoride | ND | | 0.40 | | mg/L | | | 11/30/23 16:06 | 1 |

## Method: 9056A - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 550-312000/2-A**
**Matrix: Water**
**Analysis Batch: 312091**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | | | 39.7 | 41.1 | | mg/L | | 103 | 80 - 120 | | |

**Lab Sample ID: LCSD 550-312000/3-A**
**Matrix: Water**
**Analysis Batch: 312091**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | | | 39.8 | 42.2 | | mg/L | | 106 | 80 - 120 | 3 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 550-311064/1-A**
**Matrix: Water**
**Analysis Batch: 311482**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 311064**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 11/14/23 10:09 | 11/20/23 16:34 | 1 |
| Boron | ND | | 0.050 | | mg/L | | 11/14/23 10:09 | 11/20/23 16:34 | 1 |
| Calcium | ND | | 2.0 | | mg/L | | 11/14/23 10:09 | 11/20/23 16:34 | 1 |
| Magnesium | ND | | 2.0 | | mg/L | | 11/14/23 10:09 | 11/20/23 16:34 | 1 |
| Potassium | ND | | 0.50 | | mg/L | | 11/14/23 10:09 | 11/20/23 16:34 | 1 |
| Sodium | ND | | 0.50 | | mg/L | | 11/14/23 10:09 | 11/20/23 16:34 | 1 |

**Lab Sample ID: LCS 550-311064/2-A**
**Matrix: Water**
**Analysis Batch: 311482**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 311064**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | | | 1.00 | 1.17 | | mg/L | | 117 | 85 - 115 | | |
| Boron | | | 1.00 | 1.16 | | mg/L | | 116 | 85 - 115 | | |
| Calcium | | | 21.0 | 24.5 | | mg/L | | 117 | 85 - 115 | | |
| Magnesium | | | 21.0 | 23.9 | | mg/L | | 114 | 85 - 115 | | |
| Potassium | | | 20.0 | 23.0 | | mg/L | | 115 | 85 - 115 | | |
| Sodium | | | 20.0 | 22.8 | | mg/L | | 114 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-311064/3-A**
**Matrix: Water**
**Analysis Batch: 311482**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 311064**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | | | 1.00 | 1.17 | | mg/L | | 117 | 85 - 115 | 0 | 20 |
| Boron | | | 1.00 | 1.14 | | mg/L | | 114 | 85 - 115 | 2 | 20 |
| Calcium | | | 21.0 | 24.2 | | mg/L | | 115 | 85 - 115 | 1 | 20 |
| Magnesium | | | 21.0 | 23.7 | | mg/L | | 113 | 85 - 115 | 1 | 20 |
| Potassium | | | 20.0 | 22.6 | | mg/L | | 113 | 85 - 115 | 2 | 20 |
| Sodium | | | 20.0 | 22.4 | | mg/L | | 112 | 85 - 115 | 2 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: 550-210429-1 MS**
**Matrix: Water**
**Analysis Batch: 311482**

**Client Sample ID: FC-CCR-MW52-1123**
**Prep Type: Total/NA**
**Prep Batch: 311064**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 11 | M3 | 1.00 | 11.3 | M3 | mg/L | | 56 | 70 - 130 | | |

**Lab Sample ID: 550-210429-1 MSD**
**Matrix: Water**
**Analysis Batch: 311482**

**Client Sample ID: FC-CCR-MW52-1123**
**Prep Type: Total/NA**
**Prep Batch: 311064**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 11 | M3 | 1.00 | 11.3 | M3 | mg/L | | 52 | 70 - 130 | 0 | 20 |

**Lab Sample ID: MB 570-383775/1-A**
**Matrix: Water**
**Analysis Batch: 384611**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 383775**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 0.050 | | mg/L | | 11/15/23 07:10 | 11/16/23 18:55 | 1 |

**Lab Sample ID: LCS 570-383775/2-A**
**Matrix: Water**
**Analysis Batch: 384611**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 383775**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 0.500 | 0.499 | | mg/L | | 100 | 85 - 115 | | |

**Lab Sample ID: LCSD 570-383775/3-A**
**Matrix: Water**
**Analysis Batch: 384611**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total Recoverable**
**Prep Batch: 383775**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 0.500 | 0.497 | | mg/L | | 99 | 85 - 115 | 0 | 20 |

**Lab Sample ID: 570-160842-L-8-B MS**
**Matrix: Water**
**Analysis Batch: 384611**

**Client Sample ID: Matrix Spike**
**Prep Type: Total Recoverable**
**Prep Batch: 383775**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 0.500 | 0.531 | | mg/L | | 106 | 80 - 120 | | |

**Lab Sample ID: 570-160842-L-8-C MSD**
**Matrix: Water**
**Analysis Batch: 384611**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total Recoverable**
**Prep Batch: 383775**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 0.500 | 0.529 | | mg/L | | 106 | 80 - 120 | 0 | 20 |

## Method: 200.8 LL - Metals (ICP/MS)

**Lab Sample ID: MB 550-311057/1-A**
**Matrix: Water**
**Analysis Batch: 311226**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 311057**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:22 | 1 |
| Arsenic | ND | | 0.00050 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:22 | 1 |
| Barium | ND | | 0.00050 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:22 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:22 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:22 | 1 |
| Cobalt | ND | | 0.50 | | ug/L | | 11/14/23 08:56 | 11/16/23 00:22 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:22 | 1 |
| Molybdenum | ND | | 0.50 | | ug/L | | 11/14/23 08:56 | 11/16/23 00:22 | 1 |
| Selenium | ND | | 0.00050 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:22 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 11/14/23 08:56 | 11/16/23 00:22 | 1 |

**Lab Sample ID: MB 550-311057/1-A**
**Matrix: Water**
**Analysis Batch: 311523**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 311057**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.50 | | ug/L | | 11/14/23 08:56 | 11/20/23 15:03 | 1 |

**Lab Sample ID: LCS 550-311057/2-A**
**Matrix: Water**
**Analysis Batch: 311226**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 311057**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | | |
| Arsenic | | | 0.100 | 0.0979 | | mg/L | | 98 | 85 - 115 | | |
| Cadmium | | | 0.100 | 0.0995 | | mg/L | | 99 | 85 - 115 | | |
| Chromium | | | 0.100 | 0.0965 | | mg/L | | 96 | 85 - 115 | | |
| Cobalt | | | 100 | 99.9 | | ug/L | | 100 | 85 - 115 | | |
| Molybdenum | | | 100 | 101 | | ug/L | | 101 | 85 - 115 | | |
| Selenium | | | 0.100 | 0.0953 | | mg/L | | 95 | 85 - 115 | | |
| Thallium | | | 0.100 | 0.113 | | mg/L | | 113 | 85 - 115 | | |

**Lab Sample ID: LCS 550-311057/2-A**
**Matrix: Water**
**Analysis Batch: 311523**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 311057**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | | | 100 | 94.6 | | ug/L | | 95 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-311057/3-A**
**Matrix: Water**
**Analysis Batch: 311226**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 311057**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | 1 | 20 |
| Arsenic | | | 0.100 | 0.0968 | | mg/L | | 97 | 85 - 115 | 1 | 20 |
| Cadmium | | | 0.100 | 0.0978 | | mg/L | | 98 | 85 - 115 | 2 | 20 |
| Chromium | | | 0.100 | 0.0961 | | mg/L | | 96 | 85 - 115 | 0 | 20 |
| Cobalt | | | 100 | 98.2 | | ug/L | | 98 | 85 - 115 | 2 | 20 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCSD 550-311057/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 311226** — **Prep Batch: 311057**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Molybdenum | 100 | 99.0 | | ug/L | | 99 | 85 - 115 | 2 | 20 |
| Selenium | 0.100 | 0.0946 | | mg/L | | 95 | 85 - 115 | 1 | 20 |
| Thallium | 0.100 | 0.114 | | mg/L | | 114 | 85 - 115 | 1 | 20 |

**Lab Sample ID: LCSD 550-311057/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 311523** — **Prep Batch: 311057**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 100 | 97.2 | | ug/L | | 97 | 85 - 115 | 3 | 20 |

**Lab Sample ID: 550-210429-1 MS** — **Client Sample ID: FC-CCR-MW52-1123**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 311226** — **Prep Batch: 311057**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Molybdenum | 2.2 | T5 | 100 | 108 | | ug/L | | 106 | 70 - 130 |

**Lab Sample ID: 550-210429-1 MS** — **Client Sample ID: FC-CCR-MW52-1123**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 311523** — **Prep Batch: 311057**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 100 | | 100 | 193 | | ug/L | | | |

**Lab Sample ID: 550-210429-1 MSD** — **Client Sample ID: FC-CCR-MW52-1123**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 311226** — **Prep Batch: 311057**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 100 | | 100 | 194 | | ug/L | | 93 | 70 - 130 | 2 | 20 |
| Molybdenum | 2.2 | T5 | 100 | 107 | | ug/L | | 105 | 70 - 130 | 1 | 20 |

## Method: 245.1 - Mercury (CVAA)

**Lab Sample ID: MB 550-311086/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 311105** — **Prep Batch: 311086**

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | mg/L | | 11/14/23 13:28 | 11/14/23 17:17 | 1 |

**Lab Sample ID: LCS 550-311086/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 311105** — **Prep Batch: 311086**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Mercury | 0.00500 | 0.00499 | | mg/L | | 100 | 85 - 115 |

## Method: 245.1 - Mercury (CVAA) (Continued)

**Lab Sample ID: LCSD 550-311086/3-A**
**Matrix: Water**
**Analysis Batch: 311105**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 311086**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00488 | | mg/L | | 98 | 85 - 115 | 2 | 20 |

**Lab Sample ID: 550-210432-I-2-C MS**
**Matrix: Water**
**Analysis Batch: 311105**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 311086**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00501 | | mg/L | | 100 | 70 - 130 | | |

**Lab Sample ID: 550-210432-I-2-D MSD**
**Matrix: Water**
**Analysis Batch: 311105**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 311086**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00504 | | mg/L | | 101 | 70 - 130 | 1 | 20 |

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 550-311195/5**
**Matrix: Water**
**Analysis Batch: 311195**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 11/15/23 12:58 | 1 |
| Bicarbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 11/15/23 12:58 | 1 |
| Carbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 11/15/23 12:58 | 1 |
| Alkalinity, Phenolphthalein | ND | | 6.0 | | mg/L | | | 11/15/23 12:58 | 1 |
| Hydroxide Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 11/15/23 12:58 | 1 |

**Lab Sample ID: LCS 550-311195/4**
**Matrix: Water**
**Analysis Batch: 311195**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 244 | | mg/L | | 98 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-311195/8**
**Matrix: Water**
**Analysis Batch: 311195**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 245 | | mg/L | | 98 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 550-210347-L-1 DU**
**Matrix: Water**
**Analysis Batch: 311195**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | 98 | | | 98.3 | | mg/L | | | | 0 | 20 |
| Bicarbonate Alkalinity as CaCO3 | 98 | | | 98.3 | | mg/L | | | | 0 | 20 |

## Method: SM 2320B - Alkalinity (Continued)

**Lab Sample ID: 550-210347-L-1 DU**
**Matrix: Water**
**Analysis Batch: 311195**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbonate Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |
| Alkalinity, Phenolphthalein | ND | | | ND | | mg/L | | | | NC | 20 |
| Hydroxide Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 550-311072/1**
**Matrix: Water**
**Analysis Batch: 311072**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 11/14/23 11:18 | 1 |

**Lab Sample ID: LCS 550-311072/2**
**Matrix: Water**
**Analysis Batch: 311072**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 978 | | mg/L | | 98 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-311072/3**
**Matrix: Water**
**Analysis Batch: 311072**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 978 | | mg/L | | 98 | 90 - 110 | 0 | 10 |

**Lab Sample ID: 550-210340-G-3 DU**
**Matrix: Water**
**Analysis Batch: 311072**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1100 | | | 1130 | | mg/L | | | | 0.7 | 10 |

**Lab Sample ID: MB 550-311147/1**
**Matrix: Water**
**Analysis Batch: 311147**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 11/15/23 11:03 | 1 |

**Lab Sample ID: LCS 550-311147/2**
**Matrix: Water**
**Analysis Batch: 311147**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 990 | | mg/L | | 99 | 90 - 110 | | |

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

**Lab Sample ID: LCSD 550-311147/3**
**Matrix: Water**
**Analysis Batch: 311147**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 982 | | mg/L | | 98 | 90 - 110 | 1 | 10 |

**Lab Sample ID: 550-210428-A-12 DU**
**Matrix: Water**
**Analysis Batch: 311147**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 8400 | | | 8610 | | mg/L | | | | 2 | 10 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: LCSSRM 550-311239/25**
**Matrix: Water**
**Analysis Batch: 311239**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.1 | | SU | | 100.7 | 98.5 - 101.5 | | |

**Lab Sample ID: LCSSRM 550-311239/30**
**Matrix: Water**
**Analysis Batch: 311239**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.1 | | SU | | 101.0 | 98.5 - 101.5 | | |

**Lab Sample ID: 550-210429-2 DU**
**Matrix: Water**
**Analysis Batch: 311239**

**Client Sample ID: FC-CCR-MW61-1123**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | 8.5 | H5 | | 8.5 | | SU | | | | 0 | 5 |
| Temperature | 12.2 | H5 T5 | | 12.2 | | Degrees C | | | | 0 | |

## HPLC/IC

### Analysis Batch: 311323

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210429-2 | FC-CCR-MW61-1123 | Total/NA | Water | 300.0 | |
| 550-210429-2 | FC-CCR-MW61-1123 | Total/NA | Water | 300.0 | |
| 550-210429-3 | FC-CCR-MW75-1123 | Total/NA | Water | 300.0 | |
| 550-210429-3 | FC-CCR-MW75-1123 | Total/NA | Water | 300.0 | |
| MB 550-311323/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-311323/69 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-311323/70 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-210428-A-19 MS ^200 | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-210428-A-19 MSD ^200 | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

### Leach Batch: 312000

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 550-312000/1-A | Method Blank | Total/NA | Water | DI Leach | |
| LCS 550-312000/2-A | Lab Control Sample | Total/NA | Water | DI Leach | |
| LCSD 550-312000/3-A | Lab Control Sample Dup | Total/NA | Water | DI Leach | |

### Analysis Batch: 312090

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210429-2 | FC-CCR-MW61-1123 | Total/NA | Water | 300.0 | |
| MB 550-312090/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-312090/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-312090/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-211106-A-2 MS | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-211106-A-2 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

### Analysis Batch: 312091

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210429-3 | FC-CCR-MW75-1123 | Total/NA | Water | 9056A | |
| MB 550-312000/1-A | Method Blank | Total/NA | Water | 9056A | 312000 |
| MB 550-312091/2 | Method Blank | Total/NA | Water | 9056A | |
| LCS 550-312000/2-A | Lab Control Sample | Total/NA | Water | 9056A | 312000 |
| LCSD 550-312000/3-A | Lab Control Sample Dup | Total/NA | Water | 9056A | 312000 |

## Metals

### Prep Batch: 311057

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210429-1 | FC-CCR-MW52-1123 | Total/NA | Water | 200.8 | |
| 550-210429-2 | FC-CCR-MW61-1123 | Total/NA | Water | 200.8 | |
| 550-210429-3 | FC-CCR-MW75-1123 | Total/NA | Water | 200.8 | |
| 550-210429-4 | FC-CCR-FD03-1123 | Total/NA | Water | 200.8 | |
| MB 550-311057/1-A | Method Blank | Total/NA | Water | 200.8 | |
| LCS 550-311057/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-311057/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-210429-1 MS | FC-CCR-MW52-1123 | Total/NA | Water | 200.8 | |
| 550-210429-1 MSD | FC-CCR-MW52-1123 | Total/NA | Water | 200.8 | |

### Prep Batch: 311064

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210429-1 | FC-CCR-MW52-1123 | Total/NA | Water | 200.7 | |
| 550-210429-2 | FC-CCR-MW61-1123 | Total/NA | Water | 200.7 | |

## Metals (Continued)

### Prep Batch: 311064 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210429-3 | FC-CCR-MW75-1123 | Total/NA | Water | 200.7 | |
| 550-210429-4 | FC-CCR-FD03-1123 | Total/NA | Water | 200.7 | |
| MB 550-311064/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-311064/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-311064/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-210429-1 MS | FC-CCR-MW52-1123 | Total/NA | Water | 200.7 | |
| 550-210429-1 MSD | FC-CCR-MW52-1123 | Total/NA | Water | 200.7 | |

### Prep Batch: 311086

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210429-2 | FC-CCR-MW61-1123 | Total/NA | Water | 245.1 | |
| 550-210429-3 | FC-CCR-MW75-1123 | Total/NA | Water | 245.1 | |
| MB 550-311086/1-A | Method Blank | Total/NA | Water | 245.1 | |
| LCS 550-311086/2-A | Lab Control Sample | Total/NA | Water | 245.1 | |
| LCSD 550-311086/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | |
| 550-210432-I-2-C MS | Matrix Spike | Total/NA | Water | 245.1 | |
| 550-210432-I-2-D MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | |

### Analysis Batch: 311105

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210429-2 | FC-CCR-MW61-1123 | Total/NA | Water | 245.1 | 311086 |
| 550-210429-3 | FC-CCR-MW75-1123 | Total/NA | Water | 245.1 | 311086 |
| MB 550-311086/1-A | Method Blank | Total/NA | Water | 245.1 | 311086 |
| LCS 550-311086/2-A | Lab Control Sample | Total/NA | Water | 245.1 | 311086 |
| LCSD 550-311086/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | 311086 |
| 550-210432-I-2-C MS | Matrix Spike | Total/NA | Water | 245.1 | 311086 |
| 550-210432-I-2-D MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | 311086 |

### Analysis Batch: 311226

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210429-1 | FC-CCR-MW52-1123 | Total/NA | Water | 200.8 LL | 311057 |
| 550-210429-2 | FC-CCR-MW61-1123 | Total/NA | Water | 200.8 LL | 311057 |
| 550-210429-3 | FC-CCR-MW75-1123 | Total/NA | Water | 200.8 LL | 311057 |
| 550-210429-4 | FC-CCR-FD03-1123 | Total/NA | Water | 200.8 LL | 311057 |
| MB 550-311057/1-A | Method Blank | Total/NA | Water | 200.8 LL | 311057 |
| LCS 550-311057/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 311057 |
| LCSD 550-311057/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 311057 |
| 550-210429-1 MS | FC-CCR-MW52-1123 | Total/NA | Water | 200.8 LL | 311057 |
| 550-210429-1 MSD | FC-CCR-MW52-1123 | Total/NA | Water | 200.8 LL | 311057 |

### Analysis Batch: 311482

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210429-1 | FC-CCR-MW52-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311064 |
| 550-210429-2 | FC-CCR-MW61-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311064 |
| 550-210429-3 | FC-CCR-MW75-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311064 |
| 550-210429-4 | FC-CCR-FD03-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311064 |
| MB 550-311064/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 311064 |
| LCS 550-311064/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 311064 |
| LCSD 550-311064/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 311064 |
| 550-210429-1 MS | FC-CCR-MW52-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311064 |
| 550-210429-1 MSD | FC-CCR-MW52-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311064 |

# QC Association Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210429-1

## Metals

### Analysis Batch: 311523

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210429-4 | FC-CCR-FD03-1123 | Total/NA | Water | 200.8 LL | 311057 |
| MB 550-311057/1-A | Method Blank | Total/NA | Water | 200.8 LL | 311057 |
| LCS 550-311057/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 311057 |
| LCSD 550-311057/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 311057 |
| 550-210429-1 MS | FC-CCR-MW52-1123 | Total/NA | Water | 200.8 LL | 311057 |

### Analysis Batch: 311591

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210429-2 | FC-CCR-MW61-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311064 |
| 550-210429-3 | FC-CCR-MW75-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311064 |

### Prep Batch: 383775

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210429-2 | FC-CCR-MW61-1123 | Total Recoverable | Water | 200.7 | |
| 550-210429-3 | FC-CCR-MW75-1123 | Total Recoverable | Water | 200.7 | |
| MB 570-383775/1-A | Method Blank | Total Recoverable | Water | 200.7 | |
| LCS 570-383775/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 | |
| LCSD 570-383775/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.7 | |
| 570-160842-L-8-B MS | Matrix Spike | Total Recoverable | Water | 200.7 | |
| 570-160842-L-8-C MSD | Matrix Spike Duplicate | Total Recoverable | Water | 200.7 | |

### Analysis Batch: 384611

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210429-2 | FC-CCR-MW61-1123 | Total Recoverable | Water | 200.7 Rev 4.4 | 383775 |
| 550-210429-3 | FC-CCR-MW75-1123 | Total Recoverable | Water | 200.7 Rev 4.4 | 383775 |
| MB 570-383775/1-A | Method Blank | Total Recoverable | Water | 200.7 Rev 4.4 | 383775 |
| LCS 570-383775/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 Rev 4.4 | 383775 |
| LCSD 570-383775/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.7 Rev 4.4 | 383775 |
| 570-160842-L-8-B MS | Matrix Spike | Total Recoverable | Water | 200.7 Rev 4.4 | 383775 |
| 570-160842-L-8-C MSD | Matrix Spike Duplicate | Total Recoverable | Water | 200.7 Rev 4.4 | 383775 |

## General Chemistry

### Analysis Batch: 311072

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210429-3 | FC-CCR-MW75-1123 | Total/NA | Water | SM 2540C | |
| MB 550-311072/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-311072/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-311072/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-210340-G-3 DU | Duplicate | Total/NA | Water | SM 2540C | |

### Analysis Batch: 311147

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210429-2 | FC-CCR-MW61-1123 | Total/NA | Water | SM 2540C | |
| MB 550-311147/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-311147/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-311147/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-210428-A-12 DU | Duplicate | Total/NA | Water | SM 2540C | |

# QC Association Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210429-1

## General Chemistry

### Analysis Batch: 311195

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210429-2 | FC-CCR-MW61-1123 | Total/NA | Water | SM 2320B | |
| 550-210429-3 | FC-CCR-MW75-1123 | Total/NA | Water | SM 2320B | |
| MB 550-311195/5 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 550-311195/4 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| LCSD 550-311195/8 | Lab Control Sample Dup | Total/NA | Water | SM 2320B | |
| 550-210347-L-1 DU | Duplicate | Total/NA | Water | SM 2320B | |

### Analysis Batch: 311239

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210429-2 | FC-CCR-MW61-1123 | Total/NA | Water | SM 4500 H+ B | |
| 550-210429-3 | FC-CCR-MW75-1123 | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-311239/25 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-311239/30 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| 550-210429-2 DU | FC-CCR-MW61-1123 | Total/NA | Water | SM 4500 H+ B | |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210429-1

## Client Sample ID: FC-CCR-MW52-1123

**Lab Sample ID: 550-210429-1**

**Date Collected: 11/08/23 14:40**

**Matrix: Water**

**Date Received: 11/10/23 14:28**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 311064 | SGO | EET PHX | 11/14/23 10:09 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 311482 | GLW | EET PHX | 11/20/23 16:49 |
| Total/NA | Prep | 200.8 | | | 311057 | SGO | EET PHX | 11/14/23 08:56 |
| Total/NA | Analysis | 200.8 LL | | 1 | 311226 | DSJ | EET PHX | 11/16/23 00:37 |

## Client Sample ID: FC-CCR-MW61-1123

**Lab Sample ID: 550-210429-2**

**Date Collected: 11/09/23 12:50**

**Matrix: Water**

**Date Received: 11/10/23 14:28**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 311323 | MMH | EET PHX | 11/17/23 17:12 |
| Total/NA | Analysis | 300.0 | | 200 | 311323 | MMH | EET PHX | 11/17/23 18:26 |
| Total/NA | Analysis | 300.0 | | 20 | 312090 | MMH | EET PHX | 11/30/23 21:01 |
| Total Recoverable | Prep | 200.7 | | | 383775 | JP8N | EET CAL 4 | 11/15/23 07:10 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 384611 | P1R | EET CAL 4 | 11/16/23 19:30 |
| Total/NA | Prep | 200.7 | | | 311064 | SGO | EET PHX | 11/14/23 10:09 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 311482 | GLW | EET PHX | 11/20/23 16:51 |
| Total/NA | Prep | 200.7 | | | 311064 | SGO | EET PHX | 11/14/23 10:09 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311591 | GLW | EET PHX | 11/21/23 12:06 |
| Total/NA | Prep | 200.8 | | | 311057 | SGO | EET PHX | 11/14/23 08:56 |
| Total/NA | Analysis | 200.8 LL | | 1 | 311226 | DSJ | EET PHX | 11/16/23 00:39 |
| Total/NA | Prep | 245.1 | | | 311086 | HHL | EET PHX | 11/14/23 13:28 |
| Total/NA | Analysis | 245.1 | | 1 | 311105 | HHL | EET PHX | 11/14/23 17:35 |
| Total/NA | Analysis | SM 2320B | | 1 | 311195 | MAN | EET PHX | 11/15/23 16:57 |
| Total/NA | Analysis | SM 2540C | | 1 | 311147 | KMG | EET PHX | 11/15/23 11:03 - 11/21/23 15:28 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 311239 | MAN | EET PHX | 11/15/23 13:46 |

## Client Sample ID: FC-CCR-MW75-1123

**Lab Sample ID: 550-210429-3**

**Date Collected: 11/08/23 15:39**

**Matrix: Water**

**Date Received: 11/10/23 14:28**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 311323 | MMH | EET PHX | 11/17/23 18:44 |
| Total/NA | Analysis | 300.0 | | 200 | 311323 | MMH | EET PHX | 11/17/23 19:03 |
| Total/NA | Analysis | 9056A | | 2 | 312091 | MMH | EET PHX | 12/01/23 10:12 |
| Total Recoverable | Prep | 200.7 | | | 383775 | JP8N | EET CAL 4 | 11/15/23 07:10 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 384611 | P1R | EET CAL 4 | 11/16/23 19:32 |
| Total/NA | Prep | 200.7 | | | 311064 | SGO | EET PHX | 11/14/23 10:09 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 311482 | GLW | EET PHX | 11/20/23 16:54 |
| Total/NA | Prep | 200.7 | | | 311064 | SGO | EET PHX | 11/14/23 10:09 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311591 | GLW | EET PHX | 11/21/23 12:09 |
| Total/NA | Prep | 200.8 | | | 311057 | SGO | EET PHX | 11/14/23 08:56 |
| Total/NA | Analysis | 200.8 LL | | 1 | 311226 | DSJ | EET PHX | 11/16/23 00:41 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210429-1

## Client Sample ID: FC-CCR-MW75-1123

**Lab Sample ID: 550-210429-3**

**Date Collected: 11/08/23 15:39**

**Matrix: Water**

**Date Received: 11/10/23 14:28**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 245.1 | | | 311086 | HHL | EET PHX | 11/14/23 13:28 |
| Total/NA | Analysis | 245.1 | | 1 | 311105 | HHL | EET PHX | 11/14/23 17:37 |
| Total/NA | Analysis | SM 2320B | | 1 | 311195 | MAN | EET PHX | 11/15/23 17:03 |
| Total/NA | Analysis | SM 2540C | | 1 | 311072 | KMG | EET PHX | 11/14/23 11:18 - 11/20/23 14:04 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 311239 | MAN | EET PHX | 11/15/23 13:48 |

## Client Sample ID: FC-CCR-FD03-1123

**Lab Sample ID: 550-210429-4**

**Date Collected: 11/08/23 16:11**

**Matrix: Water**

**Date Received: 11/10/23 14:28**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 311064 | SGO | EET PHX | 11/14/23 10:09 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 311482 | GLW | EET PHX | 11/20/23 16:57 |
| Total/NA | Prep | 200.8 | | | 311057 | SGO | EET PHX | 11/14/23 08:56 |
| Total/NA | Analysis | 200.8 LL | | 1 | 311226 | DSJ | EET PHX | 11/16/23 00:43 |
| Total/NA | Prep | 200.8 | | | 311057 | SGO | EET PHX | 11/14/23 08:56 |
| Total/NA | Analysis | 200.8 LL | | 4 | 311523 | DSJ | EET PHX | 11/20/23 15:15 |

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

**Laboratory References:**

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

# Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-210429-1
Project/Site: CCR Groundwater Monitoring

## Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0728 | 06-10-24 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 200.8 LL | 200.8 | Water | Molybdenum |
| SM 4500 H+ B | | Water | Temperature |

## Laboratory: Eurofins Calscience

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0830 | 11-16-24 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 200.7 Rev 4.4 | 200.7 | Water | Lithium |

# Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210429-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 300.0 | Anions, Ion Chromatography | EPA | EET PHX |
| 9056A | Anions, Ion Chromatography | SW846 | EET PHX |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET CAL 4 |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET PHX |
| 200.8 LL | Metals (ICP/MS) | EPA | EET PHX |
| 245.1 | Mercury (CVAA) | EPA | EET PHX |
| SM 2320B | Alkalinity | SM | EET PHX |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET PHX |
| SM 4500 H+ B | pH | SM | EET PHX |
| 200.7 | Preparation, Total Recoverable Metals | EPA | EET CAL 4 |
| 200.7 | Preparation, Total Metals | EPA | EET PHX |
| 200.8 | Preparation, Total Metals | EPA | EET PHX |
| 245.1 | Preparation, Mercury | EPA | EET PHX |

**Protocol References:**

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EET CAL 4 = Eurofins Calscience  Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

210429

**TestAmerica Laboratories, Inc.**

4/10/2024 (Rev. 1)

| Client Contact | Natalie Chrisman | Pam Norris (505-598-8781) | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | 602-250-3608 | Lab Contact: Rachel Sester | Carrier: | 1 of 1 COCs |
| PO Box 355, MS 4915 | Analysis Turnaround Time | | | Sampler: |
| Fruitland, NM 87416 | ☐ CALENDAR DAYS ☑ WORKING DAYS | | | For Lab Use Only: |
| Phone | TAT if different from Below _____ | | | Walk-in Client: |
| FAX | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | Job / SDG No.: |
| Site: APS Four Corners Power Plant (Multiunit) | ☐ 2 days | | | |
| PO #: 100622298 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | Perform MS / MSD (Y/N) | EPA 300.0 (Cl, F, SO4) | EPA 200.7 - Totals (B) | EPA 200.7 - Totals (B, Ca, Be) | EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na) | EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na, Mn, Fe) | EPA 200.7 - Total Lithium | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | EPA 200.8 - Totals (Co, Mo) | EPA 245.1 - Totals (Hg) | SM 4500-HB (pH) | SM 2540C (TDS) | SM 2320B (CO3 Alkalinity as CaCO3, HCO3 Alkalinity as CaCO3) | 9056A - Fluoride | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW52-1123 -1 | 11/8/2023 | 1440 | G | W | 3 | N | Y | | X | | | | | | X | | | | | | Low Flow, MS/MSD included |
| FC-CCR-MW61-1123 -2 | 11/9/2023 | 1250 | G | W | 3 | N | | X | | | X | | X | X | | X | X | X | X | | Low Flow |
| FC-CCR-MW75-1123 -3 | 11/8/2023 | 1539 | G | W | 4 | N | | X | | | X | | X | X | | X | X | X | X | X | " |
| FC-CCR-FD03-1123 -4 | 11/8/2023 | 1611 | G | W | 1 | N | N | | X | | | | | | X | | | | | | " |
| | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 1 | 1 | 1 | |

550-210429 Chain of Custody

Page 29 of 33

**Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____**

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

**Special Instructions/QC Requirements & Comments:**

*Method 200.8 with collision cell*

0.8°C / 2-4°C - ONICE pc

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
|---|---|---|---|---|---|
| [signature] | WSP | 11-10-23 1745 | | | |
| Relinquished by: [signature] | Company: GHS | Date/Time: 11-10-23 17:45 | Received by: | Company: | Date/Time: |
| Relinquished by: [signature] | Company: AHS | Date/Time: 11-10-23 2:28 | Received in Laboratory by: [signature] | Company: EETA PHX | Date/Time: 11/10/23 1428 |


TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Pkt# 159469-434 MTW EXP 04/24
550-210429 Waybill
ORIGIN ID:INWA (602) 437-3340
TESTAMERICA-PHOENIX
TESTAMERICA
4625 E COTTON CENTER BLVD
SUITE 189
PHOENIX, AZ 85040
UNITED STATES US
SHIP DATE: 13NOV23
ACTWGT: 53.20 LB
CAD: 0875926/CAFE3755
DIMS: 25x13x14 IN
BILL RECIPIENT
TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING SOUTHW
2841 DOW AVENUE, SUITE 100
TUSTIN CA 92780
(714) 895-5494
REF: S550-86981
PO: YES
DEPT: SAMPLE RECEIVING
FedEx Express
TUE - 14 NOV 10:30A
PRIORITY OVERNIGHT
6388 9413 5345
Z DTHA
92780
CA-US SNA
Seal
11-13-23
2264027
eurofins
Environment Testing
TestAmerica

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins | E

Loc: 550
210429

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-38211.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing Southwest, | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-210429-1 |
| Address: 2841 Dow Avenue, Suite 100, , | Due Date Requested: 11/27/2023 | | | |
| City: Tustin | TAT Requested (days): | | | |
| State, Zip: CA, 92780 | | | | |
| Phone: 714-895-5494(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009706 | | | |
| Site: Arizona Public Service | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Lithium | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| FC-CCR-MW61-1123 (550-210429-2) | 11/9/23 | 12:50 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW75-1123 (550-210429-3) | 11/8/23 | 15:39 Arizona | | Water | | | X | 1 | |

550-210429 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

| Possible Hazard Identification | Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) |
|---|---|
| Unconfirmed | ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|---|
| 1 | Ernest 11-13-23 | 15:15 | EGSW | Fedex | | |
| 2 | | | | | 11/14/23 0910 | |
| 3 | | | | | | |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.6/1.5 542 |
|---|---|---|



Ver: 06/08/2021
4/10/2024 (Rev. 1)

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-210429-1

**Login Number: 210429**
**List Number: 1**
**Creator: Maycock, Lisa**

**List Source: Eurofins Phoenix**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | False | Check done at department level as required. |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-210429-1

**Login Number: 210429**
**List Number: 2**
**Creator: Khana, Piyush**

**List Source: Eurofins Calscience**
**List Creation: 11/14/23 02:12 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | 2264027 |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 1.5 |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | False | Received project as a subcontract. |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 4/10/2024 8:46:40 AM Revision 1

## JOB DESCRIPTION

CCR Groundwater Monitoring
APS Four Corners Power Plant (URS)

## JOB NUMBER

550-210593-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.



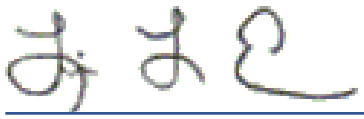
my EOL

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

## Authorization



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Revision 1

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# Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

## Qualifiers

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| D2 | Sample required dilution due to high concentration of analyte. |
| M2 | Matrix spike recovery was low, the associated blank spike recovery was acceptable. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| L3 | The associated blank spike recovery was above method acceptance limits. |
| L4 | The associated blank spike recovery was below method acceptance limits. |
| L5 | The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |
| T5 | Laboratory not licensed for this parameter |
| V1 | CCV recovery was above method acceptance limits. This target analyte was not detected in the sample. |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| D1 | Sample required dilution due to matrix. |
| H1 | Sample analysis performed past holding time. |
| H2 | Initial analysis within holding time. Reanalysis for the required dilution was past holding time. |
| H5 | This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time. |
| T5 | Laboratory not licensed for this parameter |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |

## Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

## Job ID: 550-210593-1 — Eurofins Phoenix

**Job Narrative**
**550-210593-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**
The samples were received on 11/15/2023 2:43 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.1°C

**HPLC/IC**
Method 300_ORGFMS: Spike compounds were inadvertently omitted during the extraction process for the matrix spike/matrix spike duplicate (MS/MSD); therefore, matrix spike recoveries are unavailable for analytical batch 550-311405. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**Metals**
Method 200.8_CWA_LL: Samples were diluted 10x due to matrix

FC-CCR-MW67-1123 (550-210593-1), FC-CCR-MW68-1123 (550-210593-2), FC-CCR-MW69-1123 (550-210593-3), FC-CCR-MW83-1123 (550-210593-4), FC-CCR-MW84-1123 (550-210593-5), FC-CCR-MW85-1123 (550-210593-6), FC-CCR-FD01-1123 (550-210593-7), FC-CCR-CM01-1123 (550-210593-8), FC-CCR-CM02-1123 (550-210593-9), (550-210594-B-12-C), (550-210594-B-12-A MS) and (550-210594-B-12-B MSD)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**General Chemistry**
Method 2540C_Calcd: The following sample was analyzed outside of analytical holding time due to residue being >0.2000 g at 10 mL: FC-CCR-MW67-1123 (550-210593-1).

Method 2540C_Calcd: Reanalysis of the following sample was performed outside of the analytical holding time due to noticeable errors in the bag weights from batch 311341 : FC-CCR-MW84-1123 (550-210593-5).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**Revision**
The report being provided is a revision of the original report sent on 12/6/2023. The report (revision 1) is being revised due to: Client questioned the 9056 result, upon review, it was found that the dilution factor was entered incorrect..

# Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 550-210593-1 | FC-CCR-MW67-1123 | Water | 11/13/23 09:18 | 11/15/23 14:43 |
| 550-210593-2 | FC-CCR-MW68-1123 | Water | 11/11/23 11:28 | 11/15/23 14:43 |
| 550-210593-3 | FC-CCR-MW69-1123 | Water | 11/11/23 10:33 | 11/15/23 14:43 |
| 550-210593-4 | FC-CCR-MW83-1123 | Water | 11/11/23 14:10 | 11/15/23 14:43 |
| 550-210593-5 | FC-CCR-MW84-1123 | Water | 11/11/23 15:53 | 11/15/23 14:43 |
| 550-210593-6 | FC-CCR-MW85-1123 | Water | 11/11/23 15:03 | 11/15/23 14:43 |
| 550-210593-7 | FC-CCR-FD01-1123 | Water | 11/11/23 08:53 | 11/15/23 14:43 |
| 550-210593-8 | FC-CCR-CM01-1123 | Water | 11/13/23 09:41 | 11/15/23 14:43 |
| 550-210593-9 | FC-CCR-CM02-1123 | Water | 11/13/23 09:52 | 11/15/23 14:43 |

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

## Client Sample ID: FC-CCR-MW67-1123 — Lab Sample ID: 550-210593-1

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1800 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 13 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 13000 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 13 | | 0.80 | | mg/L | 2 | | 9056A | Total/NA |
| Boron | 170 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 500 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.91 | | 0.50 | | mg/L | 10 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0075 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.014 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.0082 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.040 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Thallium | 0.0012 | | 0.0010 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 20000 | D1 H1 | 200 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.4 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 10.4 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW68-1123 — Lab Sample ID: 550-210593-2

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1500 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 13 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 15000 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 12 | | 0.80 | | mg/L | 2 | | 9056A | Total/NA |
| Boron | 170 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 490 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.93 | | 0.50 | | mg/L | 10 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0099 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.14 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.020 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0069 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.0078 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Thallium | 0.0018 | | 0.0010 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 24000 | | 200 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.2 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 12.2 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW69-1123 — Lab Sample ID: 550-210593-3

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 920 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 4.7 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 5000 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 4.7 | | 0.80 | | mg/L | 2 | | 9056A | Total/NA |
| Boron | 57 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 560 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.33 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0086 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.0061 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0057 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.20 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-MW69-1123 (Continued) — Lab Sample ID: 550-210593-3

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 8900 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.4 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 11.5 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW83-1123 — Lab Sample ID: 550-210593-4

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 120 | D2 | 4.0 | | mg/L | 2 | | 300.0 | Total/NA |
| Fluoride | 2.1 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 3500 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 2.8 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 520 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.24 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0077 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.011 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0076 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 620 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.4 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 11.3 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW84-1123 — Lab Sample ID: 550-210593-5

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 890 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Sulfate | 8700 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 66 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 530 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.47 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0077 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.017 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.0077 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.067 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 15000 | H2 | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.2 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 11.1 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW85-1123 — Lab Sample ID: 550-210593-6

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 630 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 1.9 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 5900 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 75 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 580 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.50 | | 0.10 | | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0084 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.017 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0057 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.37 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 10000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-MW85-1123 (Continued) — Lab Sample ID: 550-210593-6

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| pH | 7.2 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 10.6 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-FD01-1123 — Lab Sample ID: 550-210593-7

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 890 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Sulfate | 8800 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 71 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 550 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.67 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0075 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.018 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.0076 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.067 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 15000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.2 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 10.7 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-CM01-1123 — Lab Sample ID: 550-210593-8

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1400 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 3.3 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 9100 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 120 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 540 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.75 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0081 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.028 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.0097 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0053 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.071 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 16000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.3 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 11.5 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-CM02-1123 — Lab Sample ID: 550-210593-9

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1100 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 4.2 | D2 | 0.80 | | mg/L | 2 | | 300.0 | Total/NA |
| Sulfate | 9200 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 110 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 510 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 0.61 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0081 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.016 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.0084 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.013 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-CM02-1123 (Continued)

## Lab Sample ID: 550-210593-9

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Thallium | 0.0012 | | 0.0010 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 15000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.0 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 13.0 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-MW67-1123

**Lab Sample ID: 550-210593-1**
**Date Collected: 11/13/23 09:18**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1800** | **D2** | 400 | | mg/L | | | 11/18/23 21:19 | 200 |
| **Fluoride** | **13** | **D2** | 0.80 | | mg/L | | | 11/18/23 21:00 | 2 |
| **Sulfate** | **13000** | **D2** | 400 | | mg/L | | | 11/18/23 21:19 | 200 |

### Method: SW846 9056A - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **13** | | 0.80 | | mg/L | | | 12/01/23 09:54 | 2 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | L5 V1 | 0.0050 | | mg/L | | 11/21/23 04:37 | 11/28/23 18:25 | 5 |
| **Boron** | **170** | | 0.25 | | mg/L | | 11/21/23 04:37 | 11/29/23 15:24 | 5 |
| **Calcium** | **500** | | 10 | | mg/L | | 11/21/23 04:37 | 11/28/23 18:25 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.91** | | 0.50 | | mg/L | | 11/21/23 09:32 | 11/28/23 15:54 | 10 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:37 | 10 |
| **Arsenic** | **0.0075** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:37 | 10 |
| **Barium** | **0.014** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:37 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:37 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:37 | 10 |
| **Cobalt** | **0.0082** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:37 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:37 | 10 |
| **Molybdenum** | **0.040** | **T5** | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:37 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:37 | 10 |
| **Thallium** | **0.0012** | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:37 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 11/20/23 11:20 | 11/20/23 15:23 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **20000** | **D1 H1** | 200 | | mg/L | | | 11/22/23 18:27 | 1 |
| **pH (SM 4500 H+ B)** | **7.4** | **H5** | 1.7 | | SU | | | 11/16/23 14:20 | 1 |
| **Temperature (SM 4500 H+ B)** | **10.4** | **H5 T5** | 0.1 | | Degrees C | | | 11/16/23 14:20 | 1 |

## Client Sample ID: FC-CCR-MW68-1123

**Lab Sample ID: 550-210593-2**
**Date Collected: 11/11/23 11:28**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1500** | **D2** | 400 | | mg/L | | | 11/18/23 21:56 | 200 |
| **Fluoride** | **13** | **D2** | 0.80 | | mg/L | | | 11/18/23 21:37 | 2 |
| **Sulfate** | **15000** | **D2** | 400 | | mg/L | | | 11/18/23 21:56 | 200 |

## Client Sample ID: FC-CCR-MW68-1123

**Lab Sample ID: 550-210593-2**
**Date Collected: 11/11/23 11:28**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

### Method: SW846 9056A - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **12** | | 0.80 | | mg/L | | | 12/01/23 05:54 | 2 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | L5 V1 | 0.0050 | | mg/L | | 11/21/23 04:37 | 11/28/23 18:27 | 5 |
| **Boron** | **170** | | 0.25 | | mg/L | | 11/21/23 04:37 | 11/29/23 15:27 | 5 |
| **Calcium** | **490** | | 10 | | mg/L | | 11/21/23 04:37 | 11/28/23 18:27 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.93** | | 0.50 | | mg/L | | 11/21/23 09:32 | 11/28/23 15:56 | 10 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:39 | 10 |
| **Arsenic** | **0.0099** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:39 | 10 |
| **Barium** | **0.14** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:39 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:39 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:39 | 10 |
| **Cobalt** | **0.020** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:39 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:39 | 10 |
| **Molybdenum** | **0.0069** | **T5** | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:39 | 10 |
| **Selenium** | **0.0078** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:39 | 10 |
| **Thallium** | **0.0018** | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:39 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 11/20/23 11:20 | 11/20/23 15:25 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **24000** | | 200 | | mg/L | | | 11/17/23 11:54 | 1 |
| **pH (SM 4500 H+ B)** | **7.2** | **H5** | 1.7 | | SU | | | 11/16/23 14:23 | 1 |
| **Temperature (SM 4500 H+ B)** | **12.2** | **H5 T5** | 0.1 | | Degrees C | | | 11/16/23 14:23 | 1 |

## Client Sample ID: FC-CCR-MW69-1123

**Lab Sample ID: 550-210593-3**
**Date Collected: 11/11/23 10:33**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **920** | **D2** | 400 | | mg/L | | | 11/18/23 23:28 | 200 |
| **Fluoride** | **4.7** | **D2** | 0.80 | | mg/L | | | 11/18/23 22:14 | 2 |
| **Sulfate** | **5000** | **D2** | 400 | | mg/L | | | 11/18/23 23:28 | 200 |

### Method: SW846 9056A - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **4.7** | | 0.80 | | mg/L | | | 12/01/23 10:30 | 2 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | L5 V1 | 0.0050 | | mg/L | | 11/21/23 04:37 | 11/28/23 18:30 | 5 |

## Client Sample ID: FC-CCR-MW69-1123

**Lab Sample ID: 550-210593-3**
**Date Collected: 11/11/23 10:33**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **57** | | 0.25 | | mg/L | | 11/21/23 04:37 | 11/29/23 15:30 | 5 |
| **Calcium** | **560** | | 10 | | mg/L | | 11/21/23 04:37 | 11/28/23 18:30 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.33** | | 0.10 | | mg/L | | 11/21/23 09:32 | 11/28/23 15:59 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:41 | 10 |
| **Arsenic** | **0.0086** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:41 | 10 |
| **Barium** | **0.0061** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:41 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:41 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:41 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:41 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:41 | 10 |
| **Molybdenum** | **0.0057** | **T5** | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:41 | 10 |
| **Selenium** | **0.20** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:41 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:41 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 11/20/23 11:20 | 11/20/23 15:27 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **8900** | | 100 | | mg/L | | | 11/17/23 11:54 | 1 |
| **pH (SM 4500 H+ B)** | **7.4** | **H5** | 1.7 | | SU | | | 11/16/23 14:26 | 1 |
| **Temperature (SM 4500 H+ B)** | **11.5** | **H5 T5** | 0.1 | | Degrees C | | | 11/16/23 14:26 | 1 |

## Client Sample ID: FC-CCR-MW83-1123

**Lab Sample ID: 550-210593-4**
**Date Collected: 11/11/23 14:10**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **120** | **D2** | 4.0 | | mg/L | | | 11/18/23 23:46 | 2 |
| **Fluoride** | **2.1** | **D2** | 0.80 | | mg/L | | | 11/18/23 23:46 | 2 |
| **Sulfate** | **3500** | **D2** | 400 | | mg/L | | | 11/19/23 00:05 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | L5 V1 | 0.0050 | | mg/L | | 11/21/23 04:37 | 11/28/23 18:33 | 5 |
| **Boron** | **2.8** | | 0.25 | | mg/L | | 11/21/23 04:37 | 11/29/23 15:32 | 5 |
| **Calcium** | **520** | | 10 | | mg/L | | 11/21/23 04:37 | 11/28/23 18:33 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.24** | | 0.050 | | mg/L | | 11/21/23 09:32 | 11/28/23 16:01 | 1 |

## Client Sample ID: FC-CCR-MW83-1123

**Lab Sample ID: 550-210593-4**

**Date Collected: 11/11/23 14:10**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:44 | 10 |
| **Arsenic** | **0.0077** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:44 | 10 |
| **Barium** | **0.011** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:44 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:44 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:44 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:44 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:44 | 10 |
| **Molybdenum** | **0.0076** | **T5** | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:44 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:44 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:44 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 11/20/23 11:20 | 11/20/23 15:29 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **620** | | 100 | | mg/L | | | 11/17/23 11:54 | 1 |
| **pH (SM 4500 H+ B)** | **7.4** | **H5** | 1.7 | | SU | | | 11/16/23 14:28 | 1 |
| **Temperature (SM 4500 H+ B)** | **11.3** | **H5 T5** | 0.1 | | Degrees C | | | 11/16/23 14:28 | 1 |

## Client Sample ID: FC-CCR-MW84-1123

**Lab Sample ID: 550-210593-5**

**Date Collected: 11/11/23 15:53**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **890** | **D2** | 400 | | mg/L | | | 11/19/23 00:41 | 200 |
| Fluoride | ND | D2 | 0.80 | | mg/L | | | 11/19/23 00:23 | 2 |
| **Sulfate** | **8700** | **D2** | 400 | | mg/L | | | 11/19/23 00:41 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | L5 V1 | 0.0050 | | mg/L | | 11/21/23 04:37 | 11/28/23 18:36 | 5 |
| **Boron** | **66** | | 0.25 | | mg/L | | 11/21/23 04:37 | 11/29/23 15:35 | 5 |
| **Calcium** | **530** | | 10 | | mg/L | | 11/21/23 04:37 | 11/28/23 18:36 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.47** | | 0.25 | | mg/L | | 11/21/23 09:32 | 11/28/23 16:03 | 5 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:46 | 10 |
| **Arsenic** | **0.0077** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:46 | 10 |
| **Barium** | **0.017** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:46 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:46 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:46 | 10 |
| **Cobalt** | **0.0077** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:46 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:46 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:46 | 10 |

## Client Sample ID: FC-CCR-MW84-1123

**Lab Sample ID: 550-210593-5**
**Date Collected: 11/11/23 15:53**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

### Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Selenium** | **0.067** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:46 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:46 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 11/20/23 11:20 | 11/20/23 15:31 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **15000** | **H2** | 100 | | mg/L | | | 12/04/23 11:23 | 1 |
| **pH (SM 4500 H+ B)** | **7.2** | **H5** | 1.7 | | SU | | | 11/16/23 14:31 | 1 |
| **Temperature (SM 4500 H+ B)** | **11.1** | **H5 T5** | 0.1 | | Degrees C | | | 11/16/23 14:31 | 1 |

## Client Sample ID: FC-CCR-MW85-1123

**Lab Sample ID: 550-210593-6**
**Date Collected: 11/11/23 15:03**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **630** | **D2** | 400 | | mg/L | | | 11/19/23 01:18 | 200 |
| **Fluoride** | **1.9** | **D2** | 0.80 | | mg/L | | | 11/19/23 01:00 | 2 |
| **Sulfate** | **5900** | **D2** | 400 | | mg/L | | | 11/19/23 01:18 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | L4 V1 | 0.0050 | | mg/L | | 11/21/23 04:37 | 11/28/23 18:44 | 5 |
| **Boron** | **75** | | 0.25 | | mg/L | | 11/21/23 04:37 | 11/29/23 15:44 | 5 |
| **Calcium** | **580** | | 10 | | mg/L | | 11/21/23 04:37 | 11/28/23 18:44 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.50** | | 0.10 | | mg/L | | 11/21/23 09:32 | 11/28/23 16:06 | 2 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:54 | 10 |
| **Arsenic** | **0.0084** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:54 | 10 |
| **Barium** | **0.017** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:54 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:54 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:54 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:54 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:54 | 10 |
| **Molybdenum** | **0.0057** | **T5** | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:54 | 10 |
| **Selenium** | **0.37** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:54 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:54 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 11/20/23 11:20 | 11/20/23 15:33 | 1 |

## Client Sample ID: FC-CCR-MW85-1123

**Lab Sample ID: 550-210593-6**
**Date Collected: 11/11/23 15:03**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **10000** | | 100 | | mg/L | | | 11/17/23 11:54 | 1 |
| **pH (SM 4500 H+ B)** | **7.2** | **H5** | 1.7 | | SU | | | 11/16/23 14:33 | 1 |
| **Temperature (SM 4500 H+ B)** | **10.6** | **H5 T5** | 0.1 | | Degrees C | | | 11/16/23 14:33 | 1 |

## Client Sample ID: FC-CCR-FD01-1123

**Lab Sample ID: 550-210593-7**
**Date Collected: 11/11/23 08:53**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **890** | **D2** | 400 | | mg/L | | | 11/19/23 01:55 | 200 |
| Fluoride | ND | D2 | 0.80 | | mg/L | | | 11/19/23 01:37 | 2 |
| **Sulfate** | **8800** | **D2** | 400 | | mg/L | | | 11/19/23 01:55 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | L5 V1 | 0.0050 | | mg/L | | 11/21/23 04:37 | 11/28/23 18:47 | 5 |
| **Boron** | **71** | | 0.25 | | mg/L | | 11/21/23 04:37 | 11/29/23 15:47 | 5 |
| **Calcium** | **550** | | 10 | | mg/L | | 11/21/23 04:37 | 11/28/23 18:47 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.67** | | 0.25 | | mg/L | | 11/21/23 09:32 | 11/28/23 16:08 | 5 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:56 | 10 |
| **Arsenic** | **0.0075** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:56 | 10 |
| **Barium** | **0.018** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:56 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:56 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:56 | 10 |
| **Cobalt** | **0.0076** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:56 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:56 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:56 | 10 |
| **Selenium** | **0.067** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:56 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:56 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 11/20/23 11:20 | 11/20/23 15:41 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **15000** | | 100 | | mg/L | | | 11/17/23 11:54 | 1 |
| **pH (SM 4500 H+ B)** | **7.2** | **H5** | 1.7 | | SU | | | 11/16/23 14:35 | 1 |
| **Temperature (SM 4500 H+ B)** | **10.7** | **H5 T5** | 0.1 | | Degrees C | | | 11/16/23 14:35 | 1 |

## Client Sample ID: FC-CCR-CM01-1123

**Lab Sample ID: 550-210593-8**

**Date Collected: 11/13/23 09:41**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1400** | **D2** | 400 | | mg/L | | | 11/19/23 03:27 | 200 |
| **Fluoride** | **3.3** | **D2** | 0.80 | | mg/L | | | 11/19/23 03:09 | 2 |
| **Sulfate** | **9100** | **D2** | 400 | | mg/L | | | 11/19/23 03:27 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | L5 V1 | 0.0050 | | mg/L | | 11/21/23 04:37 | 11/28/23 18:50 | 5 |
| **Boron** | **120** | | 0.25 | | mg/L | | 11/21/23 04:37 | 11/29/23 15:49 | 5 |
| **Calcium** | **540** | | 10 | | mg/L | | 11/21/23 04:37 | 11/28/23 18:50 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.75** | | 0.25 | | mg/L | | 11/21/23 09:32 | 11/28/23 16:11 | 5 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:58 | 10 |
| **Arsenic** | **0.0081** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:58 | 10 |
| **Barium** | **0.028** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:58 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:58 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:58 | 10 |
| **Cobalt** | **0.0097** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:58 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:58 | 10 |
| **Molybdenum** | **0.0053** | **T5** | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:58 | 10 |
| **Selenium** | **0.071** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:58 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:58 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 11/20/23 11:20 | 11/20/23 15:43 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **16000** | | 100 | | mg/L | | | 11/20/23 12:18 | 1 |
| **pH (SM 4500 H+ B)** | **7.3** | **H5** | 1.7 | | SU | | | 11/16/23 14:36 | 1 |
| **Temperature (SM 4500 H+ B)** | **11.5** | **H5 T5** | 0.1 | | Degrees C | | | 11/16/23 14:36 | 1 |

## Client Sample ID: FC-CCR-CM02-1123

**Lab Sample ID: 550-210593-9**

**Date Collected: 11/13/23 09:52**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1100** | **D2** | 400 | | mg/L | | | 11/19/23 04:04 | 200 |
| **Fluoride** | **4.2** | **D2** | 0.80 | | mg/L | | | 11/19/23 03:45 | 2 |
| **Sulfate** | **9200** | **D2** | 400 | | mg/L | | | 11/19/23 04:04 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | L5 V1 | 0.0050 | | mg/L | | 11/21/23 04:37 | 11/28/23 18:53 | 5 |
| **Boron** | **110** | | 0.25 | | mg/L | | 11/21/23 04:37 | 11/29/23 15:52 | 5 |

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

## Client Sample ID: FC-CCR-CM02-1123

**Date Collected: 11/13/23 09:52**
**Date Received: 11/15/23 14:43**

## Lab Sample ID: 550-210593-9

**Matrix: Water**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Calcium** | **510** | | 10 | | mg/L | | 11/21/23 04:37 | 11/28/23 18:53 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **0.61** | | 0.25 | | mg/L | | 11/21/23 09:32 | 11/28/23 16:13 | 5 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 11/21/23 06:58 | 11/27/23 18:00 | 10 |
| **Arsenic** | **0.0081** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 18:00 | 10 |
| **Barium** | **0.016** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 18:00 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 18:00 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 11/21/23 06:58 | 11/27/23 18:00 | 10 |
| **Cobalt** | **0.0084** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 18:00 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 18:00 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 18:00 | 10 |
| **Selenium** | **0.013** | | 0.0050 | | mg/L | | 11/21/23 06:58 | 11/27/23 18:00 | 10 |
| **Thallium** | **0.0012** | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 18:00 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 11/20/23 11:20 | 11/20/23 15:45 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **15000** | | 100 | | mg/L | | | 11/20/23 12:18 | 1 |
| **pH (SM 4500 H+ B)** | **7.0** | **H5** | 1.7 | | SU | | | 11/16/23 14:41 | 1 |
| **Temperature (SM 4500 H+ B)** | **13.0** | **H5 T5** | 0.1 | | Degrees C | | | 11/16/23 14:41 | 1 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 550-311405/2**
**Matrix: Water**
**Analysis Batch: 311405**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 11/18/23 18:15 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 11/18/23 18:15 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 11/18/23 18:15 | 1 |

**Lab Sample ID: LCS 550-311405/5**
**Matrix: Water**
**Analysis Batch: 311405**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 21.0 | | mg/L | | 105 | 90 - 110 | | |
| Fluoride | | | 4.00 | 4.32 | | mg/L | | 108 | 90 - 110 | | |
| Sulfate | | | 20.0 | 21.2 | | mg/L | | 106 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-311405/6**
**Matrix: Water**
**Analysis Batch: 311405**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 21.1 | | mg/L | | 105 | 90 - 110 | 0 | 20 |
| Fluoride | | | 4.00 | 4.34 | | mg/L | | 109 | 90 - 110 | 0 | 20 |
| Sulfate | | | 20.0 | 21.3 | | mg/L | | 106 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 550-210592-I-4 MS ^10**
**Matrix: Water**
**Analysis Batch: 311405**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 140 | M2 | 200 | 140 | M2 | mg/L | | 1 | 80 - 120 | | |
| Fluoride | ND | M2 | 40.0 | ND | M2 | mg/L | | -0.2 | 80 - 120 | | |
| Sulfate | 170 | M2 | 200 | 176 | M2 | mg/L | | 1 | 80 - 120 | | |

**Lab Sample ID: 550-210592-I-4 MSD ^10**
**Matrix: Water**
**Analysis Batch: 311405**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 140 | M2 | 200 | 140 | M2 | mg/L | | 1 | 80 - 120 | 0 | 20 |
| Fluoride | ND | M2 | 40.0 | ND | M2 | mg/L | | -0.1 | 80 - 120 | 2 | 20 |
| Sulfate | 170 | M2 | 200 | 177 | M2 | mg/L | | 2 | 80 - 120 | 1 | 20 |

## Method: 9056A - Anions, Ion Chromatography

**Lab Sample ID: MB 550-312000/1-A**
**Matrix: Water**
**Analysis Batch: 312091**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Fluoride | ND | | 4.0 | | mg/L | | | 12/01/23 03:09 | 1 |

## Method: 9056A - Anions, Ion Chromatography (Continued)

**Lab Sample ID: MB 550-312091/2**
**Matrix: Water**
**Analysis Batch: 312091**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Fluoride | ND | | 0.40 | | mg/L | | | 11/30/23 16:06 | 1 |

**Lab Sample ID: LCS 550-312000/2-A**
**Matrix: Water**
**Analysis Batch: 312091**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | | | 39.7 | 41.1 | | mg/L | | 103 | 80 - 120 | | |

**Lab Sample ID: LCSD 550-312000/3-A**
**Matrix: Water**
**Analysis Batch: 312091**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | | | 39.8 | 42.2 | | mg/L | | 106 | 80 - 120 | 3 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 550-311484/1-A**
**Matrix: Water**
**Analysis Batch: 311842**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 311484**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | V1 | 0.0010 | | mg/L | | 11/21/23 04:37 | 11/28/23 17:56 | 1 |
| Calcium | ND | | 2.0 | | mg/L | | 11/21/23 04:37 | 11/28/23 17:56 | 1 |

**Lab Sample ID: MB 550-311484/1-A**
**Matrix: Water**
**Analysis Batch: 311929**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 311484**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | ND | | 0.050 | | mg/L | | 11/21/23 04:37 | 11/29/23 14:55 | 1 |

**Lab Sample ID: LCS 550-311484/2-A**
**Matrix: Water**
**Analysis Batch: 311842**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 311484**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | | | 1.00 | 1.22 | L3 V1 | mg/L | | 122 | 85 - 115 | | |
| Calcium | | | 21.0 | 23.2 | | mg/L | | 111 | 85 - 115 | | |

**Lab Sample ID: LCS 550-311484/2-A**
**Matrix: Water**
**Analysis Batch: 311929**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 311484**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 0.944 | | mg/L | | 94 | 85 - 115 | | |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: LCSD 550-311484/3-A**
**Matrix: Water**
**Analysis Batch: 311842**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 311484**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | | | 1.00 | 1.16 | L3 V1 | mg/L | | 116 | 85 - 115 | 5 | 20 |
| Calcium | | | 21.0 | 22.2 | | mg/L | | 106 | 85 - 115 | 5 | 20 |

**Lab Sample ID: LCSD 550-311484/3-A**
**Matrix: Water**
**Analysis Batch: 311929**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 311484**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 0.977 | | mg/L | | 98 | 85 - 115 | 3 | 20 |

**Lab Sample ID: 550-210594-B-1-A MS**
**Matrix: Water**
**Analysis Batch: 311842**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 311484**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | V1 L3 | 1.00 | 1.18 | V1 | mg/L | | 118 | 70 - 130 | | |
| Calcium | 520 | M3 | 21.0 | 497 | M3 | mg/L | | 1869 | 70 - 130 | | |

**Lab Sample ID: 550-210594-B-1-A MS ^5**
**Matrix: Water**
**Analysis Batch: 311929**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 311484**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 90 | M3 | 1.00 | 82.4 | M3 | mg/L | | -801 | 70 - 130 | | |

**Lab Sample ID: 550-210594-B-1-B MSD**
**Matrix: Water**
**Analysis Batch: 311842**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 311484**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | V1 L3 | 1.00 | 1.23 | V1 | mg/L | | 123 | 70 - 130 | 4 | 20 |
| Calcium | 520 | M3 | 21.0 | 524 | M3 | mg/L | | 1998 | 70 - 130 | 5 | 20 |

**Lab Sample ID: 550-210594-B-1-B MSD ^5**
**Matrix: Water**
**Analysis Batch: 311929**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 311484**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 90 | M3 | 1.00 | 88.5 | M3 | mg/L | | -187 | 70 - 130 | 7 | 20 |

**Lab Sample ID: MB 570-385879/1-A**
**Matrix: Water**
**Analysis Batch: 387424**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 385879**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 0.050 | | mg/L | | 11/21/23 09:32 | 11/28/23 15:21 | 1 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: LCS 570-385879/27-A**
**Matrix: Water**
**Analysis Batch: 387424**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 385879**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 0.500 | 0.551 | | mg/L | | 110 | 85 - 115 | | |

**Lab Sample ID: LCSD 570-385879/28-A**
**Matrix: Water**
**Analysis Batch: 387424**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total Recoverable**
**Prep Batch: 385879**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 0.500 | 0.546 | | mg/L | | 109 | 85 - 115 | 1 | 20 |

**Lab Sample ID: 570-161517-A-1-D MS**
**Matrix: Water**
**Analysis Batch: 387424**

**Client Sample ID: Matrix Spike**
**Prep Type: Total Recoverable**
**Prep Batch: 385879**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 0.500 | 0.568 | | mg/L | | 105 | 80 - 120 | | |

**Lab Sample ID: 570-161517-A-1-E MSD**
**Matrix: Water**
**Analysis Batch: 387424**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total Recoverable**
**Prep Batch: 385879**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 0.500 | 0.579 | | mg/L | | 107 | 80 - 120 | 2 | 20 |

## Method: 200.8 LL - Metals (ICP/MS)

**Lab Sample ID: MB 550-311487/1-A**
**Matrix: Water**
**Analysis Batch: 311751**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 311487**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:13 | 1 |
| Arsenic | ND | | 0.00050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:13 | 1 |
| Barium | ND | | 0.00050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:13 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:13 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:13 | 1 |
| Cobalt | ND | | 0.00050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:13 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:13 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:13 | 1 |
| Selenium | ND | | 0.00050 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:13 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 11/21/23 06:58 | 11/27/23 17:13 | 1 |

**Lab Sample ID: LCS 550-311487/2-A**
**Matrix: Water**
**Analysis Batch: 311751**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 311487**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.100 | | mg/L | | 100 | 85 - 115 | | |
| Arsenic | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | | |
| Barium | | | 0.100 | 0.110 | | mg/L | | 110 | 85 - 115 | | |
| Cadmium | | | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 | | |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 550-311487/2-A**
**Matrix: Water**
**Analysis Batch: 311751**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 311487**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | | |
| Cobalt | | | 0.100 | 0.107 | | mg/L | | 107 | 85 - 115 | | |
| Lead | | | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | | |
| Molybdenum | | | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 | | |
| Selenium | | | 0.100 | 0.0951 | | mg/L | | 95 | 85 - 115 | | |
| Thallium | | | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-311487/3-A**
**Matrix: Water**
**Analysis Batch: 311751**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 311487**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 | 4 | 20 |
| Arsenic | | | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | 1 | 20 |
| Barium | | | 0.100 | 0.113 | | mg/L | | 113 | 85 - 115 | 3 | 20 |
| Cadmium | | | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 | 1 | 20 |
| Chromium | | | 0.100 | 0.103 | | mg/L | | 103 | 85 - 115 | 1 | 20 |
| Cobalt | | | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 | 2 | 20 |
| Lead | | | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 | 5 | 20 |
| Molybdenum | | | 0.100 | 0.110 | | mg/L | | 110 | 85 - 115 | 2 | 20 |
| Selenium | | | 0.100 | 0.0962 | | mg/L | | 96 | 85 - 115 | 1 | 20 |
| Thallium | | | 0.100 | 0.107 | | mg/L | | 107 | 85 - 115 | 3 | 20 |

**Lab Sample ID: 550-210594-B-12-A MS**
**Matrix: Water**
**Analysis Batch: 311751**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 311487**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.107 | | mg/L | | 107 | 70 - 130 | | |
| Arsenic | 0.0063 | | 0.100 | 0.116 | | mg/L | | 109 | 70 - 130 | | |
| Barium | 0.017 | | 0.100 | 0.123 | | mg/L | | 106 | 70 - 130 | | |
| Cadmium | ND | | 0.100 | 0.102 | | mg/L | | 102 | 70 - 130 | | |
| Chromium | ND | | 0.100 | 0.104 | | mg/L | | 104 | 70 - 130 | | |
| Cobalt | ND | | 0.100 | 0.108 | | mg/L | | 107 | 70 - 130 | | |
| Lead | ND | | 0.100 | 0.0980 | | mg/L | | 98 | 70 - 130 | | |
| Molybdenum | ND | | 0.100 | 0.115 | | mg/L | | 111 | 70 - 130 | | |
| Selenium | 0.040 | | 0.100 | 0.152 | | mg/L | | 112 | 70 - 130 | | |
| Thallium | 0.0010 | | 0.100 | 0.101 | | mg/L | | 100 | 70 - 130 | | |

**Lab Sample ID: 550-210594-B-12-B MSD**
**Matrix: Water**
**Analysis Batch: 311751**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 311487**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.107 | | mg/L | | 106 | 70 - 130 | 0 | 20 |
| Arsenic | 0.0063 | | 0.100 | 0.113 | | mg/L | | 107 | 70 - 130 | 2 | 20 |
| Barium | 0.017 | | 0.100 | 0.125 | | mg/L | | 109 | 70 - 130 | 2 | 20 |
| Cadmium | ND | | 0.100 | 0.102 | | mg/L | | 102 | 70 - 130 | 0 | 20 |
| Chromium | ND | | 0.100 | 0.103 | | mg/L | | 103 | 70 - 130 | 1 | 20 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: 550-210594-B-12-B MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 311751** — **Prep Batch: 311487**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.100 | 0.105 | | mg/L | | 104 | 70 - 130 | 3 | 20 |
| Lead | ND | | 0.100 | 0.0947 | | mg/L | | 95 | 70 - 130 | 3 | 20 |
| Molybdenum | ND | | 0.100 | 0.116 | | mg/L | | 111 | 70 - 130 | 0 | 20 |
| Selenium | 0.040 | | 0.100 | 0.147 | | mg/L | | 107 | 70 - 130 | 3 | 20 |
| Thallium | 0.0010 | | 0.100 | 0.0980 | | mg/L | | 97 | 70 - 130 | 3 | 20 |

## Method: 245.1 - Mercury (CVAA)

**Lab Sample ID: MB 550-311424/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 311470** — **Prep Batch: 311424**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 11/20/23 11:20 | 11/20/23 14:47 | 1 |

**Lab Sample ID: LCS 550-311424/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 311470** — **Prep Batch: 311424**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00452 | | mg/L | | 90 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-311424/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 311470** — **Prep Batch: 311424**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00451 | | mg/L | | 90 | 85 - 115 | 0 | 20 |

**Lab Sample ID: 550-210591-B-1-B MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 311470** — **Prep Batch: 311424**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00465 | | mg/L | | 93 | 70 - 130 | 2 | 20 |

**Lab Sample ID: 550-210593-6 MS** — **Client Sample ID: FC-CCR-MW85-1123**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 311470** — **Prep Batch: 311424**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00557 | | mg/L | | 111 | 70 - 130 | | |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 550-311341/1** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 311341**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 11/17/23 11:54 | 1 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: LCS 550-311341/2**
**Matrix: Water**
**Analysis Batch: 311341**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 990 | | mg/L | | 99 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-311341/3**
**Matrix: Water**
**Analysis Batch: 311341**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 994 | | mg/L | | 99 | 90 - 110 | 0 | 10 |

**Lab Sample ID: 550-210497-A-1 DU**
**Matrix: Water**
**Analysis Batch: 311341**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1400 | | | 1370 | | mg/L | | | | 0.9 | 10 |

**Lab Sample ID: MB 550-311443/1**
**Matrix: Water**
**Analysis Batch: 311443**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 11/20/23 12:18 | 1 |

**Lab Sample ID: LCS 550-311443/2**
**Matrix: Water**
**Analysis Batch: 311443**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 994 | | mg/L | | 99 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-311443/3**
**Matrix: Water**
**Analysis Batch: 311443**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 982 | | mg/L | | 98 | 90 - 110 | 1 | 10 |

**Lab Sample ID: 550-210523-B-3 DU**
**Matrix: Water**
**Analysis Batch: 311443**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 300 | | | 302 | | mg/L | | | | 0.7 | 10 |

**Lab Sample ID: MB 550-311666/1**
**Matrix: Water**
**Analysis Batch: 311666**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 11/22/23 18:27 | 1 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: LCS 550-311666/2**
**Matrix: Water**
**Analysis Batch: 311666**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 920 | | mg/L | | 92 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-311666/3**
**Matrix: Water**
**Analysis Batch: 311666**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 924 | | mg/L | | 92 | 90 - 110 | 0 | 10 |

**Lab Sample ID: 550-210673-F-2 DU**
**Matrix: Water**
**Analysis Batch: 311666**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 160 | | | 154 | | mg/L | | | | NC | 10 |

**Lab Sample ID: MB 550-312162/1**
**Matrix: Water**
**Analysis Batch: 312162**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 12/04/23 11:23 | 1 |

**Lab Sample ID: LCS 550-312162/2**
**Matrix: Water**
**Analysis Batch: 312162**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 992 | | mg/L | | 99 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-312162/3**
**Matrix: Water**
**Analysis Batch: 312162**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1010 | | mg/L | | 101 | 90 - 110 | 2 | 10 |

**Lab Sample ID: 550-210593-5 DU**
**Matrix: Water**
**Analysis Batch: 312162**

**Client Sample ID: FC-CCR-MW84-1123**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 15000 | H2 | | 15000 | | mg/L | | | | 0.07 | 10 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: LCSSRM 550-311288/25**
**Matrix: Water**
**Analysis Batch: 311288**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.0 | | SU | | 100.4 | 98.5 - 101.5 | | |

**Lab Sample ID: LCSSRM 550-311288/37**
**Matrix: Water**
**Analysis Batch: 311288**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.0 | | SU | | 100.6 | 98.5 - 101.5 | | |

**Lab Sample ID: LCSSRM 550-311288/49**
**Matrix: Water**
**Analysis Batch: 311288**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.1 | | SU | | 100.7 | 98.5 - 101.5 | | |

**Lab Sample ID: 550-210593-9 DU**
**Matrix: Water**
**Analysis Batch: 311288**

**Client Sample ID: FC-CCR-CM02-1123**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | 7.0 | H5 | | 7.0 | | SU | | | | 0 | 5 |
| Temperature | 13.0 | H5 T5 | | 12.9 | | Degrees C | | | | 0.8 | |

## HPLC/IC

### Analysis Batch: 311405

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-1 | FC-CCR-MW67-1123 | Total/NA | Water | 300.0 | |
| 550-210593-1 | FC-CCR-MW67-1123 | Total/NA | Water | 300.0 | |
| 550-210593-2 | FC-CCR-MW68-1123 | Total/NA | Water | 300.0 | |
| 550-210593-2 | FC-CCR-MW68-1123 | Total/NA | Water | 300.0 | |
| 550-210593-3 | FC-CCR-MW69-1123 | Total/NA | Water | 300.0 | |
| 550-210593-3 | FC-CCR-MW69-1123 | Total/NA | Water | 300.0 | |
| 550-210593-4 | FC-CCR-MW83-1123 | Total/NA | Water | 300.0 | |
| 550-210593-4 | FC-CCR-MW83-1123 | Total/NA | Water | 300.0 | |
| 550-210593-5 | FC-CCR-MW84-1123 | Total/NA | Water | 300.0 | |
| 550-210593-5 | FC-CCR-MW84-1123 | Total/NA | Water | 300.0 | |
| 550-210593-6 | FC-CCR-MW85-1123 | Total/NA | Water | 300.0 | |
| 550-210593-6 | FC-CCR-MW85-1123 | Total/NA | Water | 300.0 | |
| 550-210593-7 | FC-CCR-FD01-1123 | Total/NA | Water | 300.0 | |
| 550-210593-7 | FC-CCR-FD01-1123 | Total/NA | Water | 300.0 | |
| 550-210593-8 | FC-CCR-CM01-1123 | Total/NA | Water | 300.0 | |
| 550-210593-8 | FC-CCR-CM01-1123 | Total/NA | Water | 300.0 | |
| 550-210593-9 | FC-CCR-CM02-1123 | Total/NA | Water | 300.0 | |
| 550-210593-9 | FC-CCR-CM02-1123 | Total/NA | Water | 300.0 | |
| MB 550-311405/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-311405/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-311405/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-210592-I-4 MS ^10 | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-210592-I-4 MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

### Leach Batch: 312000

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 550-312000/1-A | Method Blank | Total/NA | Water | DI Leach | |
| LCS 550-312000/2-A | Lab Control Sample | Total/NA | Water | DI Leach | |
| LCSD 550-312000/3-A | Lab Control Sample Dup | Total/NA | Water | DI Leach | |

### Analysis Batch: 312091

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-1 | FC-CCR-MW67-1123 | Total/NA | Water | 9056A | |
| 550-210593-2 | FC-CCR-MW68-1123 | Total/NA | Water | 9056A | |
| 550-210593-3 | FC-CCR-MW69-1123 | Total/NA | Water | 9056A | |
| MB 550-312000/1-A | Method Blank | Total/NA | Water | 9056A | 312000 |
| MB 550-312091/2 | Method Blank | Total/NA | Water | 9056A | |
| LCS 550-312000/2-A | Lab Control Sample | Total/NA | Water | 9056A | 312000 |
| LCSD 550-312000/3-A | Lab Control Sample Dup | Total/NA | Water | 9056A | 312000 |

## Metals

### Prep Batch: 311424

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-1 | FC-CCR-MW67-1123 | Total/NA | Water | 245.1 | |
| 550-210593-2 | FC-CCR-MW68-1123 | Total/NA | Water | 245.1 | |
| 550-210593-3 | FC-CCR-MW69-1123 | Total/NA | Water | 245.1 | |
| 550-210593-4 | FC-CCR-MW83-1123 | Total/NA | Water | 245.1 | |
| 550-210593-5 | FC-CCR-MW84-1123 | Total/NA | Water | 245.1 | |
| 550-210593-6 | FC-CCR-MW85-1123 | Total/NA | Water | 245.1 | |
| 550-210593-7 | FC-CCR-FD01-1123 | Total/NA | Water | 245.1 | |

## Metals (Continued)

### Prep Batch: 311424 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-8 | FC-CCR-CM01-1123 | Total/NA | Water | 245.1 | |
| 550-210593-9 | FC-CCR-CM02-1123 | Total/NA | Water | 245.1 | |
| MB 550-311424/1-A | Method Blank | Total/NA | Water | 245.1 | |
| LCS 550-311424/2-A | Lab Control Sample | Total/NA | Water | 245.1 | |
| LCSD 550-311424/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | |
| 550-210591-B-1-B MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | |
| 550-210593-6 MS | FC-CCR-MW85-1123 | Total/NA | Water | 245.1 | |

### Analysis Batch: 311470

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-1 | FC-CCR-MW67-1123 | Total/NA | Water | 245.1 | 311424 |
| 550-210593-2 | FC-CCR-MW68-1123 | Total/NA | Water | 245.1 | 311424 |
| 550-210593-3 | FC-CCR-MW69-1123 | Total/NA | Water | 245.1 | 311424 |
| 550-210593-4 | FC-CCR-MW83-1123 | Total/NA | Water | 245.1 | 311424 |
| 550-210593-5 | FC-CCR-MW84-1123 | Total/NA | Water | 245.1 | 311424 |
| 550-210593-6 | FC-CCR-MW85-1123 | Total/NA | Water | 245.1 | 311424 |
| 550-210593-7 | FC-CCR-FD01-1123 | Total/NA | Water | 245.1 | 311424 |
| 550-210593-8 | FC-CCR-CM01-1123 | Total/NA | Water | 245.1 | 311424 |
| 550-210593-9 | FC-CCR-CM02-1123 | Total/NA | Water | 245.1 | 311424 |
| MB 550-311424/1-A | Method Blank | Total/NA | Water | 245.1 | 311424 |
| LCS 550-311424/2-A | Lab Control Sample | Total/NA | Water | 245.1 | 311424 |
| LCSD 550-311424/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | 311424 |
| 550-210591-B-1-B MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | 311424 |
| 550-210593-6 MS | FC-CCR-MW85-1123 | Total/NA | Water | 245.1 | 311424 |

### Prep Batch: 311484

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-1 | FC-CCR-MW67-1123 | Total/NA | Water | 200.7 | |
| 550-210593-2 | FC-CCR-MW68-1123 | Total/NA | Water | 200.7 | |
| 550-210593-3 | FC-CCR-MW69-1123 | Total/NA | Water | 200.7 | |
| 550-210593-4 | FC-CCR-MW83-1123 | Total/NA | Water | 200.7 | |
| 550-210593-5 | FC-CCR-MW84-1123 | Total/NA | Water | 200.7 | |
| 550-210593-6 | FC-CCR-MW85-1123 | Total/NA | Water | 200.7 | |
| 550-210593-7 | FC-CCR-FD01-1123 | Total/NA | Water | 200.7 | |
| 550-210593-8 | FC-CCR-CM01-1123 | Total/NA | Water | 200.7 | |
| 550-210593-9 | FC-CCR-CM02-1123 | Total/NA | Water | 200.7 | |
| MB 550-311484/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-311484/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-311484/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-210594-B-1-A MS | Matrix Spike | Total/NA | Water | 200.7 | |
| 550-210594-B-1-A MS ^5 | Matrix Spike | Total/NA | Water | 200.7 | |
| 550-210594-B-1-B MSD | Matrix Spike Duplicate | Total/NA | Water | 200.7 | |
| 550-210594-B-1-B MSD ^5 | Matrix Spike Duplicate | Total/NA | Water | 200.7 | |

### Prep Batch: 311487

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-1 | FC-CCR-MW67-1123 | Total/NA | Water | 200.8 | |
| 550-210593-2 | FC-CCR-MW68-1123 | Total/NA | Water | 200.8 | |
| 550-210593-3 | FC-CCR-MW69-1123 | Total/NA | Water | 200.8 | |
| 550-210593-4 | FC-CCR-MW83-1123 | Total/NA | Water | 200.8 | |
| 550-210593-5 | FC-CCR-MW84-1123 | Total/NA | Water | 200.8 | |

## Metals (Continued)

### Prep Batch: 311487 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-6 | FC-CCR-MW85-1123 | Total/NA | Water | 200.8 | |
| 550-210593-7 | FC-CCR-FD01-1123 | Total/NA | Water | 200.8 | |
| 550-210593-8 | FC-CCR-CM01-1123 | Total/NA | Water | 200.8 | |
| 550-210593-9 | FC-CCR-CM02-1123 | Total/NA | Water | 200.8 | |
| MB 550-311487/1-A | Method Blank | Total/NA | Water | 200.8 | |
| LCS 550-311487/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-311487/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-210594-B-12-A MS | Matrix Spike | Total/NA | Water | 200.8 | |
| 550-210594-B-12-B MSD | Matrix Spike Duplicate | Total/NA | Water | 200.8 | |

### Analysis Batch: 311751

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-1 | FC-CCR-MW67-1123 | Total/NA | Water | 200.8 LL | 311487 |
| 550-210593-2 | FC-CCR-MW68-1123 | Total/NA | Water | 200.8 LL | 311487 |
| 550-210593-3 | FC-CCR-MW69-1123 | Total/NA | Water | 200.8 LL | 311487 |
| 550-210593-4 | FC-CCR-MW83-1123 | Total/NA | Water | 200.8 LL | 311487 |
| 550-210593-5 | FC-CCR-MW84-1123 | Total/NA | Water | 200.8 LL | 311487 |
| 550-210593-6 | FC-CCR-MW85-1123 | Total/NA | Water | 200.8 LL | 311487 |
| 550-210593-7 | FC-CCR-FD01-1123 | Total/NA | Water | 200.8 LL | 311487 |
| 550-210593-8 | FC-CCR-CM01-1123 | Total/NA | Water | 200.8 LL | 311487 |
| 550-210593-9 | FC-CCR-CM02-1123 | Total/NA | Water | 200.8 LL | 311487 |
| MB 550-311487/1-A | Method Blank | Total/NA | Water | 200.8 LL | 311487 |
| LCS 550-311487/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 311487 |
| LCSD 550-311487/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 311487 |
| 550-210594-B-12-A MS | Matrix Spike | Total/NA | Water | 200.8 LL | 311487 |
| 550-210594-B-12-B MSD | Matrix Spike Duplicate | Total/NA | Water | 200.8 LL | 311487 |

### Analysis Batch: 311842

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-1 | FC-CCR-MW67-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210593-2 | FC-CCR-MW68-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210593-3 | FC-CCR-MW69-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210593-4 | FC-CCR-MW83-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210593-5 | FC-CCR-MW84-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210593-6 | FC-CCR-MW85-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210593-7 | FC-CCR-FD01-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210593-8 | FC-CCR-CM01-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210593-9 | FC-CCR-CM02-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| MB 550-311484/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| LCS 550-311484/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| LCSD 550-311484/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210594-B-1-A MS | Matrix Spike | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210594-B-1-B MSD | Matrix Spike Duplicate | Total/NA | Water | 200.7 Rev 4.4 | 311484 |

### Analysis Batch: 311929

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-1 | FC-CCR-MW67-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210593-2 | FC-CCR-MW68-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210593-3 | FC-CCR-MW69-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210593-4 | FC-CCR-MW83-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210593-5 | FC-CCR-MW84-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311484 |

## Metals (Continued)

### Analysis Batch: 311929 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-6 | FC-CCR-MW85-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210593-7 | FC-CCR-FD01-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210593-8 | FC-CCR-CM01-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210593-9 | FC-CCR-CM02-1123 | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| MB 550-311484/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| LCS 550-311484/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| LCSD 550-311484/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210594-B-1-A MS ^5 | Matrix Spike | Total/NA | Water | 200.7 Rev 4.4 | 311484 |
| 550-210594-B-1-B MSD ^5 | Matrix Spike Duplicate | Total/NA | Water | 200.7 Rev 4.4 | 311484 |

### Prep Batch: 385879

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-1 | FC-CCR-MW67-1123 | Total Recoverable | Water | 200.7 | |
| 550-210593-2 | FC-CCR-MW68-1123 | Total Recoverable | Water | 200.7 | |
| 550-210593-3 | FC-CCR-MW69-1123 | Total Recoverable | Water | 200.7 | |
| 550-210593-4 | FC-CCR-MW83-1123 | Total Recoverable | Water | 200.7 | |
| 550-210593-5 | FC-CCR-MW84-1123 | Total Recoverable | Water | 200.7 | |
| 550-210593-6 | FC-CCR-MW85-1123 | Total Recoverable | Water | 200.7 | |
| 550-210593-7 | FC-CCR-FD01-1123 | Total Recoverable | Water | 200.7 | |
| 550-210593-8 | FC-CCR-CM01-1123 | Total Recoverable | Water | 200.7 | |
| 550-210593-9 | FC-CCR-CM02-1123 | Total Recoverable | Water | 200.7 | |
| MB 570-385879/1-A | Method Blank | Total Recoverable | Water | 200.7 | |
| LCS 570-385879/27-A | Lab Control Sample | Total Recoverable | Water | 200.7 | |
| LCSD 570-385879/28-A | Lab Control Sample Dup | Total Recoverable | Water | 200.7 | |
| 570-161517-A-1-D MS | Matrix Spike | Total Recoverable | Water | 200.7 | |
| 570-161517-A-1-E MSD | Matrix Spike Duplicate | Total Recoverable | Water | 200.7 | |

### Analysis Batch: 387424

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-1 | FC-CCR-MW67-1123 | Total Recoverable | Water | 200.7 Rev 4.4 | 385879 |
| 550-210593-2 | FC-CCR-MW68-1123 | Total Recoverable | Water | 200.7 Rev 4.4 | 385879 |
| 550-210593-3 | FC-CCR-MW69-1123 | Total Recoverable | Water | 200.7 Rev 4.4 | 385879 |
| 550-210593-4 | FC-CCR-MW83-1123 | Total Recoverable | Water | 200.7 Rev 4.4 | 385879 |
| 550-210593-5 | FC-CCR-MW84-1123 | Total Recoverable | Water | 200.7 Rev 4.4 | 385879 |
| 550-210593-6 | FC-CCR-MW85-1123 | Total Recoverable | Water | 200.7 Rev 4.4 | 385879 |
| 550-210593-7 | FC-CCR-FD01-1123 | Total Recoverable | Water | 200.7 Rev 4.4 | 385879 |
| 550-210593-8 | FC-CCR-CM01-1123 | Total Recoverable | Water | 200.7 Rev 4.4 | 385879 |
| 550-210593-9 | FC-CCR-CM02-1123 | Total Recoverable | Water | 200.7 Rev 4.4 | 385879 |
| MB 570-385879/1-A | Method Blank | Total Recoverable | Water | 200.7 Rev 4.4 | 385879 |
| LCS 570-385879/27-A | Lab Control Sample | Total Recoverable | Water | 200.7 Rev 4.4 | 385879 |
| LCSD 570-385879/28-A | Lab Control Sample Dup | Total Recoverable | Water | 200.7 Rev 4.4 | 385879 |
| 570-161517-A-1-D MS | Matrix Spike | Total Recoverable | Water | 200.7 Rev 4.4 | 385879 |
| 570-161517-A-1-E MSD | Matrix Spike Duplicate | Total Recoverable | Water | 200.7 Rev 4.4 | 385879 |

## General Chemistry

### Analysis Batch: 311288

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-1 | FC-CCR-MW67-1123 | Total/NA | Water | SM 4500 H+ B | |
| 550-210593-2 | FC-CCR-MW68-1123 | Total/NA | Water | SM 4500 H+ B | |
| 550-210593-3 | FC-CCR-MW69-1123 | Total/NA | Water | SM 4500 H+ B | |

## General Chemistry (Continued)

### Analysis Batch: 311288 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-4 | FC-CCR-MW83-1123 | Total/NA | Water | SM 4500 H+ B | |
| 550-210593-5 | FC-CCR-MW84-1123 | Total/NA | Water | SM 4500 H+ B | |
| 550-210593-6 | FC-CCR-MW85-1123 | Total/NA | Water | SM 4500 H+ B | |
| 550-210593-7 | FC-CCR-FD01-1123 | Total/NA | Water | SM 4500 H+ B | |
| 550-210593-8 | FC-CCR-CM01-1123 | Total/NA | Water | SM 4500 H+ B | |
| 550-210593-9 | FC-CCR-CM02-1123 | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-311288/25 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-311288/37 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-311288/49 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| 550-210593-9 DU | FC-CCR-CM02-1123 | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 311341

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-2 | FC-CCR-MW68-1123 | Total/NA | Water | SM 2540C | |
| 550-210593-3 | FC-CCR-MW69-1123 | Total/NA | Water | SM 2540C | |
| 550-210593-4 | FC-CCR-MW83-1123 | Total/NA | Water | SM 2540C | |
| 550-210593-6 | FC-CCR-MW85-1123 | Total/NA | Water | SM 2540C | |
| 550-210593-7 | FC-CCR-FD01-1123 | Total/NA | Water | SM 2540C | |
| MB 550-311341/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-311341/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-311341/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-210497-A-1 DU | Duplicate | Total/NA | Water | SM 2540C | |

### Analysis Batch: 311443

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-8 | FC-CCR-CM01-1123 | Total/NA | Water | SM 2540C | |
| 550-210593-9 | FC-CCR-CM02-1123 | Total/NA | Water | SM 2540C | |
| MB 550-311443/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-311443/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-311443/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-210523-B-3 DU | Duplicate | Total/NA | Water | SM 2540C | |

### Analysis Batch: 311666

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-1 | FC-CCR-MW67-1123 | Total/NA | Water | SM 2540C | |
| MB 550-311666/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-311666/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-311666/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-210673-F-2 DU | Duplicate | Total/NA | Water | SM 2540C | |

### Analysis Batch: 312162

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-210593-5 | FC-CCR-MW84-1123 | Total/NA | Water | SM 2540C | |
| MB 550-312162/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-312162/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-312162/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-210593-5 DU | FC-CCR-MW84-1123 | Total/NA | Water | SM 2540C | |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

## Client Sample ID: FC-CCR-MW67-1123

**Date Collected: 11/13/23 09:18**
**Date Received: 11/15/23 14:43**

## Lab Sample ID: 550-210593-1

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 311405 | MMH | EET PHX | 11/18/23 21:00 |
| Total/NA | Analysis | 300.0 | | 200 | 311405 | MMH | EET PHX | 11/18/23 21:19 |
| Total/NA | Analysis | 9056A | | 2 | 312091 | MMH | EET PHX | 12/01/23 09:54 |
| Total Recoverable | Prep | 200.7 | | | 385879 | JP8N | EET CAL 4 | 11/21/23 09:32 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 10 | 387424 | P1R | EET CAL 4 | 11/28/23 15:54 |
| Total/NA | Prep | 200.7 | | | 311484 | SGO | EET PHX | 11/21/23 04:37 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311842 | GLW | EET PHX | 11/28/23 18:25 |
| Total/NA | Prep | 200.7 | | | 311484 | SGO | EET PHX | 11/21/23 04:37 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311929 | GLW | EET PHX | 11/29/23 15:24 |
| Total/NA | Prep | 200.8 | | | 311487 | SGO | EET PHX | 11/21/23 06:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 311751 | DSJ | EET PHX | 11/27/23 17:37 |
| Total/NA | Prep | 245.1 | | | 311424 | HHL | EET PHX | 11/20/23 11:20 |
| Total/NA | Analysis | 245.1 | | 1 | 311470 | HHL | EET PHX | 11/20/23 15:23 |
| Total/NA | Analysis | SM 2540C | | 1 | 311666 | KMG | EET PHX | 11/22/23 18:27 - 12/01/23 15:24 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 311288 | MAN | EET PHX | 11/16/23 14:20 |

## Client Sample ID: FC-CCR-MW68-1123

**Date Collected: 11/11/23 11:28**
**Date Received: 11/15/23 14:43**

## Lab Sample ID: 550-210593-2

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 311405 | MMH | EET PHX | 11/18/23 21:37 |
| Total/NA | Analysis | 300.0 | | 200 | 311405 | MMH | EET PHX | 11/18/23 21:56 |
| Total/NA | Analysis | 9056A | | 2 | 312091 | MMH | EET PHX | 12/01/23 05:54 |
| Total Recoverable | Prep | 200.7 | | | 385879 | JP8N | EET CAL 4 | 11/21/23 09:32 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 10 | 387424 | P1R | EET CAL 4 | 11/28/23 15:56 |
| Total/NA | Prep | 200.7 | | | 311484 | SGO | EET PHX | 11/21/23 04:37 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311842 | GLW | EET PHX | 11/28/23 18:27 |
| Total/NA | Prep | 200.7 | | | 311484 | SGO | EET PHX | 11/21/23 04:37 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311929 | GLW | EET PHX | 11/29/23 15:27 |
| Total/NA | Prep | 200.8 | | | 311487 | SGO | EET PHX | 11/21/23 06:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 311751 | DSJ | EET PHX | 11/27/23 17:39 |
| Total/NA | Prep | 245.1 | | | 311424 | HHL | EET PHX | 11/20/23 11:20 |
| Total/NA | Analysis | 245.1 | | 1 | 311470 | HHL | EET PHX | 11/20/23 15:25 |
| Total/NA | Analysis | SM 2540C | | 1 | 311341 | KMG | EET PHX | 11/17/23 11:54 - 12/01/23 16:42 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 311288 | MAN | EET PHX | 11/16/23 14:23 |

## Client Sample ID: FC-CCR-MW69-1123

**Date Collected: 11/11/23 10:33**
**Date Received: 11/15/23 14:43**

## Lab Sample ID: 550-210593-3

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 311405 | MMH | EET PHX | 11/18/23 22:14 |
| Total/NA | Analysis | 300.0 | | 200 | 311405 | MMH | EET PHX | 11/18/23 23:28 |

## Client Sample ID: FC-CCR-MW69-1123

**Date Collected: 11/11/23 10:33**
**Date Received: 11/15/23 14:43**

## Lab Sample ID: 550-210593-3

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 9056A | | 2 | 312091 | MMH | EET PHX | 12/01/23 10:30 |
| Total Recoverable | Prep | 200.7 | | | 385879 | JP8N | EET CAL 4 | 11/21/23 09:32 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 387424 | P1R | EET CAL 4 | 11/28/23 15:59 |
| Total/NA | Prep | 200.7 | | | 311484 | SGO | EET PHX | 11/21/23 04:37 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311842 | GLW | EET PHX | 11/28/23 18:30 |
| Total/NA | Prep | 200.7 | | | 311484 | SGO | EET PHX | 11/21/23 04:37 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311929 | GLW | EET PHX | 11/29/23 15:30 |
| Total/NA | Prep | 200.8 | | | 311487 | SGO | EET PHX | 11/21/23 06:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 311751 | DSJ | EET PHX | 11/27/23 17:41 |
| Total/NA | Prep | 245.1 | | | 311424 | HHL | EET PHX | 11/20/23 11:20 |
| Total/NA | Analysis | 245.1 | | 1 | 311470 | HHL | EET PHX | 11/20/23 15:27 |
| Total/NA | Analysis | SM 2540C | | 1 | 311341 | KMG | EET PHX | 11/17/23 11:54 - 12/01/23 16:42 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 311288 | MAN | EET PHX | 11/16/23 14:26 |

## Client Sample ID: FC-CCR-MW83-1123

**Date Collected: 11/11/23 14:10**
**Date Received: 11/15/23 14:43**

## Lab Sample ID: 550-210593-4

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 311405 | MMH | EET PHX | 11/18/23 23:46 |
| Total/NA | Analysis | 300.0 | | 200 | 311405 | MMH | EET PHX | 11/19/23 00:05 |
| Total Recoverable | Prep | 200.7 | | | 385879 | JP8N | EET CAL 4 | 11/21/23 09:32 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 387424 | P1R | EET CAL 4 | 11/28/23 16:01 |
| Total/NA | Prep | 200.7 | | | 311484 | SGO | EET PHX | 11/21/23 04:37 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311842 | GLW | EET PHX | 11/28/23 18:33 |
| Total/NA | Prep | 200.7 | | | 311484 | SGO | EET PHX | 11/21/23 04:37 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311929 | GLW | EET PHX | 11/29/23 15:32 |
| Total/NA | Prep | 200.8 | | | 311487 | SGO | EET PHX | 11/21/23 06:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 311751 | DSJ | EET PHX | 11/27/23 17:44 |
| Total/NA | Prep | 245.1 | | | 311424 | HHL | EET PHX | 11/20/23 11:20 |
| Total/NA | Analysis | 245.1 | | 1 | 311470 | HHL | EET PHX | 11/20/23 15:29 |
| Total/NA | Analysis | SM 2540C | | 1 | 311341 | KMG | EET PHX | 11/17/23 11:54 - 12/01/23 16:42 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 311288 | MAN | EET PHX | 11/16/23 14:28 |

## Client Sample ID: FC-CCR-MW84-1123

**Date Collected: 11/11/23 15:53**
**Date Received: 11/15/23 14:43**

## Lab Sample ID: 550-210593-5

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 311405 | MMH | EET PHX | 11/19/23 00:23 |
| Total/NA | Analysis | 300.0 | | 200 | 311405 | MMH | EET PHX | 11/19/23 00:41 |
| Total Recoverable | Prep | 200.7 | | | 385879 | JP8N | EET CAL 4 | 11/21/23 09:32 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 5 | 387424 | P1R | EET CAL 4 | 11/28/23 16:03 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

## Client Sample ID: FC-CCR-MW84-1123

**Lab Sample ID: 550-210593-5**

**Date Collected: 11/11/23 15:53**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 311484 | SGO | EET PHX | 11/21/23 04:37 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311842 | GLW | EET PHX | 11/28/23 18:36 |
| Total/NA | Prep | 200.7 | | | 311484 | SGO | EET PHX | 11/21/23 04:37 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311929 | GLW | EET PHX | 11/29/23 15:35 |
| Total/NA | Prep | 200.8 | | | 311487 | SGO | EET PHX | 11/21/23 06:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 311751 | DSJ | EET PHX | 11/27/23 17:46 |
| Total/NA | Prep | 245.1 | | | 311424 | HHL | EET PHX | 11/20/23 11:20 |
| Total/NA | Analysis | 245.1 | | 1 | 311470 | HHL | EET PHX | 11/20/23 15:31 |
| Total/NA | Analysis | SM 2540C | | 1 | 312162 | KMG | EET PHX | 12/04/23 11:23 - 12/06/23 13:15 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 311288 | MAN | EET PHX | 11/16/23 14:31 |

## Client Sample ID: FC-CCR-MW85-1123

**Lab Sample ID: 550-210593-6**

**Date Collected: 11/11/23 15:03**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 311405 | MMH | EET PHX | 11/19/23 01:00 |
| Total/NA | Analysis | 300.0 | | 200 | 311405 | MMH | EET PHX | 11/19/23 01:18 |
| Total Recoverable | Prep | 200.7 | | | 385879 | JP8N | EET CAL 4 | 11/21/23 09:32 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 387424 | P1R | EET CAL 4 | 11/28/23 16:06 |
| Total/NA | Prep | 200.7 | | | 311484 | SGO | EET PHX | 11/21/23 04:37 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311842 | GLW | EET PHX | 11/28/23 18:44 |
| Total/NA | Prep | 200.7 | | | 311484 | SGO | EET PHX | 11/21/23 04:37 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311929 | GLW | EET PHX | 11/29/23 15:44 |
| Total/NA | Prep | 200.8 | | | 311487 | SGO | EET PHX | 11/21/23 06:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 311751 | DSJ | EET PHX | 11/27/23 17:54 |
| Total/NA | Prep | 245.1 | | | 311424 | HHL | EET PHX | 11/20/23 11:20 |
| Total/NA | Analysis | 245.1 | | 1 | 311470 | HHL | EET PHX | 11/20/23 15:33 |
| Total/NA | Analysis | SM 2540C | | 1 | 311341 | KMG | EET PHX | 11/17/23 11:54 - 12/01/23 16:42 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 311288 | MAN | EET PHX | 11/16/23 14:33 |

## Client Sample ID: FC-CCR-FD01-1123

**Lab Sample ID: 550-210593-7**

**Date Collected: 11/11/23 08:53**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 311405 | MMH | EET PHX | 11/19/23 01:37 |
| Total/NA | Analysis | 300.0 | | 200 | 311405 | MMH | EET PHX | 11/19/23 01:55 |
| Total Recoverable | Prep | 200.7 | | | 385879 | JP8N | EET CAL 4 | 11/21/23 09:32 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 5 | 387424 | P1R | EET CAL 4 | 11/28/23 16:08 |
| Total/NA | Prep | 200.7 | | | 311484 | SGO | EET PHX | 11/21/23 04:37 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311842 | GLW | EET PHX | 11/28/23 18:47 |
| Total/NA | Prep | 200.7 | | | 311484 | SGO | EET PHX | 11/21/23 04:37 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311929 | GLW | EET PHX | 11/29/23 15:47 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

## Client Sample ID: FC-CCR-FD01-1123

**Lab Sample ID: 550-210593-7**

**Date Collected: 11/11/23 08:53**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.8 | | | 311487 | SGO | EET PHX | 11/21/23 06:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 311751 | DSJ | EET PHX | 11/27/23 17:56 |
| Total/NA | Prep | 245.1 | | | 311424 | HHL | EET PHX | 11/20/23 11:20 |
| Total/NA | Analysis | 245.1 | | 1 | 311470 | HHL | EET PHX | 11/20/23 15:41 |
| Total/NA | Analysis | SM 2540C | | 1 | 311341 | KMG | EET PHX | 11/17/23 11:54 - 12/01/23 16:42 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 311288 | MAN | EET PHX | 11/16/23 14:35 |

## Client Sample ID: FC-CCR-CM01-1123

**Lab Sample ID: 550-210593-8**

**Date Collected: 11/13/23 09:41**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 311405 | MMH | EET PHX | 11/19/23 03:09 |
| Total/NA | Analysis | 300.0 | | 200 | 311405 | MMH | EET PHX | 11/19/23 03:27 |
| Total Recoverable | Prep | 200.7 | | | 385879 | JP8N | EET CAL 4 | 11/21/23 09:32 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 5 | 387424 | P1R | EET CAL 4 | 11/28/23 16:11 |
| Total/NA | Prep | 200.7 | | | 311484 | SGO | EET PHX | 11/21/23 04:37 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311842 | GLW | EET PHX | 11/28/23 18:50 |
| Total/NA | Prep | 200.7 | | | 311484 | SGO | EET PHX | 11/21/23 04:37 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311929 | GLW | EET PHX | 11/29/23 15:49 |
| Total/NA | Prep | 200.8 | | | 311487 | SGO | EET PHX | 11/21/23 06:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 311751 | DSJ | EET PHX | 11/27/23 17:58 |
| Total/NA | Prep | 245.1 | | | 311424 | HHL | EET PHX | 11/20/23 11:20 |
| Total/NA | Analysis | 245.1 | | 1 | 311470 | HHL | EET PHX | 11/20/23 15:43 |
| Total/NA | Analysis | SM 2540C | | 1 | 311443 | KMG | EET PHX | 11/20/23 12:18 - 11/22/23 18:10 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 311288 | MAN | EET PHX | 11/16/23 14:36 |

## Client Sample ID: FC-CCR-CM02-1123

**Lab Sample ID: 550-210593-9**

**Date Collected: 11/13/23 09:52**
**Matrix: Water**
**Date Received: 11/15/23 14:43**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 2 | 311405 | MMH | EET PHX | 11/19/23 03:45 |
| Total/NA | Analysis | 300.0 | | 200 | 311405 | MMH | EET PHX | 11/19/23 04:04 |
| Total Recoverable | Prep | 200.7 | | | 385879 | JP8N | EET CAL 4 | 11/21/23 09:32 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 5 | 387424 | P1R | EET CAL 4 | 11/28/23 16:13 |
| Total/NA | Prep | 200.7 | | | 311484 | SGO | EET PHX | 11/21/23 04:37 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311842 | GLW | EET PHX | 11/28/23 18:53 |
| Total/NA | Prep | 200.7 | | | 311484 | SGO | EET PHX | 11/21/23 04:37 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 311929 | GLW | EET PHX | 11/29/23 15:52 |
| Total/NA | Prep | 200.8 | | | 311487 | SGO | EET PHX | 11/21/23 06:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 311751 | DSJ | EET PHX | 11/27/23 18:00 |
| Total/NA | Prep | 245.1 | | | 311424 | HHL | EET PHX | 11/20/23 11:20 |
| Total/NA | Analysis | 245.1 | | 1 | 311470 | HHL | EET PHX | 11/20/23 15:45 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

## Client Sample ID: FC-CCR-CM02-1123

**Date Collected: 11/13/23 09:52**
**Date Received: 11/15/23 14:43**

## Lab Sample ID: 550-210593-9

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540C | | 1 | 311443 | KMG | EET PHX | 11/20/23 12:18 - 11/22/23 18:10 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 311288 | MAN | EET PHX | 11/16/23 14:41 |

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

**Laboratory References:**

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

# Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

## Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0728 | 06-10-24 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 200.8 LL | 200.8 | Water | Molybdenum |
| SM 4500 H+ B | | Water | Temperature |

## Laboratory: Eurofins Calscience

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0830 | 11-16-24 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 200.7 Rev 4.4 | 200.7 | Water | Lithium |

# Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-210593-1
SDG: APS Four Corners Power Plant (URS)

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 300.0 | Anions, Ion Chromatography | EPA | EET PHX |
| 9056A | Anions, Ion Chromatography | SW846 | EET PHX |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET CAL 4 |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET PHX |
| 200.8 LL | Metals (ICP/MS) | EPA | EET PHX |
| 245.1 | Mercury (CVAA) | EPA | EET PHX |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET PHX |
| SM 4500 H+ B | pH | SM | EET PHX |
| 200.7 | Preparation, Total Recoverable Metals | EPA | EET CAL 4 |
| 200.7 | Preparation, Total Metals | EPA | EET PHX |
| 200.8 | Preparation, Total Metals | EPA | EET PHX |
| 245.1 | Preparation, Mercury | EPA | EET PHX |

**Protocol References:**

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EET CAL 4 = Eurofins Calscience  Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

210593

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

| Client Contact | | | |
|---|---|---|---|
| Arizona Public Service | Natalie Chrisman | Pam Norris (505-598-8781) | Date: |
| PO Box 355, MS 4915 | 602-250-3608 | Lab Contact: Rachel Sester | Carrier: |
| Fruitland, NM 87416 | Analysis Turnaround Time | | |
| | ☐ CALENDAR DAYS ☑ WORKING DAYS | | |
| | TAT if different from Below _____ | | |
| Project Name: CCR Groundwater Monitoring | ☑ 2 weeks | | |
| Site: APS Four Corners Power Plant (URS) | ☐ 1 week | | |
| PO #: 100622298 | ☐ 2 days | | |
| | ☐ 1 day | | |

COC No: 1 of 1 COCs
Sampler:
**For Lab Use Only:**
Walk-in Client:
Lab Sampling:
Job / SDG No.:

| Sample Identification | | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | Perform MS / MSD (Y/N) | EPA 300.0 (Cl, F, SO4) | EPA 200.7 - Totals (B, Ca, Be) | EPA 200.7 - Total Lithium | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | SM 4500-HB (pH) | SM 2540C (TDS) | EPA 245.1 - Totals (Hg) | 9056A - Fluoride | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW67-1123 | -1 | 11/13/2023 | 918 | G | W | 3 | N | N | X | X | X | X | X | X | X | X | Low Flow |
| FC-CCR-MW68-1123 | -2 | 11/11/2023 | 1128 | G | W | 3 | N | N | X | X | X | X | X | X | X | X | " |
| FC-CCR-MW69-1123 | -3 | 11/11/2023 | 1033 | G | W | 3 | N | N | X | X | X | X | X | X | X | X | " |
| FC-CCR-MW83-1123 | -4 | 11/11/2023 | 1410 | G | W | 3 | N | N | X | X | X | X | X | X | X | | " |
| FC-CCR-MW84-1123 | -5 | 11/11/2023 | 1553 | G | W | 3 | N | N | X | X | X | X | X | X | X | | " |
| FC-CCR-MW85-1123 | -6 | 11/11/2023 | 1503 | G | W | 3 | N | N | X | X | X | X | X | X | X | | " |
| FC-CCR-FD01-1123 | -7 | 11/11/2023 | 853 | G | W | 3 | N | N | X | X | X | X | X | X | X | | " |
| FC-CCR-CM01-1123 | -8 | 11/13/2023 | 941 | G | W | 3 | N | N | X | X | X | X | X | X | X | | Grab Sample |
| FC-CCR-CM02-1123 | -9 | 11/13/2023 | 952 | G | W | 3 | N | N | X | X | X | X | X | X | X | | " |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| **Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____** | | | | | | | | | 1 | 4 | 4 | 4 | 1 | 1 | 4 | | |

550-210593 Chain of Custody

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

**Special Instructions/QC Requirements & Comments:**

*Method 200.8 with collision cell*

Jr 11/16/23
4.1°C - ONICE - 490 pc

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

| | Company | Date/Time | | Company | Date/Time |
|---|---|---|---|---|---|
| Relinquished by: | WSP | 11-15-23 0830 | Received by: | | |
| Relinquished by: | A.A.S. 11.15 | 8:20AM | Received by: | | |
| Relinquished by: | AA.S 1115 | 2:43 PM | Received in Laboratory by: | EETA-PHX | 11/15/23 14:43 |





4/10/2024 (Rev. 1)

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins | Env

Loc: 550
210593

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-38245.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing Southwest, | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-210593-1 |
| Address: 2841 Dow Avenue, Suite 100, , | Due Date Requested: 11/30/2023 | | | |
| City: Tustin | TAT Requested (days): | | | |
| State, Zip: CA, 92780 | | | | |
| Phone: 714-895-5494(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009706 | | | |
| Site: Arizona Public Service | SSOW#: | | | |

**Preservation Codes:**

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

**Analysis Requested**

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Lithium | Total Number of containers | Special Instru |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| FC-CCR-MW67-1123 (550-210593-1) | 11/13/23 | 09:18 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW68-1123 (550-210593-2) | 11/11/23 | 11:28 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW69-1123 (550-210593-3) | 11/11/23 | 10:33 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW83-1123 (550-210593-4) | 11/11/23 | 14:10 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW84-1123 (550-210593-5) | 11/11/23 | 15:53 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW85-1123 (550-210593-6) | 11/11/23 | 15:03 Arizona | | Water | | | X | 1 | |
| FC-CCR-FD01-1123 (550-210593-7) | 11/11/23 | 08:53 Arizona | | Water | | | X | 1 | |
| FC-CCR-CM01-1123 (550-210593-8) | 11/13/23 | 09:41 Arizona | | Water | | | X | 1 | |
| FC-CCR-CM02-1123 (550-210593-9) | 11/13/23 | 09:52 Arizona | | Water | | | X | 1 | |

550-210593 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

| *Possible Hazard Identification* | *Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)* |
|---|---|
| *Unconfirmed* | ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months* |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| 11-16-23 | 14:40 | ET SW | FedEx | | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| | | | | 11/17/23 0930 | EC |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|
| | | 2-3/2-2 SOC |

Ver: 06/08/2021



4/10/2024 (Rev. 1)

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-210593-1
SDG Number: APS Four Corners Power Plant (URS)

**Login Number: 210593**
**List Number: 1**
**Creator: Maycock, Lisa**

**List Source: Eurofins Phoenix**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | False | Check done at department level as required. |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-210593-1
SDG Number: APS Four Corners Power Plant (URS)

**Login Number: 210593**
**List Number: 2**
**Creator: Khana, Piyush**

**List Source: Eurofins Calscience**
**List Creation: 11/17/23 12:36 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | 2264067 |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 2.2 |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | False | Received project as a subcontract. |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# ATTACHMENT

# B

## Analytical Data Validation Checklists

**Cholla CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Eurofins Environment Testing | | |
| **Sample Delivery Group:** | J209471 | **Review Date:** | 11/14/2023 rev. 11/21/23 |
| **Validator's Name:** | Caitlin Riechmann | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| CH-CCR-M43A-1023 | 10/16/2023 16:23 | 550-209471-1/2 | |
| CH-CCR-M45A-1023 | 10/17/2023 13:38 | 550-209471-3 | |
| CH-CCR-M46A-1023 | 10/16/2023 13:22 | 550-209471-4/5 | |
| CH-CCR-M50A-1023 | 10/17/2023 10:21 | 550-209471-6/7 | |
| CH-CCR-M51A-1023 | 10/17/2023 9:37 | 550-209471-8/9 | |
| CH-CCR-M65A-1023 | 10/16/2023 11:19 | 550-209471-10/11 | |
| CH-CCR-M66A-1023 | 10/16/2023 10:15 | 550-209471-12/13 | |
| CH-CCR-M67A-1023 | 10/16/2023 15:15 | 550-209471-14/15 | |
| CH-CCR-W125-1023 | 10/17/2023 11:16 | 550-209471-16 | |
| CH-CCR-W126R-1023 | 10/16/2023 9:29 | 550-209471-17/18 | |
| CH-CCR-BudHunt-1023 | 10/17/2023 8:40 | 550-209471-19/20 | |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Beryllium, Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium | Metals | EPA 200.8 |
| Mercury | Metals | EPA 245.1 |
| Ammonia | General Chemistry | EPA 350.1 |
| Nitrate/Nitrite | Anions | EPA 353.2 |
| Alkalinity | General Chemistry | SM 2320B |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| pH | General Chemistry | SM 4500H+B |
| Dissolved Organic Carbon (DOC), Total Organic Carbon (TOC) | General Chemistry | SM 5310B |
| Fluoride | Anions | EPA 9056A |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| The sample ID for sample CH-CCR-M45A-1023 was incorrectly logged by the laboratory as CH-CCR-M452-1023. For the remainder of this report, WSP refers to this sample as CH-CCR-M45A-1023. |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| CH-CCR-M43A-1023 | pH | 9 days, 16 hours, 51 minutes | J-HT |
| CH-CCR-M45A-1023 | pH | 8 days, 19 hours, 38 minutes | J-HT |
| CH-CCR-M46A-1023 | pH | 9 days, 19 hours, 56 minutes | J-HT |
| CH-CCR-M50A-1023 | pH | 8 days, 22 hours, 58 minutes | J-HT |
| CH-CCR-M51A-1023 | pH | 8 days, 23 hours, 43 minutes | J-HT |
| CH-CCR-M65A-1023 | pH | 9 days, 22 hours, 2 minutes | J-HT |
| CH-CCR-M66A-1023 | pH | 9 days, 23 hours, 7 minutes | J-HT |
| CH-CCR-M67A-1023 | pH | 9 days, 18 hours, 8 minutes | J-HT |
| CH-CCR-W125-1023 | pH | 8 days, 22 hours, 9 minutes | J-HT |
| CH-CCR-W126R-1023 | pH | 9 days, 23 hours, 57 minutes | J-HT |
| CH-CCR-BudHunt-1023 | pH | 9 days, 0 hours, 47 minutes | J-HT |

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| | | | |

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| Barium | 125%, 119% | 85-115% | CH-CCR-M43A-1023, CH-CCR-M45A-1023, CH-CCR-M46A-1023, CH-CCR-M50A-1023, CH-CCR-M51A-1023, CH-CCR-M65A-1023, CH-CCR-M66A-1023, CH-CCR-M67A-1023, CH-CCR-W125-1023, CH-CCR-W-126R-1023, CH-CCR-BudHunt-1023 | J-HL |

Note:
HL = High laboratory control sample recovery. Result may be biased high.

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| CH-CCR-M43A-1023 | Ammonia, Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Nitrate/nitrite, Potassium, Sodium |
| CH-CCR-M45A-1023 | Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium |
| CH-CCR-M46A-1023 | Chloride, Fluoride, Sulfate |
| CH-CCR-M51A-1023 | Lithium |
| CH-CCR-M66A-1023 | DOC |
| CH-CCR-W-126R-1023 | Mercury |

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| CH-CCR-M43A-1023 | Calcium | -7%, 65% | 70-130% | NA4 |
| CH-CCR-M43A-1023 | Magnesium | 61%, MS | 70-130% | NA4 |
| CH-CCR-M43A-1023 | Sodium | -219%, -65% | 70-130% | NA4 |
| CH-CCR-M46A-1023 | Chloride | 9%, -5% | 80-120% | NA4 |
| CH-CCR-M46A-1023 | Sulfate | 29%, 11% | 80-120% | NA4 |

Note:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? Yes (No)

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| | |

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| CH-CCR-M46A-1023 | Chloride, Fluoride, Sulfate, TDS |
| CH-CCR-M45A-1023 | pH |

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

(Yes) No N/A

If No:

| Sample ID | Analyte | Total Concentration (mg/L) | Dissolved Concentration (mg/L) | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No N/A

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | s.u. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| | | |

**Cholla CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Eurofins Environment Testing | | |
| **Sample Delivery Group:** | J209476 | **Review Date:** | 11/20/2023 rev. 11/21/23 |
| **Validator's Name:** | Caitlin Riechmann | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| CH-CCR-M53A-1023 | 10/19/23 11:48 | 550-209476-1/2 | |
| CH-CCR-MW69A-1023 | 10/19/23 09:11 | 550-209476-3/4 | |
| CH-CCR-MW70M-1023 | 10/18/23 15:43 | 550-209476-5/6 | |
| CH-CCR-MW71A-1023 | 10/18/23 13:12 | 550-209476-7/8 | |
| CH-CCR-MW72M-1023 | 10/18/23 14:02 | 550-209476-9/10 | |
| CH-CCR-MW73A-1023 | 10/18/23 11:00 | 550-209476-11/12 | |
| CH-CCR-MW74M-1023 | 10/18/23 10:00 | 550-209476-13/14 | |
| CH-CCR-MW77A-1023 | 10/17/23 14:54 | 550-209476-15/16 | |
| CH-CCR-W301-1023 | 10/19/23 15:52 | 550-209476-17/18 | |
| CH-CCR-W303-1023 | 10/19/23 13:35 | 550-209476-19/20 | |
| CH-CCR-W306-1023 | 10/19/23 10:30 | 550-209476-21/22 | |
| CH-CCR-W314-1023 | 10/19/23 08:45 | 550-209476-23/24 | |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Beryllium, Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium | Metals | EPA 200.8 |
| Mercury | Metals | EPA 245.1 |
| Ammonia | General Chemistry | EPA 350.1 |
| Nitrate/Nitrite | Anions | EPA 353.2 |
| Alkalinity | General Chemistry | SM 2320B |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| pH | General Chemistry | SM 4500H+B |
| Dissolved Organic Carbon (DOC), Total Organic Carbon (TOC) | General Chemistry | SM 5310B |
| Fluoride | Anions | EPA 9056A |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| CH-CCR-M53A-1023 | pH | 6 days, 20 hours, 58 minutes | J-HT |
| CH-CCR-MW69A-1023 | pH | 6 days, 23 hours, 37 minutes | J-HT |
| CH-CCR-MW70M-1023 | pH | 7 days, 17 hours, 7 minutes | J-HT |
| CH-CCR-MW71A-1023 | pH | 7 days, 19 hours, 39 minutes | J-HT |
| CH-CCR-MW72M-1023 | pH | 7 days, 18 hours, 51 minutes | J-HT |
| CH-CCR-MW73A-1023 | pH | 7 days, 21 hours, 55 minutes | J-HT |
| CH-CCR-MW74M-1023 | pH | 7 days, 22 hours, 56 minutes | J-HT |
| CH-CCR-MW77A-1023 | pH | 8 days, 18 hours, 3 minutes | J-HT |
| CH-CCR-W301-1023 | pH | 6 days, 17 hours, 7 minutes | J-HT |
| CH-CCR-W303-1023 | pH | 6 days, 19 hours, 25 minutes | J-HT |
| CH-CCR-W306-1023 | pH | 6 days, 22 hours, 33 minutes | J-HT |
| CH-CCR-W314-1023 | pH | 7 days, 0 hours, 20 minutes | J-HT |

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| | | | |

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| Barium | 116%, 116% | 85-115% | CH-CCR-M53A-1023, CH-CCR-MW69A-1023, CH-CCR-MW70M-1023, CH-CCR-MW71A-1023, CH-CCR-MW72M-1023, CH-CCR-MW73A-1023, CH-CCR-MW74M-1023, CH-CCR-MW77A-1023, CH-CCR-W301-1023, CH-CCR-W303-1023 | J-HL |
| Barium | 116%, 117% | 85-115% | CH-CCR-W306-1023, CH-CCR-W314-1023 | J-HL |
| Iron | 82%, 82% | 85-115% | CH-CCR-M53A-1023 CH-CCR-MW69A-1023 CH-CCR-MW70M-1023 CH-CCR-MW71A-1023 CH-CCR-MW72M-1023 CH-CCR-MW73A-1023 CH-CCR-MW74M-1023 CH-CCR-MW77A-1023 CH-CCR-W301-1023 CH-CCR-W303-1023 | J/UJ-LL |

Notes:
HL = High laboratory control sample recovery. Result may be biased high.
LL = Low laboratory control sample recovery. Result may be biased low.

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| CH-CCR-M53A-1023 | Beryllium, Boron, Calcium, Lithium, Iron, Magnesium, Manganese, Nitrate/Nitrite, Potassium |
| CH-CCR-MW69A-1023 | Ammonia, Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium |
| CH-CCR-MW72M-1023 | DOC |
| CH-CCR-MW74M-1023 | Mercury |
| CH-CCR-MW77A-1023 | Fluoride, Nitrate/Nitrite |
| CH-CCR-W303-1023 | Lithium |

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| CH-CCR-W314-1023 | Ammonia |

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| CH-CCR-M53A-1023 | Calcium | -20%, 34% | 70-130% | NA4 |

Note:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? Yes (No)

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| | |

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| CH-CCR-MW69A-1023 | Alkalinity |
| CH-CCR-W306-1023 | TDS, pH |
| CH-CCR-M53A-1023 | pH |

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

(Yes) No N/A

If No:

| Sample ID | Analyte | Total Concentration (mg/L) | Dissolved Concentration (mg/L) | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (No) N/A

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | s.u. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| CH-CCR-MW72M-1023 | Beryllium | 0.010 mg/L |
| CH-CCR-MW72M-1023 | Fluoride (by EPA 9056A) | 80 mg/L |
| | | |

**Cholla CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Eurofins Environment Testing | | |
| **Sample Delivery Group:** | J209609 | **Review Date:** | 11/30/2023 |
| **Validator's Name:** | Caitlin Riechmann | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| CH-CCR-MW78A-1023 | 10/23/23 13:00 | 550-209609-1/2 | |
| CH-CCR-BAPTD-1023 | 10/24/23 08:42 | 550-209609-3/4 | |
| CH-CCR-Petroglyph-1023 | 10/24/23 09:09 | 550-209609-5/6 | |
| CH-CCR-TannerWash-1023 | 10/24/23 09:28 | 550-209609-7/8 | |
| CH-CCR-TWX3-1023 | 10/24/23 10:07 | 550-209609-9/10 | |
| CH-CCR-TWX5-1023 | 10/24/23 10:25 | 550-209609-11/12 | |
| CH-CCR-TWX7-1023 | 10/24/23 10:41 | 550-209609-13/14 | |
| CH-CCR-TWX9-1023 | 10/24/23 15:41 | 550-209609-15/16 | |
| CH-CCR-TWX10-1023 | 10/24/23 15:59 | 550-209609-17/18 | |
| CH-CCR-EB01-1023 | 10/25/23 08:15 | 550-209609-19/20 | Equipment Blank |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Fluoride | Anions | EPA 9056A |
| Beryllium, Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium | Metals | EPA 200.8 |
| Mercury | Metals | EPA 245.1 |
| Ammonia | General Chemistry | EPA 350.1 |
| Nitrate/Nitrite | Anions | EPA 353.2 |
| Alkalinity | General Chemistry | SM 2320B |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| pH | General Chemistry | SM 4500H+B |
| Dissolved Organic Carbon (DOC), Total Organic Carbon (TOC) | General Chemistry | SM 5310B |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids (TDS) within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| CH-CCR-MW78A-1023 | pH | 5 days, 23 hours, 54 minutes | J-HT |
| CH-CCR-BAPTD-1023 | pH | 5 days, 4 hours, 14 minutes | J-HT |
| CH-CCR-Petroglyph-1023 | pH | 5 days, 3 hours, 48 minutes | J-HT |
| CH-CCR-TannerWash-1023 | pH | 5 days, 3 hours, 30 minutes | J-HT |
| CH-CCR-TWX3-1023 | pH | 5 days, 2 hours, 52 minutes | J-HT |
| CH-CCR-TWX5-1023 | pH | 5 days, 2 hours, 35 minutes | J-HT |
| CH-CCR-TWX7-1023 | pH | 5 days, 2 hours, 20 minutes | J-HT |
| CH-CCR-TWX9-1023 | pH | 4 days, 21 hours, 21 minutes | J-HT |
| CH-CCR-TWX10-1023 | pH | 4 days, 21 hours, 4 minutes | J-HT |

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| Arsenic, total | 0.0029 mg/L | None | NA |
| Arsenic, dissolved | 3.2 ug/L | None | NA |
| Sodium | 0.696 mg/L | None | NA |

Notes:

NA = not applicable

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| CH-CCR-BAPTD-1023 | Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium |
| CH-CCR-TWX9-1023 | Lithium |
| CH-CCR-MW78A-1023 | Ammonia, Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium |
| CH-CCR-TWX10-1023 | Nitrate/Nitrite |

a. Are MS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| CH-CCR-MW78A-1023 | Antimony | 18%, 19% | 70-130% | UJ-LM |
| CH-CCR-MW78A-1023 | Arsenic | 18%, 19% | 70-130% | J-LM |
| CH-CCR-MW78A-1023 | Barium | 19%, 20% | 70-130% | J-LM |
| CH-CCR-MW78A-1023 | Cadmium | 18%, 18% | 70-130% | UJ-LM |
| CH-CCR-MW78A-1023 | Chromium | 17%, 18% | 70-130% | UJ-LM |
| CH-CCR-MW78A-1023 | Cobalt | 17%, 18% | 70-130% | UJ-LM |
| CH-CCR-MW78A-1023 | Lead | 18%, 19% | 70-130% | UJ-LM |
| CH-CCR-MW78A-1023 | Molybdenum | 19%, 20% | 70-130% | J-LM |
| CH-CCR-MW78A-1023 | Selenium | 17%, 17% | 70-130% | J-LM |
| CH-CCR-MW78A-1023 | Thallium | 17%, 18% | 70-130% | UJ-LM |
| CH-CCR-BAPTD-1023 | Calcium | -97%, -83% | 70-130% | NA4 |
| CH-CCR-BAPTD-1023 | Magnesium | 29%, 34% | 70-130% | NA4 |
| CH-CCR-BAPTD-1023 | Sodium | -450%, -410% | 70-130% | NA4 |

Note:
LM = Low matrix spike recovery.
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? Yes (No)

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| | |

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| CH-CCR-MW78A-1023 | Alkalinity, pH, TDS |

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are total concentrations greater than dissolved concentrations or do total and dissolved results meet criteria for duplicate analyses?

(Yes) No N/A

If No:

| Sample ID | Analyte | Total Concentration (mg/L) | Dissolved Concentration (mg/L) | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No N/A

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | s.u. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| | | |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Eurofins Environment Testing | | |
| **Sample Delivery Group:** | J210429 | **Review Date:** | 12/14/2023 |
| **Validator's Name:** | Caitlin Riechmann | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW52-1123 | 11/08/23 14:40 | 550-210429-1 | |
| FC-CCR-MW61-1123 | 11/09/23 12:50 | 550-210429-2 | |
| FC-CCR-MW75-1123 | 11/08/23 15:39 | 550-210429-3 | |
| FC-CCR-FD03-1123 | 11/08/23 16:11 | 550-210429-4 | Field Duplicate of FC-CCR-MW52-1123 |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Fluoride | Anions | SW846 9056A |
| Beryllium, Boron, Calcium, Lithium, Magnesium, Potassium, Sodium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium | Metals | EPA 200.8 |
| Mercury | Metals | EPA 245.1 |
| Alkalinity | General Chemistry | SM 2320B |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| pH | General Chemistry | SM 4500 H+B |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   Yes (No) N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| FC-CCR-MW61-1123 | pH | 6 days, 0 hours, 56 minutes | J-HT |
| FC-CCR-MW75-1123 | pH | 6 days, 22 hours, 9 minutes | J-HT |

Note:
HT = Maximum recommended hold time was exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| | | | |

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| Beryllium | 117%, 117% | 85-115% | None | NA |
| Boron | 116%, LCS | 85-115% | FC-CCR-MW52-1123, FC-CCR-MW61-1123, FC-CCR-MW75-1123, FC-CCR-FD03-1123 | J-HL |
| Calcium | 117%, LCS | 85-115% | FC-CCR-MW61-1123, FC-CCR-MW75-1123 | J-HL |

Note:
HL = High LCS recovery.
NA = Not applicable.

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| FC-CCR-MW52-1123 | Boron, Cobalt, Molybdenum |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes (No) N/A

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| FC-CCR-MW52-1123 | Boron | 56%, 52% | 70-130% | NA4 |

Note:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? (Yes) No

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| FC-CCR-MW52-1123 | FC-CCR-FD03-1123 |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| FC-CCR-MW61-1123 | pH |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| | | |

| | | | |
|---|---|---|---|
| Laboratory Name: | Eurofins Environment Testing | | |
| Sample Delivery Group: | J210593 | Review Date: | 12/8/2023 |
| Validator's Name: | Caitlin Riechmann | Reviewed By: | Marie Bevier |

Sample Summary:

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW67-1123 | 11/13/23 09:18 | 550-210593-1 | |
| FC-CCR-MW68-1123 | 11/11/23 11:28 | 550-210593-2 | |
| FC-CCR-MW69-1123 | 11/11/23 10:33 | 550-210593-3 | |
| FC-CCR-MW83-1123 | 11/11/23 14:10 | 550-210593-4 | |
| FC-CCR-MW84-1123 | 11/11/23 15:53 | 550-210593-5 | |
| FC-CCR-MW85-1123 | 11/11/23 15:03 | 550-210593-6 | |
| FC-CCR-FD01-1123 | 11/11/23 08:53 | 550-210593-7 | Field Duplicate of FC-CCR-MW84-1123 |
| FC-CCR-CM01-1123 | 11/13/23 09:41 | 550-210593-8 | |
| FC-CCR-CM02-1123 | 11/13/23 09:52 | 550-210593-9 | |

Analytical Methods:

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Fluoride | Anions | EPA 9056A |
| Beryllium, Boron, Calcium, Lithium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium | Metals | EPA 200.8 |
| Mercury | Metals | EPA 245.1 |
| Alkalinity | General Chemistry | SM 2320B |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| pH | General Chemistry | SM 4500 H+B |

Qualifier Definitions:

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Sample Receipt Condition:

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   Yes (No) N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| FC-CCR-MW67-1123 | pH | 3 days, 5 hours, 2 minutes | J-HT |
| FC-CCR-MW68-1123 | pH | 5 days, 2 hours, 55 minutes | J-HT |
| FC-CCR-MW69-1123 | pH | 5 days, 3 hours, 53 minutes | J-HT |
| FC-CCR-MW83-1123 | pH | 5 days, 0 hours, 18 minutes | J-HT |
| FC-CCR-MW84-1123 | pH | 4 days, 22 hours, 38 minutes | J-HT |
| FC-CCR-MW84-1123 | TDS | 23 days | J-HT |
| FC-CCR-MW85-1123 | pH | 4 days, 23 hours, 30 minutes | J-HT |
| FC-CCR-FD01-1123 | pH | 5 days, 5 hours, 42 minutes | J-HT |
| FC-CCR-CM01-1123 | pH | 3 days, 4 hours, 55 minutes | J-HT |
| FC-CCR-CM02-1123 | pH | 3 days, 4 hours, 49 minutes | J-HT |

Note:
HT = Maximum recommended hold time was exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| | | | |

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| Beryllium | 122%, 116% | 85-115% | None | NA |

Notes:
NA = Not applicable.

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| FC-CCR-MW85-1123 | Mercury |

a. Are MS recoveries and/or precision within laboratory specified limits?

(Yes) No N/A

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

9. Field duplicate collected? (Yes) No

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| FC-CCR-MW84-1123 | FC-CCR-FD01-1123 |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| FC-CCR-MW84-1123 | TDS |
| FC-CCR-CM02-1123 | pH |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Other QC Issues? Yes (No)

If yes:

| |
|---|
| |

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (No)

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

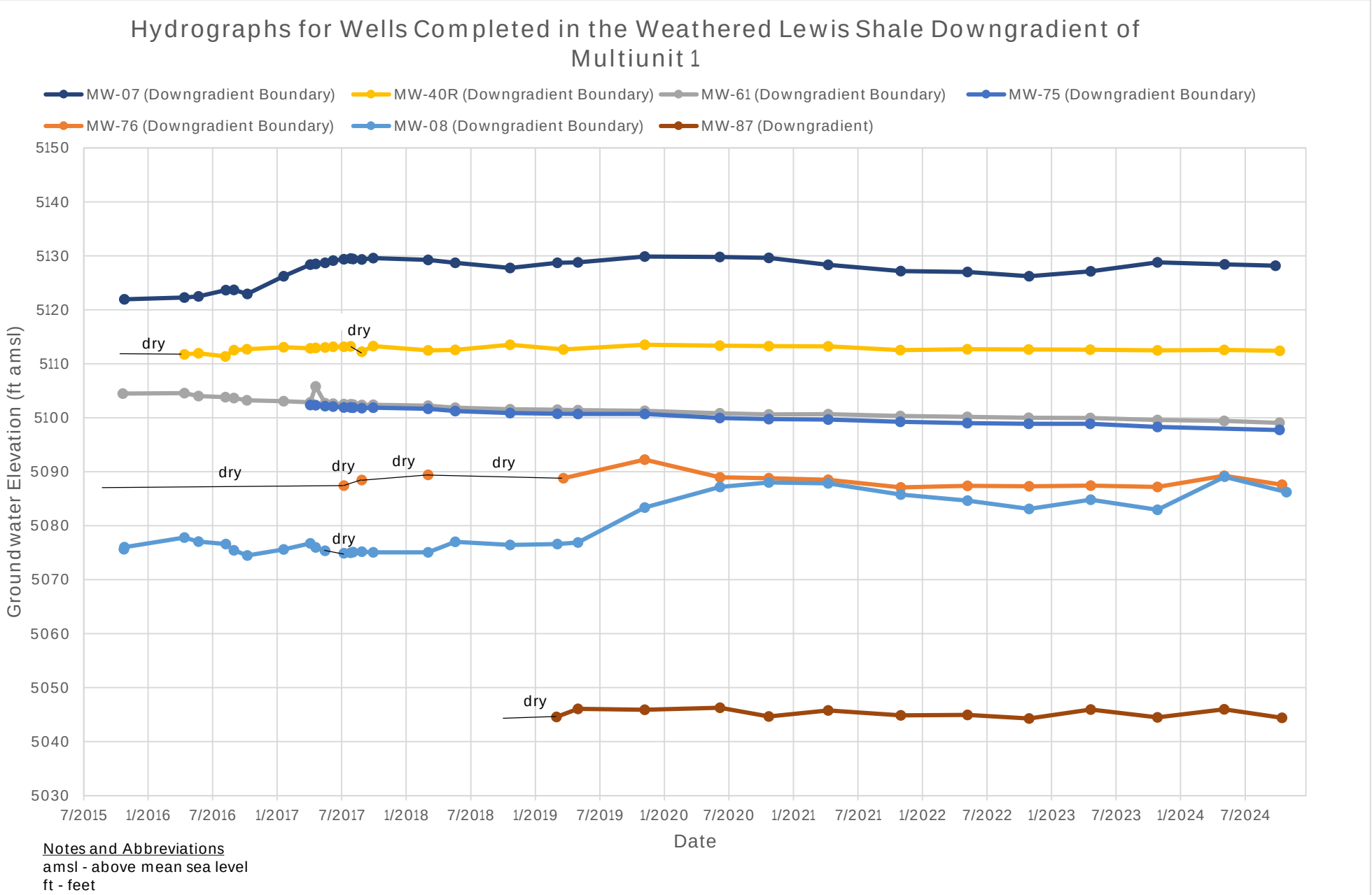
| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| FC-CCR-MW67-1123<br>FC-CCR-MW68-1123<br>FC-CCR-MW69-1123<br>FC-CCR-MW83-1123<br>FC-CCR-MW84-1123<br>FC-CCR-MW85-1123<br>FC-CCR-FD01-1123<br>FC-CCR-CM01-1123<br>FC-CCR-CM02-1123 | Antimony | 0.010 mg/L |

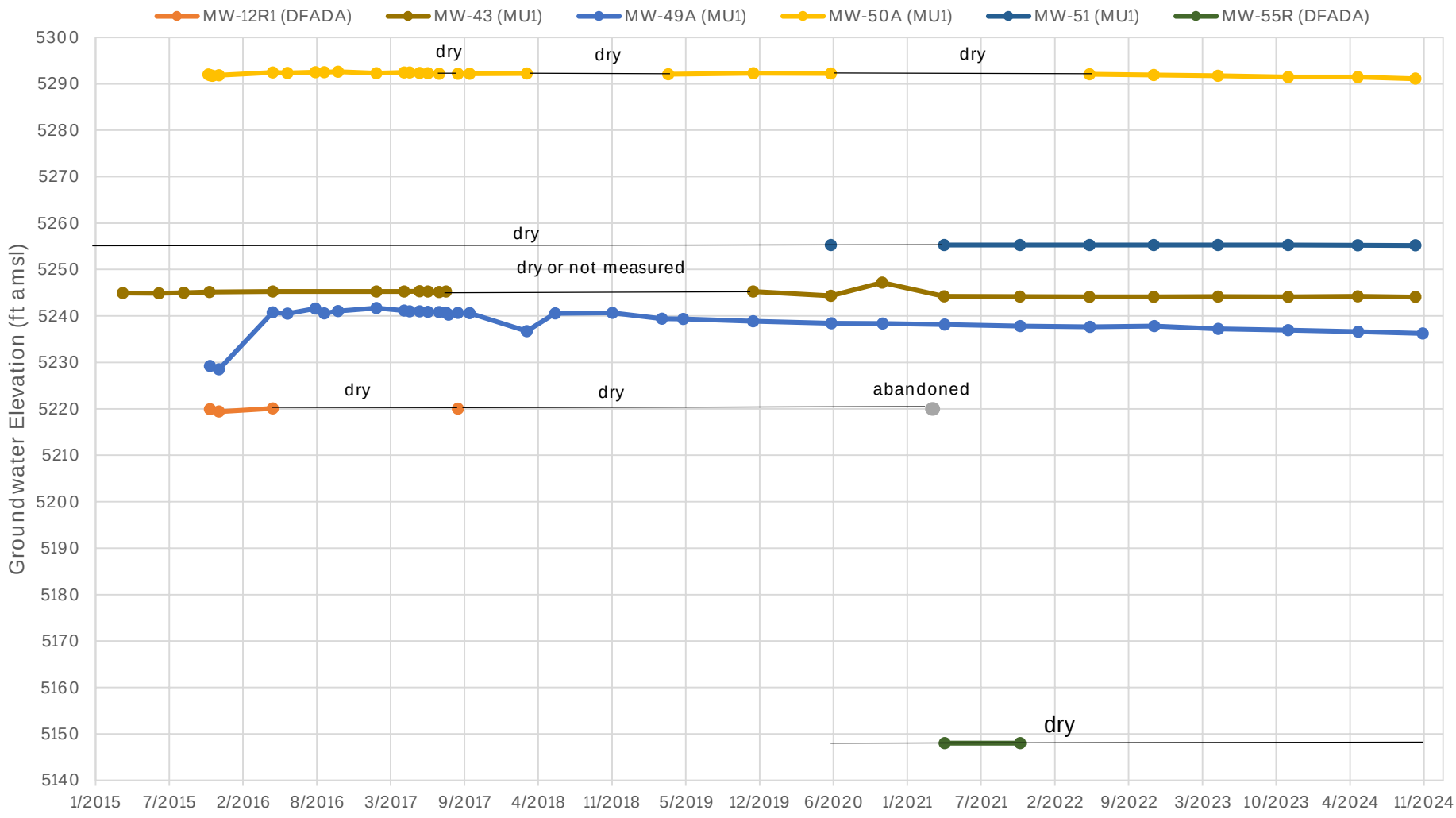
| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| FC-CCR-MW67-1123<br>FC-CCR-MW68-1123<br>FC-CCR-MW69-1123<br>FC-CCR-MW83-1123<br>FC-CCR-MW84-1123<br>FC-CCR-MW85-1123<br>FC-CCR-FD01-1123<br>FC-CCR-CM01-1123<br>FC-CCR-CM02-1123 | Beryllium | 0.0050 mg/L |

# APPENDIX

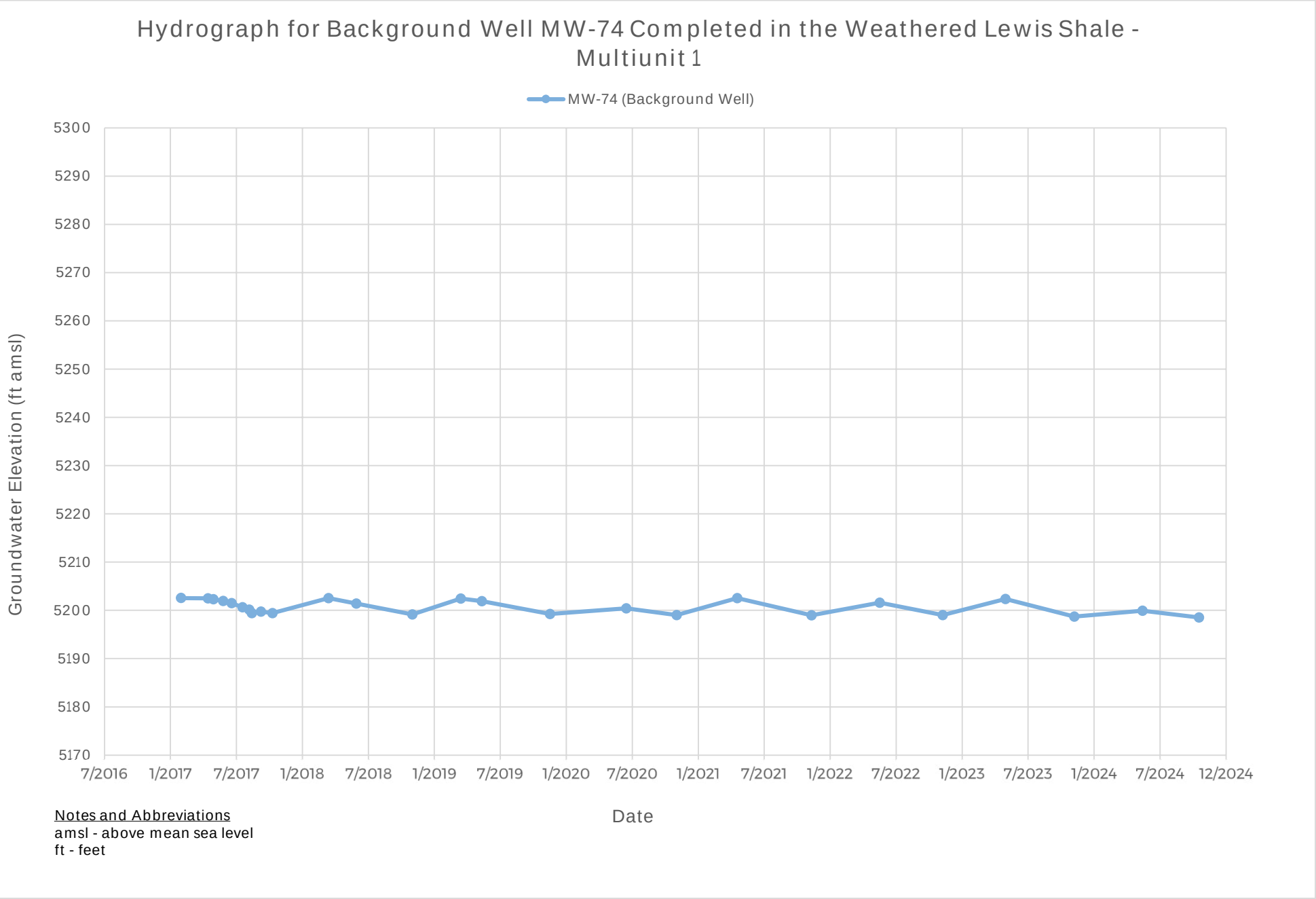
# D

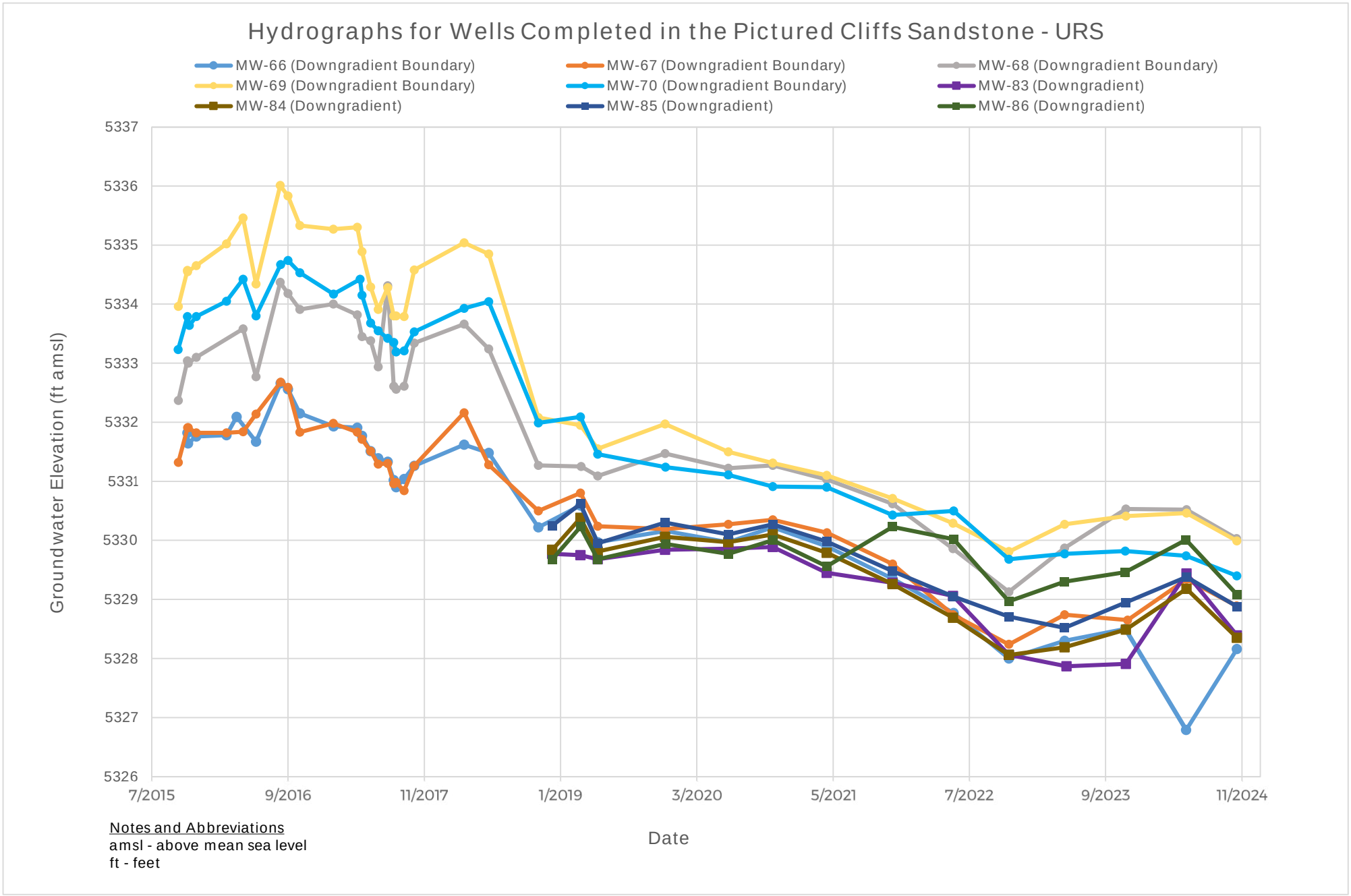
## GROUNDWATER ELEVATION DATA AND HYDROGRAPHS THROUGH 2024

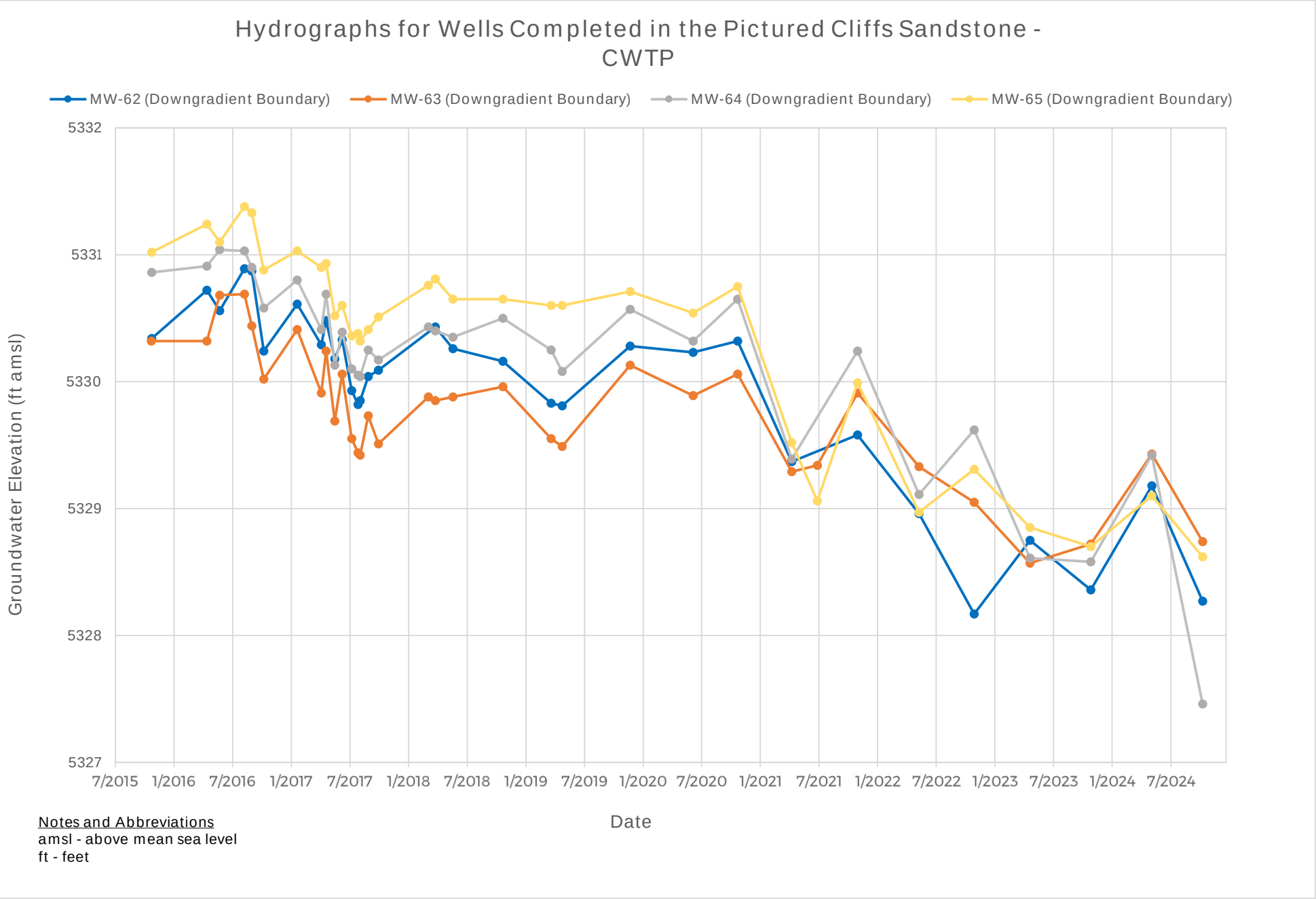

Hydrographs for Wells Completed in the Weathered Lewis Shale Downgradient of Multiunit 1
MW-07 (Downgradient Boundary)
MW-40R (Downgradient Boundary)
MW-61 (Downgradient Boundary)
MW-75 (Downgradient Boundary)
MW-76 (Downgradient Boundary)
MW-08 (Downgradient Boundary)
MW-87 (Downgradient)
Groundwater Elevation (ft amsl)
5150
5140
5130
5120
5110
5100
5090
5080
5070
5060
5050
5040
5030
dry
dry
dry
dry
dry
dry
dry
dry
7/2015
1/2016
7/2016
1/2017
7/2017
1/2018
7/2018
1/2019
7/2019
1/2020
7/2020
1/2021
7/2021
1/2022
7/2022
1/2023
7/2023
1/2024
7/2024
Date
Notes and Abbreviations
amsl - above mean sea level
ft - feet

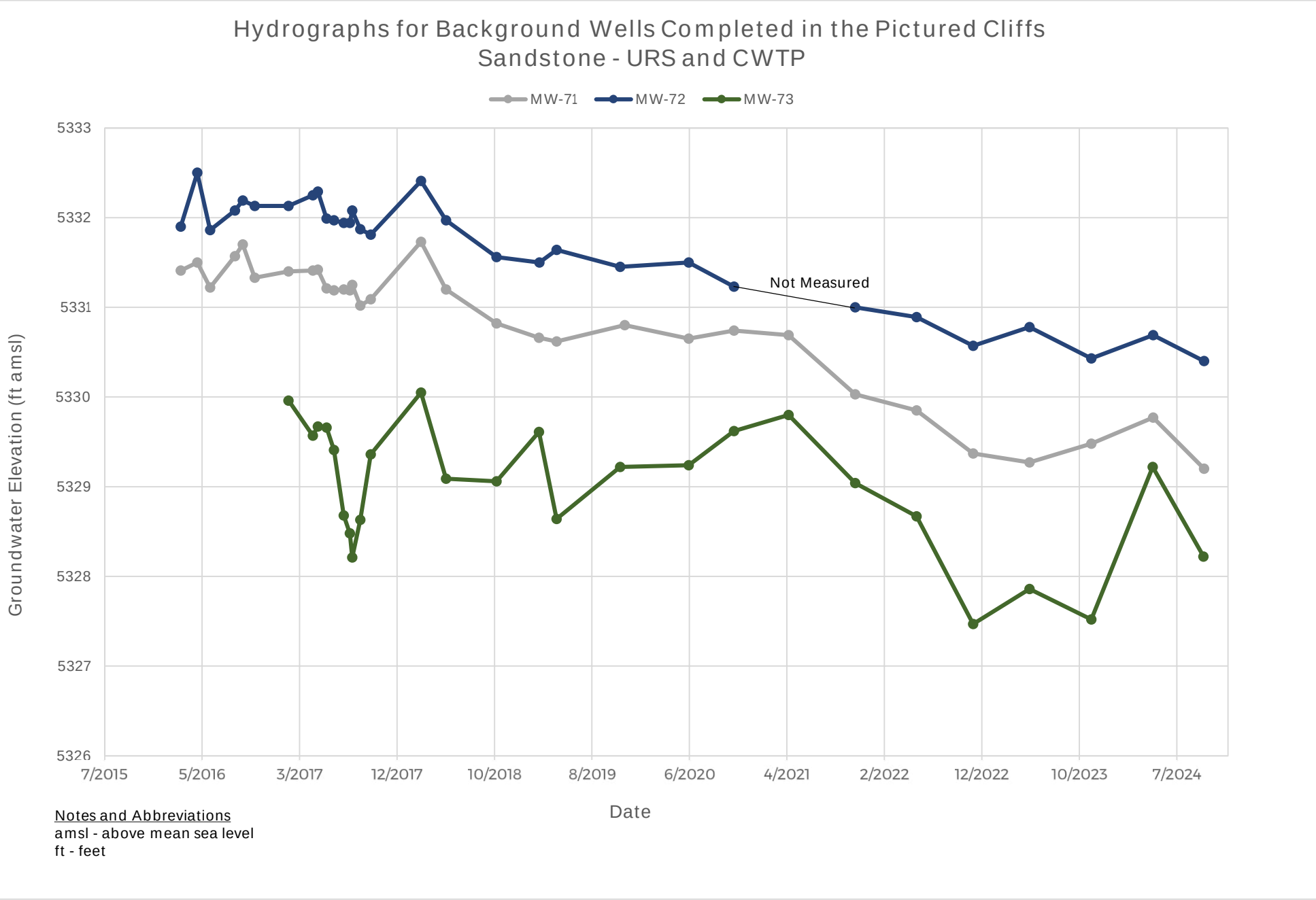



Notes and Abbreviations
amsl - above mean sea level
ft - feet
MU1 - multiunit 1
Replacement well MW-12R1 has remained dry since installation


Hydrograph for Background Well MW-74 Completed in the Weathered Lewis Shale - Multiunit 1
MW-74 (Background Well)
Groundwater Elevation (ft amsl)
5300
5290
5280
5270
5260
5250
5240
5230
5220
5210
5200
5190
5180
5170
7/2016
1/2017
7/2017
1/2018
7/2018
1/2019
7/2019
1/2020
7/2020
1/2021
7/2021
1/2022
7/2022
1/2023
7/2023
1/2024
7/2024
12/2024
Date
Notes and Abbreviations
amsl - above mean sea level
ft - feet

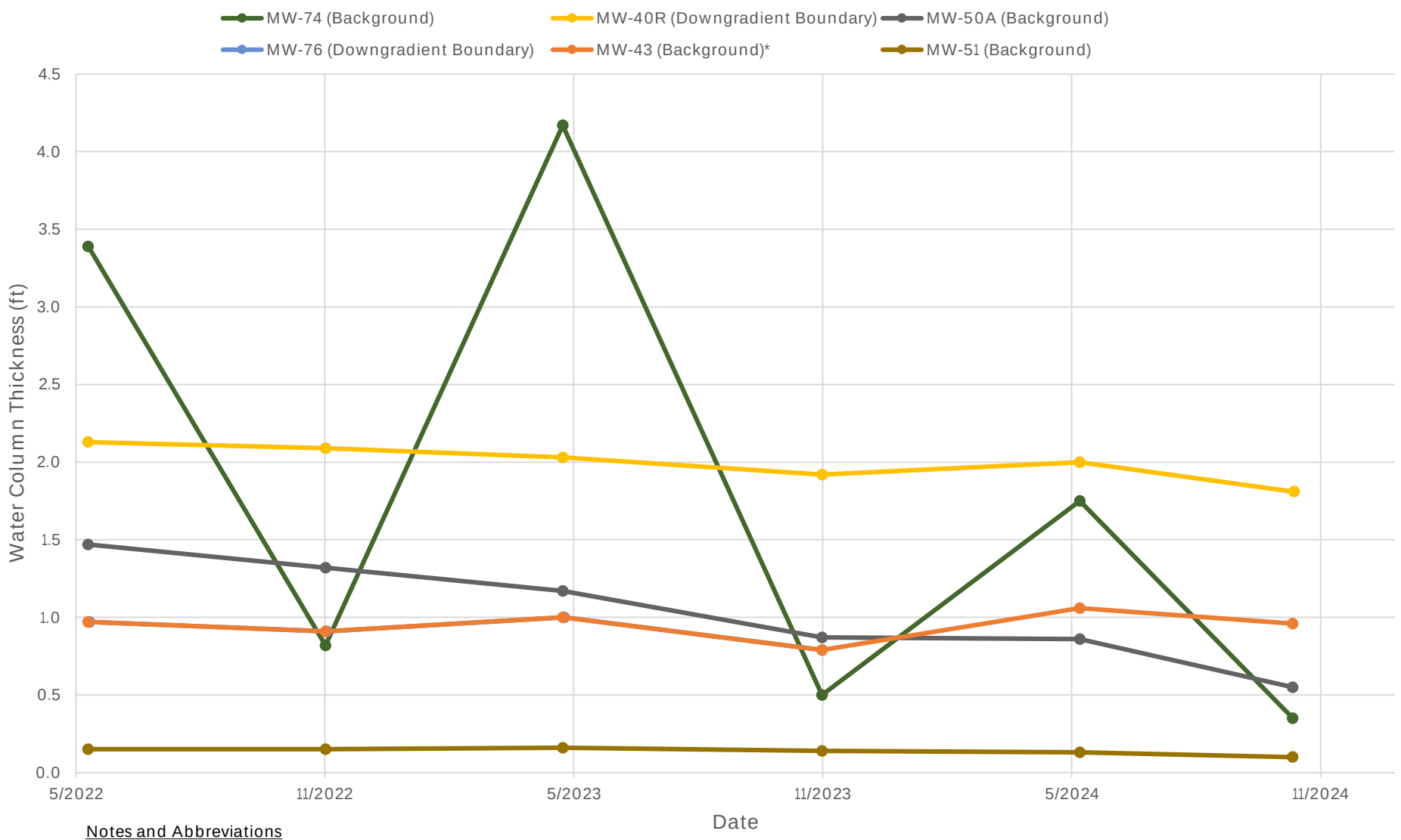

Hydrographs for Wells Completed in the Pictured Cliffs Sandstone - URS
MW-66 (Downgradient Boundary)
MW-67 (Downgradient Boundary)
MW-68 (Downgradient Boundary)
MW-69 (Downgradient Boundary)
MW-70 (Downgradient Boundary)
MW-83 (Downgradient)
MW-84 (Downgradient)
MW-85 (Downgradient)
MW-86 (Downgradient)
Groundwater Elevation (ft amsl)
5337
5336
5335
5334
5333
5332
5331
5330
5329
5328
5327
5326
7/2015
9/2016
11/2017
1/2019
3/2020
5/2021
7/2022
9/2023
11/2024
Date
Notes and Abbreviations
amsl - above mean sea level
ft - feet


Hydrographs for Wells Completed in the Pictured Cliffs Sandstone - CWTP
MW-62 (Downgradient Boundary)
MW-63 (Downgradient Boundary)
MW-64 (Downgradient Boundary)
MW-65 (Downgradient Boundary)
Groundwater Elevation (ft amsl)
5332
5331
5330
5329
5328
5327
7/2015
1/2016
7/2016
1/2017
7/2017
1/2018
7/2018
1/2019
7/2019
1/2020
7/2020
1/2021
7/2021
1/2022
7/2022
1/2023
7/2023
1/2024
7/2024
Date
Notes and Abbreviations
amsl - above mean sea level
ft - feet

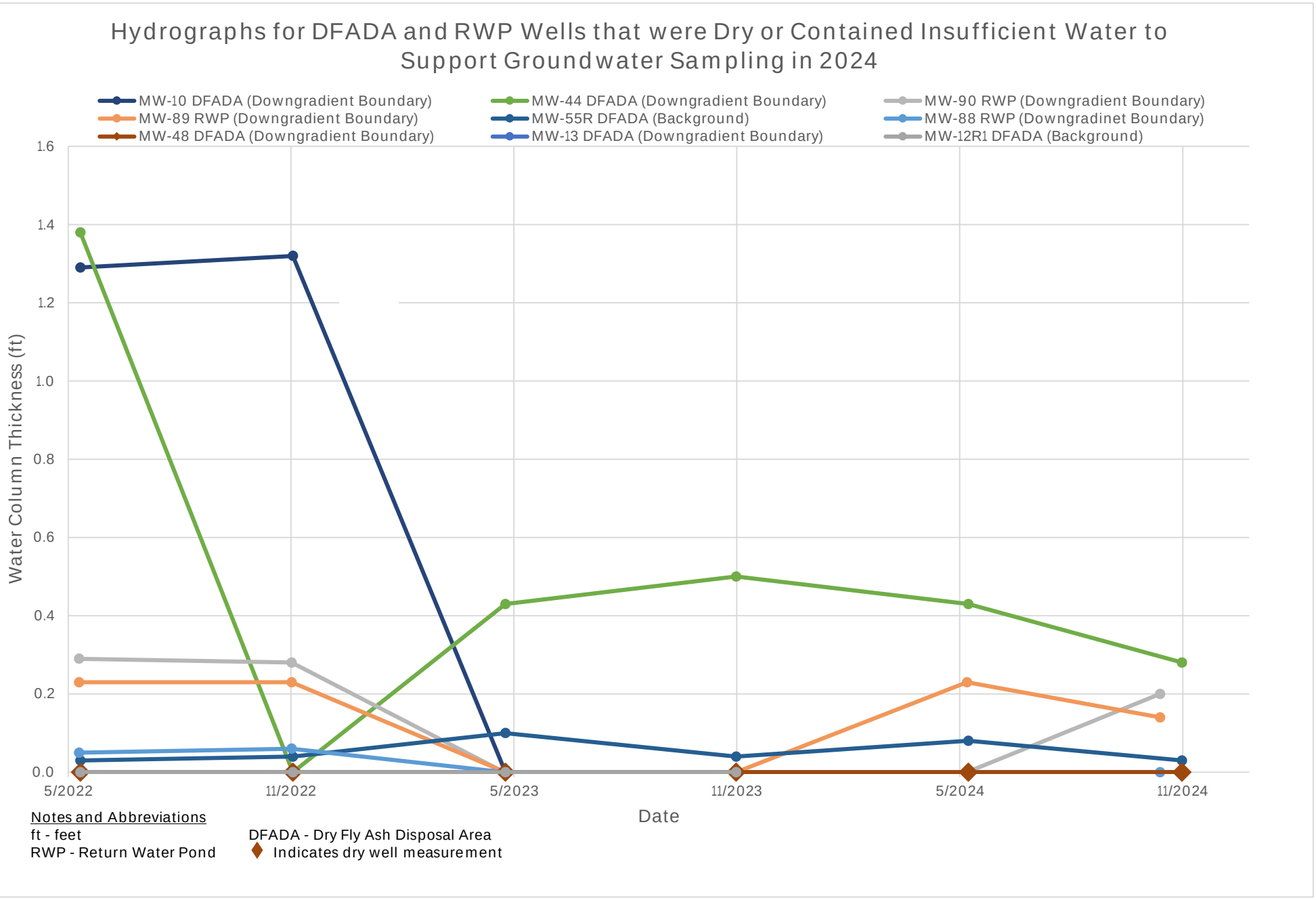


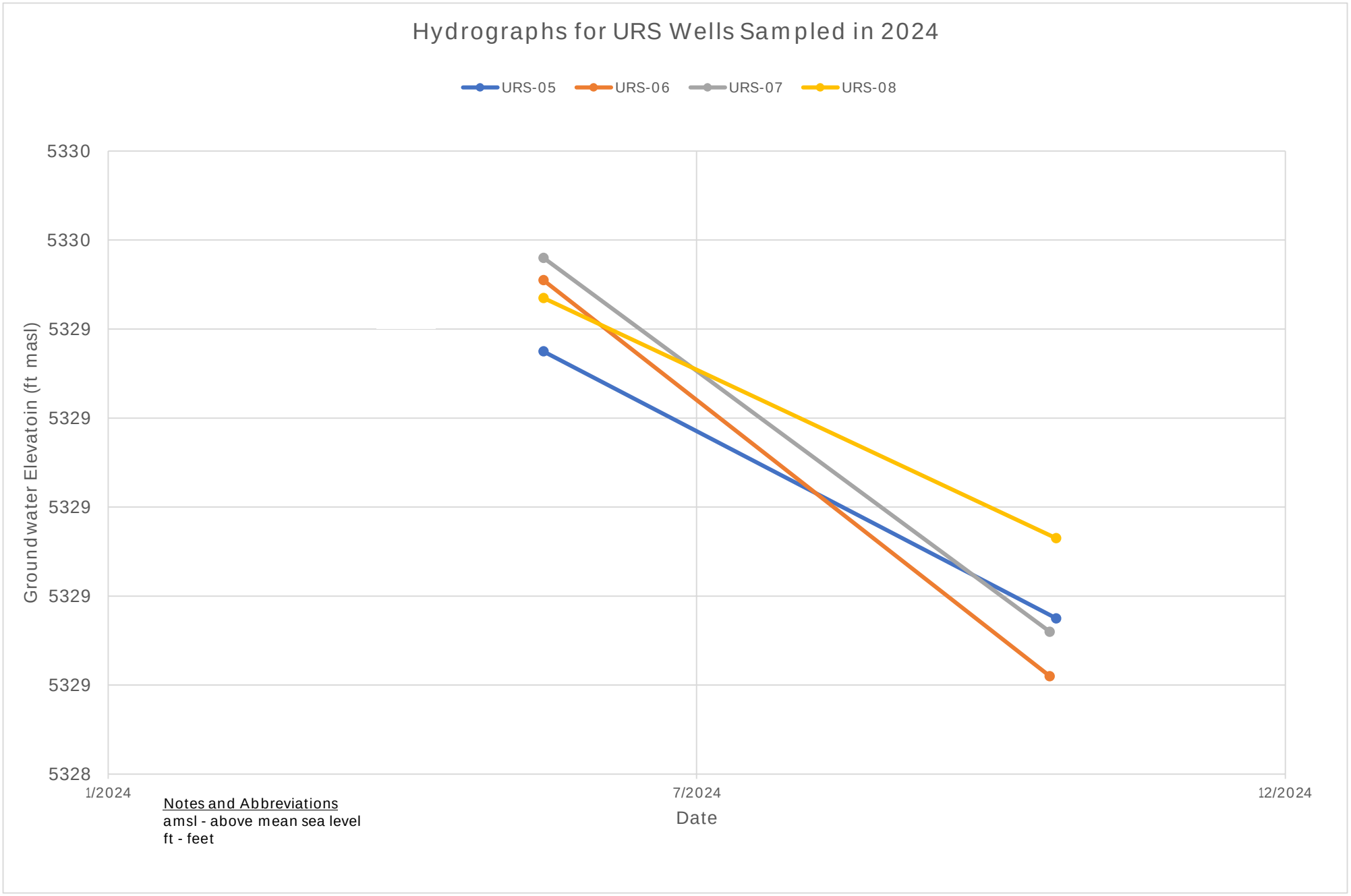

Notes and Abbreviations
amsl - above mean sea level
ft - feet

## Hydrographs for Multiunit Wells that Contained Insufficient Water to Support Groundwater Sampling in 2024




Notes and Abbreviations
* MW-43 and MW-76 overlap on this plot.
ft - feet


Hydrographs for DFADA and RWP Wells that were Dry or Contained Insufficient Water to Support Groundwater Sampling in 2024
MW-10 DFADA (Downgradient Boundary)
MW-44 DFADA (Downgradient Boundary)
MW-90 RWP (Downgradient Boundary)
MW-89 RWP (Downgradient Boundary)
MW-55R DFADA (Background)
MW-88 RWP (Downgradinet Boundary)
MW-48 DFADA (Downgradient Boundary)
MW-13 DFADA (Downgradient Boundary)
MW-12R1 DFADA (Background)
Water Column Thickness (ft)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
5/2022
11/2022
5/2023
11/2023
5/2024
11/2024
Date
Notes and Abbreviations
ft - feet
RWP - Return Water Pond
DFADA - Dry Fly Ash Disposal Area
Indicates dry well measurement


Hydrographs for URS Wells Sampled in 2024
URS-05
URS-06
URS-07
URS-08
5330
5330
5329
5329
5329
5329
5329
5328
Groundwater Elevatoin (ft masl)
1/2024
7/2024
12/2024
Date
Notes and Abbreviations
amsl - above mean sea level
ft - feet

| MW-07 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 11/7/2015 | 5149.32 | 27.35 | 5121.97 |
| 4/25/2016 | 5149.32 | 27.04 | 5122.28 |
| 6/4/2016 | 5149.32 | 26.85 | 5122.47 |
| 8/20/2016 | 5149.32 | 25.68 | 5123.64 |
| 9/12/2016 | 5149.32 | 25.61 | 5123.71 |
| 10/20/2016 | 5149.32 | 26.36 | 5122.96 |
| 1/31/2017 | 5149.32 | 23.08 | 5126.24 |
| 4/16/2017 | 5149.32 | 20.95 | 5128.37 |
| 5/1/2017 | 5149.32 | 20.83 | 5128.49 |
| 5/28/2017 | 5149.32 | 20.59 | 5128.73 |
| 6/20/2017 | 5149.32 | 20.21 | 5129.11 |
| 7/20/2017 | 5149.32 | 19.93 | 5129.39 |
| 8/8/2017 | 5149.32 | 19.83 | 5129.49 |
| 8/15/2017 | 5149.32 | 19.91 | 5129.41 |
| 9/9/2017 | 5149.32 | 19.97 | 5129.35 |
| 10/11/2017 | 5149.32 | 19.72 | 5129.6 |
| 3/15/2018 | 5149.32 | 20.07 | 5129.25 |
| 5/31/2018 | 5149.32 | 20.62 | 5128.7 |
| 11/2/2018 | 5149.32 | 21.55 | 5127.77 |
| 3/16/2019 | 5149.32 | 20.59 | 5128.73 |
| 5/13/2019 | 5149.32 | 20.54 | 5128.78 |
| 11/18/2019 | 5149.32 | 19.43 | 5129.89 |
| 6/17/2020 | 5149.32 | 19.54 | 5129.78 |
| 11/3/2020 | 5149.32 | 19.68 | 5129.64 |
| 4/20/2021 | 5149.32 | 20.97 | 5128.35 |
| 11/11/2021 | 5149.32 | 22.14 | 5127.18 |
| 5/19/2022 | 5149.32 | 22.3 | 5127.02 |
| 11/9/2022 | 5149.32 | 23.09 | 5126.23 |
| 5/2/2023 | 5149.32 | 22.18 | 5127.14 |
| 11/7/2023 | 5149.32 | 20.54 | 5128.78 |
| 5/15/2024 | 5149.32 | 20.91 | 5128.41 |
| 10/6/2024 | 5149.32 | 21.13 | 5128.19 |
| | *Maximum Observed:* | *5129.89* | *ft AMSL* |
| | *Minimum Observed:* | *5121.97* | *ft AMSL* |
| | *Range:* | *7.92* | *ft* |

| MW-08 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 11/6/2015 | 5122.56 | 46.9 | 5075.66 |
| 11/7/2015 | 5122.56 | 46.56 | 5076.00 |
| 4/25/2016 | 5122.56 | 44.76 | 5077.80 |
| 6/4/2016 | 5122.56 | 45.52 | 5077.04 |
| 8/20/2016 | 5122.56 | 45.95 | 5076.61 |
| 9/12/2016 | 5122.56 | 47.11 | 5075.45 |
| 10/20/2016 | 5122.56 | 48.07 | 5074.49 |
| 1/31/2017 | 5122.56 | 46.94 | 5075.62 |
| 4/16/2017 | 5122.56 | 45.82 | 5076.74 |
| 5/1/2017 | 5122.56 | 46.59 | 5075.97 |
| 5/28/2017 | 5122.56 | 47.19 | 5075.37 |
| 6/20/2017 | 5122.56 | Dry | |
| 7/20/2017 | 5122.56 | 47.68 | 5074.88 |
| 8/8/2017 | 5122.56 | 47.57 | 5074.99 |
| 8/15/2017 | 5122.56 | 47.44 | 5075.12 |
| 9/9/2017 | 5122.56 | 47.39 | 5075.17 |
| 10/11/2017 | 5122.56 | 47.49 | 5075.07 |
| 3/15/2018 | 5122.56 | 47.51 | 5075.05 |
| 5/31/2018 | 5122.56 | 45.56 | 5077.00 |
| 11/2/2018 | 5122.56 | 46.12 | 5076.44 |
| 3/16/2019 | 5122.56 | 45.96 | 5076.60 |
| 5/13/2019 | 5122.56 | 45.68 | 5076.88 |
| 11/18/2019 | 5122.56 | 39.18 | 5083.38 |
| 6/18/2020 | 5122.56 | 35.38 | 5087.18 |
| 11/3/2020 | 5122.56 | 34.54 | 5088.02 |
| 4/20/2021 | 5122.56 | 34.7 | 5087.86 |
| 11/11/2021 | 5122.56 | 36.8 | 5085.76 |
| 5/19/2022 | 5122.56 | 37.9 | 5084.66 |
| 11/9/2022 | 5122.56 | 39.43 | 5083.13 |
| 5/2/2023 | 5122.56 | 37.74 | 5084.82 |
| 11/7/2023 | 5122.56 | 39.61 | 5082.95 |
| 5/15/2024 | 5122.56 | 33.48 | 5089.08 |
| 11/6/2024 | 5122.56 | 36.33 | 5086.23 |
| | *Maximum Observed:* | *5089.08* | *ft AMSL* |
| | *Minimum Observed:* | *5074.49* | *ft AMSL* |
| | *Range:* | *14.59* | *ft* |

| MW-10 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 11/29/2017 | 5150.71 | Dry | Dry |
| 3/15/2018 | 5150.71 | Dry | Dry |
| 5/31/2018 | 5151.71 | Dry | Dry |
| 11/21/2018 | 5151.71 | Dry | Dry |
| 11/18/2019 | 5151.71 | Dry | Dry |
| 6/17/2020 | 5150.71 | Dry | Dry |
| 11/3/2020 | 5150.71 | Dry | Dry |
| 4/20/2021 | 5150.71 | Dry | Dry |
| 11/11/2021 | 5150.71 | 33.70 | 5117.01 |
| 5/19/2022 | 5150.71 | 33.71 | 5117.00 |
| 11/9/2022 | 5150.71 | 33.68 | 5117.03 |
| 5/2/2023 | 5150.71 | Dry | Dry |
| 11/7/2023 | 5150.71 | Dry | Dry |
| 5/15/2024 | 5150.71 | Dry | Dry |
| 11/6/2024 | 5150.71 | Dry | Dry |
| | *Maximum Observed:* | *5117.01* | *ft AMSL* |
| | *Minimum Observed:* | *5117.01* | *ft AMSL* |
| | *Range:* | *0.00* | *ft* |

| MW-11 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 06/17/2020 | 5111.96 | 31.99 | 5079.97 |
| 11/3/2020 | 5111.96 | 31.85 | 5080.11 |
| 4/20/2021 | 5111.96 | 31.86 | 5080.1 |
| 11/11/2021 | 5111.96 | 31.85 | 5080.11 |
| 5/19/2022 | 5111.96 | 31.88 | 5080.08 |
| 11/9/2022 | 5111.96 | 31.89 | 5080.07 |
| 5/2/2023 | 5111.96 | 31.81 | 5080.15 |
| 11/7/2023 | 5111.96 | 31.94 | 5080.02 |
| 5/15/2024 | 5111.96 | 31.73 | 5080.23 |
| 11/14/2024 | 5111.96 | 31.79 | 5080.17 |
| | *Maximum Observed:* | *5080.23* | *ft AMSL* |
| | *Minimum Observed:* | *5079.97* | *ft AMSL* |
| | *Range:* | *0.26* | *ft* |

| MW-12R | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 11/7/2015 | 5264.70 | 44.75 | 5219.95 |
| 12/1/2015 | 5264.70 | 45.29 | 5219.41 |
| 4/25/2016 | 5264.70 | 44.6 | 5220.10 |
| 6/4/2016 | 5264.70 | Dry | |
| 8/20/2016 | 5264.70 | Dry | |
| 9/12/2016 | 5264.70 | Dry | |
| 10/19/2016 | 5264.70 | Dry | |
| 1/31/2017 | 5264.70 | Dry | |
| 4/16/2017 | 5264.70 | Dry | |
| 5/1/2017 | 5264.70 | Dry | |
| 5/28/2017 | 5264.70 | Dry | |
| 6/20/2017 | 5264.70 | Dry | |
| 7/20/2017 | 5264.70 | Dry | |
| 8/8/2017 | 5264.70 | Dry | |
| 8/15/2017 | 5264.70 | Dry | |
| 9/9/2017 | 5264.70 | 44.68 | 5220.02 |
| 10/11/2017 | 5264.70 | Dry | |
| 3/15/2018 | 5264.70 | Dry | |
| ABANDONED ON 4/9/2018 | | | |
| | *Maximum Observed:* | *5220.10* | *ft AMSL* |
| | *Minimum Observed:* | *5219.41* | *ft AMSL* |
| | *Range:* | *0.69* | *ft* |

| MW-12R1 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 06/17/2020 | 5264.44 | Dry | Dry |
| 11/3/2020 | 5264.44 | Dry | Dry |
| 4/20/2021 | 5264.44 | Dry | Dry |
| 11/11/2021 | 5264.44 | Dry | Dry |
| 5/19/2022 | 5264.44 | Dry | Dry |
| 11/9/2022 | 5264.44 | Dry | Dry |
| 5/2/2023 | 5264.44 | Dry | Dry |
| 11/7/2023 | 5264.44 | Dry | Dry |
| 5/15/2024 | 5264.44 | Dry | Dry |
| 10/19/2024 | 5264.44 | Dry | Dry |
| | *Maximum Observed:* | -- | *ft AMSL* |
| | *Minimum Observed:* | -- | *ft AMSL* |
| | *Range:* | -- | *ft* |

| MW-13 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 11/29/2017 | 5150.75 | Dry | Dry |
| 3/15/2018 | 5150.75 | Dry | Dry |
| 5/31/2018 | 5150.75 | Dry | Dry |
| 11/21/2018 | 5150.75 | Dry | Dry |
| 11/18/2019 | 5150.75 | Dry | Dry |
| 6/17/2020 | 5155.75 | Dry | Dry |
| 11/3/2020 | 5155.75 | Dry | Dry |
| 4/20/2021 | 5155.75 | Dry | Dry |
| 11/11/2021 | 5155.75 | Dry | Dry |
| 5/19/2022 | 5155.75 | Dry | Dry |
| 11/9/2022 | 5155.75 | Dry | Dry |
| 5/2/2023 | 5155.75 | Dry | Dry |
| 11/7/2023 | 5155.75 | Dry | Dry |
| 5/15/2024 | 5155.75 | Dry | Dry |
| 11/6/2024 | 5155.75 | Dry | Dry |
| | *Maximum Observed:* | -- | *ft AMSL* |
| | *Minimum Observed:* | -- | *ft AMSL* |
| | *Range:* | -- | *ft* |

| MW-40R | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 11/7/2015 | 5137.43 | Dry | |
| 4/25/2016 | 5137.43 | 25.70 | 5111.73 |
| 6/4/2016 | 5137.43 | 25.46 | 5111.97 |
| 8/19/2016 | 5137.43 | 26.05 | 5111.38 |
| 9/12/2016 | 5137.43 | 24.90 | 5112.53 |
| 10/19/2016 | 5137.43 | 24.72 | 5112.71 |
| 1/31/2017 | 5137.43 | 24.34 | 5113.09 |
| 4/16/2017 | 5137.43 | 24.56 | 5112.87 |
| 5/1/2017 | 5137.43 | 24.47 | 5112.96 |
| 5/28/2017 | 5137.43 | 24.38 | 5113.05 |
| 6/20/2017 | 5137.43 | 24.29 | 5113.14 |
| 7/20/2017 | 5137.43 | 24.26 | 5113.17 |
| 8/8/2017 | 5137.43 | 24.19 | 5113.24 |
| 8/15/2017 | 5137.43 | Dry | |
| 9/9/2017 | 5137.43 | 25.18 | 5112.25 |
| 10/11/2017 | 5137.43 | 24.14 | 5113.29 |
| 3/15/2018 | 5137.43 | 24.92 | 5112.51 |
| 5/31/2018 | 5137.43 | 24.86 | 5112.57 |
| 11/2/2018 | 5137.43 | 23.89 | 5113.54 |
| 4/2/2019 | 5137.43 | 24.78 | 5112.65 |
| 11/18/2019 | 5137.43 | 23.91 | 5113.52 |
| 6/17/2020 | 5137.43 | 24.06 | 5113.37 |
| 11/3/2020 | 5137.43 | 24.15 | 5113.28 |
| 4/20/2021 | 5137.43 | 24.18 | 5113.25 |
| 11/10/2021 | 5137.43 | 24.91 | 5112.52 |
| 5/18/2022 | 5137.43 | 24.72 | 5112.71 |
| 11/8/2022 | 5137.43 | 24.76 | 5112.67 |
| 5/1/2023 | 5137.43 | 24.82 | 5112.61 |
| 11/7/2023 | 5137.43 | 24.93 | 5112.5 |
| 5/14/2024 | 5137.43 | 24.85 | 5112.58 |
| 10/18/2024 | 5137.43 | 25.04 | 5112.39 |
| | *Maximum Observed:* | *5113.54* | *ft AMSL* |
| | *Minimum Observed:* | *5111.38* | *ft AMSL* |
| | *Range:* | *2.16* | *ft* |

| MW-43 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 3/16/2015 | 5272.46 | 27.50 | 5244.96 |
| 6/22/2015 | 5272.46 | 27.59 | 5244.87 |
| 8/28/2015 | 5272.46 | 27.46 | 5245 |
| 11/6/2015 | 5272.46 | 27.32 | 5245.14 |
| 4/25/2016 | 5272.46 | 27.20 | 5245.26 |
| 1/31/2017 | 5272.46 | 27.19 | 5245.27 |
| 4/16/2017 | 5272.46 | 27.18 | 5245.28 |
| 5/28/2017 | 5272.46 | 27.15 | 5245.31 |
| 6/20/2017 | 5272.46 | 27.18 | 5245.28 |
| 7/20/2017 | 5272.46 | 27.29 | 5245.17 |
| 8/8/2017 | 5272.46 | 27.18 | 5245.28 |
| 8/15/2017 | 5272.46 | Dry | |
| 11/18/2019 | 5272.46 | 27.18 | 5245.28 |
| 6/16/2020 | 5271.58 | 27.25 | 5244.33 |
| 11/2/2020 | 5271.58 | 24.4 | 5247.18 |
| 4/19/2021 | 5271.58 | 27.36 | 5244.22 |
| 11/10/2021 | 5271.58 | 27.43 | 5244.15 |
| 5/18/2022 | 5271.58 | 27.46 | 5244.12 |
| 11/8/2022 | 5271.58 | 27.45 | 5244.13 |
| 5/1/2023 | 5271.58 | 27.43 | 5244.15 |
| 11/7/2023 | 5271.58 | 27.44 | 5244.14 |
| 5/14/2024 | 5271.58 | 27.37 | 5244.21 |
| 10/17/2024 | 5271.58 | 27.47 | 5244.11 |
| | *Maximum Observed:* | *5247.18* | *ft AMSL* |
| | *Minimum Observed:* | *5244.11* | *ft AMSL* |
| | *Range:* | *3.07* | *ft* |

Note: Probable error in 11/2/2020 water level measurement.

| MW-48 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 11/29/2017 | 5165.96 | Dry | Dry |
| 3/15/2018 | 5165.96 | Dry | Dry |
| 5/31/2018 | 5165.96 | Dry | Dry |
| 11/21/2018 | 5165.96 | Dry | Dry |
| 11/18/2019 | 5165.96 | Dry | Dry |
| 6/17/2020 | 5165.96 | Dry | Dry |
| 11/3/2020 | 5165.96 | Dry | Dry |
| 4/20/2021 | 5165.96 | Dry | Dry |
| 11/11/2021 | 5165.96 | Dry | Dry |
| 5/19/2022 | 5165.96 | Dry | Dry |
| 11/9/2022 | 5165.96 | Dry | Dry |
| 5/2/2023 | 5165.96 | Dry | Dry |
| 11/7/2023 | 5165.96 | Dry | Dry |
| 5/15/2024 | 5165.96 | Dry | Dry |
| 11/6/2024 | 5165.96 | Dry | Dry |
| | *Maximum Observed:* | *0.00* | *ft AMSL* |
| | *Minimum Observed:* | *0.00* | *ft AMSL* |
| | *Range:* | *0.00* | *ft* |

| MW-49A | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 11/7/2015 | 5285.96 | 56.71 | 5229.25 |
| 12/1/2015 | 5285.96 | 57.45 | 5228.51 |
| 4/25/2016 | 5285.96 | 45.17 | 5240.79 |
| 6/4/2016 | 5285.96 | 45.44 | 5240.52 |
| 8/19/2016 | 5285.96 | 44.38 | 5241.58 |
| 9/12/2016 | 5285.96 | 45.40 | 5240.56 |
| 10/19/2016 | 5285.96 | 44.90 | 5241.06 |
| 1/31/2017 | 5285.96 | 44.23 | 5241.73 |
| 4/16/2017 | 5285.96 | 44.82 | 5241.14 |
| 5/1/2017 | 5285.96 | 44.98 | 5240.98 |
| 5/28/2017 | 5285.96 | 44.98 | 5240.98 |
| 6/20/2017 | 5285.96 | 45.06 | 5240.90 |
| 7/20/2017 | 5285.96 | 45.13 | 5240.83 |
| 8/8/2017 | 5285.96 | 45.22 | 5240.74 |
| 8/15/2017 | 5285.96 | 45.68 | 5240.28 |
| 9/9/2017 | 5285.96 | 45.32 | 5240.64 |
| 10/11/2017 | 5285.96 | 45.34 | 5240.62 |
| 3/15/2018 | 5285.96 | 49.23 | 5236.73 |
| 5/31/2018 | 5285.96 | 45.42 | 5240.54 |
| 11/2/2018 | 5285.96 | 45.29 | 5240.67 |
| 3/16/2019 | 5288.62 | 49.20 | 5239.42 |
| 5/13/2019 | 5288.62 | 49.28 | 5239.34 |
| 11/18/2019 | 5288.62 | 49.74 | 5238.88 |
| 6/17/2020 | 5288.62 | 50.21 | 5238.41 |
| 11/3/2020 | 5288.62 | 50.28 | 5238.34 |
| 4/20/2021 | 5288.62 | 50.46 | 5238.16 |
| 11/11/2021 | 5288.62 | 50.82 | 5237.80 |
| 5/19/2022 | 5288.62 | 50.99 | 5237.63 |
| 11/9/2022 | 5288.62 | 50.79 | 5237.83 |
| 5/2/2023 | 5288.62 | 51.4 | 5237.22 |
| 11/7/2023 | 5288.62 | 51.7 | 5236.92 |
| 5/15/2024 | 5288.62 | 52.03 | 5236.59 |
| 11/6/2024 | 5288.62 | 52.36 | 5236.26 |
| | *Maximum Observed:* | *5241.73* | *ft AMSL* |
| | *Minimum Observed:* | *5228.51* | *ft AMSL* |
| | *Range:* | *13.22* | *ft* |

| MW-50A | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 11/3/2015 | 5335.67 | 43.69 | 5291.98 |
| 11/8/2015 | 5335.67 | 43.84 | 5291.83 |
| 11/14/2015 | 5335.67 | 43.95 | 5291.72 |
| 12/1/2015 | 5335.67 | 43.85 | 5291.82 |
| 4/25/2016 | 5335.67 | 43.23 | 5292.44 |
| 6/4/2016 | 5335.67 | 43.36 | 5292.31 |
| 8/19/2016 | 5335.67 | 43.16 | 5292.51 |
| 9/12/2016 | 5335.67 | 43.18 | 5292.49 |
| 10/19/2016 | 5335.67 | 43.07 | 5292.6 |
| 1/31/2017 | 5335.67 | 43.38 | 5292.29 |
| 4/16/2017 | 5335.67 | 43.25 | 5292.42 |
| 5/1/2017 | 5335.67 | 43.24 | 5292.43 |
| 5/28/2017 | 5335.67 | 43.33 | 5292.34 |
| 6/20/2017 | 5335.67 | 43.39 | 5292.28 |
| 7/20/2017 | 5335.67 | 43.49 | 5292.18 |
| 8/8/2017 | 5335.67 | Dry | |
| 8/15/2017 | 5335.67 | Dry | |
| 9/9/2017 | 5335.67 | 43.51 | 5292.16 |
| 10/11/2017 | 5335.67 | 43.52 | 5292.15 |
| 3/15/2018 | 5335.67 | 43.46 | 5292.21 |
| 5/31/2018 | 5335.67 | Dry | |
| 11/2/2018 | 5335.67 | Dry | |
| 4/2/2019 | 5335.67 | 43.62 | 5292.05 |
| 11/19/2019 | 5335.67 | 43.39 | 5292.28 |
| 6/16/2020 | 5335.67 | 43.47 | 5292.2 |
| 11/3/2020 | 5335.67 | Dry | |
| 4/19/2021 | 5335.67 | Dry | |
| 11/11/2021 | 5335.67 | Dry | |
| 5/18/2022 | 5335.67 | 43.63 | 5292.04 |
| 11/8/2022 | 5335.67 | 43.78 | 5291.89 |
| 5/1/2023 | 5335.67 | 43.93 | 5291.74 |
| 11/7/2023 | 5335.67 | 44.23 | 5291.44 |
| 5/14/2024 | 5335.67 | 44.24 | 5291.43 |
| 10/17/2024 | 5335.67 | 44.55 | 5291.12 |
| | *Maximum Observed:* | *5292.60* | *ft AMSL* |
| | *Minimum Observed:* | *5291.12* | *ft AMSL* |
| | *Range:* | *1.48* | *ft* |

| MW-51 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 11/3/2015 | 5287.515 | Dry | |
| 12/1/2015 | 5287.515 | Dry | |
| 4/25/2016 | 5287.515 | Dry | |
| 6/4/2016 | 5287.515 | Dry | |
| 8/20/2016 | 5287.515 | Dry | |
| 9/12/2016 | 5287.515 | Dry | |
| 1/31/2017 | 5287.515 | Dry | |
| 4/16/2017 | 5287.515 | Dry | |
| 5/28/2017 | 5287.515 | Dry | |
| 6/20/2017 | 5287.515 | Dry | |
| 7/20/2017 | 5287.515 | Dry | |
| 8/8/2017 | 5287.515 | Dry | |
| 8/15/2017 | 5287.515 | Dry | |
| 12/2/2019 | 5287.515 | Dry | |
| 6/16/2020 | 5287.52 | 32.23 | 5255.29 |
| 11/2/2020 | 5287.52 | Dry | |
| 4/19/2021 | 5287.52 | 32.24 | 5255.28 |
| 11/10/2021 | 5287.52 | 32.25 | 5255.27 |
| 5/18/2022 | 5287.52 | 32.25 | 5255.27 |
| 11/8/2022 | 5287.52 | 32.25 | 5255.27 |
| 5/1/2023 | 5287.52 | 32.24 | 5255.28 |
| 11/7/2023 | 5287.52 | 32.26 | 5255.26 |
| 5/14/2024 | 5287.52 | 32.27 | 5255.25 |
| 10/17/2024 | 5287.52 | 32.30 | 5255.22 |
| | *Maximum Observed:* | *5255.29* | *ft AMSL* |
| | *Minimum Observed:* | *5255.22* | *ft AMSL* |
| | *Range:* | *0.07* | *ft* |

| MW-55R | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft AMSL] | GW Elevation (ft AMSL] |
| 6/17/2020 | 5243.96 | Dry | |
| 11/3/2020 | 5243.96 | Dry | |
| 4/20/2021 | 5243.96 | 95.92 | 5148.04 |
| 11/11/2021 | 5243.96 | 95.94 | 5148.02 |
| 5/19/2022 | 5243.96 | 95.95 | Dry |
| 11/9/2022 | 5243.96 | 95.94 | Dry |
| 5/2/2023 | 5234.96 | 95.88 | Dry |
| 11/7/2023 | 5234.96 | 95.94 | Dry |
| 5/15/2024 | 5234.96 | 95.90 | Dry |
| 11/6/2024 | 5234.96 | 95.95 | Dry |
| | *Maximum Observed:* | *5148.04* | *ft AMSL* |
| | *Minimum Observed:* | *5148.02* | *ft AMSL* |
| | *Range:* | *0.02* | *ft* |

Note: Water levels are field-noted to be measurements of saturated sediment or likely condensate accumulation in well.

| MW-44 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 11/29/2017 | 5146.89 | Dry | Dry |
| 3/15/2018 | 5146.89 | Dry | Dry |
| 5/31/2018 | 5146.89 | Dry | Dry |
| 11/21/2018 | 5146.89 | Dry | Dry |
| 11/18/2019 | 5146.89 | 25.5 | 5121.39 |
| 6/17/2020 | 5146.89 | Dry | Dry |
| 11/3/2020 | 5146.89 | Dry | Dry |
| 4/20/2021 | 5146.89 | Dry | Dry |
| 11/11/2021 | 5146.89 | Dry | Dry |
| 5/19/2022 | 5146.89 | 24.42 | 5122.47 |
| 11/9/2022 | 5146.89 | Dry | Dry |
| 5/2/2023 | 5146.89 | 25.37 | 5121.52 |
| 11/7/2023 | 5146.89 | 25.30 | Dry |
| 5/15/2024 | 5146.89 | 25.37 | Dry |
| 11/6/2024 | 5146.89 | 25.52 | Dry |
| | *Maximum Observed:* | *5122.47* | *ft AMSL* |
| | *Minimum Observed:* | *5121.39* | *ft AMSL* |
| | *Range:* | *1.08* | *ft* |

Note: Water levels are field-noted to be measurements of saturated sediment or likely condensate accumulation in well.

| MW-60 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 11/7/2015 | 5144.10 | 14.41 | 5129.69 |
| 4/25/2016 | 5144.10 | 15.45 | 5128.65 |
| 6/4/2016 | 5144.10 | 13.66 | 5130.44 |
| 8/19/2016 | 5144.10 | 13.66 | 5130.44 |
| 9/12/2016 | 5144.10 | 14.02 | 5130.08 |
| 10/19/2016 | 5144.10 | 14.28 | 5129.82 |
| 1/31/2017 | 5144.10 | 14.03 | 5130.07 |
| 4/16/2017 | 5144.10 | 13.96 | 5130.14 |
| 5/1/2017 | 5144.10 | 14.43 | 5129.67 |
| 5/28/2017 | 5144.10 | 14.30 | 5129.80 |
| 6/20/2017 | 5144.10 | 14.45 | 5129.65 |
| 7/20/2017 | 5144.10 | 14.47 | 5129.63 |
| 8/8/2017 | 5144.10 | 14.69 | 5129.41 |
| 8/15/2017 | 5144.10 | 15.33 | 5128.77 |
| 9/9/2017 | 5144.10 | 14.76 | 5129.34 |
| 10/11/2017 | 5144.10 | 14.47 | 5129.63 |
| 3/15/2018 | 5144.10 | 13.98 | 5130.12 |
| 5/31/2018 | 5144.10 | 14.08 | 5130.02 |
| 11/2/2018 | 5144.10 | 14.26 | 5129.84 |
| 12/4/2019 | 5144.10 | 14.35 | 5129.75 |
| 6/17/2020 | 5144.10 | 14.41 | 5129.69 |
| 11/3/2020 | 5144.10 | 14.68 | 5129.42 |
| 4/20/2021 | 5144.10 | 14.57 | 5129.53 |
| 11/10/2021 | 5144.10 | 15.26 | 5128.84 |
| 5/18/2022 | 5144.10 | 15.81 | 5128.29 |
| 11/8/2022 | 5144.10 | 15.94 | 5128.16 |
| 5/1/2023 | 5144.10 | 16.08 | 5128.02 |
| 11/7/2023 | 5144.10 | 16.52 | 5127.58 |
| 5/14/2024 | 5144.10 | 16.52 | 5127.58 |
| 10/18/2024 | 5144.10 | 16.75 | 5127.35 |
| | *Maximum Observed:* | *5130.44* | *ft AMSL* |
| | *Minimum Observed:* | *5127.35* | *ft AMSL* |
| | *Range:* | *3.09* | *ft* |

| MW-61 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 11/3/2015 | 5129.19 | 24.70 | 5104.49 |
| 4/25/2016 | 5129.19 | 24.64 | 5104.55 |
| 6/4/2016 | 5129.19 | 25.18 | 5104.01 |
| 8/19/2016 | 5129.19 | 25.38 | 5103.81 |
| 9/12/2016 | 5129.19 | 25.55 | 5103.64 |
| 10/19/2016 | 5129.19 | 25.94 | 5103.25 |
| 1/31/2017 | 5129.19 | 26.10 | 5103.09 |
| 4/16/2017 | 5129.19 | 26.32 | 5102.87 |
| 5/1/2017 | 5129.19 | 23.36 | 5105.83 |
| 5/28/2017 | 5129.19 | 26.48 | 5102.71 |
| 6/20/2017 | 5129.19 | 26.56 | 5102.63 |
| 7/20/2017 | 5129.19 | 26.67 | 5102.52 |
| 8/8/2017 | 5129.19 | 26.69 | 5102.50 |
| 8/15/2017 | 5129.19 | 26.75 | 5102.44 |
| 9/9/2017 | 5129.19 | 26.81 | 5102.38 |
| 10/11/2017 | 5129.19 | 26.79 | 5102.40 |
| 3/15/2018 | 5129.19 | 26.93 | 5102.26 |
| 5/31/2018 | 5129.19 | 27.31 | 5101.88 |
| 11/2/2018 | 5129.19 | 27.61 | 5101.58 |
| 3/16/2019 | 5129.19 | 27.70 | 5101.49 |
| 5/13/2019 | 5129.19 | 27.78 | 5101.41 |
| 11/18/2019 | 5129.19 | 27.92 | 5101.27 |
| 6/17/2020 | 5129.19 | 28.35 | 5100.84 |
| 11/3/2020 | 5129.19 | 28.56 | 5100.63 |
| 4/20/2021 | 5129.19 | 28.51 | 5100.68 |
| 11/10/2021 | 5129.19 | 28.87 | 5100.32 |
| 5/18/2022 | 5129.19 | 29.01 | 5100.18 |
| 11/8/2022 | 5129.19 | 29.18 | 5100.01 |
| 5/1/2023 | 5129.19 | 29.25 | 5099.94 |
| 11/7/2023 | 5129.19 | 29.59 | 5099.60 |
| 5/14/2024 | 5129.19 | 29.78 | 5099.41 |
| 10/17/2024 | 5129.19 | 30.11 | 5099.08 |
| | *Maximum Observed:* | *5105.83* | *ft AMSL* |
| | *Minimum Observed:* | *5099.08* | *ft AMSL* |
| | *Range:* | *6.75* | *ft* |

| MW-62 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 11/5/2015 | 5341.87 | 11.53 | 5330.34 |
| 4/25/2016 | 5341.87 | 11.15 | 5330.72 |
| 6/4/2016 | 5341.87 | 11.31 | 5330.56 |
| 8/20/2016 | 5341.87 | 10.98 | 5330.89 |
| 9/12/2016 | 5341.87 | 11.00 | 5330.87 |
| 10/19/2016 | 5341.87 | 11.63 | 5330.24 |
| 1/31/2017 | 5341.87 | 11.26 | 5330.61 |
| 4/16/2017 | 5341.87 | 11.58 | 5330.29 |
| 5/1/2017 | 5341.87 | 11.39 | 5330.48 |
| 5/28/2017 | 5341.87 | 11.69 | 5330.18 |
| 6/20/2017 | 5341.87 | 11.54 | 5330.33 |
| 7/20/2017 | 5341.87 | 11.94 | 5329.93 |
| 8/8/2017 | 5341.87 | 12.05 | 5329.82 |
| 8/15/2017 | 5341.87 | 12.02 | 5329.85 |
| 9/9/2017 | 5341.87 | 11.83 | 5330.04 |
| 10/11/2017 | 5341.87 | 11.78 | 5330.09 |
| 4/6/2018 | 5341.87 | 11.44 | 5330.43 |
| 5/31/2018 | 5341.87 | 11.61 | 5330.26 |
| 11/2/2018 | 5341.87 | 11.71 | 5330.16 |
| 4/1/2019 | 5341.87 | 12.04 | 5329.83 |
| 5/6/2019 | 5341.87 | 12.06 | 5329.81 |
| 12/3/2019 | 5341.87 | 11.59 | 5330.28 |
| 6/16/2020 | 5341.87 | 11.64 | 5330.23 |
| 11/2/2020 | 5341.87 | 11.55 | 5330.32 |
| 4/19/2021 | 5341.87 | 12.50 | 5329.37 |
| 11/10/2021 | 5341.87 | 12.29 | 5329.58 |
| 5/20/2022 | 5341.87 | 12.91 | 5328.96 |
| 11/8/2022 | 5341.87 | 13.7 | 5328.17 |
| 5/1/2023 | 5341.87 | 13.12 | 5328.75 |
| 11/6/2023 | 5341.87 | 13.51 | 5328.36 |
| 5/14/2024 | 5341.87 | 12.69 | 5329.18 |
| 10/19/2024 | 5341.87 | 13.6 | 5328.27 |
| | *Maximum Observed:* | *5330.89* | *ft AMSL* |
| | *Minimum Observed:* | *5328.17* | *ft AMSL* |
| | *Range:* | *2.72* | *ft* |

| MW-63 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft ASML] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 11/4/2015 | 5337.02 | 6.70 | 5330.32 |
| 4/25/2016 | 5337.02 | 6.70 | 5330.32 |
| 6/4/2016 | 5337.02 | 6.34 | 5330.68 |
| 8/20/2016 | 5337.02 | 6.33 | 5330.69 |
| 9/12/2016 | 5337.02 | 6.58 | 5330.44 |
| 10/19/2016 | 5337.02 | 7.00 | 5330.02 |
| 1/31/2017 | 5337.02 | 6.61 | 5330.41 |
| 4/16/2017 | 5337.02 | 7.11 | 5329.91 |
| 5/1/2017 | 5337.02 | 6.78 | 5330.24 |
| 5/28/2017 | 5337.02 | 7.33 | 5329.69 |
| 6/20/2017 | 5337.02 | 6.96 | 5330.06 |
| 7/20/2017 | 5337.02 | 7.47 | 5329.55 |
| 8/8/2017 | 5337.02 | 7.58 | 5329.44 |
| 8/15/2017 | 5337.02 | 7.60 | 5329.42 |
| 9/9/2017 | 5337.02 | 7.29 | 5329.73 |
| 10/11/2017 | 5337.02 | 7.51 | 5329.51 |
| 3/15/2018 | 5337.02 | 7.14 | 5329.88 |
| 4/6/2018 | 5337.02 | 7.17 | 5329.85 |
| 5/31/2018 | 5337.02 | 7.14 | 5329.88 |
| 11/2/2018 | 5337.02 | 7.06 | 5329.96 |
| 4/1/2019 | 5337.02 | 7.47 | 5329.55 |
| 5/6/2019 | 5337.02 | 7.53 | 5329.49 |
| 12/3/2019 | 5337.02 | 6.89 | 5330.13 |
| 6/16/2020 | 5337.02 | 7.13 | 5329.89 |
| 11/2/2020 | 5337.02 | 6.96 | 5330.06 |
| 4/19/2021 | 5337.02 | 7.73 | 5329.29 |
| 7/8/2021 | 5337.02 | 7.68 | 5329.34 |
| 11/10/2021 | 5337.02 | 7.11 | 5329.91 |
| 5/20/2022 | 5337.02 | 7.69 | 5329.33 |
| 11/8/2022 | 5337.02 | 7.97 | 5329.05 |
| 5/1/2023 | 5337.02 | 8.45 | 5328.57 |
| 11/6/2023 | 5337.02 | 8.3 | 5328.72 |
| 5/14/2024 | 5337.02 | 7.59 | 5329.43 |
| 10/19/2024 | 5337.02 | 8.28 | 5328.74 |
| | *Maximum Observed:* | *5330.69* | *ft AMSL* |
| | *Minimum Observed:* | *5328.57* | *ft AMSL* |
| | *Range:* | *2.12* | *ft* |

| MW-64 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation [ft AMSL] | Water Level [ft bmp] | GW Elevation [ft AMSL] |
| 11/5/2015 | 5337.66 | 6.80 | 5330.86 |
| 4/25/2016 | 5337.66 | 6.75 | 5330.91 |
| 6/4/2016 | 5337.66 | 6.62 | 5331.04 |
| 8/20/2016 | 5337.66 | 6.63 | 5331.03 |
| 9/12/2016 | 5337.66 | 6.76 | 5330.90 |
| 10/19/2016 | 5337.66 | 7.08 | 5330.58 |
| 1/31/2017 | 5337.66 | 6.86 | 5330.80 |
| 4/16/2017 | 5337.66 | 7.25 | 5330.41 |
| 5/1/2017 | 5337.66 | 6.97 | 5330.69 |
| 5/28/2017 | 5337.66 | 7.53 | 5330.13 |
| 6/20/2017 | 5337.66 | 7.27 | 5330.39 |
| 7/20/2017 | 5337.66 | 7.56 | 5330.10 |
| 8/8/2017 | 5337.66 | 7.61 | 5330.05 |
| 8/15/2017 | 5337.66 | 7.62 | 5330.04 |
| 9/9/2017 | 5337.66 | 7.41 | 5330.25 |
| 10/11/2017 | 5337.66 | 7.49 | 5330.17 |
| 3/15/2018 | 5337.66 | 7.23 | 5330.43 |
| 4/6/2018 | 5337.66 | 7.26 | 5330.40 |
| 5/31/2018 | 5337.66 | 7.31 | 5330.35 |
| 11/2/2018 | 5337.66 | 7.16 | 5330.50 |
| 4/1/2019 | 5337.66 | 7.41 | 5330.25 |
| 5/6/2019 | 5337.66 | 7.58 | 5330.08 |
| 12/3/2019 | 5337.66 | 7.09 | 5330.57 |
| 6/16/2020 | 5337.66 | 7.34 | 5330.32 |
| 11/2/2020 | 5337.66 | 7.01 | 5330.65 |
| 4/19/2021 | 5337.66 | 8.27 | 5329.39 |
| 11/10/2021 | 5337.66 | 7.42 | 5330.24 |
| 5/20/2022 | 5337.66 | 8.55 | 5329.11 |
| 11/8/2022 | 5337.66 | 8.04 | 5329.62 |
| 5/1/2023 | 5337.66 | 9.05 | 5328.61 |
| 11/6/2023 | 5337.66 | 9.08 | 5328.58 |
| 5/14/2024 | 5337.66 | 8.24 | 5329.42 |
| 10/19/2024 | 5337.66 | 10.2 | 5327.46 |
| | *Maximum Observed:* | *5331.04* | *ft AMSL* |
| | *Minimum Observed:* | *5327.46* | *ft AMSL* |
| | *Range:* | *3.58* | *ft* |

| MW-65 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation [ft AMSL] | Water Level [ft bmp] | GW Elevation [ft AMSL] |
| 11/5/2015 | 5339.74 | 8.72 | 5331.02 |
| 4/25/2016 | 5339.74 | 8.5 | 5331.24 |
| 6/4/2016 | 5339.74 | 8.64 | 5331.10 |
| 8/20/2016 | 5339.74 | 8.36 | 5331.38 |
| 9/12/2016 | 5339.74 | 8.41 | 5331.33 |
| 10/19/2016 | 5339.74 | 8.86 | 5330.88 |
| 1/31/2017 | 5339.74 | 8.71 | 5331.03 |
| 4/16/2017 | 5339.74 | 8.84 | 5330.90 |
| 5/1/2017 | 5339.74 | 8.81 | 5330.93 |
| 5/28/2017 | 5339.74 | 9.22 | 5330.52 |
| 6/20/2017 | 5339.74 | 9.14 | 5330.60 |
| 7/20/2017 | 5339.74 | 9.38 | 5330.36 |
| 8/8/2017 | 5339.74 | 9.36 | 5330.38 |
| 8/15/2017 | 5339.74 | 9.42 | 5330.32 |
| 9/9/2017 | 5339.74 | 9.33 | 5330.41 |
| 10/11/2017 | 5339.74 | 9.23 | 5330.51 |
| 3/15/2018 | 5339.74 | 8.98 | 5330.76 |
| 4/6/2018 | 5339.74 | 8.93 | 5330.81 |
| 5/31/2018 | 5339.74 | 9.09 | 5330.65 |
| 11/2/2018 | 5339.74 | 9.09 | 5330.65 |
| 4/1/2019 | 5339.74 | 9.14 | 5330.60 |
| 5/6/2019 | 5339.74 | 9.14 | 5330.60 |
| 12/3/2019 | 5339.74 | 9.03 | 5330.71 |
| 6/16/2020 | 5339.74 | 9.2 | 5330.54 |
| 11/2/2020 | 5339.74 | 8.99 | 5330.75 |
| 4/19/2021 | 5339.74 | 10.22 | 5329.52 |
| 7/8/2021 | 5339.74 | 10.68 | 5329.06 |
| 11/10/2021 | 5339.74 | 9.75 | 5329.99 |
| 5/20/2022 | 5339.74 | 10.77 | 5328.97 |
| 11/8/2022 | 5339.74 | 10.43 | 5329.31 |
| 5/1/2023 | 5339.74 | 10.89 | 5328.85 |
| 11/6/2023 | 5339.74 | 11.04 | 5328.70 |
| 5/14/2024 | 5339.74 | 10.64 | 5329.10 |
| 10/19/2024 | 5339.74 | 11.12 | 5328.62 |
| | *Maximum Observed:* | *5331.38* | *ft AMSL* |
| | *Minimum Observed:* | *5328.62* | *ft AMSL* |
| | *Range:* | *2.76* | *ft* |

| MW-66 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 11/3/2015 | 5344.69 | 12.87 | 5331.82 |
| 11/5/2015 | 5344.69 | 13.05 | 5331.64 |
| 12/1/2015 | 5344.69 | 12.93 | 5331.76 |
| 3/4/2016 | 5344.69 | 12.91 | 5331.78 |
| 4/5/2016 | 5344.69 | 12.6 | 5332.09 |
| 6/4/2016 | 5344.69 | 13.02 | 5331.67 |
| 8/20/2016 | 5344.69 | 12.03 | 5332.66 |
| 9/12/2016 | 5344.69 | 12.13 | 5332.56 |
| 10/19/2016 | 5344.69 | 12.54 | 5332.15 |
| 2/1/2017 | 5344.69 | 12.76 | 5331.93 |
| 4/16/2017 | 5344.69 | 12.78 | 5331.91 |
| 5/1/2017 | 5344.69 | 12.92 | 5331.77 |
| 5/28/2017 | 5344.69 | 13.18 | 5331.51 |
| 6/20/2017 | 5344.69 | 13.3 | 5331.39 |
| 7/20/2017 | 5344.69 | 13.36 | 5331.33 |
| 8/8/2017 | 5344.69 | 13.67 | 5331.02 |
| 8/15/2017 | 5344.69 | 13.79 | 5330.90 |
| 9/9/2017 | 5344.69 | 13.65 | 5331.04 |
| 10/11/2017 | 5344.69 | 13.43 | 5331.26 |
| 3/15/2018 | 5344.69 | 13.07 | 5331.62 |
| 5/31/2018 | 5344.69 | 13.21 | 5331.48 |
| 11/2/2018 | 5344.69 | 14.47 | 5330.22 |
| 3/13/2019 | 5344.69 | 14.1 | 5330.59 |
| 5/6/2019 | 5344.69 | 14.72 | 5329.97 |
| 12/3/2019 | 5344.69 | 14.53 | 5330.16 |
| 6/16/2020 | 5344.69 | 14.72 | 5329.97 |
| 11/2/2020 | 5344.69 | 14.47 | 5330.22 |
| 4/19/2021 | 5344.69 | 14.79 | 5329.90 |
| 11/10/2021 | 5344.69 | 15.34 | 5329.35 |
| 5/20/2022 | 5344.69 | 15.92 | 5328.77 |
| 11/8/2022 | 5344.69 | 16.69 | 5328 |
| 5/1/2023 | 5344.69 | 16.39 | 5328.3 |
| 11/6/2023 | 5344.69 | 16.19 | 5328.5 |
| 5/14/2024 | 5344.69 | 17.9 | 5326.79 |
| 10/19/2024 | 5344.69 | 16.53 | 5328.16 |
| | *Maximum Observed:* | *5332.66* | *ft AMSL* |
| | *Minimum Observed:* | *5326.79* | *ft AMSL* |
| | *Range:* | *5.87* | *ft* |

| MW-67 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 10/6/2015 | 5356.42 | 25.10 | 5331.32 |
| 11/4/2015 | 5356.42 | 24.51 | 5331.91 |
| 11/6/2015 | 5356.42 | 24.51 | 5331.91 |
| 12/1/2015 | 5356.42 | 24.60 | 5331.82 |
| 3/4/2016 | 5356.42 | 24.60 | 5331.82 |
| 4/25/2016 | 5356.42 | 24.58 | 5331.84 |
| 6/4/2016 | 5356.42 | 24.28 | 5332.14 |
| 8/20/2016 | 5356.42 | 23.74 | 5332.68 |
| 9/12/2016 | 5356.42 | 23.83 | 5332.59 |
| 10/19/2016 | 5356.42 | 24.59 | 5331.83 |
| 1/31/2017 | 5356.42 | 24.44 | 5331.98 |
| 4/16/2017 | 5356.42 | 24.59 | 5331.83 |
| 5/1/2017 | 5356.42 | 24.71 | 5331.71 |
| 5/28/2017 | 5356.42 | 24.91 | 5331.51 |
| 6/20/2017 | 5356.42 | 25.13 | 5331.29 |
| 7/20/2017 | 5356.42 | 25.12 | 5331.30 |
| 8/8/2017 | 5356.42 | 25.46 | 5330.96 |
| 8/15/2017 | 5356.42 | 25.44 | 5330.98 |
| 9/9/2017 | 5356.42 | 25.58 | 5330.84 |
| 10/11/2017 | 5356.42 | 25.16 | 5331.26 |
| 3/15/2018 | 5356.42 | 24.26 | 5332.16 |
| 5/31/2018 | 5356.42 | 25.14 | 5331.28 |
| 11/2/2018 | 5352.76 | 22.26 | 5330.50 |
| 3/13/2019 | 5352.76 | 21.96 | 5330.80 |
| 5/6/2019 | 5352.76 | 22.52 | 5330.24 |
| 12/2/2019 | 5352.76 | 22.57 | 5330.19 |
| 6/16/2020 | 5352.76 | 22.49 | 5330.27 |
| 11/2/2020 | 5352.76 | 22.41 | 5330.35 |
| 4/20/2021 | 5352.76 | 22.63 | 5330.13 |
| 11/10/2021 | 5352.76 | 23.16 | 5329.60 |
| 5/18/2022 | 5352.76 | 24.02 | 5328.74 |
| 11/8/2022 | 5352.76 | 24.52 | 5328.24 |
| 5/1/2023 | 5352.76 | 24.02 | 5328.74 |
| 11/13/2023 | 5352.76 | 24.11 | 5328.65 |
| 5/15/2024 | 5352.76 | 23.42 | 5329.34 |
| 10/18/2024 | 5352.76 | 23.87 | 5328.89 |
| | *Maximum Observed:* | *5332.68* | *ft AMSL* |
| | *Minimum Observed:* | *5328.24* | *ft AMSL* |
| | *Range:* | *4.44* | *ft* |

| MW-68 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 10/6/2015 | 5353.58 | 21.21 | 5332.37 |
| 11/3/2015 | 5353.58 | 20.54 | 5333.04 |
| 11/6/2015 | 5353.58 | 20.58 | 5333.00 |
| 12/1/2015 | 5353.58 | 20.48 | 5333.10 |
| 4/25/2016 | 5353.58 | 20.00 | 5333.58 |
| 6/4/2016 | 5353.58 | 20.81 | 5332.77 |
| 8/19/2016 | 5353.58 | 19.21 | 5334.37 |
| 9/12/2016 | 5353.58 | 19.40 | 5334.18 |
| 10/19/2016 | 5353.58 | 19.67 | 5333.91 |
| 1/31/2017 | 5353.58 | 19.58 | 5334.00 |
| 4/16/2017 | 5353.58 | 19.76 | 5333.82 |
| 5/1/2017 | 5353.58 | 20.13 | 5333.45 |
| 5/28/2017 | 5353.58 | 20.20 | 5333.38 |
| 6/20/2017 | 5353.58 | 20.64 | 5332.94 |
| 7/20/2017 | 5353.58 | 19.27 | 5334.31 |
| 8/8/2017 | 5353.58 | 20.97 | 5332.61 |
| 8/15/2017 | 5353.58 | 21.02 | 5332.56 |
| 9/9/2017 | 5353.58 | 20.97 | 5332.61 |
| 10/11/2017 | 5353.58 | 20.24 | 5333.34 |
| 3/15/2018 | 5353.58 | 19.92 | 5333.66 |
| 5/31/2018 | 5353.58 | 20.34 | 5333.24 |
| 11/2/2018 | 5353.58 | 22.31 | 5331.27 |
| 3/15/2019 | 5353.58 | 22.33 | 5331.25 |
| 5/6/2019 | 5353.58 | 22.49 | 5331.09 |
| 12/2/2019 | 5353.58 | 22.11 | 5331.47 |
| 6/16/2020 | 5353.58 | 22.36 | 5331.22 |
| 11/2/2020 | 5353.58 | 22.31 | 5331.27 |
| 4/19/2021 | 5353.58 | 22.55 | 5331.03 |
| 11/10/2021 | 5353.58 | 22.96 | 5330.62 |
| 5/18/2022 | 5353.58 | 23.72 | 5329.86 |
| 11/8/2022 | 5353.58 | 24.45 | 5329.13 |
| 5/1/2023 | 5353.58 | 23.71 | 5329.87 |
| 11/8/2023 | 5353.58 | 23.05 | 5330.53 |
| 5/15/2024 | 5353.58 | 23.06 | 5330.52 |
| 10/18/2024 | 5353.58 | 23.55 | 5330.03 |
| | *Maximum Observed:* | *5334.37* | *ft AMSL* |
| | *Minimum Observed:* | *5329.13* | *ft AMSL* |
| | *Range:* | *5.24* | *ft* |

| MW-69 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 10/6/2015 | 5357.66 | 23.70 | 5333.96 |
| 11/3/2015 | 5357.66 | 23.09 | 5334.57 |
| 11/4/2015 | 5357.66 | 23.11 | 5334.55 |
| 12/1/2015 | 5357.66 | 23.01 | 5334.65 |
| 3/4/2016 | 5357.66 | 22.64 | 5335.02 |
| 4/25/2016 | 5357.66 | 22.20 | 5335.46 |
| 6/4/2016 | 5357.66 | 23.32 | 5334.34 |
| 8/19/2016 | 5357.66 | 21.65 | 5336.01 |
| 9/12/2016 | 5357.66 | 21.83 | 5335.83 |
| 10/19/2016 | 5357.66 | 22.33 | 5335.33 |
| 1/31/2017 | 5357.66 | 22.39 | 5335.27 |
| 4/16/2017 | 5357.66 | 22.36 | 5335.30 |
| 5/1/2017 | 5357.66 | 22.77 | 5334.89 |
| 5/28/2017 | 5357.66 | 23.37 | 5334.29 |
| 6/20/2017 | 5357.66 | 23.75 | 5333.91 |
| 7/20/2017 | 5357.66 | 23.38 | 5334.28 |
| 8/8/2017 | 5357.66 | 23.86 | 5333.80 |
| 8/15/2017 | 5357.66 | 23.86 | 5333.80 |
| 9/9/2017 | 5357.66 | 23.87 | 5333.79 |
| 10/11/2017 | 5357.66 | 23.08 | 5334.58 |
| 3/15/2018 | 5357.66 | 22.62 | 5335.04 |
| 5/31/2018 | 5357.66 | 22.81 | 5334.85 |
| 11/2/2018 | 5357.66 | 25.58 | 5332.08 |
| 3/13/2019 | 5357.66 | 25.71 | 5331.95 |
| 5/6/2019 | 5357.66 | 26.11 | 5331.55 |
| 12/2/2019 | 5357.66 | 25.69 | 5331.97 |
| 6/16/2020 | 5357.66 | 26.16 | 5331.50 |
| 11/2/2020 | 5357.66 | 26.35 | 5331.31 |
| 4/19/2021 | 5357.66 | 26.56 | 5331.10 |
| 11/10/2021 | 5357.66 | 26.95 | 5330.71 |
| 5/18/2022 | 5357.66 | 27.37 | 5330.29 |
| 11/8/2022 | 5357.66 | 27.85 | 5329.81 |
| 5/1/2023 | 5357.66 | 27.39 | 5330.27 |
| 11/8/2023 | 5357.66 | 27.25 | 5330.41 |
| 5/15/2024 | 5357.66 | 27.2 | 5330.46 |
| 10/19/2024 | 5357.66 | 27.67 | 5329.99 |
| | *Maximum Observed:* | *5336.01* | *ft AMSL* |
| | *Minimum Observed:* | *5329.81* | *ft AMSL* |
| | *Range:* | *6.20* | *ft* |

| MW-70 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 10/5/2015 | 5371.12 | 37.89 | 5333.23 |
| 11/3/2015 | 5371.12 | 37.33 | 5333.79 |
| 11/9/2015 | 5371.12 | 37.48 | 5333.64 |
| 12/1/2015 | 5371.12 | 37.33 | 5333.79 |
| 3/4/2016 | 5371.12 | 37.07 | 5334.05 |
| 4/25/2016 | 5371.12 | 36.70 | 5334.42 |
| 6/4/2016 | 5371.12 | 37.32 | 5333.80 |
| 8/20/2016 | 5371.12 | 36.45 | 5334.67 |
| 9/12/2016 | 5371.12 | 36.38 | 5334.74 |
| 10/19/2016 | 5371.12 | 36.59 | 5334.53 |
| 2/1/2017 | 5371.12 | 36.95 | 5334.17 |
| 4/25/2017 | 5371.12 | 36.70 | 5334.42 |
| 5/1/2017 | 5371.12 | 36.97 | 5334.15 |
| 5/28/2017 | 5371.12 | 37.44 | 5333.68 |
| 6/20/2017 | 5371.12 | 37.57 | 5333.55 |
| 7/20/2017 | 5371.12 | 37.70 | 5333.42 |
| 8/8/2017 | 5371.12 | 37.77 | 5333.35 |
| 8/15/2017 | 5371.12 | 37.93 | 5333.19 |
| 9/9/2017 | 5371.12 | 37.91 | 5333.21 |
| 10/11/2017 | 5371.12 | 37.59 | 5333.53 |
| 3/15/2018 | 5371.12 | 37.19 | 5333.93 |
| 5/31/2018 | 5371.12 | 37.08 | 5334.04 |
| 11/2/2018 | 5371.12 | 39.13 | 5331.99 |
| 3/13/2019 | 5371.12 | 39.03 | 5332.09 |
| 5/6/2019 | 5371.12 | 39.66 | 5331.46 |
| 12/3/2019 | 5371.12 | 39.88 | 5331.24 |
| 6/16/2020 | 5371.12 | 40.01 | 5331.11 |
| 11/2/2020 | 5371.12 | 40.21 | 5330.91 |
| 4/19/2021 | 5371.12 | 40.22 | 5330.90 |
| 11/10/2021 | 5371.12 | 40.69 | 5330.43 |
| 5/20/2022 | 5371.12 | 40.62 | 5330.50 |
| 11/8/2022 | 5371.12 | 41.44 | 5329.68 |
| 5/1/2023 | 5371.12 | 41.35 | 5329.77 |
| 11/6/2023 | 5371.12 | 41.3 | 5329.82 |
| 5/14/2024 | 5371.12 | 41.38 | 5329.74 |
| 10/19/2024 | 5371.12 | 41.72 | 5329.40 |
| | *Maximum Observed:* | *5334.74* | *ft AMSL* |
| | *Minimum Observed:* | *5329.40* | *ft AMSL* |
| | *Range:* | *5.34* | *ft* |

| MW-71 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 3/5/2016 | 5362.91 | 31.50 | 5331.41 |
| 4/25/2016 | 5362.91 | 31.41 | 5331.50 |
| 6/4/2016 | 5362.91 | 31.69 | 5331.22 |
| 8/19/2016 | 5362.91 | 31.34 | 5331.57 |
| 9/12/2016 | 5362.91 | 31.21 | 5331.70 |
| 10/19/2016 | 5362.91 | 31.58 | 5331.33 |
| 1/31/2017 | 5362.91 | 31.51 | 5331.40 |
| 4/16/2017 | 5362.91 | 31.50 | 5331.41 |
| 5/1/2017 | 5362.91 | 31.49 | 5331.42 |
| 5/28/2017 | 5362.91 | 31.70 | 5331.21 |
| 6/20/2017 | 5362.91 | 31.72 | 5331.19 |
| 7/20/2017 | 5362.91 | 31.71 | 5331.20 |
| 8/8/2017 | 5362.91 | 31.72 | 5331.19 |
| 8/15/2017 | 5362.91 | 31.66 | 5331.25 |
| 9/9/2017 | 5362.91 | 31.89 | 5331.02 |
| 10/11/2017 | 5362.91 | 31.82 | 5331.09 |
| 3/15/2018 | 5362.91 | 31.18 | 5331.73 |
| 5/31/2018 | 5362.91 | 31.71 | 5331.20 |
| 11/2/2018 | 5362.91 | 32.09 | 5330.82 |
| 3/13/2019 | 5362.91 | 32.25 | 5330.66 |
| 5/6/2019 | 5362.91 | 32.29 | 5330.62 |
| 12/2/2019 | 5362.91 | 32.11 | 5330.80 |
| 6/16/2020 | 5362.91 | 32.26 | 5330.65 |
| 11/2/2020 | 5362.91 | 32.17 | 5330.74 |
| 4/19/2021 | 5362.91 | 32.22 | 5330.69 |
| 11/10/2021 | 5362.91 | 32.88 | 5330.03 |
| 5/18/2022 | 5362.91 | 33.06 | 5329.85 |
| 11/8/2022 | 5362.91 | 33.54 | 5329.37 |
| 5/1/2023 | 5362.91 | 33.64 | 5329.27 |
| 11/7/2023 | 5362.91 | 33.43 | 5329.48 |
| 5/15/2024 | 5362.91 | 33.14 | 5329.77 |
| 10/19/2024 | 5362.91 | 33.71 | 5329.2 |
| | *Maximum Observed:* | *5331.73* | *ft AMSL* |
| | *Minimum Observed:* | *5329.20* | *ft AMSL* |
| | *Range:* | *2.53* | *ft* |

| MW-72 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 3/5/2016 | 5381.62 | 49.72 | 5331.90 |
| 4/25/2016 | 5381.62 | 49.12 | 5332.50 |
| 6/4/2016 | 5381.62 | 49.76 | 5331.86 |
| 8/19/2016 | 5381.62 | 49.54 | 5332.08 |
| 9/12/2016 | 5381.62 | 49.43 | 5332.19 |
| 10/19/2016 | 5381.62 | 49.49 | 5332.13 |
| 1/31/2017 | 5381.62 | 49.49 | 5332.13 |
| 4/16/2017 | 5381.62 | 49.37 | 5332.25 |
| 5/1/2017 | 5381.62 | 49.33 | 5332.29 |
| 5/28/2017 | 5381.62 | 49.63 | 5331.99 |
| 6/20/2017 | 5381.62 | 49.65 | 5331.97 |
| 7/20/2017 | 5381.62 | 49.68 | 5331.94 |
| 8/8/2017 | 5381.62 | 49.68 | 5331.94 |
| 8/15/2017 | 5381.62 | 49.54 | 5332.08 |
| 9/9/2017 | 5381.62 | 49.75 | 5331.87 |
| 10/11/2017 | 5381.62 | 49.81 | 5331.81 |
| 3/15/2018 | 5381.62 | 49.21 | 5332.41 |
| 5/31/2018 | 5381.62 | 49.65 | 5331.97 |
| 11/2/2018 | 5381.62 | 50.06 | 5331.56 |
| 3/14/2019 | 5381.62 | 50.12 | 5331.50 |
| 5/6/2019 | 5381.62 | 49.98 | 5331.64 |
| 11/18/2019 | 5381.62 | 50.17 | 5331.45 |
| 6/16/2020 | 5381.62 | 50.12 | 5331.50 |
| 11/2/2020 | 5381.62 | 50.39 | 5331.23 |
| 4/22/2021 | 5381.62 | NM | |
| 11/10/2021 | 5381.62 | 50.62 | 5331.00 |
| 5/18/2022 | 5381.62 | 50.73 | 5330.89 |
| 11/8/2022 | 5381.62 | 51.05 | 5330.57 |
| 5/1/2023 | 5381.62 | 50.84 | 5330.78 |
| 11/7/2023 | 5381.62 | 51.19 | 5330.43 |
| 5/15/2024 | 5381.62 | 50.93 | 5330.69 |
| 10/19/2024 | 5381.62 | 51.22 | 5330.40 |
| | *Maximum Observed:* | *5332.50* | *ft AMSL* |
| | *Minimum Observed:* | *5330.40* | *ft AMSL* |
| | *Range:* | *2.10* | *ft* |

| MW-73 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 1/31/2017 | 5353.95 | 23.99 | 5329.96 |
| 4/16/2017 | 5353.95 | 24.38 | 5329.57 |
| 5/1/2017 | 5353.95 | 24.28 | 5329.67 |
| 5/28/2017 | 5353.95 | 24.29 | 5329.66 |
| 6/20/2017 | 5353.95 | 24.54 | 5329.41 |
| 7/20/2017 | 5353.95 | 25.27 | 5328.68 |
| 8/8/2017 | 5353.95 | 25.47 | 5328.48 |
| 8/15/2017 | 5353.95 | 25.74 | 5328.21 |
| 9/9/2017 | 5353.95 | 25.32 | 5328.63 |
| 10/11/2017 | 5353.95 | 24.59 | 5329.36 |
| 3/15/2018 | 5353.95 | 23.90 | 5330.05 |
| 5/31/2018 | 5353.95 | 24.86 | 5329.09 |
| 11/2/2018 | 5353.95 | 24.89 | 5329.06 |
| 3/13/2019 | 5353.95 | 24.34 | 5329.61 |
| 5/6/2019 | 5353.95 | 25.31 | 5328.64 |
| 11/18/2019 | 5353.95 | 24.73 | 5329.22 |
| 6/16/2020 | 5353.95 | 24.71 | 5329.24 |
| 11/2/2020 | 5353.95 | 24.33 | 5329.62 |
| 4/19/2021 | 5353.95 | 24.15 | 5329.80 |
| 11/10/2021 | 5353.95 | 24.91 | 5329.04 |
| 5/18/2022 | 5353.95 | 25.28 | 5328.67 |
| 11/8/2022 | 5353.95 | 26.48 | 5327.47 |
| 5/1/2023 | 5353.95 | 26.09 | 5327.86 |
| 11/7/2023 | 5353.95 | 26.43 | 5327.52 |
| 5/14/2024 | 5353.95 | 24.73 | 5329.22 |
| 10/17/2024 | 5353.95 | 25.73 | 5328.22 |
| | *Maximum Observed:* | *5330.05* | *ft AMSL* |
| | *Minimum Observed:* | *5327.47* | *ft AMSL* |
| | *Range:* | *2.58* | *ft* |

| MW-74 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 1/31/2017 | 5219.09 | 16.53 | 5202.56 |
| 4/16/2017 | 5219.09 | 16.61 | 5202.48 |
| 5/1/2017 | 5219.09 | 16.76 | 5202.33 |
| 5/28/2017 | 5219.09 | 17.12 | 5201.97 |
| 6/20/2017 | 5219.09 | 17.61 | 5201.48 |
| 7/20/2017 | 5219.09 | 18.46 | 5200.63 |
| 8/8/2017 | 5219.09 | 18.94 | 5200.15 |
| 8/15/2017 | 5219.09 | 19.67 | 5199.42 |
| 9/9/2017 | 5219.09 | 19.36 | 5199.73 |
| 10/11/2017 | 5219.09 | 19.67 | 5199.42 |
| 3/15/2018 | 5219.09 | 16.54 | 5202.55 |
| 5/31/2018 | 5219.09 | 17.69 | 5201.40 |
| 11/2/2018 | 5219.09 | 19.92 | 5199.17 |
| 3/16/2019 | 5219.09 | 16.65 | 5202.44 |
| 5/13/2019 | 5219.09 | 17.19 | 5201.90 |
| 11/18/2019 | 5219.09 | 19.84 | 5199.25 |
| 6/16/2020 | 5219.09 | 18.68 | 5200.41 |
| 11/2/2020 | 5219.09 | 20.08 | 5199.01 |
| 4/19/2021 | 5219.09 | 16.55 | 5202.54 |
| 11/10/2021 | 5219.09 | 20.11 | 5198.98 |
| 5/18/2022 | 5219.09 | 17.51 | 5201.58 |
| 11/8/2022 | 5219.09 | 20.08 | 5199.01 |
| 5/1/2023 | 5219.09 | 16.73 | 5202.36 |
| 11/7/2023 | 5219.09 | 20.4 | 5198.69 |
| 5/14/2024 | 5219.09 | 19.15 | 5199.94 |
| 10/17/2024 | 5219.09 | 20.55 | 5198.54 |
| | *Maximum Observed:* | *5202.56* | *ft AMSL* |
| | *Minimum Observed:* | *5198.54* | *ft AMSL* |
| | *Range:* | *4.02* | *ft* |

| MW-75 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 4/16/2017 | 5126.80 | 24.42 | 5102.38 |
| 5/1/2017 | 5126.80 | 24.48 | 5102.32 |
| 5/28/2017 | 5126.80 | 24.64 | 5102.16 |
| 6/20/2017 | 5126.80 | 24.71 | 5102.09 |
| 7/20/2017 | 5126.80 | 24.88 | 5101.92 |
| 8/8/2017 | 5126.80 | 24.89 | 5101.91 |
| 8/15/2017 | 5126.80 | 24.93 | 5101.87 |
| 9/9/2017 | 5126.80 | 25.02 | 5101.78 |
| 10/11/2017 | 5126.80 | 24.95 | 5101.85 |
| 3/15/2018 | 5126.80 | 25.13 | 5101.67 |
| 5/31/2018 | 5126.80 | 25.54 | 5101.26 |
| 11/2/2018 | 5126.80 | 25.92 | 5100.88 |
| 3/16/2019 | 5126.80 | 26.04 | 5100.76 |
| 5/13/2019 | 5126.80 | 26.11 | 5100.69 |
| 11/18/2019 | 5126.80 | 26.08 | 5100.72 |
| 6/17/2020 | 5126.80 | 26.85 | 5099.95 |
| 11/3/2020 | 5126.80 | 27.03 | 5099.77 |
| 4/20/2021 | 5126.80 | 27.11 | 5099.69 |
| 11/10/2021 | 5126.80 | 27.54 | 5099.26 |
| 5/18/2022 | 5126.80 | 27.79 | 5099.01 |
| 11/8/2022 | 5126.80 | 27.93 | 5098.87 |
| 5/1/2023 | 5126.80 | 27.92 | 5098.88 |
| 11/7/2023 | 5126.80 | 28.52 | 5098.28 |
| 10/17/2024 | 5126.80 | 29.05 | 5097.75 |
| | *Maximum Observed:* | *5102.38* | *ft AMSL* |
| | *Minimum Observed:* | *5097.75* | *ft AMSL* |
| | *Range:* | *4.63* | *ft* |

| MW-76 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 4/16/2017 | 5116.23 | Dry | |
| 5/1/2017 | 5116.23 | Dry | |
| 5/28/2017 | 5116.23 | Dry | |
| 6/20/2017 | 5116.23 | Dry | |
| 7/20/2017 | 5116.23 | 28.78 | 5087.45 |
| 8/8/2017 | 5116.23 | Dry | |
| 8/15/2017 | 5116.23 | Dry | |
| 9/9/2017 | 5116.23 | 27.76 | 5088.47 |
| 10/11/2017 | 5116.23 | Dry | |
| 3/15/2018 | 5116.23 | 26.79 | 5089.44 |
| 5/31/2018 | 5116.23 | Dry | |
| 11/2/2018 | 5116.23 | Dry | |
| 4/2/2019 | 5116.23 | 27.44 | 5088.79 |
| 11/18/2019 | 5116.23 | 23.98 | 5092.25 |
| 6/18/2020 | 5116.23 | 27.26 | 5088.97 |
| 11/3/2020 | 5116.23 | 27.42 | 5088.81 |
| 4/20/2021 | 5116.23 | 27.71 | 5088.52 |
| 11/11/2021 | 5116.23 | 29.12 | 5087.11 |
| 5/19/2022 | 5116.23 | 28.85 | 5087.38 |
| 11/9/2022 | 5116.23 | 28.91 | 5087.32 |
| 5/2/2023 | 5116.23 | 28.82 | 5087.41 |
| 11/7/2023 | 5116.23 | 29.03 | 5087.2 |
| 5/14/2024 | 5116.23 | 26.99 | 5089.24 |
| 10/24/2024 | 5116.23 | 28.62 | 5087.61 |
| | *Maximum Observed:* | *5092.25* | *ft AMSL* |
| | *Minimum Observed:* | *5087.11* | *ft AMSL* |
| | *Range:* | *5.14* | *ft* |

| MW-83 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 12/15/2018 | 5343.15 | 13.38 | 5329.77 |
| 3/13/2019 | 5343.15 | 13.40 | 5329.75 |
| 5/6/2019 | 5343.15 | 13.47 | 5329.68 |
| 12/2/2019 | 5343.15 | 13.31 | 5329.84 |
| 6/16/2020 | 5343.15 | 13.29 | 5329.86 |
| 11/2/2020 | 5343.15 | 13.26 | 5329.89 |
| 4/19/2021 | 5343.15 | 13.7 | 5329.45 |
| 11/10/2021 | 5343.15 | 13.87 | 5329.28 |
| 5/18/2022 | 5343.15 | 14.09 | 5329.06 |
| 11/8/2022 | 5343.15 | 15.09 | 5328.06 |
| 5/7/2023 | 5343.15 | 15.28 | 5327.87 |
| 11/8/2023 | 5343.15 | 15.24 | 5327.91 |
| 5/15/2024 | 5343.15 | 13.71 | 5329.44 |
| 10/19/2024 | 5343.15 | 14.76 | 5328.39 |
| | *Maximum Observed:* | *5329.89* | *ft AMSL* |
| | *Minimum Observed:* | *5327.87* | *ft AMSL* |
| | *Range:* | *2.02* | *ft* |

| MW-84 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 12/15/2018 | 5338.23 | 8.39 | 5329.84 |
| 3/13/2019 | 5338.23 | 7.85 | 5330.38 |
| 5/6/2019 | 5338.23 | 8.42 | 5329.81 |
| 12/2/2019 | 5338.23 | 8.17 | 5330.06 |
| 6/16/2020 | 5338.23 | 8.26 | 5329.97 |
| 11/2/2020 | 5338.23 | 8.13 | 5330.1 |
| 4/19/2021 | 5338.23 | 8.44 | 5329.79 |
| 11/10/2021 | 5338.23 | 8.97 | 5329.26 |
| 5/18/2022 | 5338.23 | 9.54 | 5328.69 |
| 11/8/2022 | 5338.23 | 10.17 | 5328.06 |
| 5/1/2023 | 5338.23 | 10.04 | 5328.19 |
| 11/8/2023 | 5338.23 | 9.74 | 5328.49 |
| 5/15/2024 | 5338.23 | 9.05 | 5329.18 |
| 10/19/2024 | 5338.23 | 9.88 | 5328.35 |
| | *Maximum Observed:* | *5330.38* | *ft AMSL* |
| | *Minimum Observed:* | *5328.06* | *ft AMSL* |
| | *Range:* | *2.32* | *ft* |

| MW-85 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 12/15/2018 | 5352.78 | 22.53 | 5330.25 |
| 3/13/2019 | 5352.78 | 22.16 | 5330.62 |
| 5/6/2019 | 5352.78 | 22.83 | 5329.95 |
| 12/2/2019 | 5352.78 | 22.48 | 5330.30 |
| 6/16/2020 | 5352.78 | 22.68 | 5330.1 |
| 11/2/2020 | 5352.78 | 22.51 | 5330.27 |
| 4/19/2021 | 5352.78 | 22.8 | 5329.98 |
| 11/10/2021 | 5352.78 | 23.3 | 5329.48 |
| 5/18/2022 | 5352.78 | 23.73 | 5329.05 |
| 11/8/2022 | 5352.78 | 24.07 | 5328.71 |
| 5/1/2023 | 5352.78 | 24.26 | 5328.52 |
| 11/8/2023 | 5352.78 | 23.83 | 5328.95 |
| 5/15/2024 | 5352.78 | 23.4 | 5329.38 |
| 10/19/2024 | 5352.78 | 23.9 | 5328.88 |
| | *Maximum Observed:* | *5330.62* | *ft AMSL* |
| | *Minimum Observed:* | *5328.52* | *ft AMSL* |
| | *Range:* | *2.10* | *ft* |

| MW-86 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 12/15/2018 | 5338.76 | 9.08 | 5329.68 |
| 3/13/2019 | 5338.76 | 8.53 | 5330.23 |
| 5/6/2019 | 5338.76 | 9.08 | 5329.68 |
| 12/3/2019 | 5338.76 | 8.82 | 5329.94 |
| 6/16/2020 | 5338.76 | 8.99 | 5329.77 |
| 11/2/2020 | 5338.76 | 8.76 | 5330 |
| 4/19/2021 | 5338.76 | 9.2 | 5329.56 |
| 11/10/2021 | 5339.76 | 9.53 | 5330.23 |
| 5/20/2022 | 5339.76 | 9.74 | 5330.02 |
| 11/8/2022 | 5339.76 | 10.79 | 5328.97 |
| 5/1/2023 | 5339.76 | 10.46 | 5329.3 |
| 11/6/2023 | 5339.76 | 10.3 | 5329.46 |
| 5/14/2024 | 5339.76 | 9.75 | 5330.01 |
| 10/19/2024 | 5339.76 | 10.68 | 5329.08 |
| | *Maximum Observed:* | *5330.23* | *ft AMSL* |
| | *Minimum Observed:* | *5328.97* | *ft AMSL* |
| | *Range:* | *1.26* | *ft* |

| MW-87 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 12/15/2018 | 5076.53 | Dry | |
| 3/13/2019 | 5076.53 | 31.95 | 5044.58 |
| 5/13/2019 | 5076.53 | 30.46 | 5046.07 |
| 11/18/2019 | 5076.53 | 30.62 | 5045.91 |
| 6/18/2020 | 5076.53 | 30.24 | 5046.29 |
| 11/3/2020 | 5076.53 | 31.86 | 5044.67 |
| 4/20/2021 | 5076.53 | 30.75 | 5045.78 |
| 11/11/2021 | 5076.53 | 31.67 | 5044.86 |
| 5/19/2022 | 5076.53 | 31.6 | 5044.93 |
| 11/9/2022 | 5076.53 | 32.24 | 5044.29 |
| 5/2/2023 | 5076.53 | 30.59 | 5045.94 |
| 11/7/2023 | 5076.53 | 32.04 | 5044.49 |
| 5/14/2024 | 5076.53 | 30.56 | 5045.97 |
| 10/24/2024 | 5076.53 | 32.13 | 5044.4 |
| | *Maximum Observed:* | *5046.29* | *ft AMSL* |
| | *Minimum Observed:* | *5044.29* | *ft AMSL* |
| | *Range:* | *2.00* | *ft* |

| MW-88 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 6/17/2020 | 5365.249 | Dry | |
| 11/2/2020 | 5365.249 | Dry | |
| 4/19/2021 | 5365.249 | Dry | |
| 11/10/2021 | 5365.249 | Dry | |
| 5/18/2022 | 5365.249 | 32 | 5333.249 |
| 11/8/2022 | 5365.249 | 31.99 | 5333.259 |
| 5/1/2023 | 5365.249 | Dry | |
| 11/7/2023 | 5365.249 | Dry | |
| 5/14/2024 | 5365.249 | Dry | |
| 10/19/2024 | 5365.249 | Dry | |
| | *Maximum Observed:* | *5333.26* | *ft AMSL* |
| | *Minimum Observed:* | *5333.25* | *ft AMSL* |
| | *Range:* | *0.01* | *ft* |

| MW-89 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 6/17/2020 | 5370.208 | 35.21 | 5334.998 |
| 11/2/2020 | 5370.208 | 35.21 | 5334.998 |
| 4/19/2021 | 5370.208 | 35.19 | 5335.018 |
| 11/10/2021 | 5370.208 | 35.22 | 5334.988 |
| 5/18/2022 | 5370.208 | 35.21 | 5334.998 |
| 11/8/2022 | 5370.208 | 35.21 | 5334.998 |
| 5/2/2023 | 5370.208 | Dry | |
| 11/7/2023 | 5370.208 | Dry | |
| 5/14/2024 | 5370.208 | 35.21 | 5334.998 |
| 10/19/2024 | 5370.208 | 35.3 | 5334.908 |
| | *Maximum Observed:* | *5335.02* | *ft AMSL* |
| | *Minimum Observed:* | *5334.91* | *ft AMSL* |
| | *Range:* | *0.11* | *ft* |

Note: Water levels are field-noted to be measurements of saturated sediment or likely condensate accumulation in well.

| MW-90 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 6/17/2020 | 5374.082 | 40.32 | 5333.762 |
| 11/2/2020 | 5374.082 | 40.31 | 5333.772 |
| 4/19/2021 | 5374.082 | 40.16 | 5333.922 |
| 11/10/2021 | 5374.082 | 40.19 | 5333.892 |
| 5/18/2022 | 5374.082 | 40.13 | 5333.952 |
| 11/8/2022 | 5374.082 | 40.14 | 5333.942 |
| 5/1/2023 | 5374.082 | Dry | |
| 11/7/2023 | 5374.082 | Dry | |
| 5/14/2024 | 5374.082 | Dry | |
| 10/19/2024 | 5374.082 | 40.22 | 5333.862 |
| | *Maximum Observed:* | *5333.95* | *ft AMSL* |
| | *Minimum Observed:* | *5333.76* | *ft AMSL* |
| | *Range:* | *0.19* | *ft* |

Note: Water levels are field-noted to be measurements of saturated sediment or likely condensate accumulation in well.

| URS-05 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 5/15/2024 | 5359.8 | 30.45 | 5329.35 |
| 10/21/2024 | 5359.8 | 31.05 | 5328.75 |
| | | | |
| | | | |
| | *Maximum Observed:* | *5329.35* | *ft AMSL* |
| | *Minimum Observed:* | *5328.75* | *ft AMSL* |
| | *Range:* | *0.60* | *ft* |

Note: Water levels are field-noted to be measurements of saturated sediment or likely condensate accumulation in well.

| URS-06 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 5/15/2024 | 5360.5 | 30.99 | 5329.51 |
| 10/19/2024 | 5360.5 | 31.88 | 5328.62 |
| | | | |
| | | | |
| | *Maximum Observed:* | *5329.51* | *ft AMSL* |
| | *Minimum Observed:* | *5328.62* | *ft AMSL* |
| | *Range:* | *0.89* | *ft* |

Note: Water levels are field-noted to be measurements of saturated sediment or likely condensate accumulation in well.

| URS-07 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 5/15/2024 | 5369.2 | 39.64 | 5329.56 |
| 10/19/2024 | 5369.2 | 40.48 | 5328.72 |
| | | | |
| | | | |
| | *Maximum Observed:* | *5329.56* | *ft AMSL* |
| | *Minimum Observed:* | *5328.72* | *ft AMSL* |
| | *Range:* | *0.84* | *ft* |

Note: Water levels are field-noted to be measurements of saturated sediment or likely condensate accumulation in well.

| URS-08 | | | |
|---|---|---|---|
| Date of Measurement | Measuring Pt Elevation (ft AMSL] | Water Level (ft bmp] | GW Elevation (ft AMSL] |
| 5/15/2024 | 5364.7 | 35.23 | 5329.47 |
| 10/21/2024 | 5364.7 | 35.77 | 5328.93 |
| | | | |
| | | | |
| | *Maximum Observed:* | *5329.47* | *ft AMSL* |
| | *Minimum Observed:* | *5328.93* | *ft AMSL* |
| | *Range:* | *0.54* | *ft* |

Note: Water levels are field-noted to be measurements of saturated sediment or likely condensate accumulation in well.

# APPENDIX

# E

## 2024 ANALYTICAL LABORATORY REPORTS 2024

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 23, 2024
Sample Received: May 24, 2024
Analysis Completed: June 06, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW07-0524 | < 0.5 | < 0.8 | < 0.8 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/6/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 23, 2024 (Sample Date) 19:53 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | < 0.8 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | < 0.8 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

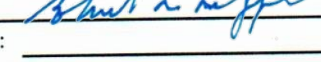
Specimen Number: RSE74561

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW07-0524

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 23, 2024
Sample Received: May 24, 2024
Analysis Completed: June 06, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW08-0524 | < 0.5 | 2.0 ± 0.4 | 2.0 ± 0.4 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/6/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 23, 2024 (Sample Date) 18:57 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 2.0 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 2.0 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74562

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW08-0524

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 23, 2024
Sample Received: May 24, 2024
Analysis Completed: June 06, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW49A-0524 | < 0.5 | 1.3 ± 0.4 | 1.3 ± 0.4 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/6/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 23, 2024 (Sample Date) 14:32 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 1.3 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 1.3 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74563

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW49A-0524

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 16, 2024
Sample Received: May 24, 2024
Analysis Completed: June 06, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW61-0524 | < 0.5 | 1.3 ± 0.4 | 1.3 ± 0.4 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/6/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 16, 2024 (Sample Date) 14:05 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 1.3 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 1.3 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74564

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW61-0524

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 16, 2024
Sample Received: May 28, 2024
Analysis Completed: June 06, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW75-0524 | < 0.5 | 2.0 ± 0.4 | 2.0 ± 0.4 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/6/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 16, 2024 (Sample Date) 12:55 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 2.0 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 2.0 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74565

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW75-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 23, 2024
Sample Received: May 24, 2024
Analysis Completed: June 06, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW87-0524 | < 0.5 | 1.7 ± 0.4 | 1.7 ± 0.4 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/6/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 23, 2024 (Sample Date) 11:10 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 1.7 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 1.7 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74566

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW87-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

## Client Information

| | |
|---|---|
| Name: | Cameron Corley/505-860-3619<br>Pam Norris/505-598-8781 |
| Company | Arizona Public Service |
| Address | PO Box 355, MS 4915<br>Fruitland, NM 87416 |
| Phone | |
| Site | APS Four Corners Power Plant (Multiunit) |

## Radiation Safety Engineering, Inc.

3245 North Washington Street, Chandler, Arizona 85225

**Analysis Request**

| Sample ID & Location (DWR#) | Collection Date | Collection Time | Media (DW* WW* Other) | Drinking Water Compliance | Gross Alpha | Gross Beta | Total Uranium | Isotopic Uranium | Ra-226 | Ra-228 | Ra-226 + Ra-228, Combined | H-3 | Gamma Spectroscopy | Sr-89/Sr-90 | Radon in Water | Radon in Air |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW07-0524 | 5/23/2024 | 19:53 | GW | | | | | | X | X | X | | | | | 74561 |
| FC-CCR-MW08-0524 | 5/23/2024 | 18:57 | GW | | | | | | X | X | X | | | | | 74562 |
| FC-CCR-MW49A-0524 | 5/23/2024 | 14:32 | GW | | | | | | X | X | X | | | | | 74563 |
| FC-CCR-MW61-0524 | 5/16/2024 | 14:05 | GW | | | | | | X | X | X | | | | | 74564 |
| FC-CCR-MW75-0524 | 5/16/2024 | 12:55 | GW | | | | | | X | X | X | | | | | 74565 |
| FC-CCR-MW87-0524 | 5/23/2024 | 11:10 | GW | | | | | | X | X | X | | | | | 74566 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

**Sample Receipt**

| | |
|---|---|
| Total No. of Containers | |
| Chain of Custody Seals | |
| Container Condition | |
| Lab No. | |

Invoice to:
PO#: 100622094

Instructions/Comments
**Method HPGe**

5-24-24 1645

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Relinquished By: | Company: WSP | Date/time: | Received By: | | Company: | Date/time: 5/24/24 4:45 |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

*u/client/forms/cofc.frm*

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 22, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW62-0524 | < 0.5 | < 0.8 | < 0.8 |

| | | | |
|---|---|---|---|
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

6/11/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 22, 2024 (Sample Date) 10:32 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | < 0.8 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | < 0.8 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

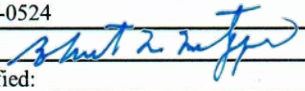
Specimen Number: RSE74567

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW62-0524

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 22, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW63-0524 | < 0.5 | 1.4 ± 0.4 | 1.4 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 22, 2024 (Sample Date) 13:17 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 1.4 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 1.4 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74568

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW63-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 22, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW64-0524 | < 0.5 | 1.0 ± 0.3 | 1.0 ± 0.3 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 22, 2024 (Sample Date) 13:58 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 1.0 ± 0.3 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 1.0 ± 0.3 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74569

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW64-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 22, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW65-0524 | < 0.5 | < 0.8 | < 0.8 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 22, 2024 (Sample Date) 12:23 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | < 0.8 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | < 0.8 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74570

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW65-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 23, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-SW1-0524 | < 0.5 | < 0.8 | < 0.8 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

6/11/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 23, 2024 (Sample Date) 20:20 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | < 0.8 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | < 0.8 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

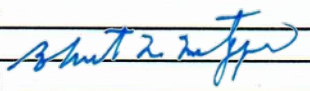
Specimen Number: RSE74571

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-SW1-0524

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 22, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-SW2-0524 | < 0.5 | < 0.8 | < 0.8 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

6/11/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 22, 2024 (Sample Date) 12:35 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | < 0.8 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | < 0.8 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74572

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-SW2-0524

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 22, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-SW3-0524 | < 0.5 | < 0.8 | < 0.8 |

| | | | |
|---|---|---|---|
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 22, 2024 (Sample Date) 12:48 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | < 0.8 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | < 0.8 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

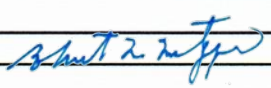
Specimen Number: RSE74573

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-SW3-0524

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 23, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-FD09-0524 | < 0.5 | < 0.8 | < 0.8 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 23, 2024 (Sample Date) 16:20 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | < 0.8 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | < 0.8 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

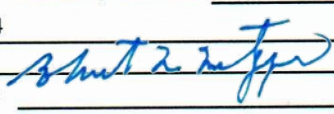
Specimen Number: RSE74574

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-FD09-0524

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

| Client Information | |
|---|---|
| Name: | **Cameron Corley/505-860-3619**<br>**Pam Norris/505-598-8781** |
| Company | **Arizona Public Service** |
| Address | **PO Box 355, MS 4915**<br>**Fruitland, NM 87416** |
| Phone | |
| Site | **APS Four Corners Power Plant (CWTP)** |

**Radiation Safety Engineering, Inc.**
3245 North Washington Street, Chandler, Arizona 85225
**Analysis Request**

| Sample ID & Location (DWR#) | Collection Date | Collection Time | Media (DW* WW* Other) | Drinking Water Compliance | Gross Alpha | Gross Beta | Total Uranium | Isotopic Uranium | Ra-226 | Ra-228 | Ra-226 + Ra-228, Combined | H-3 | Gamma Spectroscopy | Sr-89/Sr-90 | Radon in Water | Radon in Air | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **FC-CCR-MW62-0524** | 5/22/2024 | 10:32 | **GW** | | | | | | X | X | X | | | | | | 74567 |
| **FC-CCR-MW63-0524** | 5/22/2024 | 13:17 | **GW** | | | | | | X | X | X | | | | | | 74568 |
| **FC-CCR-MW64-0524** | 5/22/2024 | 13:58 | **GW** | | | | | | X | X | X | | | | | | 74569 |
| **FC-CCR-MW65-0524** | 5/22/2024 | 12:23 | **GW** | | | | | | X | X | X | | | | | | 74570 |
| **FC-CCR-SW1-0524** | 5/23/2024 | 20:20 | **GW** | | | | | | X | X | X | | | | | | 74571 |
| **FC-CCR-SW2-0524** | 5/22/2024 | 12:35 | **GW** | | | | | | X | X | X | | | | | | 74572 |
| **FC-CCR-SW3-0524** | 5/22/2024 | 12:48 | **GW** | | | | | | X | X | X | | | | | | 74573 |
| **FC-CCR-FD09-0524** | 5/23/2024 | 16:20 | **GW** | | | | | | X | X | X | | | | | | 74574 |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| **Sample Receipt** | |
|---|---|
| Total No. of Containers | |
| Chain of Custody Seals | |
| Container Condition | |
| Lab No. | |

Invoice to:
PO#: 100622094

5-24-24 1445

Instructions/Comments
**Method HPGe**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Relinquished By: | Company: WSP | Date/time: | Received By: Pat Flannery | | Company: | Date/time: 5-24-24 | |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: | 4:45 |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: | |

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

*u/client/forms/cofc.frm*

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 20, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-DMX03-0524 | < 0.6 | 3.0 ± 0.5 | 3.0 ± 0.5 |

| | | | |
|---|---|---|---|
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

6/11/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 20, 2024 (Sample Date) 15:09 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 3.0 ± 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.6 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 3.0 ± 0.5 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

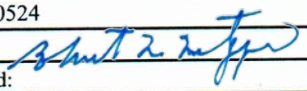
Specimen Number: RSE74595

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-DMX03-0524

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 21, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-DMX04-0524 | < 0.6 | < 0.9 | < 0.9 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

6/11/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 21, 2024 (Sample Date) 14:20 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | < 0.9 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.6 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | < 0.9 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74596

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-DMX04-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 23, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-DMX06-0524 | < 0.6 | < 0.9 | < 0.9 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 23, 2024 (Sample Date) 12:23 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | < 0.9 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.6 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | < 0.9 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74597

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-DMX06-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 23, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-DMX05R-0524 | < 0.6 | 5.3 ± 0.6 | 5.3 ± 0.6 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

6/11/2024
Robert L. Metzger, Ph.D., C.H.P. Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 23, 2024 (Sample Date) 9:22 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 5.3 ± 0.6 | | X |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.6 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 5.3 ± 0.6 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74598

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-DMX05R-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 23, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW15-0524 | < 0.6 | < 0.9 | < 0.9 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 23, 2024 (Sample Date) 16:00 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | < 0.9 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.6 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | < 0.9 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74599

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW15-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST.• CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 23, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW16-0524 | 0.7 ± 0.2 | 4.2 ± 0.6 | 4.9 ± 0.6 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 23, 2024 (Sample Date) 17:11 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 4.9 ± 0.6 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | 0.7 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 4.2 ± 0.6 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

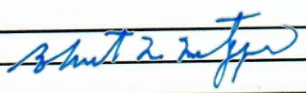
Specimen Number: RSE74600

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW16-0524

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 21, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW17R-0524 | < 0.5 | 1.4 ± 0.4 | 1.4 ± 0.4 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 21, 2024 (Sample Date) 13:27 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 1.4 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 1.4 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74601

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW17R-0524

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST.• CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 22, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW38R-0524 | < 0.5 | 2.5 ± 0.5 | 2.5 ± 0.5 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 22, 2024 (Sample Date) 17:15 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 2.5 ± 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 2.5 ± 0.5 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74602

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW38R-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 21, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW56-0524 | < 0.5 | 3.2 ± 0.5 | 3.2 ± 0.5 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 21, 2024 (Sample Date) 12:25 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 3.2 ± 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 3.2 ± 0.5 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74603

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW56-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 21, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW57-0524 | < 0.5 | 1.7 ± 0.4 | 1.7 ± 0.4 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 21, 2024 (Sample Date) 17:35 (Sample Time) (24 hour clock)

_____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number)

_____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 1.7 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 1.7 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74604

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW57-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 17, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-EW11R-0524 | < 0.5 | 2.1 ± 0.5 | 2.1 ± 0.5 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 17, 2024 (Sample Date) 15:52 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 2.1 ± 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 2.1 ± 0.5 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74605

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-EW11R-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 17, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-EW12R-0524 | < 0.5 | < 0.9 | < 0.9 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 17, 2024 (Sample Date) 17:40 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | < 0.9 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | < 0.9 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74606

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-EW12R-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 24, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-EB01-0524 | < 0.5 | 10.0 ± 0.6 | 10.0 ± 0.6 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 24, 2024 (Sample Date) 11:25 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 10.0 ± 0.6 | | X |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 10.0 ± 0.6 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74607

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-EB01-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

| Client Information | |
|---|---|
| Name: | Cameron Corley/505-860-3619<br>Pam Norris/505-598-8781 |
| Company | Arizona Public Service |
| Address | PO Box 355, MS 4915<br>Fruitland, NM 87416 |
| Phone | |
| Site | APS Four Corners Power Plant (Other) |

**Radiation Safety Engineering, Inc.**
3245 North Washington Street, Chandler, Arizona 85225
**Analysis Request**

| Sample ID & Location (DWR#) | Collection Date | Collection Time | Media (DW* WW* Other) | Drinking Water Compliance | Gross Alpha | Gross Beta | Total Uranium | Isotopic Uranium | Ra-226 | Ra-228 | Ra-226 + Ra-228, Combined | H-3 | Gamma Spectroscopy | Sr-89/Sr-90 | Radon in Water | Radon in Air | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-DMX03-0524 | 5/20/2024 | 15:09 | GW | | | | | | X | X | X | | | | | | 74595 |
| FC-CCR-DMX04-0524 | 5/21/2024 | 14:20 | GW | | | | | | X | X | X | | | | | | 74596 |
| FC-CCR-DMX06-0524 | 5/23/2024 | 12:23 | GW | | | | | | X | X | X | | | | | | 74597 |
| FC-CCR-DMX05R-0524 | 5/23/2024 | 9:22 | GW | | | | | | X | X | X | | | | | | 74598 |
| FC-CCR-MW15-0524 | 5/23/2024 | 16:00 | GW | | | | | | X | X | X | | | | | | 74599 |
| FC-CCR-MW16-0524 | 5/23/2024 | 17:11 | GW | | | | | | X | X | X | | | | | | 74600 |
| FC-CCR-MW17R-0524 | 5/21/2024 | 13:27 | GW | | | | | | X | X | X | | | | | | 74601 |
| FC-CCR-MW38R-0524 | 5/22/2024 | 17:15 | GW | | | | | | X | X | X | | | | | | 74602 |
| FC-CCR-MW56-0524 | 5/21/2024 | 12:25 | GW | | | | | | X | X | X | | | | | | 74603 |
| FC-CCR-MW57-0524 | 5/21/2024 | 17:35 | GW | | | | | | X | X | X | | | | | | 74604 |

| Sample Receipt | |
|---|---|
| Total No. of Containers | |
| Chain of Custody Seals | |
| Container Condition | |
| Lab No. | |

Invoice to:
PO#: 100622094

Instructions/Comments
Method HPGe

5-24-24 1645

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Relinquished By: | Company: WSP | Date/time: | Received By: Pat Flannery | | Company: | Date/time: 5.24.24 4:45 | |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: | |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: | |

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

*u/client/forms/cofc.frm*

| Client Information | |
|---|---|
| Name: | Cameron Corley/505-860-3619<br>Pam Norris/505-598-8781 |
| Company | Arizona Public Service |
| Address | PO Box 355, MS 4915<br>Fruitland, NM 87416 |
| Phone | |
| Site | APS Four Corners Power Plant (Other) |

**Radiation Safety Engineering, Inc.**
3245 North Washington Street, Chandler, Arizona 85225
**Analysis Request**

| Sample ID & Location (DWR#) | Collection Date | Collection Time | Media (DW* WW* Other) | Drinking Water Compliance | Gross Alpha | Gross Beta | Total Uranium | Isotopic Uranium | Ra-226 | Ra-228 | Ra-226 + Ra-228, Combined | H-3 | Gamma Spectroscopy | Sr-89/Sr-90 | Radon in Water | Radon in Air |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-EW11R-0524 | 5/17/2024 | 15:52 | GW | | | | | | X | X | X | | | | | 74605 |
| FC-CCR-EW12R-0524 | 5/17/2024 | 17:40 | GW | | | | | | X | X | X | | | | | 74606 |
| ~~FC-CCR-EW13-0524~~ OH | ~~5/17/2024~~ | ~~18:42~~ | ~~GW~~ | | | | | | ~~X~~ | ~~X~~ | ~~X~~ | | | | | |
| FC-CCR-EB01-0524 | 5-24-24 | 11:25 | GW | | | | | | X | X | X | | | | | 74607 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| Sample Receipt | |
|---|---|
| Total No. of Containers | |
| Chain of Custody Seals | |
| Container Condition | |
| Lab No. | |

Invoice to:
PO#: 100622094

Instructions/Comments
**Method HPGe**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Relinquished By: | Company: WSP | Date/time: 5-24-24 1645 | Received By: Pat Hammay | | Company: | Date/time: 5/24/24 | 4:45 |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: | |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: | |

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

*u/client/forms/cofc.frm*

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 22, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW66-0524 | 0.9 ± 0.2 | 2.2 ± 0.4 | 3.1 ± 0.4 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 22, 2024 (Sample Date) 11:34 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 3.1 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | 0.9 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 2.2 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

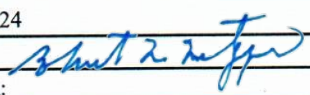
Specimen Number: RSE74575

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW66-0524

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 20, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW67-0524 | < 0.5 | < 0.8 | < 0.8 |

| | | | |
|---|---|---|---|
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

6/11/2024
Robert L. Metzger, Ph.D., C.H.P. Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 20, 2024 (Sample Date) 9:57 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | < 0.8 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | < 0.8 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74576

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW67-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 20, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW68-0524 | < 0.4 | < 0.8 | < 0.8 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 20, 2024 (Sample Date) 9:15 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | < 0.8 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | < 0.8 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74577

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW68-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 20, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW69-0524 | < 0.4 | 1.5 ± 0.4 | 1.5 ± 0.4 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 20, 2024 (Sample Date) 10:47 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 1.5 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 1.5 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74578

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW69-0524

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 22, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW70-0524 | < 0.4 | 2.0 ± 0.4 | 2.0 ± 0.4 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024
Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 22, 2024 (Sample Date) 9:11 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 2.0 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 2.0 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74579

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW70-0524

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 16, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW71-0524 | < 0.4 | 1.4 ± 0.4 | 1.4 ± 0.4 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

6/11/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____

PWS Name: _____

May 16, 2024 (Sample Date) 9:12 (Sample Time) (24 hour clock)

Owner/Contact Person: _____

Owner/Contact Fax Number: _____

Owner/Contact Phone Number: _____

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 1.4 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 1.4 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74580

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW71-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 16, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW72-0524 | < 0.4 | 3.1 ± 0.4 | 3.1 ± 0.4 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 16, 2024 (Sample Date) 10:02 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 3.1 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 3.1 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74581

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW72-0524

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 16, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW73-0524 | 0.6 ± 0.2 | 2.6 ± 0.4 | 3.2 ± 0.4 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 16, 2024 (Sample Date) 10:59 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 3.2 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | 0.6 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 2.6 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

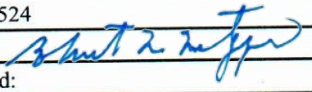
Specimen Number: RSE74582

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW73-0524

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 18, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW83-0524 | < 0.4 | < 0.8 | < 0.8 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 18, 2024 (Sample Date) 17:06 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | < 0.8 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | < 0.8 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74583

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW83-0524

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 18, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW84-0524 | 0.9 ± 0.2 | 2.4 ± 0.4 | 3.3 ± 0.4 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 18, 2024 (Sample Date) 16:04 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 3.3 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | 0.9 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 2.4 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

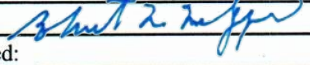
Specimen Number: RSE74584

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW84-0524

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 20, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW85-0524 | < 0.7 | 1.1 ± 0.4 | 1.1 ± 0.4 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

6/11/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 20, 2024 (Sample Date) 11:36 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 1.1 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.7 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 1.1 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74585

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW85-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 22, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW86-0524 | < 0.7 | < 0.9 | < 0.9 |

| | | | |
|---|---|---|---|
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 22, 2024 (Sample Date) 9:54 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | < 0.9 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.7 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | < 0.9 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74586

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW86-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 18, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-FD02-0524 | < 0.7 | 2.4 ± 0.5 | 2.4 ± 0.5 |

| | | | |
|---|---|---|---|
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 18, 2024 (Sample Date) 12:34 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 2.4 ± 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.7 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 2.4 ± 0.5 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74587

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-FD02-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 18, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-CM01-0524 | < 0.7 | 2.7 ± 0.5 | 2.7 ± 0.5 |

| | | | |
|---|---|---|---|
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 18, 2024 (Sample Date) 13:18 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 2.7 ± 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.7 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 2.7 ± 0.5 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74588

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-CM01-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 18, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-CM02-0524 | < 0.7 | 3.7 ± 0.5 | 3.7 ± 0.5 |

| | | | |
|---|---|---|---|
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 18, 2024 (Sample Date) 13:57 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 3.7 ± 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.7 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 3.7 ± 0.5 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74589

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-CM02-0524

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 18, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-URS05-0524 | 0.7 ± 0.3 | 1.5 ± 0.4 | 2.2 ± 0.5 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 18, 2024 (Sample Date) 13:13 (24 hour clock) (Sample Time) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 2.2 ± 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | 0.7 ± 0.3 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 1.5 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74590

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-URS05-0524

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 18, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-URS06-0524 | < 0.6 | 1.2 ± 0.4 | 1.2 ± 0.4 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 18, 2024 (Sample Date) 13:55 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 1.2 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.6 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 1.2 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

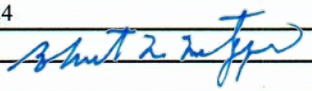
Specimen Number: RSE74591

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-URS06-0524

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 18, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-URS07-0524 | < 0.6 | < 0.9 | < 0.9 |
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 18, 2024 (Sample Date) 12:05 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | < 0.9 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.6 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | < 0.9 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74592

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-URS07-0524

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 18, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-URS08-0524 | < 0.6 | 4.2 ± 0.6 | 4.2 ± 0.6 |

| | | | |
|---|---|---|---|
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 18, 2024 (Sample Date) 10:38 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 4.2 ± 0.6 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.6 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 4.2 ± 0.6 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74593

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-URS08-0524

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: May 18, 2024
Sample Received: May 24, 2024
Analysis Completed: June 10, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-FD01-0524 | < 0.6 | 0.9 ± 0.4 | 0.9 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 5/31/2024 | 5/31/2024 | 5/31/2024 |

Robert L. Metzger, Ph.D., C.H.P. 6/11/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

May 18, 2024 (Sample Date) 16:20 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 5/31/2024 | 0.9 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 5/31/2024 | < 0.6 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 5/31/2024 | 0.9 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE74594

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-FD01-0524

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

| Client Information | |
|---|---|
| Name: | Cameron Corley/505-860-3619<br>Pam Norris/505-598-8781 |
| Company | Arizona Public Service |
| Address | PO Box 355, MS 4915<br>Fruitland, NM 87416 |
| Phone | |
| Site | APS Four Corners Power Plant (URS) |

**Radiation Safety Engineering, Inc.**
3245 North Washington Street, Chandler, Arizona 85225
**Analysis Request**

| Sample ID & Location (DWR#) | Collection Date | Collection Time | Media (DW* WW* Other) | Drinking Water Compliance | Gross Alpha | Gross Beta | Total Uranium | Isotopic Uranium | Ra-226 | Ra-228 | Ra-226 + Ra-228, Combined | H-3 | Gamma Spectroscopy | Sr-89/Sr-90 | Radon in Water | Radon in Air | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW66-0524 | 5/22/2024 | 11:34 | GW | | | | | | X | X | X | | | | | | 74575 |
| FC-CCR-MW67-0524 | 5/20/2024 | 9:57 | GW | | | | | | X | X | X | | | | | | 74576 |
| FC-CCR-MW68-0524 | 5/20/2024 | 9:15 | GW | | | | | | X | X | X | | | | | | 74577 |
| FC-CCR-MW69-0524 | 5/20/2024 | 10:47 | GW | | | | | | X | X | X | | | | | | 74578 |
| FC-CCR-MW70-0524 | 5/22/2024 | 9:11 | GW | | | | | | X | X | X | | | | | | 74579 |
| FC-CCR-MW71-0524 | 5/16/2024 | 9:12 | GW | | | | | | X | X | X | | | | | | 74580 |
| FC-CCR-MW72-0524 | 5/16/2024 | 10:02 | GW | | | | | | X | X | X | | | | | | 74581 |
| FC-CCR-MW73-0524 | 5/16/2024 | 10:59 | GW | | | | | | X | X | X | | | | | | 74582 |
| FC-CCR-MW83-0524 | 5/18/2024 | 17:06 | GW | | | | | | X | X | X | | | | | | 74583 |
| FC-CCR-MW84-0524 | 5/18/2024 | 16:04 | GW | | | | | | X | X | X | | | | | | 74584 |

| Sample Receipt | |
|---|---|
| Total No. of Containers | |
| Chain of Custody Seals | |
| Container Condition | |
| Lab No. | |

Invoice to:
PO#: 100622094

Instructions/Comments
**Method HPGe**

5-24-24 1645

| | | | | | | |
|---|---|---|---|---|---|---|
| Relinquished By: | Company: WSP | Date/time: | Received By: | | Company: | Date/time: 5.24.24 |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: 4:45 |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

*u/client/forms/cofc.frm*

| Client Information | |
|---|---|
| Name: | Cameron Corley/505-860-3619<br>Pam Norris/505-598-8781 |
| Company | Arizona Public Service |
| Address | PO Box 355, MS 4915<br>Fruitland, NM 87416 |
| Phone | |
| Site | APS Four Corners Power Plant (URS) |

**Radiation Safety Engineering, Inc.**
3245 North Washington Street, Chandler, Arizona 85225
**Analysis Request**

| Sample ID & Location (DWR#) | Collection Date | Collection Time | Media (DW* WW* Other) | Drinking Water Compliance | Gross Alpha | Gross Beta | Total Uranium | Isotopic Uranium | Ra-226 | Ra-228 | Ra-226 + Ra-228, Combined | H-3 | Gamma Spectroscopy | Sr-89/Sr-90 | Radon in Water | Radon in Air | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW85-0524 | 5/20/2024 | 11:36 | GW | | | | | | X | X | X | | | | | 74585 | AF |
| FC-CCR-MW86-0524 | 5/22/2024 | 9:54 | GW | | | | | | X | X | X | | | | | 74586 | |
| FC-CCR-FD02-0524 | 5/18/2024 | 12:34 | GW | | | | | | X | X | X | | | | | 74587 | |
| FC-CCR-CM01-0524 | 5/18/2024 | 13:18 | GW | | | | | | X | X | X | | | | | 74588 | |
| FC-CCR-CM02-0524 | 5/18/2024 | 13:57 | GW | | | | | | X | X | X | | | | | 74589 | |
| FC-CCR-URS05-0524 | 5/18/2024 | 13:13 | GW | | | | | | X | X | X | | | | | 74590 | |
| FC-CCR-URS06-0524 | 5/18/2024 | 13:55 | GW | | | | | | X | X | X | | | | | 74591 | |
| FC-CCR-URS07-0524 | 5/18/2024 | 12:05 | GW | | | | | | X | X | X | | | | | 74592 | |
| FC-CCR-URS08-0524 | 5/18/2024 | 10:38 | GW | | | | | | X | X | X | | | | | 74593 | |
| FC-CCR-FD01-0524 | 5/18/2024 | 16:20 | GW | | | | | | X | X | X | | | | | 74594 | |

| Sample Receipt | |
|---|---|
| Total No. of Containers | |
| Chain of Custody Seals | |
| Container Condition | |
| Lab No. | |

Invoice to:
PO#: 100622094

Instructions/Comments
**Method HPGe**

5-24-24 16:45

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Relinquished By: | Company: WSP | Date/time: | Received By: Pat Flanning | | Company: | Date/time: 5-24-24 | |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: | 4:45 |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: | |

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

*u/client/forms/cofc.frm*

eurofins | Environment Testing

1 2 3 4 5 6 7 8 9 10 11 12 13 14

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 6/5/2024 4:35:27 PM

## JOB DESCRIPTION

CCR Groudwater Monitoring
APS Four Corners Power Plant (Multiunit)

## JOB NUMBER

550-218672-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.



myEOL

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

## Authorization



Generated
6/5/2024 4:35:27 PM

Authorized for release by
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# Table of Contents

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# Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groudwater Monitoring

Job ID: 550-218672-1
SDG: APS Four Corners Power Plant (Multiunit)

## Qualifiers

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| D2 | Sample required dilution due to high concentration of analyte. |
| E2 | Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| B1 | Target analyte detected in method blank at or above the method reporting limit. |
| L4 | The associated blank spike recovery was below method acceptance limits. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| H5 | This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time. |
| T5 | Laboratory not licensed for this parameter |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

## Job ID: 550-218672-1 — Eurofins Phoenix

**Job Narrative**
**550-218672-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**
The samples were received on 5/21/2024 2:05 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C.

**HPLC/IC**
Method 300_ORGFMS: Due to the high concentration of Chloride, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 550-321493 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**Metals**
Method 200.7 - Total Recoverable: The instrument blank for analytical batch 280-655224 contained Li greater than one-half the reporting limit (RL), and were not re-analyzed because the affected samples contained >10x the amount found in the CCB. The data have been qualified and reported.

Method 200.7_CWA: The continuing calibration blank (CCB) for analytical batch 550-321751 contained Sodium above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed. FC-CCR-MW52-0524 (550-218672-1), FC-CCR-MW61-0524 (550-218672-2) and FC-CCR-MW75-0524 (550-218672-3)

Method 200.8_CWA_LL: The laboratory control sample (LCS) associated with preparation batch 550-321480 and analytical batch 550-321685 was outside acceptance criteria for the analyte Barium. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. FC-CCR-MW52-0524 (550-218672-1), FC-CCR-MW61-0524 (550-218672-2) and FC-CCR-MW75-0524 (550-218672-3)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**General Chemistry**
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groudwater Monitoring

Job ID: 550-218672-1
SDG: APS Four Corners Power Plant (Multiunit)

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 550-218672-1 | FC-CCR-MW52-0524 | Water | 05/16/24 12:00 | 05/21/24 14:05 |
| 550-218672-2 | FC-CCR-MW61-0524 | Water | 05/16/24 14:05 | 05/21/24 14:05 |
| 550-218672-3 | FC-CCR-MW75-0524 | Water | 05/16/24 12:55 | 05/21/24 14:05 |
| 550-218672-4 | FC-CCR-FD03-0524 | Water | 05/16/24 16:20 | 05/21/24 14:05 |

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groudwater Monitoring

Job ID: 550-218672-1
SDG: APS Four Corners Power Plant (Multiunit)

## Client Sample ID: FC-CCR-MW52-0524 — Lab Sample ID: 550-218672-1

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 14 | M3 | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.11 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |

## Client Sample ID: FC-CCR-MW61-0524 — Lab Sample ID: 550-218672-2

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 340 | D2 | 20 | | mg/L | 10 | | 300.0 | Total/NA |
| Fluoride | 0.97 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 3400 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 50 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 480 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 150 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 21 | | 2.5 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 940 | B1 | 2.5 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 490 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0068 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.020 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cadmium | 0.0010 | | 0.0010 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.030 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.11 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 100 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 100 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 5800 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 8.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 11.1 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW75-0524 — Lab Sample ID: 550-218672-3

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 400 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 0.85 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 4200 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 34 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 550 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 310 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 28 | | 2.5 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1500 | B1 | 2.5 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 490 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0063 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.020 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cadmium | 0.0018 | | 0.0010 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.064 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.18 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 100 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 100 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 6900 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 8.3 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 10.7 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groudwater Monitoring

Job ID: 550-218672-1
SDG: APS Four Corners Power Plant (Multiunit)

## Client Sample ID: FC-CCR-FD03-0524

## Lab Sample ID: 550-218672-4

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 15 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.11 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-MW52-0524

**Lab Sample ID: 550-218672-1**
**Date Collected: 05/16/24 12:00**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **14** | **M3** | 0.25 | | mg/L | | 05/24/24 09:02 | 05/31/24 15:51 | 5 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cobalt** | **0.11** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:50 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:50 | 10 |

## Client Sample ID: FC-CCR-MW61-0524

**Lab Sample ID: 550-218672-2**
**Date Collected: 05/16/24 14:05**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **340** | **D2** | 20 | | mg/L | | | 05/24/24 19:39 | 10 |
| **Fluoride** | **0.97** | | 0.40 | | mg/L | | | 05/22/24 15:17 | 1 |
| **Sulfate** | **3400** | **D2** | 400 | | mg/L | | | 05/22/24 15:35 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **50** | | 0.25 | | mg/L | | 05/24/24 09:02 | 05/31/24 15:54 | 5 |
| **Calcium** | **480** | | 10 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:00 | 5 |
| **Magnesium** | **150** | | 10 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:00 | 5 |
| **Potassium** | **21** | | 2.5 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:00 | 5 |
| **Sodium** | **940** | **B1** | 2.5 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:00 | 5 |
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:00 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **490** | | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 00:23 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:52 | 10 |
| **Arsenic** | **0.0068** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:52 | 10 |
| **Barium** | **0.020** | **L4** | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:52 | 10 |
| **Cadmium** | **0.0010** | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:52 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:52 | 10 |
| **Cobalt** | **0.030** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:52 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:52 | 10 |
| **Molybdenum** | **0.11** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:52 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/30/24 17:25 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:52 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/23/24 11:39 | 05/23/24 15:39 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **100** | | 6.0 | | mg/L | | | 05/29/24 14:23 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/29/24 14:23 | 1 |

## Client Sample ID: FC-CCR-MW61-0524

**Lab Sample ID: 550-218672-2**
**Date Collected: 05/16/24 14:05**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **100** | | 6.0 | | mg/L | | | 05/29/24 14:23 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/29/24 14:23 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/29/24 14:23 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **5800** | | 100 | | mg/L | | | 05/23/24 11:23 | 1 |
| **pH (SM 4500 H+ B)** | **8.5** | **H5** | 1.7 | | SU | | | 05/29/24 08:22 | 1 |
| **Temperature (SM 4500 H+ B)** | **11.1** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 08:22 | 1 |

## Client Sample ID: FC-CCR-MW75-0524

**Lab Sample ID: 550-218672-3**
**Date Collected: 05/16/24 12:55**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **400** | **D2** | 400 | | mg/L | | | 05/22/24 16:12 | 200 |
| **Fluoride** | **0.85** | | 0.40 | | mg/L | | | 05/22/24 15:54 | 1 |
| **Sulfate** | **4200** | **D2** | 400 | | mg/L | | | 05/22/24 16:12 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **34** | | 0.25 | | mg/L | | 05/24/24 09:02 | 05/31/24 15:58 | 5 |
| **Calcium** | **550** | | 10 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:03 | 5 |
| **Magnesium** | **310** | | 10 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:03 | 5 |
| **Potassium** | **28** | | 2.5 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:03 | 5 |
| **Sodium** | **1500** | **B1** | 2.5 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:03 | 5 |
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:03 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **490** | | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 00:27 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:54 | 10 |
| **Arsenic** | **0.0063** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:54 | 10 |
| **Barium** | **0.020** | **L4** | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:54 | 10 |
| **Cadmium** | **0.0018** | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:54 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:54 | 10 |
| **Cobalt** | **0.064** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:54 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:54 | 10 |
| **Molybdenum** | **0.18** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:54 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/30/24 17:27 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:54 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/23/24 11:39 | 05/23/24 15:41 | 1 |

## Client Sample ID: FC-CCR-MW75-0524

**Lab Sample ID: 550-218672-3**

**Date Collected: 05/16/24 12:55**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **100** | | 6.0 | | mg/L | | | 05/29/24 14:30 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/29/24 14:30 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **100** | | 6.0 | | mg/L | | | 05/29/24 14:30 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/29/24 14:30 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/29/24 14:30 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **6900** | | 100 | | mg/L | | | 05/23/24 11:23 | 1 |
| **pH (SM 4500 H+ B)** | **8.3** | **H5** | 1.7 | | SU | | | 05/29/24 08:34 | 1 |
| **Temperature (SM 4500 H+ B)** | **10.7** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 08:34 | 1 |

## Client Sample ID: FC-CCR-FD03-0524

**Lab Sample ID: 550-218672-4**

**Date Collected: 05/16/24 16:20**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **15** | | 0.25 | | mg/L | | 05/24/24 09:02 | 05/31/24 16:01 | 5 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cobalt** | **0.11** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:56 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:56 | 10 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 550-321344/2**
**Matrix: Water**
**Analysis Batch: 321344**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 05/22/24 12:31 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/22/24 12:31 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 05/22/24 12:31 | 1 |

**Lab Sample ID: LCS 550-321344/5**
**Matrix: Water**
**Analysis Batch: 321344**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 18.8 | | mg/L | | 94 | 90 - 110 | | |
| Fluoride | | | 4.00 | 3.89 | | mg/L | | 97 | 90 - 110 | | |
| Sulfate | | | 20.0 | 18.7 | | mg/L | | 94 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321344/6**
**Matrix: Water**
**Analysis Batch: 321344**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.0 | | mg/L | | 95 | 90 - 110 | 1 | 20 |
| Fluoride | | | 4.00 | 3.91 | | mg/L | | 98 | 90 - 110 | 1 | 20 |
| Sulfate | | | 20.0 | 18.8 | | mg/L | | 94 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 550-218673-A-14 MS ^200**
**Matrix: Water**
**Analysis Batch: 321344**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1100 | D2 | 4000 | 4840 | D2 | mg/L | | 94 | 80 - 120 | | |
| Fluoride | ND | D1 D5 | 800 | 728 | D2 | mg/L | | 91 | 80 - 120 | | |
| Sulfate | 8600 | D2 | 4000 | 12000 | D2 | mg/L | | 86 | 80 - 120 | | |

**Lab Sample ID: 550-218673-A-14 MSD ^200**
**Matrix: Water**
**Analysis Batch: 321344**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1100 | D2 | 4000 | 4870 | D2 | mg/L | | 94 | 80 - 120 | 1 | 20 |
| Fluoride | ND | D1 D5 | 800 | 738 | D2 | mg/L | | 92 | 80 - 120 | 1 | 20 |
| Sulfate | 8600 | D2 | 4000 | 12000 | D2 | mg/L | | 86 | 80 - 120 | 0 | 20 |

**Lab Sample ID: MB 550-321493/2**
**Matrix: Water**
**Analysis Batch: 321493**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 05/24/24 12:54 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/24/24 12:54 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 05/24/24 12:54 | 1 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 550-321493/5**
**Matrix: Water**
**Analysis Batch: 321493**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 18.8 | | mg/L | | 94 | 90 - 110 | | |
| Fluoride | | | 4.00 | 3.85 | | mg/L | | 96 | 90 - 110 | | |
| Sulfate | | | 20.0 | 18.7 | | mg/L | | 94 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321493/6**
**Matrix: Water**
**Analysis Batch: 321493**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.0 | | mg/L | | 95 | 90 - 110 | 1 | 20 |
| Fluoride | | | 4.00 | 3.90 | | mg/L | | 97 | 90 - 110 | 1 | 20 |
| Sulfate | | | 20.0 | 18.9 | | mg/L | | 95 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 550-218852-J-1 MS**
**Matrix: Water**
**Analysis Batch: 321493**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 110 | E2 M3 | 20.0 | 123 | E2 M3 | mg/L | | 54 | 80 - 120 | | |
| Fluoride | ND | | 4.00 | 3.76 | | mg/L | | 91 | 80 - 120 | | |
| Sulfate | 27 | | 20.0 | 44.1 | | mg/L | | 86 | 80 - 120 | | |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 550-321484/1-A**
**Matrix: Water**
**Analysis Batch: 321751**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | ND | | 2.0 | | mg/L | | 05/24/24 09:02 | 05/31/24 00:40 | 1 |
| Magnesium | ND | | 2.0 | | mg/L | | 05/24/24 09:02 | 05/31/24 00:40 | 1 |
| Potassium | ND | | 0.50 | | mg/L | | 05/24/24 09:02 | 05/31/24 00:40 | 1 |
| Sodium | 0.506 | B1 | 0.50 | | mg/L | | 05/24/24 09:02 | 05/31/24 00:40 | 1 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/24/24 09:02 | 05/31/24 00:40 | 1 |

**Lab Sample ID: MB 550-321484/1-A**
**Matrix: Water**
**Analysis Batch: 321804**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | ND | | 0.050 | | mg/L | | 05/24/24 09:02 | 05/31/24 15:34 | 1 |

**Lab Sample ID: LCS 550-321484/2-A**
**Matrix: Water**
**Analysis Batch: 321751**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | | | 21.0 | 22.5 | | mg/L | | 107 | 85 - 115 | | |
| Magnesium | | | 21.0 | 23.0 | | mg/L | | 109 | 85 - 115 | | |
| Potassium | | | 20.0 | 21.0 | | mg/L | | 105 | 85 - 115 | | |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: LCS 550-321484/2-A**
**Matrix: Water**
**Analysis Batch: 321751**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sodium | | | 20.0 | 21.0 | | mg/L | | 105 | 85 - 115 | | |
| Beryllium | | | 1.00 | 1.09 | | mg/L | | 109 | 85 - 115 | | |

**Lab Sample ID: LCS 550-321484/2-A**
**Matrix: Water**
**Analysis Batch: 321804**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.12 | | mg/L | | 112 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321484/3-A**
**Matrix: Water**
**Analysis Batch: 321751**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | | | 21.0 | 22.4 | | mg/L | | 107 | 85 - 115 | 0 | 20 |
| Magnesium | | | 21.0 | 22.9 | | mg/L | | 109 | 85 - 115 | 0 | 20 |
| Potassium | | | 20.0 | 21.0 | | mg/L | | 105 | 85 - 115 | 0 | 20 |
| Sodium | | | 20.0 | 21.0 | | mg/L | | 105 | 85 - 115 | 0 | 20 |
| Beryllium | | | 1.00 | 1.08 | | mg/L | | 108 | 85 - 115 | 1 | 20 |

**Lab Sample ID: LCSD 550-321484/3-A**
**Matrix: Water**
**Analysis Batch: 321804**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.10 | | mg/L | | 110 | 85 - 115 | 1 | 20 |

**Lab Sample ID: 550-218672-1 MS**
**Matrix: Water**
**Analysis Batch: 321804**

**Client Sample ID: FC-CCR-MW52-0524**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 14 | M3 | 1.00 | 12.3 | M3 | mg/L | | -124 | 70 - 130 | | |

**Lab Sample ID: 550-218672-1 MSD**
**Matrix: Water**
**Analysis Batch: 321804**

**Client Sample ID: FC-CCR-MW52-0524**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 14 | M3 | 1.00 | 14.9 | M3 | mg/L | | 137 | 70 - 130 | 19 | 20 |

**Lab Sample ID: MB 280-654597/1-A**
**Matrix: Water**
**Analysis Batch: 655224**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 654597**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 00:04 | 1 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: LCS 280-654597/2-A**
**Matrix: Water**
**Analysis Batch: 655224**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 654597**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 1000 | 972 | | ug/L | | 97 | 90 - 112 | | |

**Lab Sample ID: 550-218673-D-14-B MS**
**Matrix: Water**
**Analysis Batch: 655224**

**Client Sample ID: Matrix Spike**
**Prep Type: Total Recoverable**
**Prep Batch: 654597**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 390 | | 1000 | 1480 | | ug/L | | 109 | 70 - 130 | | |

**Lab Sample ID: 550-218673-D-14-C MSD**
**Matrix: Water**
**Analysis Batch: 655224**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total Recoverable**
**Prep Batch: 654597**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 390 | | 1000 | 1470 | | ug/L | | 109 | 70 - 130 | 1 | 20 |

## Method: 200.8 LL - Metals (ICP/MS)

**Lab Sample ID: MB 550-321480/1-A**
**Matrix: Water**
**Analysis Batch: 321685**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:40 | 1 |
| Arsenic | ND | | 0.00050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:40 | 1 |
| Barium | ND | | 0.00050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:40 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:40 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:40 | 1 |
| Cobalt | ND | | 0.00050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:40 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:40 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:40 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:40 | 1 |

**Lab Sample ID: MB 550-321480/1-A**
**Matrix: Water**
**Analysis Batch: 321756**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Selenium | ND | | 0.00050 | | mg/L | | 05/24/24 07:53 | 05/30/24 17:13 | 1 |

**Lab Sample ID: LCS 550-321480/2-A**
**Matrix: Water**
**Analysis Batch: 321685**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.112 | | mg/L | | 112 | 85 - 115 | | |
| Arsenic | | | 0.100 | 0.103 | | mg/L | | 103 | 85 - 115 | | |
| Barium | | | 0.100 | 0.0777 | L4 | mg/L | | 78 | 85 - 115 | | |
| Cadmium | | | 0.100 | 0.100 | | mg/L | | 100 | 85 - 115 | | |
| Chromium | | | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 | | |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 550-321480/2-A**
**Matrix: Water**
**Analysis Batch: 321685**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Cobalt | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 |
| Lead | 0.100 | 0.0957 | | mg/L | | 96 | 85 - 115 |
| Molybdenum | 0.100 | 0.109 | | mg/L | | 109 | 85 - 115 |
| Thallium | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 |

**Lab Sample ID: LCS 550-321480/2-A**
**Matrix: Water**
**Analysis Batch: 321756**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Selenium | 0.100 | 0.0981 | | mg/L | | 98 | 85 - 115 |

**Lab Sample ID: LCSD 550-321480/3-A**
**Matrix: Water**
**Analysis Batch: 321685**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.100 | 0.109 | | mg/L | | 109 | 85 - 115 | 3 | 20 |
| Arsenic | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | 2 | 20 |
| Barium | 0.100 | 0.0743 | L4 | mg/L | | 74 | 85 - 115 | 4 | 20 |
| Cadmium | 0.100 | 0.0998 | | mg/L | | 100 | 85 - 115 | 0 | 20 |
| Chromium | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | 3 | 20 |
| Cobalt | 0.100 | 0.100 | | mg/L | | 100 | 85 - 115 | 4 | 20 |
| Lead | 0.100 | 0.0968 | | mg/L | | 97 | 85 - 115 | 1 | 20 |
| Molybdenum | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 | 3 | 20 |
| Thallium | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | 1 | 20 |

**Lab Sample ID: LCSD 550-321480/3-A**
**Matrix: Water**
**Analysis Batch: 321756**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Selenium | 0.100 | 0.0978 | | mg/L | | 98 | 85 - 115 | 0 | 20 |

**Lab Sample ID: 550-218672-1 MS**
**Matrix: Water**
**Analysis Batch: 321685**

**Client Sample ID: FC-CCR-MW52-0524**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.11 | | 0.100 | 0.203 | | mg/L | | 96 | 70 - 130 |
| Molybdenum | ND | | 0.100 | 0.112 | | mg/L | | 109 | 70 - 130 |

**Lab Sample ID: 550-218672-1 MSD**
**Matrix: Water**
**Analysis Batch: 321685**

**Client Sample ID: FC-CCR-MW52-0524**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.11 | | 0.100 | 0.208 | | mg/L | | 101 | 70 - 130 | 2 | 20 |
| Molybdenum | ND | | 0.100 | 0.114 | | mg/L | | 111 | 70 - 130 | 2 | 20 |

## Method: 245.1 - Mercury (CVAA)

**Lab Sample ID: MB 550-321238/1-D**
**Matrix: Water**
**Analysis Batch: 321446**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321401**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/23/24 11:39 | 05/23/24 15:07 | 1 |

**Lab Sample ID: MB 550-321401/1-A**
**Matrix: Water**
**Analysis Batch: 321446**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321401**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/23/24 11:39 | 05/23/24 14:50 | 1 |

**Lab Sample ID: LCS 550-321401/2-A**
**Matrix: Water**
**Analysis Batch: 321446**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321401**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00448 | | mg/L | | 90 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321401/3-A**
**Matrix: Water**
**Analysis Batch: 321446**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321401**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00456 | | mg/L | | 91 | 85 - 115 | 2 | 20 |

**Lab Sample ID: 550-218695-A-1-C MSD**
**Matrix: Water**
**Analysis Batch: 321446**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 321401**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00466 | | mg/L | | 93 | 70 - 130 | 5 | 20 |

**Lab Sample ID: 550-218735-M-1-B MS**
**Matrix: Water**
**Analysis Batch: 321446**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 321401**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00528 | | mg/L | | 106 | 70 - 130 | | |

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 550-321671/4**
**Matrix: Water**
**Analysis Batch: 321671**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/29/24 13:58 | 1 |
| Alkalinity, Phenolphthalein | ND | | 6.0 | | mg/L | | | 05/29/24 13:58 | 1 |
| Bicarbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/29/24 13:58 | 1 |
| Carbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/29/24 13:58 | 1 |
| Hydroxide Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/29/24 13:58 | 1 |

## Method: SM 2320B - Alkalinity (Continued)

**Lab Sample ID: LCS 550-321671/3**
**Matrix: Water**
**Analysis Batch: 321671**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 246 | | mg/L | | 98 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321671/16**
**Matrix: Water**
**Analysis Batch: 321671**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 238 | | mg/L | | 95 | 90 - 110 | 3 | 20 |

**Lab Sample ID: 550-218638-B-1 DU**
**Matrix: Water**
**Analysis Batch: 321671**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | 170 | | | 174 | | mg/L | | | | 0.8 | 20 |
| Alkalinity, Phenolphthalein | ND | | | ND | | mg/L | | | | NC | 20 |
| Bicarbonate Alkalinity as CaCO3 | 170 | | | 174 | | mg/L | | | | 0.8 | 20 |
| Carbonate Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |
| Hydroxide Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 550-321405/1**
**Matrix: Water**
**Analysis Batch: 321405**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 05/23/24 11:23 | 1 |

**Lab Sample ID: LCS 550-321405/2**
**Matrix: Water**
**Analysis Batch: 321405**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 978 | | mg/L | | 98 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321405/3**
**Matrix: Water**
**Analysis Batch: 321405**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 992 | | mg/L | | 99 | 90 - 110 | 1 | 10 |

**Lab Sample ID: 550-218517-A-4 DU**
**Matrix: Water**
**Analysis Batch: 321405**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 860 | | | 842 | | mg/L | | | | 2 | 10 |

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

**Lab Sample ID: 550-218672-3 DU**
**Matrix: Water**
**Analysis Batch: 321405**

**Client Sample ID: FC-CCR-MW75-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 6900 | | | 6950 | | mg/L | | | | 0.3 | 10 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: LCSSRM 550-321607/1**
**Matrix: Water**
**Analysis Batch: 321607**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.0 | | SU | | 99.3 | 98.5 - 101.5 | | |

**Lab Sample ID: 550-218672-2 DU**
**Matrix: Water**
**Analysis Batch: 321607**

**Client Sample ID: FC-CCR-MW61-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | 8.5 | H5 | | 8.5 | | SU | | | | 0.1 | 5 |
| Temperature | 11.1 | H5 T5 | | 10.2 | | Degrees C | | | | 8 | |

## HPLC/IC

### Analysis Batch: 321344

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218672-2 | FC-CCR-MW61-0524 | Total/NA | Water | 300.0 | |
| 550-218672-2 | FC-CCR-MW61-0524 | Total/NA | Water | 300.0 | |
| 550-218672-3 | FC-CCR-MW75-0524 | Total/NA | Water | 300.0 | |
| 550-218672-3 | FC-CCR-MW75-0524 | Total/NA | Water | 300.0 | |
| MB 550-321344/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-321344/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-321344/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-218673-A-14 MS ^200 | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-218673-A-14 MSD ^200 | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

### Analysis Batch: 321493

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218672-2 | FC-CCR-MW61-0524 | Total/NA | Water | 300.0 | |
| MB 550-321493/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-321493/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-321493/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-218852-J-1 MS | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-218852-J-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

## Metals

### Filtration Batch: 321238

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 550-321238/1-D | Method Blank | Total/NA | Water | Filtration | |

### Prep Batch: 321401

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218672-2 | FC-CCR-MW61-0524 | Total/NA | Water | 245.1 | |
| 550-218672-3 | FC-CCR-MW75-0524 | Total/NA | Water | 245.1 | |
| MB 550-321238/1-D | Method Blank | Total/NA | Water | 245.1 | 321238 |
| MB 550-321401/1-A | Method Blank | Total/NA | Water | 245.1 | |
| LCS 550-321401/2-A | Lab Control Sample | Total/NA | Water | 245.1 | |
| LCSD 550-321401/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | |
| 550-218695-A-1-C MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | |
| 550-218735-M-1-B MS | Matrix Spike | Total/NA | Water | 245.1 | |

### Analysis Batch: 321446

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218672-2 | FC-CCR-MW61-0524 | Total/NA | Water | 245.1 | 321401 |
| 550-218672-3 | FC-CCR-MW75-0524 | Total/NA | Water | 245.1 | 321401 |
| MB 550-321238/1-D | Method Blank | Total/NA | Water | 245.1 | 321401 |
| MB 550-321401/1-A | Method Blank | Total/NA | Water | 245.1 | 321401 |
| LCS 550-321401/2-A | Lab Control Sample | Total/NA | Water | 245.1 | 321401 |
| LCSD 550-321401/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | 321401 |
| 550-218695-A-1-C MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | 321401 |
| 550-218735-M-1-B MS | Matrix Spike | Total/NA | Water | 245.1 | 321401 |

### Prep Batch: 321480

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218672-1 | FC-CCR-MW52-0524 | Total/NA | Water | 200.8 | |
| 550-218672-2 | FC-CCR-MW61-0524 | Total/NA | Water | 200.8 | |

## Metals (Continued)

### Prep Batch: 321480 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218672-3 | FC-CCR-MW75-0524 | Total/NA | Water | 200.8 | |
| 550-218672-4 | FC-CCR-FD03-0524 | Total/NA | Water | 200.8 | |
| MB 550-321480/1-A | Method Blank | Total/NA | Water | 200.8 | |
| LCS 550-321480/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-321480/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-218672-1 MS | FC-CCR-MW52-0524 | Total/NA | Water | 200.8 | |
| 550-218672-1 MSD | FC-CCR-MW52-0524 | Total/NA | Water | 200.8 | |

### Prep Batch: 321484

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218672-1 | FC-CCR-MW52-0524 | Total/NA | Water | 200.7 | |
| 550-218672-2 | FC-CCR-MW61-0524 | Total/NA | Water | 200.7 | |
| 550-218672-3 | FC-CCR-MW75-0524 | Total/NA | Water | 200.7 | |
| 550-218672-4 | FC-CCR-FD03-0524 | Total/NA | Water | 200.7 | |
| MB 550-321484/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-321484/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-321484/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-218672-1 MS | FC-CCR-MW52-0524 | Total/NA | Water | 200.7 | |
| 550-218672-1 MSD | FC-CCR-MW52-0524 | Total/NA | Water | 200.7 | |

### Analysis Batch: 321685

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218672-1 | FC-CCR-MW52-0524 | Total/NA | Water | 200.8 LL | 321480 |
| 550-218672-2 | FC-CCR-MW61-0524 | Total/NA | Water | 200.8 LL | 321480 |
| 550-218672-3 | FC-CCR-MW75-0524 | Total/NA | Water | 200.8 LL | 321480 |
| 550-218672-4 | FC-CCR-FD03-0524 | Total/NA | Water | 200.8 LL | 321480 |
| MB 550-321480/1-A | Method Blank | Total/NA | Water | 200.8 LL | 321480 |
| LCS 550-321480/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 321480 |
| LCSD 550-321480/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 321480 |
| 550-218672-1 MS | FC-CCR-MW52-0524 | Total/NA | Water | 200.8 LL | 321480 |
| 550-218672-1 MSD | FC-CCR-MW52-0524 | Total/NA | Water | 200.8 LL | 321480 |

### Analysis Batch: 321751

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218672-2 | FC-CCR-MW61-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218672-3 | FC-CCR-MW75-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| MB 550-321484/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| LCS 550-321484/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| LCSD 550-321484/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321484 |

### Analysis Batch: 321756

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218672-2 | FC-CCR-MW61-0524 | Total/NA | Water | 200.8 LL | 321480 |
| 550-218672-3 | FC-CCR-MW75-0524 | Total/NA | Water | 200.8 LL | 321480 |
| MB 550-321480/1-A | Method Blank | Total/NA | Water | 200.8 LL | 321480 |
| LCS 550-321480/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 321480 |
| LCSD 550-321480/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 321480 |

### Analysis Batch: 321804

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218672-1 | FC-CCR-MW52-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |

## Metals (Continued)

### Analysis Batch: 321804 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218672-2 | FC-CCR-MW61-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218672-3 | FC-CCR-MW75-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218672-4 | FC-CCR-FD03-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| MB 550-321484/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| LCS 550-321484/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| LCSD 550-321484/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218672-1 MS | FC-CCR-MW52-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218672-1 MSD | FC-CCR-MW52-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |

### Prep Batch: 654597

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218672-2 | FC-CCR-MW61-0524 | Total Recoverable | Water | 200.7 | |
| 550-218672-3 | FC-CCR-MW75-0524 | Total Recoverable | Water | 200.7 | |
| MB 280-654597/1-A | Method Blank | Total Recoverable | Water | 200.7 | |
| LCS 280-654597/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 | |
| 550-218673-D-14-B MS | Matrix Spike | Total Recoverable | Water | 200.7 | |
| 550-218673-D-14-C MSD | Matrix Spike Duplicate | Total Recoverable | Water | 200.7 | |

### Analysis Batch: 655224

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218672-2 | FC-CCR-MW61-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218672-3 | FC-CCR-MW75-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| MB 280-654597/1-A | Method Blank | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| LCS 280-654597/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-D-14-B MS | Matrix Spike | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-D-14-C MSD | Matrix Spike Duplicate | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |

## General Chemistry

### Analysis Batch: 321405

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218672-2 | FC-CCR-MW61-0524 | Total/NA | Water | SM 2540C | |
| 550-218672-3 | FC-CCR-MW75-0524 | Total/NA | Water | SM 2540C | |
| MB 550-321405/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-321405/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-321405/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-218517-A-4 DU | Duplicate | Total/NA | Water | SM 2540C | |
| 550-218672-3 DU | FC-CCR-MW75-0524 | Total/NA | Water | SM 2540C | |

### Analysis Batch: 321607

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218672-2 | FC-CCR-MW61-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218672-3 | FC-CCR-MW75-0524 | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321607/1 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| 550-218672-2 DU | FC-CCR-MW61-0524 | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 321671

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218672-2 | FC-CCR-MW61-0524 | Total/NA | Water | SM 2320B | |
| 550-218672-3 | FC-CCR-MW75-0524 | Total/NA | Water | SM 2320B | |
| MB 550-321671/4 | Method Blank | Total/NA | Water | SM 2320B | |

## General Chemistry (Continued)

### Analysis Batch: 321671 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 550-321671/3 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| LCSD 550-321671/16 | Lab Control Sample Dup | Total/NA | Water | SM 2320B | |
| 550-218638-B-1 DU | Duplicate | Total/NA | Water | SM 2320B | |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groudwater Monitoring

Job ID: 550-218672-1
SDG: APS Four Corners Power Plant (Multiunit)

## Client Sample ID: FC-CCR-MW52-0524

**Lab Sample ID: 550-218672-1**
**Date Collected: 05/16/24 12:00**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321804 | JAC | EET PHX | 05/31/24 15:51 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321685 | DSJ | EET PHX | 05/29/24 17:50 |

## Client Sample ID: FC-CCR-MW61-0524

**Lab Sample ID: 550-218672-2**
**Date Collected: 05/16/24 14:05**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/22/24 15:17 |
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/22/24 15:35 |
| Total/NA | Analysis | 300.0 | | 10 | 321493 | AG1 | EET PHX | 05/24/24 19:39 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 00:23 |
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321751 | GLW | EET PHX | 05/31/24 01:00 |
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321804 | JAC | EET PHX | 05/31/24 15:54 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321685 | DSJ | EET PHX | 05/29/24 17:52 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321756 | DSJ | EET PHX | 05/30/24 17:25 |
| Total/NA | Prep | 245.1 | | | 321401 | HHL | EET PHX | 05/23/24 11:39 |
| Total/NA | Analysis | 245.1 | | 1 | 321446 | HHL | EET PHX | 05/23/24 15:39 |
| Total/NA | Analysis | SM 2320B | | 1 | 321671 | ELN | EET PHX | 05/29/24 14:23 |
| Total/NA | Analysis | SM 2540C | | 1 | 321405 | JLO | EET PHX | 05/23/24 11:23 - 05/29/24 13:27 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 08:22 |

## Client Sample ID: FC-CCR-MW75-0524

**Lab Sample ID: 550-218672-3**
**Date Collected: 05/16/24 12:55**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/22/24 15:54 |
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/22/24 16:12 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 00:27 |
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321751 | GLW | EET PHX | 05/31/24 01:03 |
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321804 | JAC | EET PHX | 05/31/24 15:58 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321685 | DSJ | EET PHX | 05/29/24 17:54 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groudwater Monitoring

Job ID: 550-218672-1
SDG: APS Four Corners Power Plant (Multiunit)

## Client Sample ID: FC-CCR-MW75-0524

**Lab Sample ID: 550-218672-3**

**Date Collected: 05/16/24 12:55**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321756 | DSJ | EET PHX | 05/30/24 17:27 |
| Total/NA | Prep | 245.1 | | | 321401 | HHL | EET PHX | 05/23/24 11:39 |
| Total/NA | Analysis | 245.1 | | 1 | 321446 | HHL | EET PHX | 05/23/24 15:41 |
| Total/NA | Analysis | SM 2320B | | 1 | 321671 | ELN | EET PHX | 05/29/24 14:30 |
| Total/NA | Analysis | SM 2540C | | 1 | 321405 | JLO | EET PHX | 05/23/24 11:23 - 05/29/24 13:27 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 08:34 |

## Client Sample ID: FC-CCR-FD03-0524

**Lab Sample ID: 550-218672-4**

**Date Collected: 05/16/24 16:20**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321804 | JAC | EET PHX | 05/31/24 16:01 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321685 | DSJ | EET PHX | 05/29/24 17:56 |

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

**Laboratory References:**

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

# Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groudwater Monitoring

Job ID: 550-218672-1
SDG: APS Four Corners Power Plant (Multiunit)

## Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0728 | 06-09-24 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

## Laboratory: Eurofins Denver

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0713 | 12-20-24 |

# Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groudwater Monitoring

Job ID: 550-218672-1
SDG: APS Four Corners Power Plant (Multiunit)

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 300.0 | Anions, Ion Chromatography | EPA | EET PHX |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET DEN |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET PHX |
| 200.8 LL | Metals (ICP/MS) | EPA | EET PHX |
| 245.1 | Mercury (CVAA) | EPA | EET PHX |
| SM 2320B | Alkalinity | SM | EET PHX |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET PHX |
| SM 4500 H+ B | pH | SM | EET PHX |
| 200.7 | Preparation, Total Recoverable Metals | EPA | EET DEN |
| 200.7 | Preparation, Total Metals | EPA | EET PHX |
| 200.8 | Preparation, Total Metals | EPA | EET PHX |
| 245.1 | Preparation, Mercury | EPA | EET PHX |

**Protocol References:**

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

**Laboratory References:**

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

218672

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

**TestAmerica Laboratories, Inc.**

| Client Contact | Cameron Corley | Pam Norris (505-598-8781) | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | 505-860-3619 | Lab Contact: Rachel Sester | Carrier: | 1 of 1 COCs |
| PO Box 355, MS 4915 | Analysis Turnaround Time | | | Sampler: |
| Fruitland, NM 87416 | ☐ CALENDAR DAYS ☑ WORKING DAYS | | | For Lab Use Only: |
| Phone | TAT if different from Below _____ | | | Walk-in Client: |
| FAX | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | |
| Site: APS Four Corners Power Plant (Multiunit) | ☐ 2 days | | | Job / SDG No.: |
| PO #: 100622298 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | Perform MS / MSD (Y/N) | EPA 300.0 (Cl, F, SO4) | EPA 200.7 - Totals (B) | EPA 200.7 - Totals (B, Ca, Be) | EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na) | EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na, Mn, Fe) | EPA 200.7 - Total Lithium | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | EPA 200.8 - Totals (Co, Mo) | EPA 245.1 - Totals (Hg) | SM 4500-HB (pH) | SM 2540C (TDS) | SM 2320B (CO3 Alkalinity as CaCO3, HCO3 Alkalinity as CaCO3) | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW52-0524 -01 | 5/16/2024 | 12:00 | G | W | 3 | N | Y | | X | | | | | | X | | | | | Low Flow, MS/MSD included |
| FC-CCR-MW61-0524 -02 | 5/16/2024 | 14:05 | G | W | 3 | N | N | X | | | X | | X | X | | X | X | X | X | Low Flow |
| FC-CCR-MW75-0524 -03 | 5/16/2024 | 12:55 | G | W | 3 | N | N | X | | | X | | X | X | | X | X | X | X | " |
| FC-CCR-FD03-0524 -04 | 5/16/2024 | 16:20 | G | W | 1 | N | N | | X | | | | | | X | | | | | " |
| | | | | | | | | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 1 | 1 | |

550-218672 Chain of Custody

**Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____**

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

**Special Instructions/QC Requirements & Comments:**

*Method 200.8 with collision cell*

1.4°C ICE/BC

| Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____ | | |
|---|---|---|---|---|
| Relinquished by: | Company: WSP | Date/Time: 5/21/24 0807 | Received by: | Company: | Date/Time: 5-21-24 |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: EETA PHX | Date/Time: 5/21/24@ 1405 |

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-39625.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 1 of 1 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-218672-1 |
| Address: 4955 Yarrow Street, , | Due Date Requested: 6/4/2024 | | | Preservation Codes: - |
| City: Arvada | TAT Requested (days): | | | |
| State, Zip: CO, 80002 | | | | |
| Phone: 303-736-0100(Tel) 303-431-7171(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | Other: |

**Analysis Requested**

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Priority Pollutants | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| FC-CCR-MW61-0524 (550-218672-2) | 5/16/24 | 14:05 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW75-0524 (550-218672-3) | 5/16/24 | 12:55 Arizona | | Water | | | X | 1 | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

| Possible Hazard Identification | Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) |
|---|---|
| Unconfirmed | ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| Relinquished by: 05-22-24 15:00 | | ETSW | Fedex | | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: 5/23/24 0900 | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 2.1 Wet CF02 |
|---|---|---|

Ver: 04/02/2024

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218672-1
SDG Number: APS Four Corners Power Plant (Multiunit)

**Login Number: 218672**
**List Number: 1**
**Creator: Gravlin, Andrea**

**List Source: Eurofins Phoenix**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | False | Check done at department level as required. |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218672-1
SDG Number: APS Four Corners Power Plant (Multiunit)

**Login Number: 218672**
**List Number: 2**
**Creator: Naylis, Patrick J**

**List Source: Eurofins Denver**
**List Creation: 05/23/24 01:52 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 6/5/2024 4:37:11 PM

## JOB DESCRIPTION

CCR Groundwater Monitoring
APS Four Corners Power Plant (URS)

## JOB NUMBER

550-218673-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.



my EOL

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

## Authorization



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6/5/2024 4:37:11 PM

Authorized for release by
Emily Petrunia, Project Manager I
Emily.Petrunia@et.eurofinsus.com
Designee for
Linda Eshelman, Project Manager II
linda.eshelman@et.eurofinsus.com
(602)659-7681

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# Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218673-1
SDG: APS Four Corners Power Plant (URS)

## Qualifiers

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| D2 | Sample required dilution due to high concentration of analyte. |
| E2 | Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| L4 | The associated blank spike recovery was below method acceptance limits. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |
| T5 | Laboratory not licensed for this parameter |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| E2 | Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix. |
| H5 | This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time. |
| T5 | Laboratory not licensed for this parameter |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

## Job ID: 550-218673-1 — Eurofins Phoenix

**Job Narrative**
**550-218673-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**
The samples were received on 5/21/2024 2:05 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.1°C and 1.9°C.

**HPLC/IC**
Method 300_ORGFMS: Due to the high concentration of Chloride, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 550-321493 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**Metals**
Method 200.7 - Total Recoverable: The instrument blank for analytical batch 280-655224 contained Li greater than one-half the reporting limit (RL), and were not re-analyzed because the affected samples contained >10x the amount found in the CCB. The data have been qualified and reported.

Method 200.8_CWA_LL: The laboratory control sample (LCS) associated with preparation batch 550-321481 and analytical batch 550-321684 was outside acceptance criteria for the analyte Barium. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. FC-CCR-MW84-0524 (550-218673-8), FC-CCR-MW85-0524 (550-218673-9), FC-CCR-FD01-0524 (550-218673-10), FC-CCR-CM01-0524 (550-218673-11), FC-CCR-CM02-0524 (550-218673-12), FC-CCR-URS05-0524 (550-218673-13), FC-CCR-URS06-0524 (550-218673-14), FC-CCR-URS07-0524 (550-218673-15), FC-CCR-URS08-0524 (550-218673-16) and FC-CCR-FD02-0524 (550-218673-17)

Method 200.8_CWA_LL: The laboratory control sample (LCS) associated with preparation batch 550-321480 and analytical batch 550-321685 was outside acceptance criteria for the analyte Barium. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. FC-CCR-MW67-0524 (550-218673-1), FC-CCR-MW68-0524 (550-218673-2), FC-CCR-MW69-0524 (550-218673-3), FC-CCR-MW71-0524 (550-218673-4), FC-CCR-MW72-0524 (550-218673-5), FC-CCR-MW73-0524 (550-218673-6) and FC-CCR-MW83-0524 (550-218673-7)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**General Chemistry**
Method 2540C_Calcd: The analysis volume selected for the following samples produced a base result greater than 200mg before calculation of the final result: FC-CCR-MW67-0524 (550-218673-1) and FC-CCR-MW68-0524 (550-218673-2). Reanalysis could not be performed due to holding time exceedance. The reference method specifies that no more than 200mg of weight be recovered for a chosen sample analysis volume in order to produce the best data precision. As such, these data have been qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218673-1
SDG: APS Four Corners Power Plant (URS)

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 550-218673-1 | FC-CCR-MW67-0524 | Water | 05/20/24 09:57 | 05/21/24 14:05 |
| 550-218673-2 | FC-CCR-MW68-0524 | Water | 05/20/24 09:15 | 05/21/24 14:05 |
| 550-218673-3 | FC-CCR-MW69-0524 | Water | 05/20/24 10:47 | 05/21/24 14:05 |
| 550-218673-4 | FC-CCR-MW71-0524 | Water | 05/16/24 09:12 | 05/21/24 14:05 |
| 550-218673-5 | FC-CCR-MW72-0524 | Water | 05/16/24 10:02 | 05/21/24 14:05 |
| 550-218673-6 | FC-CCR-MW73-0524 | Water | 05/16/24 10:59 | 05/21/24 14:05 |
| 550-218673-7 | FC-CCR-MW83-0524 | Water | 05/18/24 17:06 | 05/21/24 14:05 |
| 550-218673-8 | FC-CCR-MW84-0524 | Water | 05/18/24 16:04 | 05/21/24 14:05 |
| 550-218673-9 | FC-CCR-MW85-0524 | Water | 05/18/24 11:36 | 05/21/24 14:05 |
| 550-218673-10 | FC-CCR-FD01-0524 | Water | 05/20/24 16:20 | 05/21/24 14:05 |
| 550-218673-11 | FC-CCR-CM01-0524 | Water | 05/18/24 13:18 | 05/21/24 14:05 |
| 550-218673-12 | FC-CCR-CM02-0524 | Water | 05/18/24 13:57 | 05/21/24 14:05 |
| 550-218673-13 | FC-CCR-URS05-0524 | Water | 05/18/24 13:13 | 05/21/24 14:05 |
| 550-218673-14 | FC-CCR-URS06-0524 | Water | 05/18/24 13:55 | 05/21/24 14:05 |
| 550-218673-15 | FC-CCR-URS07-0524 | Water | 05/18/24 12:05 | 05/21/24 14:05 |
| 550-218673-16 | FC-CCR-URS08-0524 | Water | 05/18/24 10:38 | 05/21/24 14:05 |
| 550-218673-17 | FC-CCR-FD02-0524 | Water | 05/18/24 12:34 | 05/21/24 14:05 |

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218673-1
SDG: APS Four Corners Power Plant (URS)

## Client Sample ID: FC-CCR-MW67-0524 — Lab Sample ID: 550-218673-1

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1600 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 9.4 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 12000 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 230 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 460 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 420 | T5 | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0077 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.028 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.0096 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.037 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Thallium | 0.0012 | | 0.0010 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 20000 | E2 | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.4 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 11.1 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW68-0524 — Lab Sample ID: 550-218673-2

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1700 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 8.7 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 15000 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 250 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 440 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 470 | T5 | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0096 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.17 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.025 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0076 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.0065 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Thallium | 0.0018 | | 0.0010 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Mercury | 0.00085 | | 0.00020 | | mg/L | 1 | | 245.1 | Total/NA |
| Total Dissolved Solids | 25000 | E2 | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.2 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 12.8 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW69-0524 — Lab Sample ID: 550-218673-3

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 760 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 2.9 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 3500 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 47 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 550 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 180 | T5 | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0081 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.0056 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.094 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 6600 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.4 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 12.3 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218673-1
SDG: APS Four Corners Power Plant (URS)

## Client Sample ID: FC-CCR-MW71-0524 — Lab Sample ID: 550-218673-4

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 550 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Sulfate | 9800 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 0.76 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 440 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 390 | T5 | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0070 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.011 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.25 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 17000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.3 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 11.4 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW72-0524 — Lab Sample ID: 550-218673-5

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 400 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Sulfate | 8500 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 0.28 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 470 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 360 | T5 | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0069 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.0073 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.078 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 14000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.3 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 12.0 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW73-0524 — Lab Sample ID: 550-218673-6

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 520 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Sulfate | 6300 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 2.4 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 520 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 300 | T5 | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0065 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.016 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 11000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.1 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 13.1 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW83-0524 — Lab Sample ID: 550-218673-7

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 140 | D2 | 20 | | mg/L | 10 | | 300.0 | Total/NA |
| Fluoride | 1.7 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 3500 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 3.8 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 500 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-MW83-0524 (Continued) — Lab Sample ID: 550-218673-7

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 190 | T5 | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0071 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.016 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0074 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 5500 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 13.3 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW84-0524 — Lab Sample ID: 550-218673-8

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 840 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Sulfate | 7800 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 95 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 560 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 250 | T5 | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0069 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.015 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.0069 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.068 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 14000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.1 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 14.3 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW85-0524 — Lab Sample ID: 550-218673-9

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 630 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 1.1 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 5500 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 93 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 580 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 370 | T5 | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0078 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.014 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Chromium | 0.012 | | 0.010 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0051 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.22 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 9600 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.1 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 13.5 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-FD01-0524 — Lab Sample ID: 550-218673-10

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 780 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Sulfate | 7500 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 100 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 570 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-FD01-0524 (Continued) — Lab Sample ID: 550-218673-10

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 260 | T5 | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0069 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.015 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.0071 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.070 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 14000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.2 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 14.0 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-CM01-0524 — Lab Sample ID: 550-218673-11

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1100 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 1.9 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 7700 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 120 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 500 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 380 | T5 | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0068 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.016 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.0078 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.071 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 14000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.4 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 17.4 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-CM02-0524 — Lab Sample ID: 550-218673-12

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1000 | | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 2.8 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 8100 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 130 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 490 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 340 | T5 | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0065 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.013 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.0086 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.021 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Thallium | 0.0010 | | 0.0010 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 15000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.2 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 12.9 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-URS05-0524 — Lab Sample ID: 550-218673-13

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1200 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 4.8 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 8800 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-URS05-0524 (Continued) — Lab Sample ID: 550-218673-13

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 180 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 470 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 310 | T5 | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0068 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.019 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.011 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.081 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.0090 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Thallium | 0.0014 | | 0.0010 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 15000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.2 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 14.1 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-URS06-0524 — Lab Sample ID: 550-218673-14

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1100 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Sulfate | 8600 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 130 | M3 | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 460 | M3 | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 390 | T5 | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0072 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.012 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.0095 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.0083 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Thallium | 0.0010 | | 0.0010 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 16000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 6.8 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 13.6 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-URS07-0524 — Lab Sample ID: 550-218673-15

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 940 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 1.4 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 7300 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 170 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 510 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 240 | T5 | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0072 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.019 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.0075 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.026 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.0098 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 12000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.3 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 14.7 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218673-1
SDG: APS Four Corners Power Plant (URS)

## Client Sample ID: FC-CCR-URS08-0524 — Lab Sample ID: 550-218673-16

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1100 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 8.1 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 8400 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 130 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 380 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 250 | T5 | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0081 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.031 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.0061 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.072 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.0095 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 14000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.3 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 15.5 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-FD02-0524 — Lab Sample ID: 550-218673-17

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1100 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Sulfate | 8700 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 140 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 470 | | 10 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 380 | T5 | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0066 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.013 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.0099 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.012 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 11000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.0 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 15.0 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-MW67-0524

**Lab Sample ID: 550-218673-1**
**Date Collected: 05/20/24 09:57**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1600** | **D2** | 400 | | mg/L | | | 05/22/24 17:44 | 200 |
| **Fluoride** | **9.4** | | 0.40 | | mg/L | | | 05/22/24 16:31 | 1 |
| **Sulfate** | **12000** | **D2** | 400 | | mg/L | | | 05/22/24 17:44 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **230** | | 0.25 | | mg/L | | 05/24/24 09:02 | 05/31/24 16:05 | 5 |
| **Calcium** | **460** | | 10 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:10 | 5 |
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:10 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **420** | **T5** | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 00:32 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:58 | 10 |
| **Arsenic** | **0.0077** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:58 | 10 |
| **Barium** | **0.028** | **L4** | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:58 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:58 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:58 | 10 |
| **Cobalt** | **0.0096** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:58 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:58 | 10 |
| **Molybdenum** | **0.037** | **T5** | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:58 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/30/24 17:29 | 10 |
| **Thallium** | **0.0012** | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:58 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/29/24 12:16 | 05/29/24 14:54 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **20000** | **E2** | 100 | | mg/L | | | 05/23/24 11:30 | 1 |
| **pH (SM 4500 H+ B)** | **7.4** | **H5** | 1.7 | | SU | | | 05/29/24 08:37 | 1 |
| **Temperature (SM 4500 H+ B)** | **11.1** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 08:37 | 1 |

## Client Sample ID: FC-CCR-MW68-0524

**Lab Sample ID: 550-218673-2**
**Date Collected: 05/20/24 09:15**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1700** | **D2** | 400 | | mg/L | | | 05/22/24 18:21 | 200 |
| **Fluoride** | **8.7** | | 0.40 | | mg/L | | | 05/22/24 18:03 | 1 |
| **Sulfate** | **15000** | **D2** | 400 | | mg/L | | | 05/22/24 18:21 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **250** | | 0.25 | | mg/L | | 05/24/24 09:02 | 05/31/24 16:08 | 5 |
| **Calcium** | **440** | | 10 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:14 | 5 |

## Client Sample ID: FC-CCR-MW68-0524

**Lab Sample ID: 550-218673-2**

**Date Collected: 05/20/24 09:15**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:14 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **470** | **T5** | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 00:36 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:00 | 10 |
| **Arsenic** | **0.0096** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:00 | 10 |
| **Barium** | **0.17** | **L4** | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:00 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:00 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:00 | 10 |
| **Cobalt** | **0.025** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:00 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:00 | 10 |
| **Molybdenum** | **0.0076** | **T5** | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:00 | 10 |
| **Selenium** | **0.0065** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/30/24 17:31 | 10 |
| **Thallium** | **0.0018** | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:00 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Mercury** | **0.00085** | | 0.00020 | | mg/L | | 05/29/24 12:16 | 05/29/24 14:56 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **25000** | **E2** | 100 | | mg/L | | | 05/23/24 11:30 | 1 |
| **pH (SM 4500 H+ B)** | **7.2** | **H5** | 1.7 | | SU | | | 05/29/24 08:39 | 1 |
| **Temperature (SM 4500 H+ B)** | **12.8** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 08:39 | 1 |

## Client Sample ID: FC-CCR-MW69-0524

**Lab Sample ID: 550-218673-3**

**Date Collected: 05/20/24 10:47**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **760** | **D2** | 400 | | mg/L | | | 05/22/24 18:58 | 200 |
| **Fluoride** | **2.9** | | 0.40 | | mg/L | | | 05/22/24 18:40 | 1 |
| **Sulfate** | **3500** | **D2** | 400 | | mg/L | | | 05/22/24 18:58 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **47** | | 0.25 | | mg/L | | 05/24/24 09:02 | 05/31/24 16:18 | 5 |
| **Calcium** | **550** | | 10 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:24 | 5 |
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:24 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **180** | **T5** | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 00:40 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:08 | 10 |

## Client Sample ID: FC-CCR-MW69-0524

**Lab Sample ID: 550-218673-3**

**Date Collected: 05/20/24 10:47**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **0.0081** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:08 | 10 |
| **Barium** | **0.0056** | **L4** | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:08 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:08 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:08 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:08 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:08 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:08 | 10 |
| **Selenium** | **0.094** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/30/24 17:33 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:08 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/29/24 12:16 | 05/29/24 14:58 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **6600** | | 100 | | mg/L | | | 05/23/24 11:30 | 1 |
| **pH (SM 4500 H+ B)** | **7.4** | **H5** | 1.7 | | SU | | | 05/29/24 08:41 | 1 |
| **Temperature (SM 4500 H+ B)** | **12.3** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 08:41 | 1 |

## Client Sample ID: FC-CCR-MW71-0524

**Lab Sample ID: 550-218673-4**

**Date Collected: 05/16/24 09:12**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **550** | **D2** | 400 | | mg/L | | | 05/22/24 19:35 | 200 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/22/24 19:16 | 1 |
| **Sulfate** | **9800** | **D2** | 400 | | mg/L | | | 05/22/24 19:35 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **0.76** | | 0.25 | | mg/L | | 05/24/24 09:02 | 05/31/24 16:21 | 5 |
| **Calcium** | **440** | | 10 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:27 | 5 |
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:27 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **390** | **T5** | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 00:44 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:10 | 10 |
| **Arsenic** | **0.0070** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:10 | 10 |
| **Barium** | **0.011** | **L4** | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:10 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:10 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:10 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:10 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:10 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:10 | 10 |
| **Selenium** | **0.25** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/30/24 17:35 | 10 |

## Client Sample ID: FC-CCR-MW71-0524

**Lab Sample ID: 550-218673-4**
**Date Collected: 05/16/24 09:12**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Thallium | ND | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:10 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/29/24 12:16 | 05/29/24 15:00 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **17000** | | 100 | | mg/L | | | 05/23/24 11:23 | 1 |
| **pH (SM 4500 H+ B)** | **7.3** | **H5** | 1.7 | | SU | | | 05/29/24 08:42 | 1 |
| **Temperature (SM 4500 H+ B)** | **11.4** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 08:42 | 1 |

## Client Sample ID: FC-CCR-MW72-0524

**Lab Sample ID: 550-218673-5**
**Date Collected: 05/16/24 10:02**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **400** | **D2** | 400 | | mg/L | | | 05/22/24 20:12 | 200 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/22/24 19:53 | 1 |
| **Sulfate** | **8500** | **D2** | 400 | | mg/L | | | 05/22/24 20:12 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **0.28** | | 0.25 | | mg/L | | 05/24/24 09:02 | 05/31/24 16:25 | 5 |
| **Calcium** | **470** | | 10 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:30 | 5 |
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:30 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **360** | **T5** | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 00:47 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:12 | 10 |
| **Arsenic** | **0.0069** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:12 | 10 |
| **Barium** | **0.0073** | **L4** | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:12 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:12 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:12 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:12 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:12 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:12 | 10 |
| **Selenium** | **0.078** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/30/24 17:37 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:12 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/29/24 12:16 | 05/29/24 15:03 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **14000** | | 100 | | mg/L | | | 05/23/24 11:23 | 1 |

## Client Sample ID: FC-CCR-MW72-0524

**Lab Sample ID: 550-218673-5**
**Date Collected: 05/16/24 10:02**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **pH (SM 4500 H+ B)** | **7.3** | **H5** | 1.7 | | SU | | | 05/29/24 08:44 | 1 |
| **Temperature (SM 4500 H+ B)** | **12.0** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 08:44 | 1 |

## Client Sample ID: FC-CCR-MW73-0524

**Lab Sample ID: 550-218673-6**
**Date Collected: 05/16/24 10:59**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **520** | **D2** | 400 | | mg/L | | | 05/22/24 21:44 | 200 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/22/24 21:25 | 1 |
| **Sulfate** | **6300** | **D2** | 400 | | mg/L | | | 05/22/24 21:44 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **2.4** | | 0.25 | | mg/L | | 05/24/24 09:02 | 05/31/24 16:28 | 5 |
| **Calcium** | **520** | | 10 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:34 | 5 |
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:34 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **300** | **T5** | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 00:51 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:14 | 10 |
| **Arsenic** | **0.0065** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:14 | 10 |
| **Barium** | **0.016** | **L4** | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:14 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:14 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:14 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:14 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:14 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:14 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/30/24 17:39 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:14 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/29/24 12:16 | 05/29/24 15:05 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **11000** | | 100 | | mg/L | | | 05/23/24 11:23 | 1 |
| **pH (SM 4500 H+ B)** | **7.1** | **H5** | 1.7 | | SU | | | 05/29/24 08:51 | 1 |
| **Temperature (SM 4500 H+ B)** | **13.1** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 08:51 | 1 |

## Client Sample ID: FC-CCR-MW83-0524

**Lab Sample ID: 550-218673-7**

**Date Collected: 05/18/24 17:06**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **140** | **D2** | 20 | | mg/L | | | 05/24/24 19:57 | 10 |
| **Fluoride** | **1.7** | | 0.40 | | mg/L | | | 05/22/24 22:02 | 1 |
| **Sulfate** | **3500** | **D2** | 400 | | mg/L | | | 05/22/24 22:20 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **3.8** | | 0.25 | | mg/L | | 05/24/24 09:02 | 05/31/24 16:32 | 5 |
| **Calcium** | **500** | | 10 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:37 | 5 |
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:02 | 05/31/24 01:37 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **190** | **T5** | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 00:55 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:16 | 10 |
| **Arsenic** | **0.0071** | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:16 | 10 |
| **Barium** | **0.016** | **L4** | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:16 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:16 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:16 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:16 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:16 | 10 |
| **Molybdenum** | **0.0074** | **T5** | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:16 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/24/24 07:53 | 05/30/24 17:41 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 18:16 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/29/24 12:16 | 05/29/24 15:07 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **5500** | | 100 | | mg/L | | | 05/23/24 11:30 | 1 |
| **pH (SM 4500 H+ B)** | **7.5** | **H5** | 1.7 | | SU | | | 05/29/24 08:54 | 1 |
| **Temperature (SM 4500 H+ B)** | **13.3** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 08:54 | 1 |

## Client Sample ID: FC-CCR-MW84-0524

**Lab Sample ID: 550-218673-8**

**Date Collected: 05/18/24 16:04**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **840** | **D2** | 400 | | mg/L | | | 05/22/24 22:57 | 200 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/22/24 22:39 | 1 |
| **Sulfate** | **7800** | **D2** | 400 | | mg/L | | | 05/22/24 22:57 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **95** | | 0.25 | | mg/L | | 05/24/24 09:40 | 05/31/24 18:19 | 5 |
| **Calcium** | **560** | | 10 | | mg/L | | 05/24/24 09:40 | 05/30/24 23:56 | 5 |

## Client Sample ID: FC-CCR-MW84-0524

**Lab Sample ID: 550-218673-8**

**Date Collected: 05/18/24 16:04**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:40 | 05/30/24 23:56 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **250** | **T5** | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 01:11 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:16 | 10 |
| **Arsenic** | **0.0069** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:16 | 10 |
| **Barium** | **0.015** | **L4** | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:16 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:16 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:16 | 10 |
| **Cobalt** | **0.0069** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:16 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:16 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:16 | 10 |
| **Selenium** | **0.068** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:16 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:16 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/29/24 12:16 | 05/29/24 15:09 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **14000** | | 100 | | mg/L | | | 05/23/24 11:30 | 1 |
| **pH (SM 4500 H+ B)** | **7.1** | **H5** | 1.7 | | SU | | | 05/29/24 08:56 | 1 |
| **Temperature (SM 4500 H+ B)** | **14.3** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 08:56 | 1 |

## Client Sample ID: FC-CCR-MW85-0524

**Lab Sample ID: 550-218673-9**

**Date Collected: 05/18/24 11:36**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **630** | **D2** | 400 | | mg/L | | | 05/22/24 23:34 | 200 |
| **Fluoride** | **1.1** | | 0.40 | | mg/L | | | 05/22/24 23:16 | 1 |
| **Sulfate** | **5500** | **D2** | 400 | | mg/L | | | 05/22/24 23:34 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **93** | | 0.25 | | mg/L | | 05/24/24 09:40 | 05/31/24 18:22 | 5 |
| **Calcium** | **580** | | 10 | | mg/L | | 05/24/24 09:40 | 05/30/24 23:59 | 5 |
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:40 | 05/30/24 23:59 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **370** | **T5** | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 01:14 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:18 | 10 |

## Client Sample ID: FC-CCR-MW85-0524

**Lab Sample ID: 550-218673-9**
**Date Collected: 05/18/24 11:36**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **0.0078** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:18 | 10 |
| **Barium** | **0.014** | **L4** | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:18 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:18 | 10 |
| **Chromium** | **0.012** | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:18 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:18 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:18 | 10 |
| **Molybdenum** | **0.0051** | **T5** | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:18 | 10 |
| **Selenium** | **0.22** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:18 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:18 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/29/24 12:16 | 05/29/24 15:11 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **9600** | | 100 | | mg/L | | | 05/23/24 11:30 | 1 |
| **pH (SM 4500 H+ B)** | **7.1** | **H5** | 1.7 | | SU | | | 05/29/24 08:58 | 1 |
| **Temperature (SM 4500 H+ B)** | **13.5** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 08:58 | 1 |

## Client Sample ID: FC-CCR-FD01-0524

**Lab Sample ID: 550-218673-10**
**Date Collected: 05/20/24 16:20**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **780** | **D2** | 400 | | mg/L | | | 05/23/24 01:06 | 200 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/22/24 23:52 | 1 |
| **Sulfate** | **7500** | **D2** | 400 | | mg/L | | | 05/23/24 01:06 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **100** | | 0.25 | | mg/L | | 05/24/24 09:40 | 05/31/24 18:25 | 5 |
| **Calcium** | **570** | | 10 | | mg/L | | 05/24/24 09:40 | 05/31/24 00:02 | 5 |
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:40 | 05/31/24 00:02 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **260** | **T5** | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 01:18 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:20 | 10 |
| **Arsenic** | **0.0069** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:20 | 10 |
| **Barium** | **0.015** | **L4** | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:20 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:20 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:20 | 10 |
| **Cobalt** | **0.0071** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:20 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:20 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:20 | 10 |
| **Selenium** | **0.070** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:20 | 10 |

## Client Sample ID: FC-CCR-FD01-0524

**Lab Sample ID: 550-218673-10**
**Date Collected: 05/20/24 16:20**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Thallium | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:20 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/29/24 12:16 | 05/29/24 15:20 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **14000** | | 100 | | mg/L | | | 05/23/24 11:30 | 1 |
| **pH (SM 4500 H+ B)** | **7.2** | **H5** | 1.7 | | SU | | | 05/29/24 09:01 | 1 |
| **Temperature (SM 4500 H+ B)** | **14.0** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 09:01 | 1 |

## Client Sample ID: FC-CCR-CM01-0524

**Lab Sample ID: 550-218673-11**
**Date Collected: 05/18/24 13:18**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1100** | **D2** | 400 | | mg/L | | | 05/23/24 01:43 | 200 |
| **Fluoride** | **1.9** | | 0.40 | | mg/L | | | 05/23/24 01:24 | 1 |
| **Sulfate** | **7700** | **D2** | 400 | | mg/L | | | 05/23/24 01:43 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **120** | | 0.25 | | mg/L | | 05/24/24 09:40 | 05/31/24 18:29 | 5 |
| **Calcium** | **500** | | 10 | | mg/L | | 05/24/24 09:40 | 05/31/24 00:06 | 5 |
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:40 | 05/31/24 00:06 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **380** | **T5** | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 01:22 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:22 | 10 |
| **Arsenic** | **0.0068** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:22 | 10 |
| **Barium** | **0.016** | **L4** | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:22 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:22 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:22 | 10 |
| **Cobalt** | **0.0078** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:22 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:22 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:22 | 10 |
| **Selenium** | **0.071** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:22 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:22 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/29/24 12:16 | 05/29/24 15:22 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **14000** | | 100 | | mg/L | | | 05/23/24 11:30 | 1 |

## Client Sample ID: FC-CCR-CM01-0524

**Lab Sample ID: 550-218673-11**

**Date Collected: 05/18/24 13:18**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| pH (SM 4500 H+ B) | 7.4 | H5 | 1.7 | | SU | | | 05/29/24 09:25 | 1 |
| Temperature (SM 4500 H+ B) | 17.4 | H5 T5 | 0.1 | | Degrees C | | | 05/29/24 09:25 | 1 |

## Client Sample ID: FC-CCR-CM02-0524

**Lab Sample ID: 550-218673-12**

**Date Collected: 05/18/24 13:57**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1000 | | 400 | | mg/L | | | 05/23/24 02:20 | 200 |
| Fluoride | 2.8 | | 0.40 | | mg/L | | | 05/23/24 02:01 | 1 |
| Sulfate | 8100 | D2 | 400 | | mg/L | | | 05/23/24 02:20 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 130 | | 0.25 | | mg/L | | 05/24/24 09:40 | 05/31/24 18:32 | 5 |
| Calcium | 490 | | 10 | | mg/L | | 05/24/24 09:40 | 05/31/24 00:09 | 5 |
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:40 | 05/31/24 00:09 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 340 | T5 | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 01:26 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:24 | 10 |
| Arsenic | 0.0065 | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:24 | 10 |
| Barium | 0.013 | L4 | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:24 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:24 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:24 | 10 |
| Cobalt | 0.0086 | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:24 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:24 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:24 | 10 |
| Selenium | 0.021 | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:24 | 10 |
| Thallium | 0.0010 | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:24 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/29/24 12:16 | 05/29/24 15:24 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 15000 | | 100 | | mg/L | | | 05/23/24 11:30 | 1 |
| pH (SM 4500 H+ B) | 7.2 | H5 | 1.7 | | SU | | | 05/29/24 10:15 | 1 |
| Temperature (SM 4500 H+ B) | 12.9 | H5 T5 | 0.1 | | Degrees C | | | 05/29/24 10:15 | 1 |

## Client Sample ID: FC-CCR-URS05-0524

**Lab Sample ID: 550-218673-13**

**Date Collected: 05/18/24 13:13**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1200** | **D2** | 400 | | mg/L | | | 05/23/24 02:56 | 200 |
| **Fluoride** | **4.8** | | 0.40 | | mg/L | | | 05/23/24 02:38 | 1 |
| **Sulfate** | **8800** | **D2** | 400 | | mg/L | | | 05/23/24 02:56 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **180** | | 0.25 | | mg/L | | 05/24/24 09:40 | 05/31/24 18:36 | 5 |
| **Calcium** | **470** | | 10 | | mg/L | | 05/24/24 09:40 | 05/31/24 00:13 | 5 |
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:40 | 05/31/24 00:13 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **310** | **T5** | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 01:30 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:26 | 10 |
| **Arsenic** | **0.0068** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:26 | 10 |
| **Barium** | **0.019** | **L4** | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:26 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:26 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:26 | 10 |
| **Cobalt** | **0.011** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:26 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:26 | 10 |
| **Molybdenum** | **0.081** | **T5** | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:26 | 10 |
| **Selenium** | **0.0090** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:26 | 10 |
| **Thallium** | **0.0014** | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:26 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/29/24 12:16 | 05/29/24 15:26 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **15000** | | 100 | | mg/L | | | 05/23/24 11:30 | 1 |
| **pH (SM 4500 H+ B)** | **7.2** | **H5** | 1.7 | | SU | | | 05/29/24 10:18 | 1 |
| **Temperature (SM 4500 H+ B)** | **14.1** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 10:18 | 1 |

## Client Sample ID: FC-CCR-URS06-0524

**Lab Sample ID: 550-218673-14**

**Date Collected: 05/18/24 13:55**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1100** | **D2** | 400 | | mg/L | | | 05/22/24 14:22 | 200 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/22/24 14:03 | 1 |
| **Sulfate** | **8600** | **D2** | 400 | | mg/L | | | 05/22/24 14:22 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **130** | **M3** | 0.25 | | mg/L | | 05/24/24 09:40 | 05/31/24 18:15 | 5 |
| **Calcium** | **460** | **M3** | 10 | | mg/L | | 05/24/24 09:40 | 05/30/24 23:52 | 5 |

## Client Sample ID: FC-CCR-URS06-0524

**Lab Sample ID: 550-218673-14**

**Date Collected: 05/18/24 13:55**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:40 | 05/30/24 23:52 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **390** | **T5** | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 01:34 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:14 | 10 |
| **Arsenic** | **0.0072** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:14 | 10 |
| **Barium** | **0.012** | **L4** | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:14 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:14 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:14 | 10 |
| **Cobalt** | **0.0095** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:14 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:14 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:14 | 10 |
| **Selenium** | **0.0083** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:14 | 10 |
| **Thallium** | **0.0010** | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:14 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/29/24 12:16 | 05/29/24 14:51 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **16000** | | 100 | | mg/L | | | 05/23/24 11:30 | 1 |
| **pH (SM 4500 H+ B)** | **6.8** | **H5** | 1.7 | | SU | | | 05/29/24 10:13 | 1 |
| **Temperature (SM 4500 H+ B)** | **13.6** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 10:13 | 1 |

## Client Sample ID: FC-CCR-URS07-0524

**Lab Sample ID: 550-218673-15**

**Date Collected: 05/18/24 12:05**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **940** | **D2** | 400 | | mg/L | | | 05/23/24 03:33 | 200 |
| **Fluoride** | **1.4** | | 0.40 | | mg/L | | | 05/23/24 03:15 | 1 |
| **Sulfate** | **7300** | **D2** | 400 | | mg/L | | | 05/23/24 03:33 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **170** | | 0.25 | | mg/L | | 05/24/24 09:40 | 05/31/24 18:39 | 5 |
| **Calcium** | **510** | | 10 | | mg/L | | 05/24/24 09:40 | 05/31/24 00:16 | 5 |
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:40 | 05/31/24 00:16 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **240** | **T5** | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 02:05 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:28 | 10 |

## Client Sample ID: FC-CCR-URS07-0524

**Lab Sample ID: 550-218673-15**

**Date Collected: 05/18/24 12:05**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **0.0072** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:28 | 10 |
| **Barium** | **0.019** | **L4** | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:28 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:28 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:28 | 10 |
| **Cobalt** | **0.0075** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:28 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:28 | 10 |
| **Molybdenum** | **0.026** | **T5** | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:28 | 10 |
| **Selenium** | **0.0098** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:28 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:28 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/29/24 12:16 | 05/29/24 15:28 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **12000** | | 100 | | mg/L | | | 05/23/24 11:30 | 1 |
| **pH (SM 4500 H+ B)** | **7.3** | **H5** | 1.7 | | SU | | | 05/29/24 10:19 | 1 |
| **Temperature (SM 4500 H+ B)** | **14.7** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 10:19 | 1 |

## Client Sample ID: FC-CCR-URS08-0524

**Lab Sample ID: 550-218673-16**

**Date Collected: 05/18/24 10:38**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1100** | **D2** | 400 | | mg/L | | | 05/23/24 05:05 | 200 |
| **Fluoride** | **8.1** | | 0.40 | | mg/L | | | 05/23/24 04:47 | 1 |
| **Sulfate** | **8400** | **D2** | 400 | | mg/L | | | 05/23/24 05:05 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **130** | | 0.25 | | mg/L | | 05/24/24 09:40 | 05/31/24 18:42 | 5 |
| **Calcium** | **380** | | 10 | | mg/L | | 05/24/24 09:40 | 05/31/24 00:19 | 5 |
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:40 | 05/31/24 00:19 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **250** | **T5** | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 02:17 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:30 | 10 |
| **Arsenic** | **0.0081** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:30 | 10 |
| **Barium** | **0.031** | **L4** | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:30 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:30 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:30 | 10 |
| **Cobalt** | **0.0061** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:30 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:30 | 10 |
| **Molybdenum** | **0.072** | **T5** | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:30 | 10 |
| **Selenium** | **0.0095** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:30 | 10 |

## Client Sample ID: FC-CCR-URS08-0524

**Lab Sample ID: 550-218673-16**
**Date Collected: 05/18/24 10:38**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Thallium | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:30 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/29/24 12:16 | 05/29/24 15:30 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **14000** | | 100 | | mg/L | | | 05/23/24 11:30 | 1 |
| **pH (SM 4500 H+ B)** | **7.3** | **H5** | 1.7 | | SU | | | 05/29/24 10:21 | 1 |
| **Temperature (SM 4500 H+ B)** | **15.5** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 10:21 | 1 |

## Client Sample ID: FC-CCR-FD02-0524

**Lab Sample ID: 550-218673-17**
**Date Collected: 05/18/24 12:34**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1100** | **D2** | 400 | | mg/L | | | 05/23/24 05:42 | 200 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/23/24 05:24 | 1 |
| **Sulfate** | **8700** | **D2** | 400 | | mg/L | | | 05/23/24 05:42 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **140** | | 0.25 | | mg/L | | 05/24/24 09:40 | 05/31/24 18:46 | 5 |
| **Calcium** | **470** | | 10 | | mg/L | | 05/24/24 09:40 | 05/31/24 00:23 | 5 |
| Beryllium | ND | | 0.0050 | | mg/L | | 05/24/24 09:40 | 05/31/24 00:23 | 5 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **380** | **T5** | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 02:20 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:32 | 10 |
| **Arsenic** | **0.0066** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:32 | 10 |
| **Barium** | **0.013** | **L4** | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:32 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:32 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:32 | 10 |
| **Cobalt** | **0.0099** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:32 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:32 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:32 | 10 |
| **Selenium** | **0.012** | | 0.0050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:32 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:32 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/29/24 12:16 | 05/29/24 15:32 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **11000** | | 100 | | mg/L | | | 05/23/24 11:30 | 1 |

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218673-1
SDG: APS Four Corners Power Plant (URS)

**Client Sample ID: FC-CCR-FD02-0524**
**Date Collected: 05/18/24 12:34**
**Date Received: 05/21/24 14:05**

**Lab Sample ID: 550-218673-17**
**Matrix: Water**

## General Chemistry (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| pH (SM 4500 H+ B) | 7.0 | H5 | 1.7 | | SU | | | 05/29/24 10:22 | 1 |
| Temperature (SM 4500 H+ B) | 15.0 | H5 T5 | 0.1 | | Degrees C | | | 05/29/24 10:22 | 1 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 550-321344/2**
**Matrix: Water**
**Analysis Batch: 321344**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 05/22/24 12:31 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/22/24 12:31 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 05/22/24 12:31 | 1 |

**Lab Sample ID: LCS 550-321344/5**
**Matrix: Water**
**Analysis Batch: 321344**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 18.8 | | mg/L | | 94 | 90 - 110 | | |
| Fluoride | | | 4.00 | 3.89 | | mg/L | | 97 | 90 - 110 | | |
| Sulfate | | | 20.0 | 18.7 | | mg/L | | 94 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321344/6**
**Matrix: Water**
**Analysis Batch: 321344**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.0 | | mg/L | | 95 | 90 - 110 | 1 | 20 |
| Fluoride | | | 4.00 | 3.91 | | mg/L | | 98 | 90 - 110 | 1 | 20 |
| Sulfate | | | 20.0 | 18.8 | | mg/L | | 94 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 550-218673-14 MS**
**Matrix: Water**
**Analysis Batch: 321344**

**Client Sample ID: FC-CCR-URS06-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1100 | D2 | 4000 | 4840 | D2 | mg/L | | 94 | 80 - 120 | | |
| Fluoride | ND | D1 D5 | 800 | 728 | D2 | mg/L | | 91 | 80 - 120 | | |
| Sulfate | 8600 | D2 | 4000 | 12000 | D2 | mg/L | | 86 | 80 - 120 | | |

**Lab Sample ID: 550-218673-14 MSD**
**Matrix: Water**
**Analysis Batch: 321344**

**Client Sample ID: FC-CCR-URS06-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1100 | D2 | 4000 | 4870 | D2 | mg/L | | 94 | 80 - 120 | 1 | 20 |
| Fluoride | ND | D1 D5 | 800 | 738 | D2 | mg/L | | 92 | 80 - 120 | 1 | 20 |
| Sulfate | 8600 | D2 | 4000 | 12000 | D2 | mg/L | | 86 | 80 - 120 | 0 | 20 |

**Lab Sample ID: MB 550-321493/2**
**Matrix: Water**
**Analysis Batch: 321493**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 05/24/24 12:54 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/24/24 12:54 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 05/24/24 12:54 | 1 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 550-321493/5**
**Matrix: Water**
**Analysis Batch: 321493**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 18.8 | | mg/L | | 94 | 90 - 110 | | |
| Fluoride | | | 4.00 | 3.85 | | mg/L | | 96 | 90 - 110 | | |
| Sulfate | | | 20.0 | 18.7 | | mg/L | | 94 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321493/6**
**Matrix: Water**
**Analysis Batch: 321493**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.0 | | mg/L | | 95 | 90 - 110 | 1 | 20 |
| Fluoride | | | 4.00 | 3.90 | | mg/L | | 97 | 90 - 110 | 1 | 20 |
| Sulfate | | | 20.0 | 18.9 | | mg/L | | 95 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 550-218852-J-1 MS**
**Matrix: Water**
**Analysis Batch: 321493**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 110 | E2 M3 | 20.0 | 123 | E2 M3 | mg/L | | 54 | 80 - 120 | | |
| Fluoride | ND | | 4.00 | 3.76 | | mg/L | | 91 | 80 - 120 | | |
| Sulfate | 27 | | 20.0 | 44.1 | | mg/L | | 86 | 80 - 120 | | |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 550-321484/1-A**
**Matrix: Water**
**Analysis Batch: 321751**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | ND | | 2.0 | | mg/L | | 05/24/24 09:02 | 05/31/24 00:40 | 1 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/24/24 09:02 | 05/31/24 00:40 | 1 |

**Lab Sample ID: MB 550-321484/1-A**
**Matrix: Water**
**Analysis Batch: 321804**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | ND | | 0.050 | | mg/L | | 05/24/24 09:02 | 05/31/24 15:34 | 1 |

**Lab Sample ID: LCS 550-321484/2-A**
**Matrix: Water**
**Analysis Batch: 321751**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | | | 21.0 | 22.5 | | mg/L | | 107 | 85 - 115 | | |
| Beryllium | | | 1.00 | 1.09 | | mg/L | | 109 | 85 - 115 | | |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: LCS 550-321484/2-A**
**Matrix: Water**
**Analysis Batch: 321804**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.12 | | mg/L | | 112 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321484/3-A**
**Matrix: Water**
**Analysis Batch: 321751**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | | | 21.0 | 22.4 | | mg/L | | 107 | 85 - 115 | 0 | 20 |
| Beryllium | | | 1.00 | 1.08 | | mg/L | | 108 | 85 - 115 | 1 | 20 |

**Lab Sample ID: LCSD 550-321484/3-A**
**Matrix: Water**
**Analysis Batch: 321804**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.10 | | mg/L | | 110 | 85 - 115 | 1 | 20 |

**Lab Sample ID: 550-218672-C-1-A MS ^5**
**Matrix: Water**
**Analysis Batch: 321751**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | 440 | M3 | 21.0 | 487 | M3 | mg/L | | 220 | 70 - 130 | | |
| Beryllium | ND | | 1.00 | 1.11 | | mg/L | | 111 | 70 - 130 | | |

**Lab Sample ID: 550-218672-C-1-A MS ^5**
**Matrix: Water**
**Analysis Batch: 321804**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 14 | M3 | 1.00 | 12.3 | M3 | mg/L | | -124 | 70 - 130 | | |

**Lab Sample ID: 550-218672-C-1-B MSD ^5**
**Matrix: Water**
**Analysis Batch: 321751**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | 440 | M3 | 21.0 | 463 | M3 | mg/L | | 108 | 70 - 130 | 5 | 20 |
| Beryllium | ND | | 1.00 | 1.09 | | mg/L | | 109 | 70 - 130 | 2 | 20 |

**Lab Sample ID: 550-218672-C-1-B MSD ^5**
**Matrix: Water**
**Analysis Batch: 321804**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 321484**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 14 | M3 | 1.00 | 14.9 | M3 | mg/L | | 137 | 70 - 130 | 19 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: MB 550-321485/1-A**
**Matrix: Water**
**Analysis Batch: 321749**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321485**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | ND | | 2.0 | | mg/L | | 05/24/24 09:40 | 05/30/24 23:35 | 1 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/24/24 09:40 | 05/30/24 23:35 | 1 |

**Lab Sample ID: MB 550-321485/1-A**
**Matrix: Water**
**Analysis Batch: 321819**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321485**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | ND | | 0.050 | | mg/L | | 05/24/24 09:40 | 05/31/24 17:58 | 1 |

**Lab Sample ID: LCS 550-321485/2-A**
**Matrix: Water**
**Analysis Batch: 321749**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321485**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | | | 21.0 | 20.6 | | mg/L | | 98 | 85 - 115 | | |
| Beryllium | | | 1.00 | 0.995 | | mg/L | | 100 | 85 - 115 | | |

**Lab Sample ID: LCS 550-321485/2-A**
**Matrix: Water**
**Analysis Batch: 321819**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321485**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.08 | | mg/L | | 108 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321485/3-A**
**Matrix: Water**
**Analysis Batch: 321749**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321485**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | | | 21.0 | 22.4 | | mg/L | | 107 | 85 - 115 | 8 | 20 |
| Beryllium | | | 1.00 | 1.08 | | mg/L | | 108 | 85 - 115 | 8 | 20 |

**Lab Sample ID: LCSD 550-321485/3-A**
**Matrix: Water**
**Analysis Batch: 321819**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321485**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.14 | | mg/L | | 114 | 85 - 115 | 5 | 20 |

**Lab Sample ID: 550-218673-14 MS**
**Matrix: Water**
**Analysis Batch: 321749**

**Client Sample ID: FC-CCR-URS06-0524**
**Prep Type: Total/NA**
**Prep Batch: 321485**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | 460 | M3 | 21.0 | 478 | M3 | mg/L | | 87 | 70 - 130 | | |
| Beryllium | ND | | 1.00 | 1.07 | | mg/L | | 107 | 70 - 130 | | |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: 550-218673-14 MS**
**Matrix: Water**
**Analysis Batch: 321819**

**Client Sample ID: FC-CCR-URS06-0524**
**Prep Type: Total/NA**
**Prep Batch: 321485**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 130 | M3 | 1.00 | 119 | M3 | mg/L | | -1499 | 70 - 130 |

**Lab Sample ID: 550-218673-14 MSD**
**Matrix: Water**
**Analysis Batch: 321749**

**Client Sample ID: FC-CCR-URS06-0524**
**Prep Type: Total/NA**
**Prep Batch: 321485**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | 460 | M3 | 21.0 | 466 | M3 | mg/L | | 34 | 70 - 130 | 2 | 20 |
| Beryllium | ND | | 1.00 | 1.04 | | mg/L | | 104 | 70 - 130 | 3 | 20 |

**Lab Sample ID: 550-218673-14 MSD**
**Matrix: Water**
**Analysis Batch: 321819**

**Client Sample ID: FC-CCR-URS06-0524**
**Prep Type: Total/NA**
**Prep Batch: 321485**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 130 | M3 | 1.00 | 129 | M3 | mg/L | | -516 | 70 - 130 | 8 | 20 |

**Lab Sample ID: MB 280-654597/1-A**
**Matrix: Water**
**Analysis Batch: 655224**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 654597**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 20 | | ug/L | | 05/24/24 15:39 | 05/30/24 00:04 | 1 |

**Lab Sample ID: LCS 280-654597/2-A**
**Matrix: Water**
**Analysis Batch: 655224**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 654597**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 1000 | 972 | | ug/L | | 97 | 90 - 112 |

**Lab Sample ID: 550-218673-14 MS**
**Matrix: Water**
**Analysis Batch: 655224**

**Client Sample ID: FC-CCR-URS06-0524**
**Prep Type: Total Recoverable**
**Prep Batch: 654597**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 390 | T5 | 1000 | 1480 | | ug/L | | 109 | 70 - 130 |

**Lab Sample ID: 550-218673-14 MSD**
**Matrix: Water**
**Analysis Batch: 655224**

**Client Sample ID: FC-CCR-URS06-0524**
**Prep Type: Total Recoverable**
**Prep Batch: 654597**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 390 | T5 | 1000 | 1470 | | ug/L | | 109 | 70 - 130 | 1 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: 550-218673-15 MS**
**Matrix: Water**
**Analysis Batch: 655224**

**Client Sample ID: FC-CCR-URS07-0524**
**Prep Type: Total Recoverable**
**Prep Batch: 654597**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 240 | T5 | 1000 | 1290 | | ug/L | | 104 | 70 - 130 |

**Lab Sample ID: 550-218673-15 MSD**
**Matrix: Water**
**Analysis Batch: 655224**

**Client Sample ID: FC-CCR-URS07-0524**
**Prep Type: Total Recoverable**
**Prep Batch: 654597**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 240 | T5 | 1000 | 1310 | | ug/L | | 107 | 70 - 130 | 2 | 20 |

## Method: 200.8 LL - Metals (ICP/MS)

**Lab Sample ID: MB 550-321480/1-A**
**Matrix: Water**
**Analysis Batch: 321685**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:40 | 1 |
| Arsenic | ND | | 0.00050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:40 | 1 |
| Barium | ND | | 0.00050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:40 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:40 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:40 | 1 |
| Cobalt | ND | | 0.00050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:40 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:40 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:40 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 05/24/24 07:53 | 05/29/24 17:40 | 1 |

**Lab Sample ID: MB 550-321480/1-A**
**Matrix: Water**
**Analysis Batch: 321756**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Selenium | ND | | 0.00050 | | mg/L | | 05/24/24 07:53 | 05/30/24 17:13 | 1 |

**Lab Sample ID: LCS 550-321480/2-A**
**Matrix: Water**
**Analysis Batch: 321685**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Antimony | 0.100 | 0.112 | | mg/L | | 112 | 85 - 115 |
| Arsenic | 0.100 | 0.103 | | mg/L | | 103 | 85 - 115 |
| Barium | 0.100 | 0.0777 | L4 | mg/L | | 78 | 85 - 115 |
| Cadmium | 0.100 | 0.100 | | mg/L | | 100 | 85 - 115 |
| Chromium | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 |
| Cobalt | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 |
| Lead | 0.100 | 0.0957 | | mg/L | | 96 | 85 - 115 |
| Molybdenum | 0.100 | 0.109 | | mg/L | | 109 | 85 - 115 |
| Thallium | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 550-321480/2-A**
**Matrix: Water**
**Analysis Batch: 321756**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Selenium | 0.100 | 0.0981 | | mg/L | | 98 | 85 - 115 |

**Lab Sample ID: LCSD 550-321480/3-A**
**Matrix: Water**
**Analysis Batch: 321685**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.100 | 0.109 | | mg/L | | 109 | 85 - 115 | 3 | 20 |
| Arsenic | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | 2 | 20 |
| Barium | 0.100 | 0.0743 | L4 | mg/L | | 74 | 85 - 115 | 4 | 20 |
| Cadmium | 0.100 | 0.0998 | | mg/L | | 100 | 85 - 115 | 0 | 20 |
| Chromium | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | 3 | 20 |
| Cobalt | 0.100 | 0.100 | | mg/L | | 100 | 85 - 115 | 4 | 20 |
| Lead | 0.100 | 0.0968 | | mg/L | | 97 | 85 - 115 | 1 | 20 |
| Molybdenum | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 | 3 | 20 |
| Thallium | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | 1 | 20 |

**Lab Sample ID: LCSD 550-321480/3-A**
**Matrix: Water**
**Analysis Batch: 321756**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Selenium | 0.100 | 0.0978 | | mg/L | | 98 | 85 - 115 | 0 | 20 |

**Lab Sample ID: 550-218672-B-1-A MS ^10**
**Matrix: Water**
**Analysis Batch: 321685**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.110 | | mg/L | | 110 | 70 - 130 |
| Arsenic | 0.0068 | | 0.100 | 0.107 | | mg/L | | 101 | 70 - 130 |
| Barium | 0.013 | L4 | 0.100 | 0.0899 | | mg/L | | 77 | 70 - 130 |
| Cadmium | ND | | 0.100 | 0.0964 | | mg/L | | 96 | 70 - 130 |
| Chromium | ND | | 0.100 | 0.0999 | | mg/L | | 100 | 70 - 130 |
| Cobalt | 0.11 | | 0.100 | 0.203 | | mg/L | | 96 | 70 - 130 |
| Lead | ND | | 0.100 | 0.0905 | | mg/L | | 90 | 70 - 130 |
| Molybdenum | ND | | 0.100 | 0.112 | | mg/L | | 109 | 70 - 130 |
| Thallium | ND | | 0.100 | 0.0982 | | mg/L | | 98 | 70 - 130 |

**Lab Sample ID: 550-218672-B-1-A MS ^10**
**Matrix: Water**
**Analysis Batch: 321756**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Selenium | ND | | 0.100 | 0.101 | | mg/L | | 101 | 70 - 130 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: 550-218672-B-1-B MSD ^10**
**Matrix: Water**
**Analysis Batch: 321685**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.115 | | mg/L | | 115 | 70 - 130 | 4 | 20 |
| Arsenic | 0.0068 | | 0.100 | 0.111 | | mg/L | | 104 | 70 - 130 | 3 | 20 |
| Barium | 0.013 | L4 | 0.100 | 0.0901 | | mg/L | | 77 | 70 - 130 | 0 | 20 |
| Cadmium | ND | | 0.100 | 0.100 | | mg/L | | 100 | 70 - 130 | 4 | 20 |
| Chromium | ND | | 0.100 | 0.103 | | mg/L | | 103 | 70 - 130 | 3 | 20 |
| Cobalt | 0.11 | | 0.100 | 0.208 | | mg/L | | 101 | 70 - 130 | 2 | 20 |
| Lead | ND | | 0.100 | 0.0932 | | mg/L | | 93 | 70 - 130 | 3 | 20 |
| Molybdenum | ND | | 0.100 | 0.114 | | mg/L | | 111 | 70 - 130 | 2 | 20 |
| Thallium | ND | | 0.100 | 0.101 | | mg/L | | 100 | 70 - 130 | 3 | 20 |

**Lab Sample ID: 550-218672-B-1-B MSD ^10**
**Matrix: Water**
**Analysis Batch: 321756**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 321480**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Selenium | ND | | 0.100 | 0.102 | | mg/L | | 102 | 70 - 130 | 1 | 20 |

**Lab Sample ID: MB 550-321481/1-A**
**Matrix: Water**
**Analysis Batch: 321684**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321481**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:04 | 1 |
| Arsenic | ND | | 0.00050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:04 | 1 |
| Barium | ND | | 0.00050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:04 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:04 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:04 | 1 |
| Cobalt | ND | | 0.00050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:04 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:04 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:04 | 1 |
| Selenium | ND | | 0.00050 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:04 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 05/24/24 07:58 | 05/29/24 17:04 | 1 |

**Lab Sample ID: LCS 550-321481/2-A**
**Matrix: Water**
**Analysis Batch: 321684**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321481**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.111 | | mg/L | | 111 | 85 - 115 | | |
| Arsenic | | | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | | |
| Barium | | | 0.100 | 0.0794 | L4 | mg/L | | 79 | 85 - 115 | | |
| Cadmium | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | | |
| Chromium | | | 0.100 | 0.103 | | mg/L | | 103 | 85 - 115 | | |
| Cobalt | | | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | | |
| Lead | | | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | | |
| Molybdenum | | | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 | | |
| Selenium | | | 0.100 | 0.0973 | | mg/L | | 97 | 85 - 115 | | |
| Thallium | | | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 | | |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCSD 550-321481/3-A**
**Matrix: Water**
**Analysis Batch: 321684**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321481**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.109 | | mg/L | | 109 | 85 - 115 | 2 | 20 |
| Arsenic | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | 1 | 20 |
| Barium | | | 0.100 | 0.0793 | L4 | mg/L | | 79 | 85 - 115 | 0 | 20 |
| Cadmium | | | 0.100 | 0.0993 | | mg/L | | 99 | 85 - 115 | 2 | 20 |
| Chromium | | | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | 1 | 20 |
| Cobalt | | | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | 1 | 20 |
| Lead | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | 2 | 20 |
| Molybdenum | | | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 | 0 | 20 |
| Selenium | | | 0.100 | 0.0969 | | mg/L | | 97 | 85 - 115 | 0 | 20 |
| Thallium | | | 0.100 | 0.107 | | mg/L | | 107 | 85 - 115 | 1 | 20 |

**Lab Sample ID: 550-218673-14 MS**
**Matrix: Water**
**Analysis Batch: 321684**

**Client Sample ID: FC-CCR-URS06-0524**
**Prep Type: Total/NA**
**Prep Batch: 321481**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.110 | | mg/L | | 110 | 70 - 130 |
| Arsenic | 0.0072 | | 0.100 | 0.110 | | mg/L | | 103 | 70 - 130 |
| Barium | 0.012 | L4 | 0.100 | 0.0913 | | mg/L | | 79 | 70 - 130 |
| Cadmium | ND | | 0.100 | 0.0954 | | mg/L | | 95 | 70 - 130 |
| Chromium | ND | | 0.100 | 0.101 | | mg/L | | 101 | 70 - 130 |
| Cobalt | 0.0095 | | 0.100 | 0.107 | | mg/L | | 98 | 70 - 130 |
| Lead | ND | | 0.100 | 0.0923 | | mg/L | | 92 | 70 - 130 |
| Molybdenum | ND | T5 | 0.100 | 0.113 | | mg/L | | 109 | 70 - 130 |
| Selenium | 0.0083 | | 0.100 | 0.109 | | mg/L | | 101 | 70 - 130 |
| Thallium | 0.0010 | | 0.100 | 0.0998 | | mg/L | | 99 | 70 - 130 |

**Lab Sample ID: 550-218673-14 MSD**
**Matrix: Water**
**Analysis Batch: 321684**

**Client Sample ID: FC-CCR-URS06-0524**
**Prep Type: Total/NA**
**Prep Batch: 321481**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.109 | | mg/L | | 108 | 70 - 130 | 1 | 20 |
| Arsenic | 0.0072 | | 0.100 | 0.110 | | mg/L | | 103 | 70 - 130 | 0 | 20 |
| Barium | 0.012 | L4 | 0.100 | 0.0908 | | mg/L | | 78 | 70 - 130 | 1 | 20 |
| Cadmium | ND | | 0.100 | 0.0940 | | mg/L | | 94 | 70 - 130 | 1 | 20 |
| Chromium | ND | | 0.100 | 0.101 | | mg/L | | 101 | 70 - 130 | 0 | 20 |
| Cobalt | 0.0095 | | 0.100 | 0.108 | | mg/L | | 98 | 70 - 130 | 0 | 20 |
| Lead | ND | | 0.100 | 0.0900 | | mg/L | | 90 | 70 - 130 | 3 | 20 |
| Molybdenum | ND | T5 | 0.100 | 0.111 | | mg/L | | 107 | 70 - 130 | 2 | 20 |
| Selenium | 0.0083 | | 0.100 | 0.109 | | mg/L | | 101 | 70 - 130 | 0 | 20 |
| Thallium | 0.0010 | | 0.100 | 0.0978 | | mg/L | | 97 | 70 - 130 | 2 | 20 |

## Method: 245.1 - Mercury (CVAA)

**Lab Sample ID: MB 550-321624/1-A**
**Matrix: Water**
**Analysis Batch: 321649**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321624**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 05/29/24 12:16 | 05/29/24 14:36 | 1 |

**Lab Sample ID: LCS 550-321624/2-A**
**Matrix: Water**
**Analysis Batch: 321649**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321624**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00476 | | mg/L | | 95 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321624/3-A**
**Matrix: Water**
**Analysis Batch: 321649**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321624**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00474 | | mg/L | | 95 | 85 - 115 | 0 | 20 |

**Lab Sample ID: 550-218673-9 MS**
**Matrix: Water**
**Analysis Batch: 321649**

**Client Sample ID: FC-CCR-MW85-0524**
**Prep Type: Total/NA**
**Prep Batch: 321624**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00546 | | mg/L | | 109 | 70 - 130 | | |

**Lab Sample ID: 550-218673-14 MS**
**Matrix: Water**
**Analysis Batch: 321649**

**Client Sample ID: FC-CCR-URS06-0524**
**Prep Type: Total/NA**
**Prep Batch: 321624**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00514 | | mg/L | | 103 | 70 - 130 | | |

**Lab Sample ID: 550-218673-14 MSD**
**Matrix: Water**
**Analysis Batch: 321649**

**Client Sample ID: FC-CCR-URS06-0524**
**Prep Type: Total/NA**
**Prep Batch: 321624**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00512 | | mg/L | | 102 | 70 - 130 | 0 | 20 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 550-321405/1**
**Matrix: Water**
**Analysis Batch: 321405**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 05/23/24 11:23 | 1 |

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

**Lab Sample ID: LCS 550-321405/2**
**Matrix: Water**
**Analysis Batch: 321405**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 978 | | mg/L | | 98 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321405/3**
**Matrix: Water**
**Analysis Batch: 321405**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 992 | | mg/L | | 99 | 90 - 110 | 1 | 10 |

**Lab Sample ID: 550-218672-A-3 DU**
**Matrix: Water**
**Analysis Batch: 321405**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 6900 | | | 6950 | | mg/L | | | | 0.3 | 10 |

**Lab Sample ID: MB 550-321406/1**
**Matrix: Water**
**Analysis Batch: 321406**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 05/23/24 11:30 | 1 |

**Lab Sample ID: LCS 550-321406/2**
**Matrix: Water**
**Analysis Batch: 321406**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1020 | | mg/L | | 102 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321406/3**
**Matrix: Water**
**Analysis Batch: 321406**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1000 | | mg/L | | 100 | 90 - 110 | 2 | 10 |

**Lab Sample ID: 550-218613-E-1 DU**
**Matrix: Water**
**Analysis Batch: 321406**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1100 | | | 1070 | | mg/L | | | | 0.6 | 10 |

**Lab Sample ID: 550-218673-11 DU**
**Matrix: Water**
**Analysis Batch: 321406**

**Client Sample ID: FC-CCR-CM01-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 14000 | | | 13600 | | mg/L | | | | 4 | 10 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: LCSSRM 550-321607/1**
**Matrix: Water**
**Analysis Batch: 321607**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| pH | 7.00 | 7.0 | | SU | | 99.3 | 98.5 - 101.5 |

**Lab Sample ID: LCSSRM 550-321607/13**
**Matrix: Water**
**Analysis Batch: 321607**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| pH | 7.00 | 7.0 | | SU | | 99.3 | 98.5 - 101.5 |

**Lab Sample ID: LCSSRM 550-321607/37**
**Matrix: Water**
**Analysis Batch: 321607**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| pH | 7.00 | 7.0 | | SU | | 99.4 | 98.5 - 101.5 |

**Lab Sample ID: LCSSRM 550-321607/49**
**Matrix: Water**
**Analysis Batch: 321607**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| pH | 7.00 | 7.0 | | SU | | 99.4 | 98.5 - 101.5 |

**Lab Sample ID: 550-218673-6 DU**
**Matrix: Water**
**Analysis Batch: 321607**

**Client Sample ID: FC-CCR-MW73-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| pH | 7.1 | H5 | 7.1 | | SU | | 0.3 | 5 |
| Temperature | 13.1 | H5 T5 | 11.4 | | Degrees C | | 14 | |

**Lab Sample ID: 550-218673-14 DU**
**Matrix: Water**
**Analysis Batch: 321607**

**Client Sample ID: FC-CCR-URS06-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| pH | 6.8 | H5 | 6.9 | | SU | | 0.3 | 5 |
| Temperature | 13.6 | H5 T5 | 13.2 | | Degrees C | | 3 | |

## HPLC/IC

### Analysis Batch: 321344

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-1 | FC-CCR-MW67-0524 | Total/NA | Water | 300.0 | |
| 550-218673-1 | FC-CCR-MW67-0524 | Total/NA | Water | 300.0 | |
| 550-218673-2 | FC-CCR-MW68-0524 | Total/NA | Water | 300.0 | |
| 550-218673-2 | FC-CCR-MW68-0524 | Total/NA | Water | 300.0 | |
| 550-218673-3 | FC-CCR-MW69-0524 | Total/NA | Water | 300.0 | |
| 550-218673-3 | FC-CCR-MW69-0524 | Total/NA | Water | 300.0 | |
| 550-218673-4 | FC-CCR-MW71-0524 | Total/NA | Water | 300.0 | |
| 550-218673-4 | FC-CCR-MW71-0524 | Total/NA | Water | 300.0 | |
| 550-218673-5 | FC-CCR-MW72-0524 | Total/NA | Water | 300.0 | |
| 550-218673-5 | FC-CCR-MW72-0524 | Total/NA | Water | 300.0 | |
| 550-218673-6 | FC-CCR-MW73-0524 | Total/NA | Water | 300.0 | |
| 550-218673-6 | FC-CCR-MW73-0524 | Total/NA | Water | 300.0 | |
| 550-218673-7 | FC-CCR-MW83-0524 | Total/NA | Water | 300.0 | |
| 550-218673-7 | FC-CCR-MW83-0524 | Total/NA | Water | 300.0 | |
| 550-218673-8 | FC-CCR-MW84-0524 | Total/NA | Water | 300.0 | |
| 550-218673-8 | FC-CCR-MW84-0524 | Total/NA | Water | 300.0 | |
| 550-218673-9 | FC-CCR-MW85-0524 | Total/NA | Water | 300.0 | |
| 550-218673-9 | FC-CCR-MW85-0524 | Total/NA | Water | 300.0 | |
| 550-218673-10 | FC-CCR-FD01-0524 | Total/NA | Water | 300.0 | |
| 550-218673-10 | FC-CCR-FD01-0524 | Total/NA | Water | 300.0 | |
| 550-218673-11 | FC-CCR-CM01-0524 | Total/NA | Water | 300.0 | |
| 550-218673-11 | FC-CCR-CM01-0524 | Total/NA | Water | 300.0 | |
| 550-218673-12 | FC-CCR-CM02-0524 | Total/NA | Water | 300.0 | |
| 550-218673-12 | FC-CCR-CM02-0524 | Total/NA | Water | 300.0 | |
| 550-218673-13 | FC-CCR-URS05-0524 | Total/NA | Water | 300.0 | |
| 550-218673-13 | FC-CCR-URS05-0524 | Total/NA | Water | 300.0 | |
| 550-218673-14 | FC-CCR-URS06-0524 | Total/NA | Water | 300.0 | |
| 550-218673-14 | FC-CCR-URS06-0524 | Total/NA | Water | 300.0 | |
| 550-218673-15 | FC-CCR-URS07-0524 | Total/NA | Water | 300.0 | |
| 550-218673-15 | FC-CCR-URS07-0524 | Total/NA | Water | 300.0 | |
| 550-218673-16 | FC-CCR-URS08-0524 | Total/NA | Water | 300.0 | |
| 550-218673-16 | FC-CCR-URS08-0524 | Total/NA | Water | 300.0 | |
| 550-218673-17 | FC-CCR-FD02-0524 | Total/NA | Water | 300.0 | |
| 550-218673-17 | FC-CCR-FD02-0524 | Total/NA | Water | 300.0 | |
| MB 550-321344/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-321344/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-321344/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-218673-14 MS | FC-CCR-URS06-0524 | Total/NA | Water | 300.0 | |
| 550-218673-14 MSD | FC-CCR-URS06-0524 | Total/NA | Water | 300.0 | |

### Analysis Batch: 321493

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-7 | FC-CCR-MW83-0524 | Total/NA | Water | 300.0 | |
| MB 550-321493/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-321493/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-321493/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-218852-J-1 MS | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-218852-J-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

## Metals

### Prep Batch: 321480

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-1 | FC-CCR-MW67-0524 | Total/NA | Water | 200.8 | |
| 550-218673-2 | FC-CCR-MW68-0524 | Total/NA | Water | 200.8 | |
| 550-218673-3 | FC-CCR-MW69-0524 | Total/NA | Water | 200.8 | |
| 550-218673-4 | FC-CCR-MW71-0524 | Total/NA | Water | 200.8 | |
| 550-218673-5 | FC-CCR-MW72-0524 | Total/NA | Water | 200.8 | |
| 550-218673-6 | FC-CCR-MW73-0524 | Total/NA | Water | 200.8 | |
| 550-218673-7 | FC-CCR-MW83-0524 | Total/NA | Water | 200.8 | |
| MB 550-321480/1-A | Method Blank | Total/NA | Water | 200.8 | |
| LCS 550-321480/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-321480/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-218672-B-1-A MS ^10 | Matrix Spike | Total/NA | Water | 200.8 | |
| 550-218672-B-1-B MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 200.8 | |

### Prep Batch: 321481

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-8 | FC-CCR-MW84-0524 | Total/NA | Water | 200.8 | |
| 550-218673-9 | FC-CCR-MW85-0524 | Total/NA | Water | 200.8 | |
| 550-218673-10 | FC-CCR-FD01-0524 | Total/NA | Water | 200.8 | |
| 550-218673-11 | FC-CCR-CM01-0524 | Total/NA | Water | 200.8 | |
| 550-218673-12 | FC-CCR-CM02-0524 | Total/NA | Water | 200.8 | |
| 550-218673-13 | FC-CCR-URS05-0524 | Total/NA | Water | 200.8 | |
| 550-218673-14 | FC-CCR-URS06-0524 | Total/NA | Water | 200.8 | |
| 550-218673-15 | FC-CCR-URS07-0524 | Total/NA | Water | 200.8 | |
| 550-218673-16 | FC-CCR-URS08-0524 | Total/NA | Water | 200.8 | |
| 550-218673-17 | FC-CCR-FD02-0524 | Total/NA | Water | 200.8 | |
| MB 550-321481/1-A | Method Blank | Total/NA | Water | 200.8 | |
| LCS 550-321481/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-321481/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-218673-14 MS | FC-CCR-URS06-0524 | Total/NA | Water | 200.8 | |
| 550-218673-14 MSD | FC-CCR-URS06-0524 | Total/NA | Water | 200.8 | |

### Prep Batch: 321484

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-1 | FC-CCR-MW67-0524 | Total/NA | Water | 200.7 | |
| 550-218673-2 | FC-CCR-MW68-0524 | Total/NA | Water | 200.7 | |
| 550-218673-3 | FC-CCR-MW69-0524 | Total/NA | Water | 200.7 | |
| 550-218673-4 | FC-CCR-MW71-0524 | Total/NA | Water | 200.7 | |
| 550-218673-5 | FC-CCR-MW72-0524 | Total/NA | Water | 200.7 | |
| 550-218673-6 | FC-CCR-MW73-0524 | Total/NA | Water | 200.7 | |
| 550-218673-7 | FC-CCR-MW83-0524 | Total/NA | Water | 200.7 | |
| MB 550-321484/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-321484/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-321484/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-218672-C-1-A MS ^5 | Matrix Spike | Total/NA | Water | 200.7 | |
| 550-218672-C-1-B MSD ^5 | Matrix Spike Duplicate | Total/NA | Water | 200.7 | |

### Prep Batch: 321485

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-8 | FC-CCR-MW84-0524 | Total/NA | Water | 200.7 | |
| 550-218673-9 | FC-CCR-MW85-0524 | Total/NA | Water | 200.7 | |
| 550-218673-10 | FC-CCR-FD01-0524 | Total/NA | Water | 200.7 | |

## Metals (Continued)

### Prep Batch: 321485 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-11 | FC-CCR-CM01-0524 | Total/NA | Water | 200.7 | |
| 550-218673-12 | FC-CCR-CM02-0524 | Total/NA | Water | 200.7 | |
| 550-218673-13 | FC-CCR-URS05-0524 | Total/NA | Water | 200.7 | |
| 550-218673-14 | FC-CCR-URS06-0524 | Total/NA | Water | 200.7 | |
| 550-218673-15 | FC-CCR-URS07-0524 | Total/NA | Water | 200.7 | |
| 550-218673-16 | FC-CCR-URS08-0524 | Total/NA | Water | 200.7 | |
| 550-218673-17 | FC-CCR-FD02-0524 | Total/NA | Water | 200.7 | |
| MB 550-321485/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-321485/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-321485/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-218673-14 MS | FC-CCR-URS06-0524 | Total/NA | Water | 200.7 | |
| 550-218673-14 MSD | FC-CCR-URS06-0524 | Total/NA | Water | 200.7 | |

### Prep Batch: 321624

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-1 | FC-CCR-MW67-0524 | Total/NA | Water | 245.1 | |
| 550-218673-2 | FC-CCR-MW68-0524 | Total/NA | Water | 245.1 | |
| 550-218673-3 | FC-CCR-MW69-0524 | Total/NA | Water | 245.1 | |
| 550-218673-4 | FC-CCR-MW71-0524 | Total/NA | Water | 245.1 | |
| 550-218673-5 | FC-CCR-MW72-0524 | Total/NA | Water | 245.1 | |
| 550-218673-6 | FC-CCR-MW73-0524 | Total/NA | Water | 245.1 | |
| 550-218673-7 | FC-CCR-MW83-0524 | Total/NA | Water | 245.1 | |
| 550-218673-8 | FC-CCR-MW84-0524 | Total/NA | Water | 245.1 | |
| 550-218673-9 | FC-CCR-MW85-0524 | Total/NA | Water | 245.1 | |
| 550-218673-10 | FC-CCR-FD01-0524 | Total/NA | Water | 245.1 | |
| 550-218673-11 | FC-CCR-CM01-0524 | Total/NA | Water | 245.1 | |
| 550-218673-12 | FC-CCR-CM02-0524 | Total/NA | Water | 245.1 | |
| 550-218673-13 | FC-CCR-URS05-0524 | Total/NA | Water | 245.1 | |
| 550-218673-14 | FC-CCR-URS06-0524 | Total/NA | Water | 245.1 | |
| 550-218673-15 | FC-CCR-URS07-0524 | Total/NA | Water | 245.1 | |
| 550-218673-16 | FC-CCR-URS08-0524 | Total/NA | Water | 245.1 | |
| 550-218673-17 | FC-CCR-FD02-0524 | Total/NA | Water | 245.1 | |
| MB 550-321624/1-A | Method Blank | Total/NA | Water | 245.1 | |
| LCS 550-321624/2-A | Lab Control Sample | Total/NA | Water | 245.1 | |
| LCSD 550-321624/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | |
| 550-218673-9 MS | FC-CCR-MW85-0524 | Total/NA | Water | 245.1 | |
| 550-218673-14 MS | FC-CCR-URS06-0524 | Total/NA | Water | 245.1 | |
| 550-218673-14 MSD | FC-CCR-URS06-0524 | Total/NA | Water | 245.1 | |

### Analysis Batch: 321649

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-1 | FC-CCR-MW67-0524 | Total/NA | Water | 245.1 | 321624 |
| 550-218673-2 | FC-CCR-MW68-0524 | Total/NA | Water | 245.1 | 321624 |
| 550-218673-3 | FC-CCR-MW69-0524 | Total/NA | Water | 245.1 | 321624 |
| 550-218673-4 | FC-CCR-MW71-0524 | Total/NA | Water | 245.1 | 321624 |
| 550-218673-5 | FC-CCR-MW72-0524 | Total/NA | Water | 245.1 | 321624 |
| 550-218673-6 | FC-CCR-MW73-0524 | Total/NA | Water | 245.1 | 321624 |
| 550-218673-7 | FC-CCR-MW83-0524 | Total/NA | Water | 245.1 | 321624 |
| 550-218673-8 | FC-CCR-MW84-0524 | Total/NA | Water | 245.1 | 321624 |
| 550-218673-9 | FC-CCR-MW85-0524 | Total/NA | Water | 245.1 | 321624 |
| 550-218673-10 | FC-CCR-FD01-0524 | Total/NA | Water | 245.1 | 321624 |

## Metals (Continued)

### Analysis Batch: 321649 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-11 | FC-CCR-CM01-0524 | Total/NA | Water | 245.1 | 321624 |
| 550-218673-12 | FC-CCR-CM02-0524 | Total/NA | Water | 245.1 | 321624 |
| 550-218673-13 | FC-CCR-URS05-0524 | Total/NA | Water | 245.1 | 321624 |
| 550-218673-14 | FC-CCR-URS06-0524 | Total/NA | Water | 245.1 | 321624 |
| 550-218673-15 | FC-CCR-URS07-0524 | Total/NA | Water | 245.1 | 321624 |
| 550-218673-16 | FC-CCR-URS08-0524 | Total/NA | Water | 245.1 | 321624 |
| 550-218673-17 | FC-CCR-FD02-0524 | Total/NA | Water | 245.1 | 321624 |
| MB 550-321624/1-A | Method Blank | Total/NA | Water | 245.1 | 321624 |
| LCS 550-321624/2-A | Lab Control Sample | Total/NA | Water | 245.1 | 321624 |
| LCSD 550-321624/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | 321624 |
| 550-218673-9 MS | FC-CCR-MW85-0524 | Total/NA | Water | 245.1 | 321624 |
| 550-218673-14 MS | FC-CCR-URS06-0524 | Total/NA | Water | 245.1 | 321624 |
| 550-218673-14 MSD | FC-CCR-URS06-0524 | Total/NA | Water | 245.1 | 321624 |

### Analysis Batch: 321684

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-8 | FC-CCR-MW84-0524 | Total/NA | Water | 200.8 LL | 321481 |
| 550-218673-9 | FC-CCR-MW85-0524 | Total/NA | Water | 200.8 LL | 321481 |
| 550-218673-10 | FC-CCR-FD01-0524 | Total/NA | Water | 200.8 LL | 321481 |
| 550-218673-11 | FC-CCR-CM01-0524 | Total/NA | Water | 200.8 LL | 321481 |
| 550-218673-12 | FC-CCR-CM02-0524 | Total/NA | Water | 200.8 LL | 321481 |
| 550-218673-13 | FC-CCR-URS05-0524 | Total/NA | Water | 200.8 LL | 321481 |
| 550-218673-14 | FC-CCR-URS06-0524 | Total/NA | Water | 200.8 LL | 321481 |
| 550-218673-15 | FC-CCR-URS07-0524 | Total/NA | Water | 200.8 LL | 321481 |
| 550-218673-16 | FC-CCR-URS08-0524 | Total/NA | Water | 200.8 LL | 321481 |
| 550-218673-17 | FC-CCR-FD02-0524 | Total/NA | Water | 200.8 LL | 321481 |
| MB 550-321481/1-A | Method Blank | Total/NA | Water | 200.8 LL | 321481 |
| LCS 550-321481/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 321481 |
| LCSD 550-321481/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 321481 |
| 550-218673-14 MS | FC-CCR-URS06-0524 | Total/NA | Water | 200.8 LL | 321481 |
| 550-218673-14 MSD | FC-CCR-URS06-0524 | Total/NA | Water | 200.8 LL | 321481 |

### Analysis Batch: 321685

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-1 | FC-CCR-MW67-0524 | Total/NA | Water | 200.8 LL | 321480 |
| 550-218673-2 | FC-CCR-MW68-0524 | Total/NA | Water | 200.8 LL | 321480 |
| 550-218673-3 | FC-CCR-MW69-0524 | Total/NA | Water | 200.8 LL | 321480 |
| 550-218673-4 | FC-CCR-MW71-0524 | Total/NA | Water | 200.8 LL | 321480 |
| 550-218673-5 | FC-CCR-MW72-0524 | Total/NA | Water | 200.8 LL | 321480 |
| 550-218673-6 | FC-CCR-MW73-0524 | Total/NA | Water | 200.8 LL | 321480 |
| 550-218673-7 | FC-CCR-MW83-0524 | Total/NA | Water | 200.8 LL | 321480 |
| MB 550-321480/1-A | Method Blank | Total/NA | Water | 200.8 LL | 321480 |
| LCS 550-321480/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 321480 |
| LCSD 550-321480/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 321480 |
| 550-218672-B-1-A MS ^10 | Matrix Spike | Total/NA | Water | 200.8 LL | 321480 |
| 550-218672-B-1-B MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 200.8 LL | 321480 |

### Analysis Batch: 321749

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-8 | FC-CCR-MW84-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-9 | FC-CCR-MW85-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |

## Metals (Continued)

### Analysis Batch: 321749 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-10 | FC-CCR-FD01-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-11 | FC-CCR-CM01-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-12 | FC-CCR-CM02-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-13 | FC-CCR-URS05-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-14 | FC-CCR-URS06-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-15 | FC-CCR-URS07-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-16 | FC-CCR-URS08-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-17 | FC-CCR-FD02-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| MB 550-321485/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| LCS 550-321485/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| LCSD 550-321485/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-14 MS | FC-CCR-URS06-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-14 MSD | FC-CCR-URS06-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |

### Analysis Batch: 321751

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-1 | FC-CCR-MW67-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218673-2 | FC-CCR-MW68-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218673-3 | FC-CCR-MW69-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218673-4 | FC-CCR-MW71-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218673-5 | FC-CCR-MW72-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218673-6 | FC-CCR-MW73-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218673-7 | FC-CCR-MW83-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| MB 550-321484/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| LCS 550-321484/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| LCSD 550-321484/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218672-C-1-A MS ^5 | Matrix Spike | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218672-C-1-B MSD ^5 | Matrix Spike Duplicate | Total/NA | Water | 200.7 Rev 4.4 | 321484 |

### Analysis Batch: 321756

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-1 | FC-CCR-MW67-0524 | Total/NA | Water | 200.8 LL | 321480 |
| 550-218673-2 | FC-CCR-MW68-0524 | Total/NA | Water | 200.8 LL | 321480 |
| 550-218673-3 | FC-CCR-MW69-0524 | Total/NA | Water | 200.8 LL | 321480 |
| 550-218673-4 | FC-CCR-MW71-0524 | Total/NA | Water | 200.8 LL | 321480 |
| 550-218673-5 | FC-CCR-MW72-0524 | Total/NA | Water | 200.8 LL | 321480 |
| 550-218673-6 | FC-CCR-MW73-0524 | Total/NA | Water | 200.8 LL | 321480 |
| 550-218673-7 | FC-CCR-MW83-0524 | Total/NA | Water | 200.8 LL | 321480 |
| MB 550-321480/1-A | Method Blank | Total/NA | Water | 200.8 LL | 321480 |
| LCS 550-321480/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 321480 |
| LCSD 550-321480/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 321480 |
| 550-218672-B-1-A MS ^10 | Matrix Spike | Total/NA | Water | 200.8 LL | 321480 |
| 550-218672-B-1-B MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 200.8 LL | 321480 |

### Analysis Batch: 321804

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-1 | FC-CCR-MW67-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218673-2 | FC-CCR-MW68-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218673-3 | FC-CCR-MW69-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218673-4 | FC-CCR-MW71-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218673-5 | FC-CCR-MW72-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |

## Metals (Continued)

### Analysis Batch: 321804 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-6 | FC-CCR-MW73-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218673-7 | FC-CCR-MW83-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| MB 550-321484/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| LCS 550-321484/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| LCSD 550-321484/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218672-C-1-A MS ^5 | Matrix Spike | Total/NA | Water | 200.7 Rev 4.4 | 321484 |
| 550-218672-C-1-B MSD ^5 | Matrix Spike Duplicate | Total/NA | Water | 200.7 Rev 4.4 | 321484 |

### Analysis Batch: 321819

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-8 | FC-CCR-MW84-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-9 | FC-CCR-MW85-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-10 | FC-CCR-FD01-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-11 | FC-CCR-CM01-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-12 | FC-CCR-CM02-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-13 | FC-CCR-URS05-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-14 | FC-CCR-URS06-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-15 | FC-CCR-URS07-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-16 | FC-CCR-URS08-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-17 | FC-CCR-FD02-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| MB 550-321485/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| LCS 550-321485/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| LCSD 550-321485/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-14 MS | FC-CCR-URS06-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |
| 550-218673-14 MSD | FC-CCR-URS06-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321485 |

### Prep Batch: 654597

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-1 | FC-CCR-MW67-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-2 | FC-CCR-MW68-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-3 | FC-CCR-MW69-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-4 | FC-CCR-MW71-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-5 | FC-CCR-MW72-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-6 | FC-CCR-MW73-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-7 | FC-CCR-MW83-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-8 | FC-CCR-MW84-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-9 | FC-CCR-MW85-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-10 | FC-CCR-FD01-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-11 | FC-CCR-CM01-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-12 | FC-CCR-CM02-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-13 | FC-CCR-URS05-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-14 | FC-CCR-URS06-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-15 | FC-CCR-URS07-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-16 | FC-CCR-URS08-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-17 | FC-CCR-FD02-0524 | Total Recoverable | Water | 200.7 | |
| MB 280-654597/1-A | Method Blank | Total Recoverable | Water | 200.7 | |
| LCS 280-654597/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 | |
| 550-218673-14 MS | FC-CCR-URS06-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-14 MSD | FC-CCR-URS06-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-15 MS | FC-CCR-URS07-0524 | Total Recoverable | Water | 200.7 | |
| 550-218673-15 MSD | FC-CCR-URS07-0524 | Total Recoverable | Water | 200.7 | |

## Metals

### Analysis Batch: 655224

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-1 | FC-CCR-MW67-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-2 | FC-CCR-MW68-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-3 | FC-CCR-MW69-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-4 | FC-CCR-MW71-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-5 | FC-CCR-MW72-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-6 | FC-CCR-MW73-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-7 | FC-CCR-MW83-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-8 | FC-CCR-MW84-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-9 | FC-CCR-MW85-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-10 | FC-CCR-FD01-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-11 | FC-CCR-CM01-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-12 | FC-CCR-CM02-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-13 | FC-CCR-URS05-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-14 | FC-CCR-URS06-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-15 | FC-CCR-URS07-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-16 | FC-CCR-URS08-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-17 | FC-CCR-FD02-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| MB 280-654597/1-A | Method Blank | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| LCS 280-654597/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-14 MS | FC-CCR-URS06-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-14 MSD | FC-CCR-URS06-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-15 MS | FC-CCR-URS07-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |
| 550-218673-15 MSD | FC-CCR-URS07-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654597 |

## General Chemistry

### Analysis Batch: 321405

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-4 | FC-CCR-MW71-0524 | Total/NA | Water | SM 2540C | |
| 550-218673-5 | FC-CCR-MW72-0524 | Total/NA | Water | SM 2540C | |
| 550-218673-6 | FC-CCR-MW73-0524 | Total/NA | Water | SM 2540C | |
| MB 550-321405/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-321405/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-321405/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-218672-A-3 DU | Duplicate | Total/NA | Water | SM 2540C | |

### Analysis Batch: 321406

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-1 | FC-CCR-MW67-0524 | Total/NA | Water | SM 2540C | |
| 550-218673-2 | FC-CCR-MW68-0524 | Total/NA | Water | SM 2540C | |
| 550-218673-3 | FC-CCR-MW69-0524 | Total/NA | Water | SM 2540C | |
| 550-218673-7 | FC-CCR-MW83-0524 | Total/NA | Water | SM 2540C | |
| 550-218673-8 | FC-CCR-MW84-0524 | Total/NA | Water | SM 2540C | |
| 550-218673-9 | FC-CCR-MW85-0524 | Total/NA | Water | SM 2540C | |
| 550-218673-10 | FC-CCR-FD01-0524 | Total/NA | Water | SM 2540C | |
| 550-218673-11 | FC-CCR-CM01-0524 | Total/NA | Water | SM 2540C | |
| 550-218673-12 | FC-CCR-CM02-0524 | Total/NA | Water | SM 2540C | |
| 550-218673-13 | FC-CCR-URS05-0524 | Total/NA | Water | SM 2540C | |
| 550-218673-14 | FC-CCR-URS06-0524 | Total/NA | Water | SM 2540C | |
| 550-218673-15 | FC-CCR-URS07-0524 | Total/NA | Water | SM 2540C | |
| 550-218673-16 | FC-CCR-URS08-0524 | Total/NA | Water | SM 2540C | |

## General Chemistry (Continued)

### Analysis Batch: 321406 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-17 | FC-CCR-FD02-0524 | Total/NA | Water | SM 2540C | |
| MB 550-321406/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-321406/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-321406/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-218613-E-1 DU | Duplicate | Total/NA | Water | SM 2540C | |
| 550-218673-11 DU | FC-CCR-CM01-0524 | Total/NA | Water | SM 2540C | |

### Analysis Batch: 321607

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218673-1 | FC-CCR-MW67-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-2 | FC-CCR-MW68-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-3 | FC-CCR-MW69-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-4 | FC-CCR-MW71-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-5 | FC-CCR-MW72-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-6 | FC-CCR-MW73-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-7 | FC-CCR-MW83-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-8 | FC-CCR-MW84-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-9 | FC-CCR-MW85-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-10 | FC-CCR-FD01-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-11 | FC-CCR-CM01-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-12 | FC-CCR-CM02-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-13 | FC-CCR-URS05-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-14 | FC-CCR-URS06-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-15 | FC-CCR-URS07-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-16 | FC-CCR-URS08-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-17 | FC-CCR-FD02-0524 | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321607/1 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321607/13 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321607/37 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321607/49 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-6 DU | FC-CCR-MW73-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-14 DU | FC-CCR-URS06-0524 | Total/NA | Water | SM 4500 H+ B | |

## Client Sample ID: FC-CCR-MW67-0524

**Lab Sample ID: 550-218673-1**

**Date Collected: 05/20/24 09:57**

**Matrix: Water**

**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/22/24 16:31 |
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/22/24 17:44 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 00:32 |
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321751 | GLW | EET PHX | 05/31/24 01:10 |
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321804 | JAC | EET PHX | 05/31/24 16:05 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321685 | DSJ | EET PHX | 05/29/24 17:58 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321756 | DSJ | EET PHX | 05/30/24 17:29 |
| Total/NA | Prep | 245.1 | | | 321624 | HHL | EET PHX | 05/29/24 12:16 |
| Total/NA | Analysis | 245.1 | | 1 | 321649 | HHL | EET PHX | 05/29/24 14:54 |
| Total/NA | Analysis | SM 2540C | | 1 | 321406 | JLO | EET PHX | 05/23/24 11:30 - 05/29/24 11:25 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 08:37 |

## Client Sample ID: FC-CCR-MW68-0524

**Lab Sample ID: 550-218673-2**

**Date Collected: 05/20/24 09:15**

**Matrix: Water**

**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/22/24 18:03 |
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/22/24 18:21 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 00:36 |
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321751 | GLW | EET PHX | 05/31/24 01:14 |
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321804 | JAC | EET PHX | 05/31/24 16:08 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321685 | DSJ | EET PHX | 05/29/24 18:00 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321756 | DSJ | EET PHX | 05/30/24 17:31 |
| Total/NA | Prep | 245.1 | | | 321624 | HHL | EET PHX | 05/29/24 12:16 |
| Total/NA | Analysis | 245.1 | | 1 | 321649 | HHL | EET PHX | 05/29/24 14:56 |
| Total/NA | Analysis | SM 2540C | | 1 | 321406 | JLO | EET PHX | 05/23/24 11:30 - 05/29/24 11:25 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 08:39 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218673-1
SDG: APS Four Corners Power Plant (URS)

## Client Sample ID: FC-CCR-MW69-0524

**Date Collected: 05/20/24 10:47**
**Date Received: 05/21/24 14:05**

## Lab Sample ID: 550-218673-3

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/22/24 18:40 |
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/22/24 18:58 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 00:40 |
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321751 | GLW | EET PHX | 05/31/24 01:24 |
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321804 | JAC | EET PHX | 05/31/24 16:18 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321685 | DSJ | EET PHX | 05/29/24 18:08 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321756 | DSJ | EET PHX | 05/30/24 17:33 |
| Total/NA | Prep | 245.1 | | | 321624 | HHL | EET PHX | 05/29/24 12:16 |
| Total/NA | Analysis | 245.1 | | 1 | 321649 | HHL | EET PHX | 05/29/24 14:58 |
| Total/NA | Analysis | SM 2540C | | 1 | 321406 | JLO | EET PHX | 05/23/24 11:30 - 05/29/24 11:25 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 08:41 |

## Client Sample ID: FC-CCR-MW71-0524

**Date Collected: 05/16/24 09:12**
**Date Received: 05/21/24 14:05**

## Lab Sample ID: 550-218673-4

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/22/24 19:16 |
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/22/24 19:35 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 00:44 |
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321751 | GLW | EET PHX | 05/31/24 01:27 |
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321804 | JAC | EET PHX | 05/31/24 16:21 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321685 | DSJ | EET PHX | 05/29/24 18:10 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321756 | DSJ | EET PHX | 05/30/24 17:35 |
| Total/NA | Prep | 245.1 | | | 321624 | HHL | EET PHX | 05/29/24 12:16 |
| Total/NA | Analysis | 245.1 | | 1 | 321649 | HHL | EET PHX | 05/29/24 15:00 |
| Total/NA | Analysis | SM 2540C | | 1 | 321405 | JLO | EET PHX | 05/23/24 11:23 - 05/29/24 13:27 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 08:42 |

## Client Sample ID: FC-CCR-MW72-0524

**Lab Sample ID: 550-218673-5**

**Date Collected: 05/16/24 10:02**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/22/24 19:53 |
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/22/24 20:12 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 00:47 |
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321751 | GLW | EET PHX | 05/31/24 01:30 |
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321804 | JAC | EET PHX | 05/31/24 16:25 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321685 | DSJ | EET PHX | 05/29/24 18:12 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321756 | DSJ | EET PHX | 05/30/24 17:37 |
| Total/NA | Prep | 245.1 | | | 321624 | HHL | EET PHX | 05/29/24 12:16 |
| Total/NA | Analysis | 245.1 | | 1 | 321649 | HHL | EET PHX | 05/29/24 15:03 |
| Total/NA | Analysis | SM 2540C | | 1 | 321405 | JLO | EET PHX | 05/23/24 11:23 - 05/29/24 13:27 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 08:44 |

## Client Sample ID: FC-CCR-MW73-0524

**Lab Sample ID: 550-218673-6**

**Date Collected: 05/16/24 10:59**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/22/24 21:25 |
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/22/24 21:44 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 00:51 |
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321751 | GLW | EET PHX | 05/31/24 01:34 |
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321804 | JAC | EET PHX | 05/31/24 16:28 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321685 | DSJ | EET PHX | 05/29/24 18:14 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321756 | DSJ | EET PHX | 05/30/24 17:39 |
| Total/NA | Prep | 245.1 | | | 321624 | HHL | EET PHX | 05/29/24 12:16 |
| Total/NA | Analysis | 245.1 | | 1 | 321649 | HHL | EET PHX | 05/29/24 15:05 |
| Total/NA | Analysis | SM 2540C | | 1 | 321405 | JLO | EET PHX | 05/23/24 11:23 - 05/29/24 13:27 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 08:51 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218673-1
SDG: APS Four Corners Power Plant (URS)

## Client Sample ID: FC-CCR-MW83-0524

**Date Collected: 05/18/24 17:06**
**Date Received: 05/21/24 14:05**

## Lab Sample ID: 550-218673-7

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/22/24 22:02 |
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/22/24 22:20 |
| Total/NA | Analysis | 300.0 | | 10 | 321493 | AG1 | EET PHX | 05/24/24 19:57 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 00:55 |
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321751 | GLW | EET PHX | 05/31/24 01:37 |
| Total/NA | Prep | 200.7 | | | 321484 | SGO | EET PHX | 05/24/24 09:02 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321804 | JAC | EET PHX | 05/31/24 16:32 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321685 | DSJ | EET PHX | 05/29/24 18:16 |
| Total/NA | Prep | 200.8 | | | 321480 | SGO | EET PHX | 05/24/24 07:53 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321756 | DSJ | EET PHX | 05/30/24 17:41 |
| Total/NA | Prep | 245.1 | | | 321624 | HHL | EET PHX | 05/29/24 12:16 |
| Total/NA | Analysis | 245.1 | | 1 | 321649 | HHL | EET PHX | 05/29/24 15:07 |
| Total/NA | Analysis | SM 2540C | | 1 | 321406 | JLO | EET PHX | 05/23/24 11:30 - 05/29/24 11:25 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 08:54 |

## Client Sample ID: FC-CCR-MW84-0524

**Date Collected: 05/18/24 16:04**
**Date Received: 05/21/24 14:05**

## Lab Sample ID: 550-218673-8

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/22/24 22:39 |
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/22/24 22:57 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 01:11 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321749 | GLW | EET PHX | 05/30/24 23:56 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321819 | JAC | EET PHX | 05/31/24 18:19 |
| Total/NA | Prep | 200.8 | | | 321481 | SGO | EET PHX | 05/24/24 07:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321684 | DSJ | EET PHX | 05/29/24 17:16 |
| Total/NA | Prep | 245.1 | | | 321624 | HHL | EET PHX | 05/29/24 12:16 |
| Total/NA | Analysis | 245.1 | | 1 | 321649 | HHL | EET PHX | 05/29/24 15:09 |
| Total/NA | Analysis | SM 2540C | | 1 | 321406 | JLO | EET PHX | 05/23/24 11:30 - 05/29/24 11:25 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 08:56 |

## Client Sample ID: FC-CCR-MW85-0524

**Date Collected: 05/18/24 11:36**
**Date Received: 05/21/24 14:05**

## Lab Sample ID: 550-218673-9

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/22/24 23:16 |

## Client Sample ID: FC-CCR-MW85-0524

**Lab Sample ID: 550-218673-9**

**Date Collected: 05/18/24 11:36**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/22/24 23:34 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 01:14 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321749 | GLW | EET PHX | 05/30/24 23:59 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321819 | JAC | EET PHX | 05/31/24 18:22 |
| Total/NA | Prep | 200.8 | | | 321481 | SGO | EET PHX | 05/24/24 07:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321684 | DSJ | EET PHX | 05/29/24 17:18 |
| Total/NA | Prep | 245.1 | | | 321624 | HHL | EET PHX | 05/29/24 12:16 |
| Total/NA | Analysis | 245.1 | | 1 | 321649 | HHL | EET PHX | 05/29/24 15:11 |
| Total/NA | Analysis | SM 2540C | | 1 | 321406 | JLO | EET PHX | 05/23/24 11:30 - 05/29/24 11:25 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 08:58 |

## Client Sample ID: FC-CCR-FD01-0524

**Lab Sample ID: 550-218673-10**

**Date Collected: 05/20/24 16:20**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/22/24 23:52 |
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/23/24 01:06 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 01:18 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321749 | GLW | EET PHX | 05/31/24 00:02 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321819 | JAC | EET PHX | 05/31/24 18:25 |
| Total/NA | Prep | 200.8 | | | 321481 | SGO | EET PHX | 05/24/24 07:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321684 | DSJ | EET PHX | 05/29/24 17:20 |
| Total/NA | Prep | 245.1 | | | 321624 | HHL | EET PHX | 05/29/24 12:16 |
| Total/NA | Analysis | 245.1 | | 1 | 321649 | HHL | EET PHX | 05/29/24 15:20 |
| Total/NA | Analysis | SM 2540C | | 1 | 321406 | JLO | EET PHX | 05/23/24 11:30 - 05/29/24 11:25 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 09:01 |

## Client Sample ID: FC-CCR-CM01-0524

**Lab Sample ID: 550-218673-11**

**Date Collected: 05/18/24 13:18**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/23/24 01:24 |
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/23/24 01:43 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 01:22 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218673-1
SDG: APS Four Corners Power Plant (URS)

## Client Sample ID: FC-CCR-CM01-0524

**Lab Sample ID: 550-218673-11**

**Date Collected: 05/18/24 13:18**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321749 | GLW | EET PHX | 05/31/24 00:06 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321819 | JAC | EET PHX | 05/31/24 18:29 |
| Total/NA | Prep | 200.8 | | | 321481 | SGO | EET PHX | 05/24/24 07:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321684 | DSJ | EET PHX | 05/29/24 17:22 |
| Total/NA | Prep | 245.1 | | | 321624 | HHL | EET PHX | 05/29/24 12:16 |
| Total/NA | Analysis | 245.1 | | 1 | 321649 | HHL | EET PHX | 05/29/24 15:22 |
| Total/NA | Analysis | SM 2540C | | 1 | 321406 | JLO | EET PHX | 05/23/24 11:30 - 05/29/24 11:25 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 09:25 |

## Client Sample ID: FC-CCR-CM02-0524

**Lab Sample ID: 550-218673-12**

**Date Collected: 05/18/24 13:57**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/23/24 02:01 |
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/23/24 02:20 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 01:26 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321749 | GLW | EET PHX | 05/31/24 00:09 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321819 | JAC | EET PHX | 05/31/24 18:32 |
| Total/NA | Prep | 200.8 | | | 321481 | SGO | EET PHX | 05/24/24 07:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321684 | DSJ | EET PHX | 05/29/24 17:24 |
| Total/NA | Prep | 245.1 | | | 321624 | HHL | EET PHX | 05/29/24 12:16 |
| Total/NA | Analysis | 245.1 | | 1 | 321649 | HHL | EET PHX | 05/29/24 15:24 |
| Total/NA | Analysis | SM 2540C | | 1 | 321406 | JLO | EET PHX | 05/23/24 11:30 - 05/29/24 11:25 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 10:15 |

## Client Sample ID: FC-CCR-URS05-0524

**Lab Sample ID: 550-218673-13**

**Date Collected: 05/18/24 13:13**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/23/24 02:38 |
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/23/24 02:56 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 01:30 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321749 | GLW | EET PHX | 05/31/24 00:13 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321819 | JAC | EET PHX | 05/31/24 18:36 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218673-1
SDG: APS Four Corners Power Plant (URS)

## Client Sample ID: FC-CCR-URS05-0524

**Lab Sample ID: 550-218673-13**

**Date Collected: 05/18/24 13:13**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.8 | | | 321481 | SGO | EET PHX | 05/24/24 07:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321684 | DSJ | EET PHX | 05/29/24 17:26 |
| Total/NA | Prep | 245.1 | | | 321624 | HHL | EET PHX | 05/29/24 12:16 |
| Total/NA | Analysis | 245.1 | | 1 | 321649 | HHL | EET PHX | 05/29/24 15:26 |
| Total/NA | Analysis | SM 2540C | | 1 | 321406 | JLO | EET PHX | 05/23/24 11:30 - 05/29/24 11:25 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 10:18 |

## Client Sample ID: FC-CCR-URS06-0524

**Lab Sample ID: 550-218673-14**

**Date Collected: 05/18/24 13:55**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/22/24 14:03 |
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/22/24 14:22 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 01:34 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321749 | GLW | EET PHX | 05/30/24 23:52 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321819 | JAC | EET PHX | 05/31/24 18:15 |
| Total/NA | Prep | 200.8 | | | 321481 | SGO | EET PHX | 05/24/24 07:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321684 | DSJ | EET PHX | 05/29/24 17:14 |
| Total/NA | Prep | 245.1 | | | 321624 | HHL | EET PHX | 05/29/24 12:16 |
| Total/NA | Analysis | 245.1 | | 1 | 321649 | HHL | EET PHX | 05/29/24 14:51 |
| Total/NA | Analysis | SM 2540C | | 1 | 321406 | JLO | EET PHX | 05/23/24 11:30 - 05/29/24 11:25 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 10:13 |

## Client Sample ID: FC-CCR-URS07-0524

**Lab Sample ID: 550-218673-15**

**Date Collected: 05/18/24 12:05**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/23/24 03:15 |
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/23/24 03:33 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 02:05 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321749 | GLW | EET PHX | 05/31/24 00:16 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321819 | JAC | EET PHX | 05/31/24 18:39 |
| Total/NA | Prep | 200.8 | | | 321481 | SGO | EET PHX | 05/24/24 07:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321684 | DSJ | EET PHX | 05/29/24 17:28 |
| Total/NA | Prep | 245.1 | | | 321624 | HHL | EET PHX | 05/29/24 12:16 |
| Total/NA | Analysis | 245.1 | | 1 | 321649 | HHL | EET PHX | 05/29/24 15:28 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218673-1
SDG: APS Four Corners Power Plant (URS)

## Client Sample ID: FC-CCR-URS07-0524

**Lab Sample ID: 550-218673-15**

**Date Collected: 05/18/24 12:05**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540C | | 1 | 321406 | JLO | EET PHX | 05/23/24 11:30 - 05/29/24 11:25 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 10:19 |

## Client Sample ID: FC-CCR-URS08-0524

**Lab Sample ID: 550-218673-16**

**Date Collected: 05/18/24 10:38**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/23/24 04:47 |
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/23/24 05:05 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 02:17 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321749 | GLW | EET PHX | 05/31/24 00:19 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321819 | JAC | EET PHX | 05/31/24 18:42 |
| Total/NA | Prep | 200.8 | | | 321481 | SGO | EET PHX | 05/24/24 07:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321684 | DSJ | EET PHX | 05/29/24 17:30 |
| Total/NA | Prep | 245.1 | | | 321624 | HHL | EET PHX | 05/29/24 12:16 |
| Total/NA | Analysis | 245.1 | | 1 | 321649 | HHL | EET PHX | 05/29/24 15:30 |
| Total/NA | Analysis | SM 2540C | | 1 | 321406 | JLO | EET PHX | 05/23/24 11:30 - 05/29/24 11:25 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 10:21 |

## Client Sample ID: FC-CCR-FD02-0524

**Lab Sample ID: 550-218673-17**

**Date Collected: 05/18/24 12:34**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321344 | RDC | EET PHX | 05/23/24 05:24 |
| Total/NA | Analysis | 300.0 | | 200 | 321344 | RDC | EET PHX | 05/23/24 05:42 |
| Total Recoverable | Prep | 200.7 | | | 654597 | KO | EET DEN | 05/24/24 15:39 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655224 | NKC | EET DEN | 05/30/24 02:20 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321749 | GLW | EET PHX | 05/31/24 00:23 |
| Total/NA | Prep | 200.7 | | | 321485 | SGO | EET PHX | 05/24/24 09:40 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321819 | JAC | EET PHX | 05/31/24 18:46 |
| Total/NA | Prep | 200.8 | | | 321481 | SGO | EET PHX | 05/24/24 07:58 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321684 | DSJ | EET PHX | 05/29/24 17:32 |
| Total/NA | Prep | 245.1 | | | 321624 | HHL | EET PHX | 05/29/24 12:16 |
| Total/NA | Analysis | 245.1 | | 1 | 321649 | HHL | EET PHX | 05/29/24 15:32 |
| Total/NA | Analysis | SM 2540C | | 1 | 321406 | JLO | EET PHX | 05/23/24 11:30 - 05/29/24 11:25 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 10:22 |

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218673-1
SDG: APS Four Corners Power Plant (URS)

**Laboratory References:**

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

# Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218673-1
SDG: APS Four Corners Power Plant (URS)

## Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0728 | 06-09-24 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 200.8 LL | 200.8 | Water | Molybdenum |
| SM 4500 H+ B | | Water | Temperature |

## Laboratory: Eurofins Denver

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0713 | 12-20-24 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 200.7 Rev 4.4 | 200.7 | Water | Lithium |

# Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218673-1
SDG: APS Four Corners Power Plant (URS)

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 300.0 | Anions, Ion Chromatography | EPA | EET PHX |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET DEN |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET PHX |
| 200.8 LL | Metals (ICP/MS) | EPA | EET PHX |
| 245.1 | Mercury (CVAA) | EPA | EET PHX |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET PHX |
| SM 4500 H+ B | pH | SM | EET PHX |
| 200.7 | Preparation, Total Recoverable Metals | EPA | EET DEN |
| 200.7 | Preparation, Total Metals | EPA | EET PHX |
| 200.8 | Preparation, Total Metals | EPA | EET PHX |
| 245.1 | Preparation, Mercury | EPA | EET PHX |

**Protocol References:**

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

**Laboratory References:**

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

218673

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

**TestAmerica Laboratories, Inc.**

6/5/2024

| Client Contact | Cameron Corley | Pam Norris (505-598-8781) | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | 505-860-3619 | Lab Contact: Rachel Sester | Carrier: | 1 of 2 COCs |
| PO Box 355, MS 4915 | Analysis Turnaround Time | | | Sampler: |
| Fruitland, NM 87416 | ☐ CALENDAR DAYS ☑ WORKING DAYS | | | For Lab Use Only: |
| | TAT if different from Below _____ | | | Walk-in Client: |
| | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | |
| Site: APS Four Corners Power Plant (URS) | ☐ 2 days | | | Job / SDG No.: |
| PO #: 100622298 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y / N) | Perform MS / MSD (Y / N) | EPA 300.0 (Cl, F, SO4) | EPA 200.7 - Totals (B, Ca, Be) | EPA 200.7 - Total Lithium | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | SM 4500-HB (pH) | SM 2540C (TDS) | EPA 245.1 - Totals (Hg) | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW67-0524 -01 | 5/20/2024 | 9:57 | G | W | 3 | N | N | X | X | X | X | X | X | X | " |
| FC-CCR-MW68-0524 -02 | 5/20/2024 | 9:15 | G | W | 3 | N | N | X | X | X | X | X | X | X | " |
| FC-CCR-MW69-0524 -03 | 5/20/2024 | 10:47 | G | W | 3 | N | N | X | X | X | X | X | X | X | " |
| FC-CCR-MW71-0524 -04 | 5/16/2024 | 9:12 | G | W | 3 | N | N | X | X | X | X | X | X | X | " |
| FC-CCR-MW72-0524 -05 | 5/16/2024 | 10:02 | G | W | 3 | N | N | X | X | X | X | X | X | X | " |
| FC-CCR-MW73-0524 -06 | 5/16/2024 | 10:59 | G | W | 3 | N | N | X | X | X | X | X | X | X | " |
| FC-CCR-MW83-0524 -07 | 5/18/2024 | 17:06 | G | W | 3 | N | N | X | X | X | X | X | X | X | " |
| FC-CCR-MW84-0524 -08 | 5/18/2024 | 16:04 | G | W | 3 | N | N | X | X | X | X | X | X | X | " |
| FC-CCR-MW85-0524 -09 | 5/20/2024 | 11:36 | G | W | 3 | N | N | X | X | X | X | X | X | X | " |
| FC-CCR-FD01-0524 -10 | 5/18/2024 | 16:20 | G | W | 3 | N | N | X | X | X | X | X | X | X | " |
| | | | | | | | | 1 | 4 | 4 | 4 | 1 | 1 | 4 | |

550-218673 Chain of Custody

**Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____**

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

**Special Instructions/QC Requirements & Comments:**

*Method 200.8 with collision cell*

1.9°C 1.1°C/ICE/PC

| Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____ | | | |
|---|---|---|---|---|---|
| Relinquished by: | Company: WSP | Date/Time: 5/21/24 0907 | Received by: | Company: | Date/Time: 5-21-24 |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: EETA PHX | Date/Time: 5/21/24 @ 1405 |

Form No. CA-C-WI-002, Rev. 4.2, *dated* 04/02/2013

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

218673

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

**TestAmerica Laboratories, Inc.**

6/5/2024

| Client Contact | Cameron Corley | Pam Norris (505-598-8781) | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | 505-860-3619 | Lab Contact: Rachel Sester | Carrier: | 2 of 2 COCs |
| PO Box 355, MS 4915 | Analysis Turnaround Time | | | Sampler: |
| Fruitland, NM 87416 | ☐ CALENDAR DAYS ☑ WORKING DAYS | | | For Lab Use Only: |
| | TAT if different from Below ____ | | | Walk-in Client: |
| | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | |
| Site: APS Four Corners Power Plant (URS) | ☐ 2 days | | | Job / SDG No.: |
| PO #: 100622298 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y / N) | Perform MS / MSD (Y / N) | EPA 300.0 (Cl, F, SO4) | EPA 200.7 - Totals (B, Ca, Be) | EPA 200.7 - Total Lithium | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | SM 4500-HB (pH) | SM 2540C (TDS) | EPA 245.1 - Totals (Hg) | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-CM01-0524 -11 | 5/18/2024 | 13:18 | G | W | 3 | N | N | X | X | X | X | X | X | X | Grab Sample |
| FC-CCR-CM02-0524 -12 | 5/18/2024 | 13:57 | G | W | 3 | N | N | X | X | X | X | X | X | X | " |
| FC-CCR-URS05-0524 -13 | 5/18/2024 | 13:13 | G | W | 3 | N | N | X | X | X | X | X | X | X | Low Flow |
| FC-CCR-URS06-0524 -14 | 5/18/2024 | 13:55 | G | W | 9 | N | Y | X | X | X | X | X | X | X | Low Flow, MS + MSD included |
| FC-CCR-URS07-0524 -15 | 5/18/2024 | 12:05 | G | W | 3 | N | N | X | X | X | X | X | X | X | Low Flow |
| FC-CCR-URS08-0524 -16 | 5/18/2024 | 10:38 | G | W | 3 | N | N | X | X | X | X | X | X | X | " |
| FC-CCR-FD02-0524 -17 | 5/18/2024 | 12:34 | G | W | 3 | N | N | X | X | X | X | X | X | X | " |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| **Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____** | | | | | | | | 1 | 4 | 4 | 4 | 1 | 1 | 4 | |

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☐ Return to Client ☑ Disposal by Lab ☐ Archive for ____ Months

**Special Instructions/QC Requirements & Comments:**

*Method 200.8 with collision cell*

5-21-24 1.9°C 1.1°C ICE PC

| Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ Therm ID No.: ____ | | |
|---|---|---|---|---|
| Relinquished by: | Company: WSP | Date/Time: 5/21/24 0807 | Received by: | Company: | Date/Time: 5-21-24 |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: EETA PHX | Date/Time: 5/21/24 1405 |

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-39625.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 1 of 3 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-218673-1 |
| Address: 4955 Yarrow Street, , | Due Date Requested: 6/4/2024 | | | Preservation Codes: - |
| City: Arvada | TAT Requested (days): | | | |
| State, Zip: CO, 80002 | | | | |
| Phone: 303-736-0100(Tel) 303-431-7171(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | Other: |

**Analysis Requested**

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Priority Pollutants | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| FC-CCR-MW67-0524 (550-218673-1) | 5/20/24 | 09:57 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW68-0524 (550-218673-2) | 5/20/24 | 09:15 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW69-0524 (550-218673-3) | 5/20/24 | 10:47 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW71-0524 (550-218673-4) | 5/16/24 | 09:12 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW72-0524 (550-218673-5) | 5/16/24 | 10:02 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW73-0524 (550-218673-6) | 5/16/24 | 10:59 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW83-0524 (550-218673-7) | 5/18/24 | 17:06 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW84-0524 (550-218673-8) | 5/18/24 | 16:04 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW85-0524 (550-218673-9) | 5/18/24 | 11:36 Arizona | | Water | | | X | 1 | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

| ***Possible Hazard Identification*** *Unconfirmed* | ***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months* |
|---|---|
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

Ver: 04/02/2024

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins

| | | | | |
|---|---|---|---|---|
| **Client Information (Sub Contract Lab)** | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-39625.2 |
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 2 of 3 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-218673-1 |
| Address: 4955 Yarrow Street, , | Due Date Requested: 6/4/2024 | | | Preservation Codes: - |
| City: Arvada | TAT Requested (days): | | | |
| State, Zip: CO, 80002 | | | | |
| Phone: 303-736-0100(Tel) 303-431-7171(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | Other: |

**Analysis Requested**

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Priority Pollutants | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| FC-CCR-FD01-0524 (550-218673-10) | 5/20/24 | 16:20 Arizona | | Water | | | X | 1 | |
| FC-CCR-CM01-0524 (550-218673-11) | 5/18/24 | 13:18 Arizona | | Water | | | X | 1 | |
| FC-CCR-CM02-0524 (550-218673-12) | 5/18/24 | 13:57 Arizona | | Water | | | X | 1 | |
| FC-CCR-URS05-0524 (550-218673-13) | 5/18/24 | 13:13 Arizona | | Water | | | X | 1 | |
| FC-CCR-URS06-0524 (550-218673-14) | 5/18/24 | 13:55 Arizona | | Water | | | X | 2 | |
| FC-CCR-URS06-0524 (550-218673-14MS) | 5/18/24 | 13:55 Arizona | MS | Water | | | X | 2 | |
| FC-CCR-URS06-0524 (550-218673-14MSD) | 5/18/24 | 13:55 Arizona | MSD | Water | | | X | 2 | |
| FC-CCR-URS07-0524 (550-218673-15) | 5/18/24 | 12:05 Arizona | | Water | | | X | 1 | |
| FC-CCR-URS08-0524 (550-218673-16) | 5/18/24 | 10:38 Arizona | | Water | | | X | 1 | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

| | | | | | |
|---|---|---|---|---|---|
| ***Possible Hazard Identification*** *Unconfirmed* | | | ***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months* | | |
| Deliverable Requested: I, II, III, IV, Other (specify) | Primary Deliverable Rank: 2 | | Special Instructions/QC Requirements: | | |
| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: | | |
| Relinquished by: Eme 05-22-24 | Date/Time: 15:00 | Company EE&SW | Received by: Fedex | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: [illegible] | Date/Time: 5/23/24 0900 | Company RETD |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| Custody Seals Intact Δ Yes Δ No | Custody Seal No.: | | Cooler Temperature(s) °C and Other Remarks: 1.1 Nonga CFO.2 | | |

Ver: 04/02/2024

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-39625.3 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 3 of 3 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-218673-1 |
| Address: 4955 Yarrow Street, , | Due Date Requested: 6/4/2024 | | | Preservation Codes: - |
| City: Arvada | TAT Requested (days): | | | |
| State, Zip: CO, 80002 | | | | |
| Phone: 303-736-0100(Tel) 303-431-7171(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | Other: |

**Analysis Requested**

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Priority Pollutants | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| FC-CCR-FD02-0524 (550-218673-17) | 5/18/24 | 12:34 Arizona | | Water | | | X | 1 | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

| ***Possible Hazard Identification*** *Unconfirmed* | ***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months* |
|---|---|
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|---|
| | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

Ver: 04/02/2024

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218673-1
SDG Number: APS Four Corners Power Plant (URS)

**Login Number: 218673**
**List Number: 1**
**Creator: Gravlin, Andrea**

**List Source: Eurofins Phoenix**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | False | Check done at department level as required. |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218673-1
SDG Number: APS Four Corners Power Plant (URS)

**Login Number: 218673**
**List Number: 2**
**Creator: Naylis, Patrick J**

**List Source: Eurofins Denver**
**List Creation: 05/23/24 01:52 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 6/5/2024 4:42:04 PM

## JOB DESCRIPTION

CCR Groundwater Monitoring
APS - Four Corners Power Plant (Other)

## JOB NUMBER

550-218680-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.



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## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

## Authorization



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# Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218680-1
SDG: APS - Four Corners Power Plant (Other)

## Qualifiers

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| D2 | Sample required dilution due to high concentration of analyte. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| L4 | The associated blank spike recovery was below method acceptance limits. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |
| T5 | Laboratory not licensed for this parameter |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| B1 | Target analyte detected in method blank at or above the method reporting limit. |
| B7 | Target analyte detected in method blank at or above method reporting limit. Concentration found in the sample was 10 times above the concentration found in the blank. |
| E2 | Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix. |
| H5 | This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time. |
| T5 | Laboratory not licensed for this parameter |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

## Job ID: 550-218680-1 — Eurofins Phoenix

**Job Narrative**
**550-218680-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**
The samples were received on 5/21/2024 2:05 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.8°C and 2.6°C.

**HPLC/IC**
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**Metals**
Method 200.8_CWA_LL: The laboratory control sample (LCS) associated with preparation batch 550-321303 and analytical batch 550-321564 was outside acceptance criteria for the analyte Barium. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. FC-CCR-MW81-0524 (550-218680-20), FC-CCR-EW17-0524 (550-218680-21), FC-CCR-EW11R-0524 (550-218680-22) and FC-CCR-EW12R-0524 (550-218680-23)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**General Chemistry**
Method 2540C_Calcd: The method blank for analytical batch 550-321537 contained Total Dissolved Solids (TDS) above the reporting limit (RL). Associated sample(s) were not re-analyzed because results were greater than 10X the value found in the method blank.

Method 2540C_Calcd: The analysis volume selected for the following sample produced a base result greater than 200mg before calculation of the final result: FC-CCR-DMX03-0524 (550-218680-2). Reanalysis could not be performed due to holding time exceedance.The reference method specifies that no more than 200mg of weight be recovered for a chosen sample analysis volume in order to produce the best data precision. As such, these data have been qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218680-1
SDG: APS - Four Corners Power Plant (Other)

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 550-218680-1 | FC-CCR-DMX01-0524 | Water | 05/17/24 14:27 | 05/21/24 14:05 |
| 550-218680-2 | FC-CCR-DMX03-0524 | Water | 05/20/24 15:09 | 05/21/24 14:05 |
| 550-218680-3 | FC-CCR-MW01-0524 | Water | 05/16/24 16:51 | 05/21/24 14:05 |
| 550-218680-4 | FC-CCR-MW03-0524 | Water | 05/16/24 17:42 | 05/21/24 14:05 |
| 550-218680-5 | FC-CCR-MW05-0524 | Water | 05/20/24 16:14 | 05/21/24 14:05 |
| 550-218680-6 | FC-CCR-FD04-0524 | Water | 05/17/24 13:31 | 05/21/24 14:05 |
| 550-218680-7 | FC-CCR-MW18-0524 | Water | 05/20/24 17:04 | 05/21/24 14:05 |
| 550-218680-8 | FC-CCR-MW19-0524 | Water | 05/20/24 14:11 | 05/21/24 14:05 |
| 550-218680-9 | FC-CCR-MW21-0524 | Water | 05/16/24 18:28 | 05/21/24 14:05 |
| 550-218680-10 | FC-CCR-MW23R-0524 | Water | 05/20/24 18:00 | 05/21/24 14:05 |
| 550-218680-11 | FC-CCR-MW30-0524 | Water | 05/17/24 09:31 | 05/21/24 14:05 |
| 550-218680-12 | FC-CCR-MW36R-0524 | Water | 05/20/24 18:40 | 05/21/24 14:05 |
| 550-218680-13 | FC-CCR-FD05-0524 | Water | 05/20/24 12:34 | 05/21/24 14:05 |
| 550-218680-14 | FC-CCR-MW82S-0524 | Water | 05/17/24 18:25 | 05/21/24 14:05 |
| 550-218680-15 | FC-CCR-MW60-0524 | Water | 05/16/24 15:22 | 05/21/24 14:05 |
| 550-218680-16 | FC-CCR-MW77S-0524 | Water | 05/17/24 10:31 | 05/21/24 14:05 |
| 550-218680-17 | FC-CCR-MW78S-0524 | Water | 05/17/24 11:52 | 05/21/24 14:05 |
| 550-218680-18 | FC-CCR-MW79S-0524 | Water | 05/17/24 13:38 | 05/21/24 14:05 |
| 550-218680-19 | FC-CCR-FD08-0524 | Water | 05/17/24 11:11 | 05/21/24 14:05 |
| 550-218680-20 | FC-CCR-MW81-0524 | Water | 05/17/24 12:48 | 05/21/24 14:05 |
| 550-218680-21 | FC-CCR-EW17-0524 | Water | 05/17/24 18:42 | 05/21/24 14:05 |
| 550-218680-22 | FC-CCR-EW11R-0524 | Water | 05/17/24 15:52 | 05/21/24 14:05 |
| 550-218680-23 | FC-CCR-EW12R-0524 | Water | 05/17/24 17:40 | 05/21/24 14:05 |
| 550-218680-24 | FC-CCR-FD06-0524 | Water | 05/17/24 16:20 | 05/21/24 14:05 |
| 550-218680-25 | FC-CCR-FD07-0524 | Water | 05/17/24 12:34 | 05/21/24 14:05 |

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218680-1
SDG: APS - Four Corners Power Plant (Other)

## Client Sample ID: FC-CCR-DMX01-0524 — Lab Sample ID: 550-218680-1

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 100 | M3 | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Molybdenum | 0.022 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |

## Client Sample ID: FC-CCR-DMX03-0524 — Lab Sample ID: 550-218680-2

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1100 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Sulfate | 12000 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Calcium | 680 | | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 2900 | | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.59 | | 0.50 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 88 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 4400 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 1300 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0083 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.017 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.012 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 860 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 860 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 22000 | B7 E2 | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 16.2 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW01-0524 — Lab Sample ID: 550-218680-3

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 64 | | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.043 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.023 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |

## Client Sample ID: FC-CCR-MW03-0524 — Lab Sample ID: 550-218680-4

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 15 | | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |

## Client Sample ID: FC-CCR-MW05-0524 — Lab Sample ID: 550-218680-5

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4000 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Sulfate | 13000 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Calcium | 600 | | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 1600 | | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.60 | | 0.50 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 81 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 8300 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 2300 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Alkalinity as CaCO3 | 780 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 780 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 28000 | B7 | 200 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.3 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 16.2 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218680-1
SDG: APS - Four Corners Power Plant (Other)

## Client Sample ID: FC-CCR-FD04-0524 — Lab Sample ID: 550-218680-6

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 140 | | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Molybdenum | 0.023 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |

## Client Sample ID: FC-CCR-MW18-0524 — Lab Sample ID: 550-218680-7

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4400 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Sulfate | 14000 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Calcium | 550 | | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 1200 | | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 3.2 | | 0.50 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 80 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 9100 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 2500 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Cobalt | 0.013 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 940 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 940 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 29000 | B7 | 200 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.2 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 15.7 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW19-0524 — Lab Sample ID: 550-218680-8

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 2.5 | | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |

## Client Sample ID: FC-CCR-MW21-0524 — Lab Sample ID: 550-218680-9

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 7.5 | | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.0051 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |

## Client Sample ID: FC-CCR-MW23R-0524 — Lab Sample ID: 550-218680-10

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 820 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Sulfate | 9800 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 15 | | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 670 | | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 2100 | | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 60 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 3200 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 1200 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Alkalinity as CaCO3 | 550 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 550 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 18000 | B7 | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.3 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 16.5 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218680-1
SDG: APS - Four Corners Power Plant (Other)

## Client Sample ID: FC-CCR-MW30-0524 — Lab Sample ID: 550-218680-11

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 37 | M3 | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |

## Client Sample ID: FC-CCR-MW36R-0524 — Lab Sample ID: 550-218680-12

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 460 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Sulfate | 3700 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 67 | | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 620 | | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 520 | | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 31 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1200 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 630 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Cobalt | 0.21 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 210 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 210 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 1400 | B7 | 20 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.6 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 13.4 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-FD05-0524 — Lab Sample ID: 550-218680-13

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 2.6 | | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |

## Client Sample ID: FC-CCR-MW82S-0524 — Lab Sample ID: 550-218680-14

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 580 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Sulfate | 5100 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 62 | M3 | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 470 | M3 | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 720 | M3 | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 25 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1300 | M3 | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.11 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 260 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 260 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 9500 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.3 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 14.7 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW60-0524 — Lab Sample ID: 550-218680-15

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 78 | | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.18 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.16 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |

## Client Sample ID: FC-CCR-MW77S-0524 — Lab Sample ID: 550-218680-16

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 12 | | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |

This Detection Summary does not include radiochemical test results.

Eurofins Phoenix

## Client Sample ID: FC-CCR-MW77S-0524 (Continued) — Lab Sample ID: 550-218680-16

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.0069 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.017 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |

## Client Sample ID: FC-CCR-MW78S-0524 — Lab Sample ID: 550-218680-17

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.0084 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.017 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |

## Client Sample ID: FC-CCR-MW79S-0524 — Lab Sample ID: 550-218680-18

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 9.1 | | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |

## Client Sample ID: FC-CCR-FD08-0524 — Lab Sample ID: 550-218680-19

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 540 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 0.56 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 4800 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 120 | | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 880 | | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 1300 | | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 45 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 2500 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.10 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 260 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 260 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 9200 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.4 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 14.7 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW81-0524 — Lab Sample ID: 550-218680-20

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 61 | M3 | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.023 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |

## Client Sample ID: FC-CCR-EW17-0524 — Lab Sample ID: 550-218680-21

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 45 | | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 570 | | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 1200 | | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.81 | | 0.50 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 42 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 3000 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 1000 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0079 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.016 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.017 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.0066 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 400 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-EW17-0524 (Continued) — Lab Sample ID: 550-218680-21

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bicarbonate Alkalinity as CaCO3 | 400 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 11000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.2 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 14.2 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-EW11R-0524 — Lab Sample ID: 550-218680-22

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 530 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 0.78 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 4700 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 34 | | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 560 | | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 750 | | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 1.1 | | 0.50 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 31 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1300 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 630 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0083 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.021 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.010 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.0054 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 280 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 280 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 8800 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.3 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 14.4 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-EW12R-0524 — Lab Sample ID: 550-218680-23

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 870 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Fluoride | 1.1 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 6900 | D2 | 400 | | mg/L | 200 | | 300.0 | Total/NA |
| Boron | 56 | | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 600 | | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 20 | | 5.0 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 1000 | | 100 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 1.7 | | 0.50 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 48 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 3100 | | 25 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 890 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0081 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.021 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.012 | T5 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.0070 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 470 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 470 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 13000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.4 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-EW12R-0524 (Continued) — Lab Sample ID: 550-218680-23

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Temperature | 14.8 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-FD06-0524 — Lab Sample ID: 550-218680-24

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 32 | | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |

## Client Sample ID: FC-CCR-FD07-0524 — Lab Sample ID: 550-218680-25

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 56 | | 2.5 | | mg/L | 50 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.025 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-DMX01-0524

**Lab Sample ID: 550-218680-1**
**Date Collected: 05/17/24 14:27**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **100** | **M3** | 2.5 | | mg/L | | 05/22/24 05:43 | 05/25/24 15:54 | 50 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:18 | 10 |
| **Molybdenum** | **0.022** | **T5** | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:18 | 10 |

## Client Sample ID: FC-CCR-DMX03-0524

**Lab Sample ID: 550-218680-2**
**Date Collected: 05/20/24 15:09**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1100** | **D2** | 400 | | mg/L | | | 05/23/24 14:48 | 200 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/23/24 14:29 | 1 |
| **Sulfate** | **12000** | **D2** | 400 | | mg/L | | | 05/23/24 14:48 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | ND | | 2.5 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:00 | 50 |
| **Calcium** | **680** | | 100 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:00 | 50 |
| Iron | ND | | 5.0 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:00 | 50 |
| **Magnesium** | **2900** | | 100 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:00 | 50 |
| **Manganese** | **0.59** | | 0.50 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:00 | 50 |
| **Potassium** | **88** | | 25 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:00 | 50 |
| **Sodium** | **4400** | | 25 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:00 | 50 |
| Beryllium | ND | | 0.050 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:00 | 50 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **1300** | | 20 | | ug/L | | 05/28/24 08:50 | 05/30/24 18:44 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:20 | 10 |
| **Arsenic** | **0.0083** | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:20 | 10 |
| **Barium** | **0.017** | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:20 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:20 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:20 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:20 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:20 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:20 | 10 |
| **Selenium** | **0.012** | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:20 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:20 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **860** | | 6.0 | | mg/L | | | 05/23/24 19:03 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 19:03 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **860** | | 6.0 | | mg/L | | | 05/23/24 19:03 | 1 |

## Client Sample ID: FC-CCR-DMX03-0524

**Lab Sample ID: 550-218680-2**
**Date Collected: 05/20/24 15:09**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 19:03 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 19:03 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **22000** | **B7 E2** | 100 | | mg/L | | | 05/26/24 14:06 | 1 |
| **pH (SM 4500 H+ B)** | **7.5** | **H5** | 1.7 | | SU | | | 05/29/24 09:27 | 1 |
| **Temperature (SM 4500 H+ B)** | **16.2** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 09:27 | 1 |

## Client Sample ID: FC-CCR-MW01-0524

**Lab Sample ID: 550-218680-3**
**Date Collected: 05/16/24 16:51**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **64** | | 2.5 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:07 | 50 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cobalt** | **0.043** | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:22 | 10 |
| **Molybdenum** | **0.023** | **T5** | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:22 | 10 |

## Client Sample ID: FC-CCR-MW03-0524

**Lab Sample ID: 550-218680-4**
**Date Collected: 05/16/24 17:42**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **15** | | 2.5 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:14 | 50 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:24 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:24 | 10 |

## Client Sample ID: FC-CCR-MW05-0524

**Lab Sample ID: 550-218680-5**
**Date Collected: 05/20/24 16:14**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **4000** | **D2** | 400 | | mg/L | | | 05/23/24 15:25 | 200 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/23/24 15:06 | 1 |
| **Sulfate** | **13000** | **D2** | 400 | | mg/L | | | 05/23/24 15:25 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | ND | | 2.5 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:21 | 50 |
| **Calcium** | **600** | | 100 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:21 | 50 |
| Iron | ND | | 5.0 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:21 | 50 |
| **Magnesium** | **1600** | | 100 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:21 | 50 |
| **Manganese** | **0.60** | | 0.50 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:21 | 50 |
| **Potassium** | **81** | | 25 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:21 | 50 |

## Client Sample ID: FC-CCR-MW05-0524

**Lab Sample ID: 550-218680-5**

**Date Collected: 05/20/24 16:14**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Sodium** | **8300** | | 25 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:21 | 50 |
| Beryllium | ND | | 0.050 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:21 | 50 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **2300** | | 20 | | ug/L | | 05/28/24 08:50 | 05/30/24 18:48 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:26 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:26 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **780** | | 6.0 | | mg/L | | | 05/23/24 19:18 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 19:18 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **780** | | 6.0 | | mg/L | | | 05/23/24 19:18 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 19:18 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 19:18 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **28000** | **B7** | 200 | | mg/L | | | 05/26/24 14:06 | 1 |
| **pH (SM 4500 H+ B)** | **7.3** | **H5** | 1.7 | | SU | | | 05/29/24 09:28 | 1 |
| **Temperature (SM 4500 H+ B)** | **16.2** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 09:28 | 1 |

## Client Sample ID: FC-CCR-FD04-0524

**Lab Sample ID: 550-218680-6**

**Date Collected: 05/17/24 13:31**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **140** | | 2.5 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:28 | 50 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:28 | 10 |
| **Molybdenum** | **0.023** | **T5** | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:28 | 10 |

## Client Sample ID: FC-CCR-MW18-0524

**Lab Sample ID: 550-218680-7**

**Date Collected: 05/20/24 17:04**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **4400** | **D2** | 400 | | mg/L | | | 05/23/24 16:57 | 200 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/23/24 15:43 | 1 |
| **Sulfate** | **14000** | **D2** | 400 | | mg/L | | | 05/23/24 16:57 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | ND | | 2.5 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:35 | 50 |

## Client Sample ID: FC-CCR-MW18-0524

**Lab Sample ID: 550-218680-7**
**Date Collected: 05/20/24 17:04**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Calcium** | **550** | | 100 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:35 | 50 |
| Iron | ND | | 5.0 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:35 | 50 |
| **Magnesium** | **1200** | | 100 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:35 | 50 |
| **Manganese** | **3.2** | | 0.50 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:35 | 50 |
| **Potassium** | **80** | | 25 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:35 | 50 |
| **Sodium** | **9100** | | 25 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:35 | 50 |
| Beryllium | ND | | 0.050 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:35 | 50 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **2500** | | 20 | | ug/L | | 05/28/24 08:50 | 05/30/24 18:51 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cobalt** | **0.013** | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:30 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:30 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **940** | | 6.0 | | mg/L | | | 05/23/24 19:32 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 19:32 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **940** | | 6.0 | | mg/L | | | 05/23/24 19:32 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 19:32 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 19:32 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **29000** | **B7** | 200 | | mg/L | | | 05/26/24 14:06 | 1 |
| **pH (SM 4500 H+ B)** | **7.2** | **H5** | 1.7 | | SU | | | 05/29/24 09:29 | 1 |
| **Temperature (SM 4500 H+ B)** | **15.7** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 09:29 | 1 |

## Client Sample ID: FC-CCR-MW19-0524

**Lab Sample ID: 550-218680-8**
**Date Collected: 05/20/24 14:11**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **2.5** | | 2.5 | | mg/L | | 05/22/24 05:43 | 05/25/24 16:41 | 50 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:32 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:32 | 10 |

## Client Sample ID: FC-CCR-MW21-0524

**Lab Sample ID: 550-218680-9**
**Date Collected: 05/16/24 18:28**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **7.5** | | 2.5 | | mg/L | | 05/22/24 05:43 | 05/25/24 17:22 | 50 |

## Client Sample ID: FC-CCR-MW21-0524

**Lab Sample ID: 550-218680-9**

**Date Collected: 05/16/24 18:28**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cobalt** | **0.0051** | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:34 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:34 | 10 |

## Client Sample ID: FC-CCR-MW23R-0524

**Lab Sample ID: 550-218680-10**

**Date Collected: 05/20/24 18:00**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **820** | **D2** | 400 | | mg/L | | | 05/23/24 17:33 | 200 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/23/24 17:15 | 1 |
| **Sulfate** | **9800** | **D2** | 400 | | mg/L | | | 05/23/24 17:33 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **15** | | 2.5 | | mg/L | | 05/22/24 05:43 | 05/25/24 17:29 | 50 |
| **Calcium** | **670** | | 100 | | mg/L | | 05/22/24 05:43 | 05/25/24 17:29 | 50 |
| Iron | ND | | 5.0 | | mg/L | | 05/22/24 05:43 | 05/25/24 17:29 | 50 |
| **Magnesium** | **2100** | | 100 | | mg/L | | 05/22/24 05:43 | 05/25/24 17:29 | 50 |
| Manganese | ND | | 0.50 | | mg/L | | 05/22/24 05:43 | 05/25/24 17:29 | 50 |
| **Potassium** | **60** | | 25 | | mg/L | | 05/22/24 05:43 | 05/25/24 17:29 | 50 |
| **Sodium** | **3200** | | 25 | | mg/L | | 05/22/24 05:43 | 05/25/24 17:29 | 50 |
| Beryllium | ND | | 0.050 | | mg/L | | 05/22/24 05:43 | 05/25/24 17:29 | 50 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **1200** | | 20 | | ug/L | | 05/28/24 08:50 | 05/30/24 18:55 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:36 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:36 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **550** | | 6.0 | | mg/L | | | 05/23/24 19:47 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 19:47 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **550** | | 6.0 | | mg/L | | | 05/23/24 19:47 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 19:47 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 19:47 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **18000** | **B7** | 100 | | mg/L | | | 05/26/24 14:06 | 1 |
| **pH (SM 4500 H+ B)** | **7.3** | **H5** | 1.7 | | SU | | | 05/29/24 09:30 | 1 |
| **Temperature (SM 4500 H+ B)** | **16.5** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 09:30 | 1 |

## Client Sample ID: FC-CCR-MW30-0524

**Lab Sample ID: 550-218680-11**

**Date Collected: 05/17/24 09:31**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **37** | **M3** | 2.5 | | mg/L | | 05/22/24 05:43 | 05/25/24 17:50 | 50 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:47 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:47 | 10 |

## Client Sample ID: FC-CCR-MW36R-0524

**Lab Sample ID: 550-218680-12**

**Date Collected: 05/20/24 18:40**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **460** | **D2** | 400 | | mg/L | | | 05/23/24 18:10 | 200 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/23/24 17:52 | 1 |
| **Sulfate** | **3700** | **D2** | 400 | | mg/L | | | 05/23/24 18:10 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **67** | | 2.5 | | mg/L | | 05/22/24 05:43 | 05/25/24 17:56 | 50 |
| **Calcium** | **620** | | 100 | | mg/L | | 05/22/24 05:43 | 05/25/24 17:56 | 50 |
| Iron | ND | | 5.0 | | mg/L | | 05/22/24 05:43 | 05/25/24 17:56 | 50 |
| **Magnesium** | **520** | | 100 | | mg/L | | 05/22/24 05:43 | 05/25/24 17:56 | 50 |
| Manganese | ND | | 0.50 | | mg/L | | 05/22/24 05:43 | 05/25/24 17:56 | 50 |
| **Potassium** | **31** | | 25 | | mg/L | | 05/22/24 05:43 | 05/25/24 17:56 | 50 |
| **Sodium** | **1200** | | 25 | | mg/L | | 05/22/24 05:43 | 05/25/24 17:56 | 50 |
| Beryllium | ND | | 0.050 | | mg/L | | 05/22/24 05:43 | 05/25/24 17:56 | 50 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **630** | | 20 | | ug/L | | 05/28/24 08:50 | 05/30/24 18:59 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cobalt** | **0.21** | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:49 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:49 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **210** | | 6.0 | | mg/L | | | 05/23/24 19:59 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 19:59 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **210** | | 6.0 | | mg/L | | | 05/23/24 19:59 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 19:59 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 19:59 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **1400** | **B7** | 20 | | mg/L | | | 05/26/24 14:06 | 1 |
| **pH (SM 4500 H+ B)** | **7.6** | **H5** | 1.7 | | SU | | | 05/29/24 09:37 | 1 |
| **Temperature (SM 4500 H+ B)** | **13.4** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 09:37 | 1 |

## Client Sample ID: FC-CCR-FD05-0524

**Lab Sample ID: 550-218680-13**
**Date Collected: 05/20/24 12:34**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **2.6** | | 2.5 | | mg/L | | 05/22/24 05:43 | 05/25/24 18:03 | 50 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:51 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:51 | 10 |

## Client Sample ID: FC-CCR-MW82S-0524

**Lab Sample ID: 550-218680-14**
**Date Collected: 05/17/24 18:25**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **580** | **D2** | 400 | | mg/L | | | 05/23/24 13:34 | 200 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/23/24 13:16 | 1 |
| **Sulfate** | **5100** | **D2** | 400 | | mg/L | | | 05/23/24 13:34 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **62** | **M3** | 2.5 | | mg/L | | 05/22/24 05:50 | 05/25/24 19:21 | 50 |
| **Calcium** | **470** | **M3** | 100 | | mg/L | | 05/22/24 05:50 | 05/25/24 19:21 | 50 |
| **Magnesium** | **720** | **M3** | 100 | | mg/L | | 05/22/24 05:50 | 05/25/24 19:21 | 50 |
| **Potassium** | **25** | | 25 | | mg/L | | 05/22/24 05:50 | 05/25/24 19:21 | 50 |
| **Sodium** | **1300** | **M3** | 25 | | mg/L | | 05/22/24 05:50 | 05/25/24 19:21 | 50 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cobalt** | **0.11** | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:38 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:38 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **260** | | 6.0 | | mg/L | | | 05/23/24 20:07 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 20:07 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **260** | | 6.0 | | mg/L | | | 05/23/24 20:07 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 20:07 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 20:07 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **9500** | | 100 | | mg/L | | | 05/23/24 11:23 | 1 |
| **pH (SM 4500 H+ B)** | **7.3** | **H5** | 1.7 | | SU | | | 05/29/24 09:38 | 1 |
| **Temperature (SM 4500 H+ B)** | **14.7** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 09:38 | 1 |

## Client Sample ID: FC-CCR-MW60-0524

**Lab Sample ID: 550-218680-15**
**Date Collected: 05/16/24 15:22**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **78** | | 2.5 | | mg/L | | 05/22/24 05:43 | 05/25/24 18:10 | 50 |

## Client Sample ID: FC-CCR-MW60-0524

**Lab Sample ID: 550-218680-15**
**Matrix: Water**
**Date Collected: 05/16/24 15:22**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.18 | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:53 | 10 |
| Molybdenum | 0.16 | T5 | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:53 | 10 |

## Client Sample ID: FC-CCR-MW77S-0524

**Lab Sample ID: 550-218680-16**
**Matrix: Water**
**Date Collected: 05/17/24 10:31**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 12 | | 2.5 | | mg/L | | 05/22/24 05:43 | 05/25/24 18:17 | 50 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.0069 | | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:55 | 10 |
| Molybdenum | 0.017 | T5 | 0.0050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:55 | 10 |

## Client Sample ID: FC-CCR-MW78S-0524

**Lab Sample ID: 550-218680-17**
**Matrix: Water**
**Date Collected: 05/17/24 11:52**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | ND | | 2.5 | | mg/L | | 05/22/24 05:50 | 05/25/24 19:28 | 50 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.0084 | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:40 | 10 |
| Molybdenum | 0.017 | T5 | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:40 | 10 |

## Client Sample ID: FC-CCR-MW79S-0524

**Lab Sample ID: 550-218680-18**
**Matrix: Water**
**Date Collected: 05/17/24 13:38**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 9.1 | | 2.5 | | mg/L | | 05/22/24 05:50 | 05/25/24 19:35 | 50 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:42 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:42 | 10 |

## Client Sample ID: FC-CCR-FD08-0524

**Lab Sample ID: 550-218680-19**
**Matrix: Water**
**Date Collected: 05/17/24 11:11**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 540 | D2 | 400 | | mg/L | | | 05/23/24 18:47 | 200 |
| Fluoride | 0.56 | | 0.40 | | mg/L | | | 05/23/24 18:29 | 1 |
| Sulfate | 4800 | D2 | 400 | | mg/L | | | 05/23/24 18:47 | 200 |

## Client Sample ID: FC-CCR-FD08-0524

**Lab Sample ID: 550-218680-19**

**Date Collected: 05/17/24 11:11**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **120** | | 2.5 | | mg/L | | 05/22/24 05:50 | 05/25/24 19:42 | 50 |
| **Calcium** | **880** | | 100 | | mg/L | | 05/22/24 05:50 | 05/25/24 19:42 | 50 |
| **Magnesium** | **1300** | | 100 | | mg/L | | 05/22/24 05:50 | 05/25/24 19:42 | 50 |
| **Potassium** | **45** | | 25 | | mg/L | | 05/22/24 05:50 | 05/25/24 19:42 | 50 |
| **Sodium** | **2500** | | 25 | | mg/L | | 05/22/24 05:50 | 05/25/24 19:42 | 50 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cobalt** | **0.10** | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:44 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:44 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **260** | | 6.0 | | mg/L | | | 05/23/24 20:27 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 20:27 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **260** | | 6.0 | | mg/L | | | 05/23/24 20:27 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 20:27 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 20:27 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **9200** | | 100 | | mg/L | | | 05/23/24 11:23 | 1 |
| **pH (SM 4500 H+ B)** | **7.4** | **H5** | 1.7 | | SU | | | 05/29/24 09:39 | 1 |
| **Temperature (SM 4500 H+ B)** | **14.7** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 09:39 | 1 |

## Client Sample ID: FC-CCR-MW81-0524

**Lab Sample ID: 550-218680-20**

**Date Collected: 05/17/24 12:48**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **61** | **M3** | 2.5 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:02 | 50 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cobalt** | **0.023** | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:50 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:50 | 10 |

## Client Sample ID: FC-CCR-EW17-0524

**Lab Sample ID: 550-218680-21**

**Date Collected: 05/17/24 18:42**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **45** | | 2.5 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:09 | 50 |
| **Calcium** | **570** | | 100 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:09 | 50 |
| Iron | ND | | 5.0 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:09 | 50 |
| **Magnesium** | **1200** | | 100 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:09 | 50 |
| **Manganese** | **0.81** | | 0.50 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:09 | 50 |
| **Potassium** | **42** | | 25 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:09 | 50 |
| **Sodium** | **3000** | | 25 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:09 | 50 |
| Beryllium | ND | | 0.050 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:09 | 50 |

## Client Sample ID: FC-CCR-EW17-0524

**Lab Sample ID: 550-218680-21**

**Date Collected: 05/17/24 18:42**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **1000** | | 20 | | ug/L | | 05/28/24 08:50 | 05/30/24 19:03 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:52 | 10 |
| **Arsenic** | **0.0079** | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:52 | 10 |
| **Barium** | **0.016** | **L4** | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:52 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:52 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:52 | 10 |
| **Cobalt** | **0.017** | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:52 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:52 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:52 | 10 |
| **Selenium** | **0.0066** | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:52 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:52 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **400** | | 6.0 | | mg/L | | | 05/23/24 20:44 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 20:44 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **400** | | 6.0 | | mg/L | | | 05/23/24 20:44 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 20:44 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 20:44 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **11000** | | 100 | | mg/L | | | 05/23/24 11:23 | 1 |
| **pH (SM 4500 H+ B)** | **7.2** | **H5** | 1.7 | | SU | | | 05/29/24 09:42 | 1 |
| **Temperature (SM 4500 H+ B)** | **14.2** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 09:42 | 1 |

## Client Sample ID: FC-CCR-EW11R-0524

**Lab Sample ID: 550-218680-22**

**Date Collected: 05/17/24 15:52**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **530** | **D2** | 400 | | mg/L | | | 05/23/24 19:24 | 200 |
| **Fluoride** | **0.78** | | 0.40 | | mg/L | | | 05/23/24 19:05 | 1 |
| **Sulfate** | **4700** | **D2** | 400 | | mg/L | | | 05/23/24 19:24 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **34** | | 2.5 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:16 | 50 |
| **Calcium** | **560** | | 100 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:16 | 50 |
| Iron | ND | | 5.0 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:16 | 50 |
| **Magnesium** | **750** | | 100 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:16 | 50 |
| **Manganese** | **1.1** | | 0.50 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:16 | 50 |
| **Potassium** | **31** | | 25 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:16 | 50 |
| **Sodium** | **1300** | | 25 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:16 | 50 |
| Beryllium | ND | | 0.050 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:16 | 50 |

## Client Sample ID: FC-CCR-EW11R-0524

**Lab Sample ID: 550-218680-22**

**Date Collected: 05/17/24 15:52**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **630** | | 20 | | ug/L | | 05/28/24 08:50 | 05/30/24 19:07 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:54 | 10 |
| **Arsenic** | **0.0083** | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:54 | 10 |
| **Barium** | **0.021** | **L4** | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:54 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:54 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:54 | 10 |
| **Cobalt** | **0.010** | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:54 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:54 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:54 | 10 |
| **Selenium** | **0.0054** | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:54 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:54 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **280** | | 6.0 | | mg/L | | | 05/23/24 20:53 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 20:53 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **280** | | 6.0 | | mg/L | | | 05/23/24 20:53 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 20:53 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 20:53 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **8800** | | 100 | | mg/L | | | 05/23/24 11:23 | 1 |
| **pH (SM 4500 H+ B)** | **7.3** | **H5** | 1.7 | | SU | | | 05/29/24 09:43 | 1 |
| **Temperature (SM 4500 H+ B)** | **14.4** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 09:43 | 1 |

## Client Sample ID: FC-CCR-EW12R-0524

**Lab Sample ID: 550-218680-23**

**Date Collected: 05/17/24 17:40**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **870** | **D2** | 400 | | mg/L | | | 05/23/24 20:56 | 200 |
| **Fluoride** | **1.1** | | 0.40 | | mg/L | | | 05/23/24 20:37 | 1 |
| **Sulfate** | **6900** | **D2** | 400 | | mg/L | | | 05/23/24 20:56 | 200 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **56** | | 2.5 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:23 | 50 |
| **Calcium** | **600** | | 100 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:23 | 50 |
| **Iron** | **20** | | 5.0 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:23 | 50 |
| **Magnesium** | **1000** | | 100 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:23 | 50 |
| **Manganese** | **1.7** | | 0.50 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:23 | 50 |
| **Potassium** | **48** | | 25 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:23 | 50 |
| **Sodium** | **3100** | | 25 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:23 | 50 |
| Beryllium | ND | | 0.050 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:23 | 50 |

## Client Sample ID: FC-CCR-EW12R-0524

**Lab Sample ID: 550-218680-23**

**Date Collected: 05/17/24 17:40**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **890** | | 20 | | ug/L | | 05/28/24 08:50 | 05/30/24 19:10 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:56 | 10 |
| **Arsenic** | **0.0081** | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:56 | 10 |
| **Barium** | **0.021** | **L4** | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:56 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:56 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:56 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:56 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:56 | 10 |
| **Molybdenum** | **0.012** | **T5** | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:56 | 10 |
| **Selenium** | **0.0070** | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:56 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:56 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **470** | | 6.0 | | mg/L | | | 05/23/24 21:02 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 21:02 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **470** | | 6.0 | | mg/L | | | 05/23/24 21:02 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 21:02 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/23/24 21:02 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **13000** | | 100 | | mg/L | | | 05/23/24 11:23 | 1 |
| **pH (SM 4500 H+ B)** | **7.4** | **H5** | 1.7 | | SU | | | 05/29/24 09:45 | 1 |
| **Temperature (SM 4500 H+ B)** | **14.8** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 09:45 | 1 |

## Client Sample ID: FC-CCR-FD06-0524

**Lab Sample ID: 550-218680-24**

**Date Collected: 05/17/24 16:20**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **32** | | 2.5 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:30 | 50 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:58 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:58 | 10 |

## Client Sample ID: FC-CCR-FD07-0524

**Lab Sample ID: 550-218680-25**

**Date Collected: 05/17/24 12:34**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **56** | | 2.5 | | mg/L | | 05/22/24 05:50 | 05/25/24 20:36 | 50 |

# Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218680-1
SDG: APS - Four Corners Power Plant (Other)

**Client Sample ID: FC-CCR-FD07-0524**
**Date Collected: 05/17/24 12:34**
**Date Received: 05/21/24 14:05**

**Lab Sample ID: 550-218680-25**
**Matrix: Water**

**Method: EPA 200.8 LL - Metals (ICP/MS)**

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cobalt** | **0.025** | | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 18:00 | 10 |
| Molybdenum | ND | T5 | 0.0050 | | mg/L | | 05/22/24 08:28 | 05/24/24 18:00 | 10 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 550-321403/2**
**Matrix: Water**
**Analysis Batch: 321403**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 05/23/24 11:44 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/23/24 11:44 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 05/23/24 11:44 | 1 |

**Lab Sample ID: LCS 550-321403/5**
**Matrix: Water**
**Analysis Batch: 321403**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 18.6 | | mg/L | | 93 | 90 - 110 | | |
| Fluoride | | | 4.00 | 3.86 | | mg/L | | 97 | 90 - 110 | | |
| Sulfate | | | 20.0 | 18.6 | | mg/L | | 93 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321403/6**
**Matrix: Water**
**Analysis Batch: 321403**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.0 | | mg/L | | 95 | 90 - 110 | 2 | 20 |
| Fluoride | | | 4.00 | 3.91 | | mg/L | | 98 | 90 - 110 | 1 | 20 |
| Sulfate | | | 20.0 | 18.9 | | mg/L | | 94 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 550-218680-14 MS**
**Matrix: Water**
**Analysis Batch: 321403**

**Client Sample ID: FC-CCR-MW82S-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 580 | D2 | 4000 | 4280 | D2 | mg/L | | 92 | 80 - 120 | | |
| Fluoride | ND | | 800 | 769 | D2 | mg/L | | 96 | 80 - 120 | | |
| Sulfate | 5100 | D2 | 4000 | 8710 | D2 | mg/L | | 89 | 80 - 120 | | |

**Lab Sample ID: 550-218680-14 MSD**
**Matrix: Water**
**Analysis Batch: 321403**

**Client Sample ID: FC-CCR-MW82S-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 580 | D2 | 4000 | 4270 | D2 | mg/L | | 92 | 80 - 120 | 0 | 20 |
| Fluoride | ND | | 800 | 768 | D2 | mg/L | | 96 | 80 - 120 | 0 | 20 |
| Sulfate | 5100 | D2 | 4000 | 8710 | D2 | mg/L | | 89 | 80 - 120 | 0 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 550-321295/1-A**
**Matrix: Water**
**Analysis Batch: 321545**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321295**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | ND | | 0.050 | | mg/L | | 05/22/24 05:43 | 05/25/24 15:30 | 1 |
| Calcium | ND | | 2.0 | | mg/L | | 05/22/24 05:43 | 05/25/24 15:30 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 05/22/24 05:43 | 05/25/24 15:30 | 1 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: MB 550-321295/1-A**
**Matrix: Water**
**Analysis Batch: 321545**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321295**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Magnesium | ND | | 2.0 | | mg/L | | 05/22/24 05:43 | 05/25/24 15:30 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/22/24 05:43 | 05/25/24 15:30 | 1 |
| Potassium | ND | | 0.50 | | mg/L | | 05/22/24 05:43 | 05/25/24 15:30 | 1 |
| Sodium | ND | | 0.50 | | mg/L | | 05/22/24 05:43 | 05/25/24 15:30 | 1 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/22/24 05:43 | 05/25/24 15:30 | 1 |

**Lab Sample ID: LCS 550-321295/2-A**
**Matrix: Water**
**Analysis Batch: 321545**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321295**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.04 | | mg/L | | 104 | 85 - 115 | | |
| Calcium | | | 21.0 | 22.1 | | mg/L | | 105 | 85 - 115 | | |
| Iron | | | 1.00 | 1.04 | | mg/L | | 104 | 85 - 115 | | |
| Magnesium | | | 21.0 | 21.9 | | mg/L | | 105 | 85 - 115 | | |
| Manganese | | | 1.00 | 1.01 | | mg/L | | 101 | 85 - 115 | | |
| Potassium | | | 20.0 | 20.9 | | mg/L | | 104 | 85 - 115 | | |
| Sodium | | | 20.0 | 20.4 | | mg/L | | 102 | 85 - 115 | | |
| Beryllium | | | 1.00 | 1.06 | | mg/L | | 106 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321295/3-A**
**Matrix: Water**
**Analysis Batch: 321545**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321295**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.04 | | mg/L | | 104 | 85 - 115 | 0 | 20 |
| Calcium | | | 21.0 | 21.8 | | mg/L | | 104 | 85 - 115 | 1 | 20 |
| Iron | | | 1.00 | 1.03 | | mg/L | | 103 | 85 - 115 | 1 | 20 |
| Magnesium | | | 21.0 | 21.8 | | mg/L | | 104 | 85 - 115 | 1 | 20 |
| Manganese | | | 1.00 | 1.02 | | mg/L | | 102 | 85 - 115 | 1 | 20 |
| Potassium | | | 20.0 | 20.6 | | mg/L | | 103 | 85 - 115 | 1 | 20 |
| Sodium | | | 20.0 | 20.2 | | mg/L | | 101 | 85 - 115 | 1 | 20 |
| Beryllium | | | 1.00 | 1.04 | | mg/L | | 104 | 85 - 115 | 1 | 20 |

**Lab Sample ID: 550-218680-1 MS**
**Matrix: Water**
**Analysis Batch: 321545**

**Client Sample ID: FC-CCR-DMX01-0524**
**Prep Type: Total/NA**
**Prep Batch: 321295**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 100 | M3 | 1.00 | 84.0 | M3 | mg/L | | -1770 | 70 - 130 | | |

**Lab Sample ID: 550-218680-1 MSD**
**Matrix: Water**
**Analysis Batch: 321545**

**Client Sample ID: FC-CCR-DMX01-0524**
**Prep Type: Total/NA**
**Prep Batch: 321295**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 100 | M3 | 1.00 | 100 | M3 | mg/L | | -142 | 70 - 130 | 18 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: 550-218680-11 MS**
**Matrix: Water**
**Analysis Batch: 321545**

**Client Sample ID: FC-CCR-MW30-0524**
**Prep Type: Total/NA**
**Prep Batch: 321295**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 37 | M3 | 1.00 | 33.6 | M3 | mg/L | | -347 | 70 - 130 |

**Lab Sample ID: 550-218680-11 MSD**
**Matrix: Water**
**Analysis Batch: 321545**

**Client Sample ID: FC-CCR-MW30-0524**
**Prep Type: Total/NA**
**Prep Batch: 321295**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 37 | M3 | 1.00 | 37.7 | M3 | mg/L | | 59 | 70 - 130 | 11 | 20 |

**Lab Sample ID: MB 550-321296/1-A**
**Matrix: Water**
**Analysis Batch: 321547**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321296**

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Boron | ND | | 0.050 | mg/L | | 05/22/24 05:50 | 05/25/24 18:58 | 1 |
| Calcium | ND | | 2.0 | mg/L | | 05/22/24 05:50 | 05/25/24 18:58 | 1 |
| Iron | ND | | 0.10 | mg/L | | 05/22/24 05:50 | 05/25/24 18:58 | 1 |
| Magnesium | ND | | 2.0 | mg/L | | 05/22/24 05:50 | 05/25/24 18:58 | 1 |
| Manganese | ND | | 0.010 | mg/L | | 05/22/24 05:50 | 05/25/24 18:58 | 1 |
| Potassium | ND | | 0.50 | mg/L | | 05/22/24 05:50 | 05/25/24 18:58 | 1 |
| Sodium | ND | | 0.50 | mg/L | | 05/22/24 05:50 | 05/25/24 18:58 | 1 |
| Beryllium | ND | | 0.0010 | mg/L | | 05/22/24 05:50 | 05/25/24 18:58 | 1 |

**Lab Sample ID: LCS 550-321296/2-A**
**Matrix: Water**
**Analysis Batch: 321547**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321296**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Boron | 1.00 | 1.04 | | mg/L | | 104 | 85 - 115 |
| Calcium | 21.0 | 21.8 | | mg/L | | 104 | 85 - 115 |
| Iron | 1.00 | 1.03 | | mg/L | | 103 | 85 - 115 |
| Magnesium | 21.0 | 21.7 | | mg/L | | 104 | 85 - 115 |
| Manganese | 1.00 | 1.01 | | mg/L | | 101 | 85 - 115 |
| Potassium | 20.0 | 20.5 | | mg/L | | 103 | 85 - 115 |
| Sodium | 20.0 | 20.0 | | mg/L | | 100 | 85 - 115 |
| Beryllium | 1.00 | 1.04 | | mg/L | | 104 | 85 - 115 |

**Lab Sample ID: LCSD 550-321296/3-A**
**Matrix: Water**
**Analysis Batch: 321547**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321296**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 1.00 | 1.04 | | mg/L | | 104 | 85 - 115 | 1 | 20 |
| Calcium | 21.0 | 21.7 | | mg/L | | 103 | 85 - 115 | 0 | 20 |
| Iron | 1.00 | 1.02 | | mg/L | | 102 | 85 - 115 | 1 | 20 |
| Magnesium | 21.0 | 21.6 | | mg/L | | 103 | 85 - 115 | 1 | 20 |
| Manganese | 1.00 | 0.997 | | mg/L | | 100 | 85 - 115 | 1 | 20 |
| Potassium | 20.0 | 20.5 | | mg/L | | 102 | 85 - 115 | 0 | 20 |
| Sodium | 20.0 | 20.0 | | mg/L | | 100 | 85 - 115 | 0 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: LCSD 550-321296/3-A**
**Matrix: Water**
**Analysis Batch: 321547**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321296**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | | | 1.00 | 1.03 | | mg/L | | 103 | 85 - 115 | 1 | 20 |

**Lab Sample ID: 550-218680-14 MS**
**Matrix: Water**
**Analysis Batch: 321547**

**Client Sample ID: FC-CCR-MW82S-0524**
**Prep Type: Total/NA**
**Prep Batch: 321296**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 62 | M3 | 1.00 | 61.6 | M3 | mg/L | | -73 | 70 - 130 |
| Calcium | 470 | M3 | 21.0 | 488 | M3 | mg/L | | 69 | 70 - 130 |
| Magnesium | 720 | M3 | 21.0 | 732 | M3 | mg/L | | 48 | 70 - 130 |
| Potassium | 25 | | 20.0 | 47.1 | | mg/L | | 110 | 70 - 130 |
| Sodium | 1300 | M3 | 20.0 | 1330 | M3 | mg/L | | -19 | 70 - 130 |

**Lab Sample ID: 550-218680-14 MSD**
**Matrix: Water**
**Analysis Batch: 321547**

**Client Sample ID: FC-CCR-MW82S-0524**
**Prep Type: Total/NA**
**Prep Batch: 321296**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 62 | M3 | 1.00 | 62.7 | M3 | mg/L | | 41 | 70 - 130 | 2 | 20 |
| Calcium | 470 | M3 | 21.0 | 493 | M3 | mg/L | | 96 | 70 - 130 | 1 | 20 |
| Magnesium | 720 | M3 | 21.0 | 740 | M3 | mg/L | | 86 | 70 - 130 | 1 | 20 |
| Potassium | 25 | | 20.0 | 47.1 | | mg/L | | 110 | 70 - 130 | 0 | 20 |
| Sodium | 1300 | M3 | 20.0 | 1350 | M3 | mg/L | | 55 | 70 - 130 | 1 | 20 |

**Lab Sample ID: 550-218680-20 MS**
**Matrix: Water**
**Analysis Batch: 321547**

**Client Sample ID: FC-CCR-MW81-0524**
**Prep Type: Total/NA**
**Prep Batch: 321296**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 61 | M3 | 1.00 | 61.0 | M3 | mg/L | | 46 | 70 - 130 |

**Lab Sample ID: 550-218680-20 MSD**
**Matrix: Water**
**Analysis Batch: 321547**

**Client Sample ID: FC-CCR-MW81-0524**
**Prep Type: Total/NA**
**Prep Batch: 321296**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 61 | M3 | 1.00 | 59.6 | M3 | mg/L | | -87 | 70 - 130 | 2 | 20 |

**Lab Sample ID: MB 280-654755/1-A**
**Matrix: Water**
**Analysis Batch: 655411**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 654755**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 20 | | ug/L | | 05/28/24 08:50 | 05/30/24 17:06 | 1 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: LCS 280-654755/2-A**
**Matrix: Water**
**Analysis Batch: 655411**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 654755**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 1000 | 962 | | ug/L | | 96 | 90 - 112 | | |

**Lab Sample ID: 550-218680-23 MS**
**Matrix: Water**
**Analysis Batch: 655411**

**Client Sample ID: FC-CCR-EW12R-0524**
**Prep Type: Total Recoverable**
**Prep Batch: 654755**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 890 | | 1000 | 1960 | | ug/L | | 108 | 70 - 130 | | |

**Lab Sample ID: 550-218680-23 MSD**
**Matrix: Water**
**Analysis Batch: 655411**

**Client Sample ID: FC-CCR-EW12R-0524**
**Prep Type: Total Recoverable**
**Prep Batch: 654755**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 890 | | 1000 | 1980 | | ug/L | | 109 | 70 - 130 | 1 | 20 |

## Method: 200.8 LL - Metals (ICP/MS)

**Lab Sample ID: MB 550-321302/1-A**
**Matrix: Water**
**Analysis Batch: 321565**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321302**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:08 | 1 |
| Arsenic | ND | | 0.00050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:08 | 1 |
| Barium | ND | | 0.00050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:08 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:08 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:08 | 1 |
| Cobalt | ND | | 0.00050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:08 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:08 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:08 | 1 |
| Selenium | ND | | 0.00050 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:08 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 05/22/24 08:21 | 05/24/24 18:08 | 1 |

**Lab Sample ID: LCS 550-321302/2-A**
**Matrix: Water**
**Analysis Batch: 321565**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321302**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 | | |
| Arsenic | | | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 | | |
| Barium | | | 0.100 | 0.0873 | | mg/L | | 87 | 85 - 115 | | |
| Cadmium | | | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 | | |
| Chromium | | | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 | | |
| Cobalt | | | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 | | |
| Lead | | | 0.100 | 0.0961 | | mg/L | | 96 | 85 - 115 | | |
| Molybdenum | | | 0.100 | 0.107 | | mg/L | | 107 | 85 - 115 | | |
| Selenium | | | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 | | |
| Thallium | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | | |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCSD 550-321302/3-A**
**Matrix: Water**
**Analysis Batch: 321565**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321302**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 | 2 | 20 |
| Arsenic | | | 0.100 | 0.107 | | mg/L | | 107 | 85 - 115 | 1 | 20 |
| Barium | | | 0.100 | 0.0896 | | mg/L | | 90 | 85 - 115 | 3 | 20 |
| Cadmium | | | 0.100 | 0.107 | | mg/L | | 107 | 85 - 115 | 1 | 20 |
| Chromium | | | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 | 2 | 20 |
| Cobalt | | | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 | 1 | 20 |
| Lead | | | 0.100 | 0.0976 | | mg/L | | 98 | 85 - 115 | 2 | 20 |
| Molybdenum | | | 0.100 | 0.109 | | mg/L | | 109 | 85 - 115 | 2 | 20 |
| Selenium | | | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 | 1 | 20 |
| Thallium | | | 0.100 | 0.103 | | mg/L | | 103 | 85 - 115 | 2 | 20 |

**Lab Sample ID: 550-218680-1 MS**
**Matrix: Water**
**Analysis Batch: 321565**

**Client Sample ID: FC-CCR-DMX01-0524**
**Prep Type: Total/NA**
**Prep Batch: 321302**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.100 | 0.107 | | mg/L | | 105 | 70 - 130 | | |
| Molybdenum | 0.022 | T5 | 0.100 | 0.139 | | mg/L | | 117 | 70 - 130 | | |

**Lab Sample ID: 550-218680-1 MSD**
**Matrix: Water**
**Analysis Batch: 321565**

**Client Sample ID: FC-CCR-DMX01-0524**
**Prep Type: Total/NA**
**Prep Batch: 321302**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.100 | 0.109 | | mg/L | | 106 | 70 - 130 | 1 | 20 |
| Molybdenum | 0.022 | T5 | 0.100 | 0.140 | | mg/L | | 118 | 70 - 130 | 1 | 20 |

**Lab Sample ID: 550-218680-11 MS**
**Matrix: Water**
**Analysis Batch: 321565**

**Client Sample ID: FC-CCR-MW30-0524**
**Prep Type: Total/NA**
**Prep Batch: 321302**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.100 | 0.115 | | mg/L | | 114 | 70 - 130 | | |
| Molybdenum | ND | T5 | 0.100 | 0.131 | | mg/L | | 126 | 70 - 130 | | |

**Lab Sample ID: 550-218680-11 MSD**
**Matrix: Water**
**Analysis Batch: 321565**

**Client Sample ID: FC-CCR-MW30-0524**
**Prep Type: Total/NA**
**Prep Batch: 321302**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.100 | 0.108 | | mg/L | | 106 | 70 - 130 | 7 | 20 |
| Molybdenum | ND | T5 | 0.100 | 0.121 | | mg/L | | 117 | 70 - 130 | 7 | 20 |

**Lab Sample ID: MB 550-321303/1-A**
**Matrix: Water**
**Analysis Batch: 321564**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321303**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:28 | 1 |
| Arsenic | ND | | 0.00050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:28 | 1 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 550-321303/1-A**
**Matrix: Water**
**Analysis Batch: 321564**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321303**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Barium | ND | | 0.00050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:28 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:28 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:28 | 1 |
| Cobalt | ND | | 0.00050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:28 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:28 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:28 | 1 |
| Selenium | ND | | 0.00050 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:28 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 05/22/24 08:28 | 05/24/24 17:28 | 1 |

**Lab Sample ID: LCS 550-321303/2-A**
**Matrix: Water**
**Analysis Batch: 321564**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321303**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.110 | | mg/L | | 110 | 85 - 115 | | |
| Arsenic | | | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 | | |
| Barium | | | 0.100 | 0.0882 | | mg/L | | 88 | 85 - 115 | | |
| Cadmium | | | 0.100 | 0.107 | | mg/L | | 107 | 85 - 115 | | |
| Chromium | | | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 | | |
| Cobalt | | | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 | | |
| Lead | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | | |
| Molybdenum | | | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 | | |
| Selenium | | | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 | | |
| Thallium | | | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321303/3-A**
**Matrix: Water**
**Analysis Batch: 321564**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321303**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.110 | | mg/L | | 110 | 85 - 115 | 0 | 20 |
| Arsenic | | | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 | 3 | 20 |
| Barium | | | 0.100 | 0.0815 | L4 | mg/L | | 81 | 85 - 115 | 8 | 20 |
| Cadmium | | | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 | 1 | 20 |
| Chromium | | | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 | 1 | 20 |
| Cobalt | | | 0.100 | 0.107 | | mg/L | | 107 | 85 - 115 | 1 | 20 |
| Lead | | | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 | 3 | 20 |
| Molybdenum | | | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 | 0 | 20 |
| Selenium | | | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 | 3 | 20 |
| Thallium | | | 0.100 | 0.109 | | mg/L | | 109 | 85 - 115 | 3 | 20 |

**Lab Sample ID: 550-218680-14 MS**
**Matrix: Water**
**Analysis Batch: 321564**

**Client Sample ID: FC-CCR-MW82S-0524**
**Prep Type: Total/NA**
**Prep Batch: 321303**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.11 | | 0.100 | 0.212 | | mg/L | | 107 | 70 - 130 | | |
| Molybdenum | ND | T5 | 0.100 | 0.122 | | mg/L | | 118 | 70 - 130 | | |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: 550-218680-14 MSD** — **Client Sample ID: FC-CCR-MW82S-0524**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321564** — **Prep Batch: 321303**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.11 | | 0.100 | 0.211 | | mg/L | | 106 | 70 - 130 | 0 | 20 |
| Molybdenum | ND | T5 | 0.100 | 0.120 | | mg/L | | 116 | 70 - 130 | 1 | 20 |

**Lab Sample ID: 550-218680-20 MS** — **Client Sample ID: FC-CCR-MW81-0524**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321564** — **Prep Batch: 321303**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.023 | | 0.100 | 0.129 | | mg/L | | 106 | 70 - 130 |
| Molybdenum | ND | T5 | 0.100 | 0.117 | | mg/L | | 115 | 70 - 130 |

**Lab Sample ID: 550-218680-20 MSD** — **Client Sample ID: FC-CCR-MW81-0524**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321564** — **Prep Batch: 321303**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.023 | | 0.100 | 0.128 | | mg/L | | 105 | 70 - 130 | 1 | 20 |
| Molybdenum | ND | T5 | 0.100 | 0.118 | | mg/L | | 115 | 70 - 130 | 0 | 20 |

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 550-321474/4** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321474**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/23/24 18:27 | 1 |
| Alkalinity, Phenolphthalein | ND | | 6.0 | | mg/L | | | 05/23/24 18:27 | 1 |
| Bicarbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/23/24 18:27 | 1 |
| Carbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/23/24 18:27 | 1 |
| Hydroxide Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/23/24 18:27 | 1 |

**Lab Sample ID: LCS 550-321474/3** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321474**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 240 | | mg/L | | 96 | 90 - 110 |

**Lab Sample ID: LCSD 550-321474/16** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321474**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 238 | | mg/L | | 95 | 90 - 110 | 1 | 20 |

## Method: SM 2320B - Alkalinity (Continued)

**Lab Sample ID: 550-218680-19 DU**
**Matrix: Water**
**Analysis Batch: 321474**

**Client Sample ID: FC-CCR-FD08-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | 260 | | | 261 | | mg/L | | | | 0.2 | 20 |
| Alkalinity, Phenolphthalein | ND | | | ND | | mg/L | | | | NC | 20 |
| Bicarbonate Alkalinity as CaCO3 | 260 | | | 261 | | mg/L | | | | 0.2 | 20 |
| Carbonate Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |
| Hydroxide Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 550-321405/1**
**Matrix: Water**
**Analysis Batch: 321405**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 05/23/24 11:23 | 1 |

**Lab Sample ID: LCS 550-321405/2**
**Matrix: Water**
**Analysis Batch: 321405**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 978 | | mg/L | | 98 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321405/3**
**Matrix: Water**
**Analysis Batch: 321405**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 992 | | mg/L | | 99 | 90 - 110 | 1 | 10 |

**Lab Sample ID: 550-218672-A-3 DU**
**Matrix: Water**
**Analysis Batch: 321405**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 6900 | | | 6950 | | mg/L | | | | 0.3 | 10 |

**Lab Sample ID: MB 550-321537/1**
**Matrix: Water**
**Analysis Batch: 321537**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 22.0 | B1 | 20 | | mg/L | | | 05/26/24 14:06 | 1 |

**Lab Sample ID: LCS 550-321537/2**
**Matrix: Water**
**Analysis Batch: 321537**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1050 | | mg/L | | 105 | 90 - 110 | | |

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

**Lab Sample ID: LCSD 550-321537/3**
**Matrix: Water**
**Analysis Batch: 321537**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1060 | | mg/L | | 106 | 90 - 110 | 2 | 10 |

**Lab Sample ID: 550-218669-A-7 DU**
**Matrix: Water**
**Analysis Batch: 321537**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1000 | B7 | | 1030 | | mg/L | | | | 0.8 | 10 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: LCSSRM 550-321607/13**
**Matrix: Water**
**Analysis Batch: 321607**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.0 | | SU | | 99.3 | 98.5 - 101.5 | | |

**Lab Sample ID: LCSSRM 550-321607/25**
**Matrix: Water**
**Analysis Batch: 321607**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.0 | | SU | | 99.4 | 98.5 - 101.5 | | |

**Lab Sample ID: 550-218673-A-6 DU**
**Matrix: Water**
**Analysis Batch: 321607**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | 7.1 | | | 7.1 | | SU | | | | 0.3 | 5 |
| Temperature | 13.1 | | | 11.4 | | Degrees C | | | | 14 | |

**Lab Sample ID: 550-218764-B-1 DU**
**Matrix: Water**
**Analysis Batch: 321607**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | 7.0 | | | 7.1 | | SU | | | | 0.6 | 5 |
| Temperature | 14.3 | | | 14.1 | | Degrees C | | | | 1 | |

## HPLC/IC

### Analysis Batch: 321403

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218680-2 | FC-CCR-DMX03-0524 | Total/NA | Water | 300.0 | |
| 550-218680-2 | FC-CCR-DMX03-0524 | Total/NA | Water | 300.0 | |
| 550-218680-5 | FC-CCR-MW05-0524 | Total/NA | Water | 300.0 | |
| 550-218680-5 | FC-CCR-MW05-0524 | Total/NA | Water | 300.0 | |
| 550-218680-7 | FC-CCR-MW18-0524 | Total/NA | Water | 300.0 | |
| 550-218680-7 | FC-CCR-MW18-0524 | Total/NA | Water | 300.0 | |
| 550-218680-10 | FC-CCR-MW23R-0524 | Total/NA | Water | 300.0 | |
| 550-218680-10 | FC-CCR-MW23R-0524 | Total/NA | Water | 300.0 | |
| 550-218680-12 | FC-CCR-MW36R-0524 | Total/NA | Water | 300.0 | |
| 550-218680-12 | FC-CCR-MW36R-0524 | Total/NA | Water | 300.0 | |
| 550-218680-14 | FC-CCR-MW82S-0524 | Total/NA | Water | 300.0 | |
| 550-218680-14 | FC-CCR-MW82S-0524 | Total/NA | Water | 300.0 | |
| 550-218680-19 | FC-CCR-FD08-0524 | Total/NA | Water | 300.0 | |
| 550-218680-19 | FC-CCR-FD08-0524 | Total/NA | Water | 300.0 | |
| 550-218680-22 | FC-CCR-EW11R-0524 | Total/NA | Water | 300.0 | |
| 550-218680-22 | FC-CCR-EW11R-0524 | Total/NA | Water | 300.0 | |
| 550-218680-23 | FC-CCR-EW12R-0524 | Total/NA | Water | 300.0 | |
| 550-218680-23 | FC-CCR-EW12R-0524 | Total/NA | Water | 300.0 | |
| MB 550-321403/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-321403/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-321403/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-218680-14 MS | FC-CCR-MW82S-0524 | Total/NA | Water | 300.0 | |
| 550-218680-14 MSD | FC-CCR-MW82S-0524 | Total/NA | Water | 300.0 | |

## Metals

### Prep Batch: 321295

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218680-1 | FC-CCR-DMX01-0524 | Total/NA | Water | 200.7 | |
| 550-218680-2 | FC-CCR-DMX03-0524 | Total/NA | Water | 200.7 | |
| 550-218680-3 | FC-CCR-MW01-0524 | Total/NA | Water | 200.7 | |
| 550-218680-4 | FC-CCR-MW03-0524 | Total/NA | Water | 200.7 | |
| 550-218680-5 | FC-CCR-MW05-0524 | Total/NA | Water | 200.7 | |
| 550-218680-6 | FC-CCR-FD04-0524 | Total/NA | Water | 200.7 | |
| 550-218680-7 | FC-CCR-MW18-0524 | Total/NA | Water | 200.7 | |
| 550-218680-8 | FC-CCR-MW19-0524 | Total/NA | Water | 200.7 | |
| 550-218680-9 | FC-CCR-MW21-0524 | Total/NA | Water | 200.7 | |
| 550-218680-10 | FC-CCR-MW23R-0524 | Total/NA | Water | 200.7 | |
| 550-218680-11 | FC-CCR-MW30-0524 | Total/NA | Water | 200.7 | |
| 550-218680-12 | FC-CCR-MW36R-0524 | Total/NA | Water | 200.7 | |
| 550-218680-13 | FC-CCR-FD05-0524 | Total/NA | Water | 200.7 | |
| 550-218680-15 | FC-CCR-MW60-0524 | Total/NA | Water | 200.7 | |
| 550-218680-16 | FC-CCR-MW77S-0524 | Total/NA | Water | 200.7 | |
| MB 550-321295/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-321295/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-321295/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-218680-1 MS | FC-CCR-DMX01-0524 | Total/NA | Water | 200.7 | |
| 550-218680-1 MSD | FC-CCR-DMX01-0524 | Total/NA | Water | 200.7 | |
| 550-218680-11 MS | FC-CCR-MW30-0524 | Total/NA | Water | 200.7 | |
| 550-218680-11 MSD | FC-CCR-MW30-0524 | Total/NA | Water | 200.7 | |

## Metals

### Prep Batch: 321296

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218680-14 | FC-CCR-MW82S-0524 | Total/NA | Water | 200.7 | |
| 550-218680-17 | FC-CCR-MW78S-0524 | Total/NA | Water | 200.7 | |
| 550-218680-18 | FC-CCR-MW79S-0524 | Total/NA | Water | 200.7 | |
| 550-218680-19 | FC-CCR-FD08-0524 | Total/NA | Water | 200.7 | |
| 550-218680-20 | FC-CCR-MW81-0524 | Total/NA | Water | 200.7 | |
| 550-218680-21 | FC-CCR-EW17-0524 | Total/NA | Water | 200.7 | |
| 550-218680-22 | FC-CCR-EW11R-0524 | Total/NA | Water | 200.7 | |
| 550-218680-23 | FC-CCR-EW12R-0524 | Total/NA | Water | 200.7 | |
| 550-218680-24 | FC-CCR-FD06-0524 | Total/NA | Water | 200.7 | |
| 550-218680-25 | FC-CCR-FD07-0524 | Total/NA | Water | 200.7 | |
| MB 550-321296/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-321296/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-321296/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-218680-14 MS | FC-CCR-MW82S-0524 | Total/NA | Water | 200.7 | |
| 550-218680-14 MSD | FC-CCR-MW82S-0524 | Total/NA | Water | 200.7 | |
| 550-218680-20 MS | FC-CCR-MW81-0524 | Total/NA | Water | 200.7 | |
| 550-218680-20 MSD | FC-CCR-MW81-0524 | Total/NA | Water | 200.7 | |

### Prep Batch: 321302

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218680-1 | FC-CCR-DMX01-0524 | Total/NA | Water | 200.8 | |
| 550-218680-2 | FC-CCR-DMX03-0524 | Total/NA | Water | 200.8 | |
| 550-218680-3 | FC-CCR-MW01-0524 | Total/NA | Water | 200.8 | |
| 550-218680-4 | FC-CCR-MW03-0524 | Total/NA | Water | 200.8 | |
| 550-218680-5 | FC-CCR-MW05-0524 | Total/NA | Water | 200.8 | |
| 550-218680-6 | FC-CCR-FD04-0524 | Total/NA | Water | 200.8 | |
| 550-218680-7 | FC-CCR-MW18-0524 | Total/NA | Water | 200.8 | |
| 550-218680-8 | FC-CCR-MW19-0524 | Total/NA | Water | 200.8 | |
| 550-218680-9 | FC-CCR-MW21-0524 | Total/NA | Water | 200.8 | |
| 550-218680-10 | FC-CCR-MW23R-0524 | Total/NA | Water | 200.8 | |
| 550-218680-11 | FC-CCR-MW30-0524 | Total/NA | Water | 200.8 | |
| 550-218680-12 | FC-CCR-MW36R-0524 | Total/NA | Water | 200.8 | |
| 550-218680-13 | FC-CCR-FD05-0524 | Total/NA | Water | 200.8 | |
| 550-218680-15 | FC-CCR-MW60-0524 | Total/NA | Water | 200.8 | |
| 550-218680-16 | FC-CCR-MW77S-0524 | Total/NA | Water | 200.8 | |
| MB 550-321302/1-A | Method Blank | Total/NA | Water | 200.8 | |
| LCS 550-321302/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-321302/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-218680-1 MS | FC-CCR-DMX01-0524 | Total/NA | Water | 200.8 | |
| 550-218680-1 MSD | FC-CCR-DMX01-0524 | Total/NA | Water | 200.8 | |
| 550-218680-11 MS | FC-CCR-MW30-0524 | Total/NA | Water | 200.8 | |
| 550-218680-11 MSD | FC-CCR-MW30-0524 | Total/NA | Water | 200.8 | |

### Prep Batch: 321303

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218680-14 | FC-CCR-MW82S-0524 | Total/NA | Water | 200.8 | |
| 550-218680-17 | FC-CCR-MW78S-0524 | Total/NA | Water | 200.8 | |
| 550-218680-18 | FC-CCR-MW79S-0524 | Total/NA | Water | 200.8 | |
| 550-218680-19 | FC-CCR-FD08-0524 | Total/NA | Water | 200.8 | |
| 550-218680-20 | FC-CCR-MW81-0524 | Total/NA | Water | 200.8 | |
| 550-218680-21 | FC-CCR-EW17-0524 | Total/NA | Water | 200.8 | |

## Metals (Continued)

### Prep Batch: 321303 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218680-22 | FC-CCR-EW11R-0524 | Total/NA | Water | 200.8 | |
| 550-218680-23 | FC-CCR-EW12R-0524 | Total/NA | Water | 200.8 | |
| 550-218680-24 | FC-CCR-FD06-0524 | Total/NA | Water | 200.8 | |
| 550-218680-25 | FC-CCR-FD07-0524 | Total/NA | Water | 200.8 | |
| MB 550-321303/1-A | Method Blank | Total/NA | Water | 200.8 | |
| LCS 550-321303/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-321303/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-218680-14 MS | FC-CCR-MW82S-0524 | Total/NA | Water | 200.8 | |
| 550-218680-14 MSD | FC-CCR-MW82S-0524 | Total/NA | Water | 200.8 | |
| 550-218680-20 MS | FC-CCR-MW81-0524 | Total/NA | Water | 200.8 | |
| 550-218680-20 MSD | FC-CCR-MW81-0524 | Total/NA | Water | 200.8 | |

### Analysis Batch: 321545

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218680-1 | FC-CCR-DMX01-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| 550-218680-2 | FC-CCR-DMX03-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| 550-218680-3 | FC-CCR-MW01-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| 550-218680-4 | FC-CCR-MW03-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| 550-218680-5 | FC-CCR-MW05-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| 550-218680-6 | FC-CCR-FD04-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| 550-218680-7 | FC-CCR-MW18-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| 550-218680-8 | FC-CCR-MW19-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| 550-218680-9 | FC-CCR-MW21-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| 550-218680-10 | FC-CCR-MW23R-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| 550-218680-11 | FC-CCR-MW30-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| 550-218680-12 | FC-CCR-MW36R-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| 550-218680-13 | FC-CCR-FD05-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| 550-218680-15 | FC-CCR-MW60-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| 550-218680-16 | FC-CCR-MW77S-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| MB 550-321295/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| LCS 550-321295/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| LCSD 550-321295/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| 550-218680-1 MS | FC-CCR-DMX01-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| 550-218680-1 MSD | FC-CCR-DMX01-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| 550-218680-11 MS | FC-CCR-MW30-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |
| 550-218680-11 MSD | FC-CCR-MW30-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321295 |

### Analysis Batch: 321547

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218680-14 | FC-CCR-MW82S-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321296 |
| 550-218680-17 | FC-CCR-MW78S-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321296 |
| 550-218680-18 | FC-CCR-MW79S-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321296 |
| 550-218680-19 | FC-CCR-FD08-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321296 |
| 550-218680-20 | FC-CCR-MW81-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321296 |
| 550-218680-21 | FC-CCR-EW17-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321296 |
| 550-218680-22 | FC-CCR-EW11R-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321296 |
| 550-218680-23 | FC-CCR-EW12R-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321296 |
| 550-218680-24 | FC-CCR-FD06-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321296 |
| 550-218680-25 | FC-CCR-FD07-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321296 |
| MB 550-321296/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321296 |
| LCS 550-321296/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321296 |

## Metals (Continued)

### Analysis Batch: 321547 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCSD 550-321296/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321296 |
| 550-218680-14 MS | FC-CCR-MW82S-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321296 |
| 550-218680-14 MSD | FC-CCR-MW82S-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321296 |
| 550-218680-20 MS | FC-CCR-MW81-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321296 |
| 550-218680-20 MSD | FC-CCR-MW81-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321296 |

### Analysis Batch: 321564

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218680-14 | FC-CCR-MW82S-0524 | Total/NA | Water | 200.8 LL | 321303 |
| 550-218680-17 | FC-CCR-MW78S-0524 | Total/NA | Water | 200.8 LL | 321303 |
| 550-218680-18 | FC-CCR-MW79S-0524 | Total/NA | Water | 200.8 LL | 321303 |
| 550-218680-19 | FC-CCR-FD08-0524 | Total/NA | Water | 200.8 LL | 321303 |
| 550-218680-20 | FC-CCR-MW81-0524 | Total/NA | Water | 200.8 LL | 321303 |
| 550-218680-21 | FC-CCR-EW17-0524 | Total/NA | Water | 200.8 LL | 321303 |
| 550-218680-22 | FC-CCR-EW11R-0524 | Total/NA | Water | 200.8 LL | 321303 |
| 550-218680-23 | FC-CCR-EW12R-0524 | Total/NA | Water | 200.8 LL | 321303 |
| 550-218680-24 | FC-CCR-FD06-0524 | Total/NA | Water | 200.8 LL | 321303 |
| 550-218680-25 | FC-CCR-FD07-0524 | Total/NA | Water | 200.8 LL | 321303 |
| MB 550-321303/1-A | Method Blank | Total/NA | Water | 200.8 LL | 321303 |
| LCS 550-321303/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 321303 |
| LCSD 550-321303/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 321303 |
| 550-218680-14 MS | FC-CCR-MW82S-0524 | Total/NA | Water | 200.8 LL | 321303 |
| 550-218680-14 MSD | FC-CCR-MW82S-0524 | Total/NA | Water | 200.8 LL | 321303 |
| 550-218680-20 MS | FC-CCR-MW81-0524 | Total/NA | Water | 200.8 LL | 321303 |
| 550-218680-20 MSD | FC-CCR-MW81-0524 | Total/NA | Water | 200.8 LL | 321303 |

### Analysis Batch: 321565

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218680-1 | FC-CCR-DMX01-0524 | Total/NA | Water | 200.8 LL | 321302 |
| 550-218680-2 | FC-CCR-DMX03-0524 | Total/NA | Water | 200.8 LL | 321302 |
| 550-218680-3 | FC-CCR-MW01-0524 | Total/NA | Water | 200.8 LL | 321302 |
| 550-218680-4 | FC-CCR-MW03-0524 | Total/NA | Water | 200.8 LL | 321302 |
| 550-218680-5 | FC-CCR-MW05-0524 | Total/NA | Water | 200.8 LL | 321302 |
| 550-218680-6 | FC-CCR-FD04-0524 | Total/NA | Water | 200.8 LL | 321302 |
| 550-218680-7 | FC-CCR-MW18-0524 | Total/NA | Water | 200.8 LL | 321302 |
| 550-218680-8 | FC-CCR-MW19-0524 | Total/NA | Water | 200.8 LL | 321302 |
| 550-218680-9 | FC-CCR-MW21-0524 | Total/NA | Water | 200.8 LL | 321302 |
| 550-218680-10 | FC-CCR-MW23R-0524 | Total/NA | Water | 200.8 LL | 321302 |
| 550-218680-11 | FC-CCR-MW30-0524 | Total/NA | Water | 200.8 LL | 321302 |
| 550-218680-12 | FC-CCR-MW36R-0524 | Total/NA | Water | 200.8 LL | 321302 |
| 550-218680-13 | FC-CCR-FD05-0524 | Total/NA | Water | 200.8 LL | 321302 |
| 550-218680-15 | FC-CCR-MW60-0524 | Total/NA | Water | 200.8 LL | 321302 |
| 550-218680-16 | FC-CCR-MW77S-0524 | Total/NA | Water | 200.8 LL | 321302 |
| MB 550-321302/1-A | Method Blank | Total/NA | Water | 200.8 LL | 321302 |
| LCS 550-321302/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 321302 |
| LCSD 550-321302/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 321302 |
| 550-218680-1 MS | FC-CCR-DMX01-0524 | Total/NA | Water | 200.8 LL | 321302 |
| 550-218680-1 MSD | FC-CCR-DMX01-0524 | Total/NA | Water | 200.8 LL | 321302 |
| 550-218680-11 MS | FC-CCR-MW30-0524 | Total/NA | Water | 200.8 LL | 321302 |
| 550-218680-11 MSD | FC-CCR-MW30-0524 | Total/NA | Water | 200.8 LL | 321302 |

## Metals

### Prep Batch: 654755

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218680-2 | FC-CCR-DMX03-0524 | Total Recoverable | Water | 200.7 | |
| 550-218680-5 | FC-CCR-MW05-0524 | Total Recoverable | Water | 200.7 | |
| 550-218680-7 | FC-CCR-MW18-0524 | Total Recoverable | Water | 200.7 | |
| 550-218680-10 | FC-CCR-MW23R-0524 | Total Recoverable | Water | 200.7 | |
| 550-218680-12 | FC-CCR-MW36R-0524 | Total Recoverable | Water | 200.7 | |
| 550-218680-21 | FC-CCR-EW17-0524 | Total Recoverable | Water | 200.7 | |
| 550-218680-22 | FC-CCR-EW11R-0524 | Total Recoverable | Water | 200.7 | |
| 550-218680-23 | FC-CCR-EW12R-0524 | Total Recoverable | Water | 200.7 | |
| MB 280-654755/1-A | Method Blank | Total Recoverable | Water | 200.7 | |
| LCS 280-654755/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 | |
| 550-218680-23 MS | FC-CCR-EW12R-0524 | Total Recoverable | Water | 200.7 | |
| 550-218680-23 MSD | FC-CCR-EW12R-0524 | Total Recoverable | Water | 200.7 | |

### Analysis Batch: 655411

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218680-2 | FC-CCR-DMX03-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654755 |
| 550-218680-5 | FC-CCR-MW05-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654755 |
| 550-218680-7 | FC-CCR-MW18-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654755 |
| 550-218680-10 | FC-CCR-MW23R-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654755 |
| 550-218680-12 | FC-CCR-MW36R-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654755 |
| 550-218680-21 | FC-CCR-EW17-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654755 |
| 550-218680-22 | FC-CCR-EW11R-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654755 |
| 550-218680-23 | FC-CCR-EW12R-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654755 |
| MB 280-654755/1-A | Method Blank | Total Recoverable | Water | 200.7 Rev 4.4 | 654755 |
| LCS 280-654755/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 Rev 4.4 | 654755 |
| 550-218680-23 MS | FC-CCR-EW12R-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654755 |
| 550-218680-23 MSD | FC-CCR-EW12R-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 654755 |

## General Chemistry

### Analysis Batch: 321405

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218680-14 | FC-CCR-MW82S-0524 | Total/NA | Water | SM 2540C | |
| 550-218680-19 | FC-CCR-FD08-0524 | Total/NA | Water | SM 2540C | |
| 550-218680-21 | FC-CCR-EW17-0524 | Total/NA | Water | SM 2540C | |
| 550-218680-22 | FC-CCR-EW11R-0524 | Total/NA | Water | SM 2540C | |
| 550-218680-23 | FC-CCR-EW12R-0524 | Total/NA | Water | SM 2540C | |
| MB 550-321405/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-321405/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-321405/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-218672-A-3 DU | Duplicate | Total/NA | Water | SM 2540C | |

### Analysis Batch: 321474

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218680-2 | FC-CCR-DMX03-0524 | Total/NA | Water | SM 2320B | |
| 550-218680-5 | FC-CCR-MW05-0524 | Total/NA | Water | SM 2320B | |
| 550-218680-7 | FC-CCR-MW18-0524 | Total/NA | Water | SM 2320B | |
| 550-218680-10 | FC-CCR-MW23R-0524 | Total/NA | Water | SM 2320B | |
| 550-218680-12 | FC-CCR-MW36R-0524 | Total/NA | Water | SM 2320B | |
| 550-218680-14 | FC-CCR-MW82S-0524 | Total/NA | Water | SM 2320B | |
| 550-218680-19 | FC-CCR-FD08-0524 | Total/NA | Water | SM 2320B | |

## General Chemistry (Continued)

### Analysis Batch: 321474 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218680-21 | FC-CCR-EW17-0524 | Total/NA | Water | SM 2320B | |
| 550-218680-22 | FC-CCR-EW11R-0524 | Total/NA | Water | SM 2320B | |
| 550-218680-23 | FC-CCR-EW12R-0524 | Total/NA | Water | SM 2320B | |
| MB 550-321474/4 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 550-321474/3 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| LCSD 550-321474/16 | Lab Control Sample Dup | Total/NA | Water | SM 2320B | |
| 550-218680-19 DU | FC-CCR-FD08-0524 | Total/NA | Water | SM 2320B | |

### Analysis Batch: 321537

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218680-2 | FC-CCR-DMX03-0524 | Total/NA | Water | SM 2540C | |
| 550-218680-5 | FC-CCR-MW05-0524 | Total/NA | Water | SM 2540C | |
| 550-218680-7 | FC-CCR-MW18-0524 | Total/NA | Water | SM 2540C | |
| 550-218680-10 | FC-CCR-MW23R-0524 | Total/NA | Water | SM 2540C | |
| 550-218680-12 | FC-CCR-MW36R-0524 | Total/NA | Water | SM 2540C | |
| MB 550-321537/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-321537/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-321537/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-218669-A-7 DU | Duplicate | Total/NA | Water | SM 2540C | |

### Analysis Batch: 321607

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218680-2 | FC-CCR-DMX03-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218680-5 | FC-CCR-MW05-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218680-7 | FC-CCR-MW18-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218680-10 | FC-CCR-MW23R-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218680-12 | FC-CCR-MW36R-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218680-14 | FC-CCR-MW82S-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218680-19 | FC-CCR-FD08-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218680-21 | FC-CCR-EW17-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218680-22 | FC-CCR-EW11R-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218680-23 | FC-CCR-EW12R-0524 | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321607/13 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321607/25 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| 550-218673-A-6 DU | Duplicate | Total/NA | Water | SM 4500 H+ B | |
| 550-218764-B-1 DU | Duplicate | Total/NA | Water | SM 4500 H+ B | |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218680-1
SDG: APS - Four Corners Power Plant (Other)

## Client Sample ID: FC-CCR-DMX01-0524

**Lab Sample ID: 550-218680-1**

**Date Collected: 05/17/24 14:27**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321295 | SGO | EET PHX | 05/22/24 05:43 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321545 | GLW | EET PHX | 05/25/24 15:54 |
| Total/NA | Prep | 200.8 | | | 321302 | SGO | EET PHX | 05/22/24 08:21 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321565 | DSJ | EET PHX | 05/24/24 18:18 |

## Client Sample ID: FC-CCR-DMX03-0524

**Lab Sample ID: 550-218680-2**

**Date Collected: 05/20/24 15:09**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321403 | AG1 | EET PHX | 05/23/24 14:29 |
| Total/NA | Analysis | 300.0 | | 200 | 321403 | AG1 | EET PHX | 05/23/24 14:48 |
| Total Recoverable | Prep | 200.7 | | | 654755 | AMH | EET DEN | 05/28/24 08:50 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655411 | NKC | EET DEN | 05/30/24 18:44 |
| Total/NA | Prep | 200.7 | | | 321295 | SGO | EET PHX | 05/22/24 05:43 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321545 | GLW | EET PHX | 05/25/24 16:00 |
| Total/NA | Prep | 200.8 | | | 321302 | SGO | EET PHX | 05/22/24 08:21 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321565 | DSJ | EET PHX | 05/24/24 18:20 |
| Total/NA | Analysis | SM 2320B | | 1 | 321474 | ELN | EET PHX | 05/23/24 19:03 |
| Total/NA | Analysis | SM 2540C | | 1 | 321537 | JLO | EET PHX | 05/26/24 14:06 - 05/30/24 14:20 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 09:27 |

## Client Sample ID: FC-CCR-MW01-0524

**Lab Sample ID: 550-218680-3**

**Date Collected: 05/16/24 16:51**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321295 | SGO | EET PHX | 05/22/24 05:43 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321545 | GLW | EET PHX | 05/25/24 16:07 |
| Total/NA | Prep | 200.8 | | | 321302 | SGO | EET PHX | 05/22/24 08:21 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321565 | DSJ | EET PHX | 05/24/24 18:22 |

## Client Sample ID: FC-CCR-MW03-0524

**Lab Sample ID: 550-218680-4**

**Date Collected: 05/16/24 17:42**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321295 | SGO | EET PHX | 05/22/24 05:43 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321545 | GLW | EET PHX | 05/25/24 16:14 |
| Total/NA | Prep | 200.8 | | | 321302 | SGO | EET PHX | 05/22/24 08:21 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321565 | DSJ | EET PHX | 05/24/24 18:24 |

## Client Sample ID: FC-CCR-MW05-0524

**Lab Sample ID: 550-218680-5**

**Date Collected: 05/20/24 16:14**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321403 | AG1 | EET PHX | 05/23/24 15:06 |
| Total/NA | Analysis | 300.0 | | 200 | 321403 | AG1 | EET PHX | 05/23/24 15:25 |
| Total Recoverable | Prep | 200.7 | | | 654755 | AMH | EET DEN | 05/28/24 08:50 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655411 | NKC | EET DEN | 05/30/24 18:48 |
| Total/NA | Prep | 200.7 | | | 321295 | SGO | EET PHX | 05/22/24 05:43 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321545 | GLW | EET PHX | 05/25/24 16:21 |
| Total/NA | Prep | 200.8 | | | 321302 | SGO | EET PHX | 05/22/24 08:21 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321565 | DSJ | EET PHX | 05/24/24 18:26 |
| Total/NA | Analysis | SM 2320B | | 1 | 321474 | ELN | EET PHX | 05/23/24 19:18 |
| Total/NA | Analysis | SM 2540C | | 1 | 321537 | JLO | EET PHX | 05/26/24 14:06 - 05/30/24 14:20 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 09:28 |

## Client Sample ID: FC-CCR-FD04-0524

**Lab Sample ID: 550-218680-6**

**Date Collected: 05/17/24 13:31**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321295 | SGO | EET PHX | 05/22/24 05:43 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321545 | GLW | EET PHX | 05/25/24 16:28 |
| Total/NA | Prep | 200.8 | | | 321302 | SGO | EET PHX | 05/22/24 08:21 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321565 | DSJ | EET PHX | 05/24/24 18:28 |

## Client Sample ID: FC-CCR-MW18-0524

**Lab Sample ID: 550-218680-7**

**Date Collected: 05/20/24 17:04**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321403 | AG1 | EET PHX | 05/23/24 15:43 |
| Total/NA | Analysis | 300.0 | | 200 | 321403 | AG1 | EET PHX | 05/23/24 16:57 |
| Total Recoverable | Prep | 200.7 | | | 654755 | AMH | EET DEN | 05/28/24 08:50 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655411 | NKC | EET DEN | 05/30/24 18:51 |
| Total/NA | Prep | 200.7 | | | 321295 | SGO | EET PHX | 05/22/24 05:43 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321545 | GLW | EET PHX | 05/25/24 16:35 |
| Total/NA | Prep | 200.8 | | | 321302 | SGO | EET PHX | 05/22/24 08:21 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321565 | DSJ | EET PHX | 05/24/24 18:30 |
| Total/NA | Analysis | SM 2320B | | 1 | 321474 | ELN | EET PHX | 05/23/24 19:32 |
| Total/NA | Analysis | SM 2540C | | 1 | 321537 | JLO | EET PHX | 05/26/24 14:06 - 05/30/24 14:20 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 09:29 |

## Client Sample ID: FC-CCR-MW19-0524

**Lab Sample ID: 550-218680-8**
**Date Collected: 05/20/24 14:11**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321295 | SGO | EET PHX | 05/22/24 05:43 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321545 | GLW | EET PHX | 05/25/24 16:41 |
| Total/NA | Prep | 200.8 | | | 321302 | SGO | EET PHX | 05/22/24 08:21 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321565 | DSJ | EET PHX | 05/24/24 18:32 |

## Client Sample ID: FC-CCR-MW21-0524

**Lab Sample ID: 550-218680-9**
**Date Collected: 05/16/24 18:28**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321295 | SGO | EET PHX | 05/22/24 05:43 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321545 | GLW | EET PHX | 05/25/24 17:22 |
| Total/NA | Prep | 200.8 | | | 321302 | SGO | EET PHX | 05/22/24 08:21 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321565 | DSJ | EET PHX | 05/24/24 18:34 |

## Client Sample ID: FC-CCR-MW23R-0524

**Lab Sample ID: 550-218680-10**
**Date Collected: 05/20/24 18:00**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321403 | AG1 | EET PHX | 05/23/24 17:15 |
| Total/NA | Analysis | 300.0 | | 200 | 321403 | AG1 | EET PHX | 05/23/24 17:33 |
| Total Recoverable | Prep | 200.7 | | | 654755 | AMH | EET DEN | 05/28/24 08:50 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655411 | NKC | EET DEN | 05/30/24 18:55 |
| Total/NA | Prep | 200.7 | | | 321295 | SGO | EET PHX | 05/22/24 05:43 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321545 | GLW | EET PHX | 05/25/24 17:29 |
| Total/NA | Prep | 200.8 | | | 321302 | SGO | EET PHX | 05/22/24 08:21 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321565 | DSJ | EET PHX | 05/24/24 18:36 |
| Total/NA | Analysis | SM 2320B | | 1 | 321474 | ELN | EET PHX | 05/23/24 19:47 |
| Total/NA | Analysis | SM 2540C | | 1 | 321537 | JLO | EET PHX | 05/26/24 14:06 - 05/30/24 14:20 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 09:30 |

## Client Sample ID: FC-CCR-MW30-0524

**Lab Sample ID: 550-218680-11**
**Date Collected: 05/17/24 09:31**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321295 | SGO | EET PHX | 05/22/24 05:43 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321545 | GLW | EET PHX | 05/25/24 17:50 |
| Total/NA | Prep | 200.8 | | | 321302 | SGO | EET PHX | 05/22/24 08:21 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321565 | DSJ | EET PHX | 05/24/24 18:47 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218680-1
SDG: APS - Four Corners Power Plant (Other)

## Client Sample ID: FC-CCR-MW36R-0524

**Lab Sample ID: 550-218680-12**

**Date Collected: 05/20/24 18:40**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321403 | AG1 | EET PHX | 05/23/24 17:52 |
| Total/NA | Analysis | 300.0 | | 200 | 321403 | AG1 | EET PHX | 05/23/24 18:10 |
| Total Recoverable | Prep | 200.7 | | | 654755 | AMH | EET DEN | 05/28/24 08:50 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655411 | NKC | EET DEN | 05/30/24 18:59 |
| Total/NA | Prep | 200.7 | | | 321295 | SGO | EET PHX | 05/22/24 05:43 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321545 | GLW | EET PHX | 05/25/24 17:56 |
| Total/NA | Prep | 200.8 | | | 321302 | SGO | EET PHX | 05/22/24 08:21 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321565 | DSJ | EET PHX | 05/24/24 18:49 |
| Total/NA | Analysis | SM 2320B | | 1 | 321474 | ELN | EET PHX | 05/23/24 19:59 |
| Total/NA | Analysis | SM 2540C | | 1 | 321537 | JLO | EET PHX | 05/26/24 14:06 - 05/30/24 14:20 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 09:37 |

## Client Sample ID: FC-CCR-FD05-0524

**Lab Sample ID: 550-218680-13**

**Date Collected: 05/20/24 12:34**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321295 | SGO | EET PHX | 05/22/24 05:43 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321545 | GLW | EET PHX | 05/25/24 18:03 |
| Total/NA | Prep | 200.8 | | | 321302 | SGO | EET PHX | 05/22/24 08:21 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321565 | DSJ | EET PHX | 05/24/24 18:51 |

## Client Sample ID: FC-CCR-MW82S-0524

**Lab Sample ID: 550-218680-14**

**Date Collected: 05/17/24 18:25**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321403 | AG1 | EET PHX | 05/23/24 13:16 |
| Total/NA | Analysis | 300.0 | | 200 | 321403 | AG1 | EET PHX | 05/23/24 13:34 |
| Total/NA | Prep | 200.7 | | | 321296 | SGO | EET PHX | 05/22/24 05:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321547 | GLW | EET PHX | 05/25/24 19:21 |
| Total/NA | Prep | 200.8 | | | 321303 | SGO | EET PHX | 05/22/24 08:28 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321564 | DSJ | EET PHX | 05/24/24 17:38 |
| Total/NA | Analysis | SM 2320B | | 1 | 321474 | ELN | EET PHX | 05/23/24 20:07 |
| Total/NA | Analysis | SM 2540C | | 1 | 321405 | JLO | EET PHX | 05/23/24 11:23 - 05/29/24 13:27 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 09:38 |

## Client Sample ID: FC-CCR-MW60-0524

**Lab Sample ID: 550-218680-15**

**Date Collected: 05/16/24 15:22**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321295 | SGO | EET PHX | 05/22/24 05:43 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321545 | GLW | EET PHX | 05/25/24 18:10 |

## Client Sample ID: FC-CCR-MW60-0524
**Lab Sample ID: 550-218680-15**
**Date Collected: 05/16/24 15:22**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.8 | | | 321302 | SGO | EET PHX | 05/22/24 08:21 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321565 | DSJ | EET PHX | 05/24/24 18:53 |

## Client Sample ID: FC-CCR-MW77S-0524
**Lab Sample ID: 550-218680-16**
**Date Collected: 05/17/24 10:31**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321295 | SGO | EET PHX | 05/22/24 05:43 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321545 | GLW | EET PHX | 05/25/24 18:17 |
| Total/NA | Prep | 200.8 | | | 321302 | SGO | EET PHX | 05/22/24 08:21 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321565 | DSJ | EET PHX | 05/24/24 18:55 |

## Client Sample ID: FC-CCR-MW78S-0524
**Lab Sample ID: 550-218680-17**
**Date Collected: 05/17/24 11:52**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321296 | SGO | EET PHX | 05/22/24 05:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321547 | GLW | EET PHX | 05/25/24 19:28 |
| Total/NA | Prep | 200.8 | | | 321303 | SGO | EET PHX | 05/22/24 08:28 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321564 | DSJ | EET PHX | 05/24/24 17:40 |

## Client Sample ID: FC-CCR-MW79S-0524
**Lab Sample ID: 550-218680-18**
**Date Collected: 05/17/24 13:38**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321296 | SGO | EET PHX | 05/22/24 05:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321547 | GLW | EET PHX | 05/25/24 19:35 |
| Total/NA | Prep | 200.8 | | | 321303 | SGO | EET PHX | 05/22/24 08:28 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321564 | DSJ | EET PHX | 05/24/24 17:42 |

## Client Sample ID: FC-CCR-FD08-0524
**Lab Sample ID: 550-218680-19**
**Date Collected: 05/17/24 11:11**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321403 | AG1 | EET PHX | 05/23/24 18:29 |
| Total/NA | Analysis | 300.0 | | 200 | 321403 | AG1 | EET PHX | 05/23/24 18:47 |
| Total/NA | Prep | 200.7 | | | 321296 | SGO | EET PHX | 05/22/24 05:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321547 | GLW | EET PHX | 05/25/24 19:42 |
| Total/NA | Prep | 200.8 | | | 321303 | SGO | EET PHX | 05/22/24 08:28 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321564 | DSJ | EET PHX | 05/24/24 17:44 |
| Total/NA | Analysis | SM 2320B | | 1 | 321474 | ELN | EET PHX | 05/23/24 20:27 |

## Client Sample ID: FC-CCR-FD08-0524

**Lab Sample ID: 550-218680-19**

**Date Collected: 05/17/24 11:11**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540C | | 1 | 321405 | JLO | EET PHX | 05/23/24 11:23 - 05/29/24 13:27 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 09:39 |

## Client Sample ID: FC-CCR-MW81-0524

**Lab Sample ID: 550-218680-20**

**Date Collected: 05/17/24 12:48**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321296 | SGO | EET PHX | 05/22/24 05:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321547 | GLW | EET PHX | 05/25/24 20:02 |
| Total/NA | Prep | 200.8 | | | 321303 | SGO | EET PHX | 05/22/24 08:28 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321564 | DSJ | EET PHX | 05/24/24 17:50 |

## Client Sample ID: FC-CCR-EW17-0524

**Lab Sample ID: 550-218680-21**

**Date Collected: 05/17/24 18:42**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 200.7 | | | 654755 | AMH | EET DEN | 05/28/24 08:50 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655411 | NKC | EET DEN | 05/30/24 19:03 |
| Total/NA | Prep | 200.7 | | | 321296 | SGO | EET PHX | 05/22/24 05:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321547 | GLW | EET PHX | 05/25/24 20:09 |
| Total/NA | Prep | 200.8 | | | 321303 | SGO | EET PHX | 05/22/24 08:28 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321564 | DSJ | EET PHX | 05/24/24 17:52 |
| Total/NA | Analysis | SM 2320B | | 1 | 321474 | ELN | EET PHX | 05/23/24 20:44 |
| Total/NA | Analysis | SM 2540C | | 1 | 321405 | JLO | EET PHX | 05/23/24 11:23 - 05/29/24 13:27 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 09:42 |

## Client Sample ID: FC-CCR-EW11R-0524

**Lab Sample ID: 550-218680-22**

**Date Collected: 05/17/24 15:52**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321403 | AG1 | EET PHX | 05/23/24 19:05 |
| Total/NA | Analysis | 300.0 | | 200 | 321403 | AG1 | EET PHX | 05/23/24 19:24 |
| Total Recoverable | Prep | 200.7 | | | 654755 | AMH | EET DEN | 05/28/24 08:50 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655411 | NKC | EET DEN | 05/30/24 19:07 |
| Total/NA | Prep | 200.7 | | | 321296 | SGO | EET PHX | 05/22/24 05:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321547 | GLW | EET PHX | 05/25/24 20:16 |
| Total/NA | Prep | 200.8 | | | 321303 | SGO | EET PHX | 05/22/24 08:28 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321564 | DSJ | EET PHX | 05/24/24 17:54 |
| Total/NA | Analysis | SM 2320B | | 1 | 321474 | ELN | EET PHX | 05/23/24 20:53 |
| Total/NA | Analysis | SM 2540C | | 1 | 321405 | JLO | EET PHX | 05/23/24 11:23 - 05/29/24 13:27 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 09:43 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218680-1
SDG: APS - Four Corners Power Plant (Other)

## Client Sample ID: FC-CCR-EW12R-0524

**Lab Sample ID: 550-218680-23**

**Date Collected: 05/17/24 17:40**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321403 | AG1 | EET PHX | 05/23/24 20:37 |
| Total/NA | Analysis | 300.0 | | 200 | 321403 | AG1 | EET PHX | 05/23/24 20:56 |
| Total Recoverable | Prep | 200.7 | | | 654755 | AMH | EET DEN | 05/28/24 08:50 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655411 | NKC | EET DEN | 05/30/24 19:10 |
| Total/NA | Prep | 200.7 | | | 321296 | SGO | EET PHX | 05/22/24 05:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321547 | GLW | EET PHX | 05/25/24 20:23 |
| Total/NA | Prep | 200.8 | | | 321303 | SGO | EET PHX | 05/22/24 08:28 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321564 | DSJ | EET PHX | 05/24/24 17:56 |
| Total/NA | Analysis | SM 2320B | | 1 | 321474 | ELN | EET PHX | 05/23/24 21:02 |
| Total/NA | Analysis | SM 2540C | | 1 | 321405 | JLO | EET PHX | 05/23/24 11:23 - 05/29/24 13:27 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321607 | ELN | EET PHX | 05/29/24 09:45 |

## Client Sample ID: FC-CCR-FD06-0524

**Lab Sample ID: 550-218680-24**

**Date Collected: 05/17/24 16:20**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321296 | SGO | EET PHX | 05/22/24 05:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321547 | GLW | EET PHX | 05/25/24 20:30 |
| Total/NA | Prep | 200.8 | | | 321303 | SGO | EET PHX | 05/22/24 08:28 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321564 | DSJ | EET PHX | 05/24/24 17:58 |

## Client Sample ID: FC-CCR-FD07-0524

**Lab Sample ID: 550-218680-25**

**Date Collected: 05/17/24 12:34**
**Matrix: Water**
**Date Received: 05/21/24 14:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321296 | SGO | EET PHX | 05/22/24 05:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 50 | 321547 | GLW | EET PHX | 05/25/24 20:36 |
| Total/NA | Prep | 200.8 | | | 321303 | SGO | EET PHX | 05/22/24 08:28 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321564 | DSJ | EET PHX | 05/24/24 18:00 |

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

**Laboratory References:**

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

# Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-218680-1
Project/Site: CCR Groundwater Monitoring
SDG: APS - Four Corners Power Plant (Other)

## Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0728 | 06-09-24 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

## Laboratory: Eurofins Denver

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0713 | 12-20-24 |

# Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218680-1
SDG: APS - Four Corners Power Plant (Other)

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 300.0 | Anions, Ion Chromatography | EPA | EET PHX |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET DEN |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET PHX |
| 200.8 LL | Metals (ICP/MS) | EPA | EET PHX |
| SM 2320B | Alkalinity | SM | EET PHX |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET PHX |
| SM 4500 H+ B | pH | SM | EET PHX |
| 200.7 | Preparation, Total Recoverable Metals | EPA | EET DEN |
| 200.7 | Preparation, Total Metals | EPA | EET PHX |
| 200.8 | Preparation, Total Metals | EPA | EET PHX |

**Protocol References:**

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

**Laboratory References:**

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

6/5/2024

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

**TestAmerica Laboratories, Inc.**

| Client Contact | Cameron Corley | Pam Norris (505-598-8781) | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | 505-860-3619 | Lab Contact: Rachel Sester | Carrier: | 1 of 3 COCs |
| PO Box 355, MS 4915 | Analysis Turnaround Time | | | Sampler: |
| Fruitland, NM 87416 | ☐ CALENDAR DAYS ☑ WORKING DAYS | | | For Lab Use Only: |
| Phone | TAT if different from Below _____ | | | Walk-in Client: |
| FAX | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | Job / SDG No.: |
| Site: APS Four Corners Power Plant (Other) | ☐ 2 days | | | |
| PO #: 100622298 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y / N) | Perform MS / MSD (Y / N) | EPA 300.0 (Cl, F, SO4) | EPA 200.7 - Totals (B) | EPA 200.7 - Totals (B, Ca, Be) | EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na, Fe) | EPA 200.7 - Totals (B, Ca, K, Mg, Na) | EPA 200.7 - Totals (B, Ca, K, Mg, Na, Mn, Fe) | EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na, Mn, Fe) | EPA 200.7 - Total Lithium | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | EPA 200.8 - Totals (Co, Mo) | EPA 245.1 - Totals (Hg) | SM 4500-HB (pH) | SM 2540C (TDS) | SM 2320B (CO3 Alkalinity as CaCO3, HCO3 Alkalinity as | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-DMX01-0524 -01 | 5/17/2024 | 14:27 | G | W | 2 | N | Y | | X | | | | | | | | X | | | | | Low Flow, MS + MSD included |
| FC-CCR-DMX03-0524 -02 | 5/20/2024 | 15:09 | G | W | 3 | N | | X | | | | | | X | X | X | | | X | X | X | Low Flow |
| FC-CCR-MW01-0524 -03 | 5/16/2024 | 16:51 | G | W | 1 | N | | | X | | | | | | | | X | | | | | " |
| FC-CCR-MW03-0524 -04 | 5/16/2024 | 17:42 | G | W | 1 | N | | | X | | | | | | | | X | | | | | " |
| FC-CCR-MW05-0524 -05 | 5/20/2024 | 16:14 | G | W | 3 | N | | X | | | | | | X | X | | X | | X | X | X | " |
| FC-CCR-FD04-0524 -06 | 5/17/2024 | 13:31 | G | W | 1 | N | | | X | | | | | | | | X | | | | | " |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |

550-218680 Chain of Custody

| Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____ | | | | | | | | 1 | 4 | 4 | 4 | 4 | 4 | 4 | | 4 | 4 | 4 | 1 | 1 | 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

**Special Instructions/QC Requirements & Comments:**

*Method 200.8 with collision cell*

2-6°C / 1-8°C / ICE / PC

| Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____ | | |
|---|---|---|---|---|
| Relinquished by: | Company: WSP | Date/Time: 5/21/24 0801 | Received by: | Company: | Date/Time: 5-21-24 |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: EETA PHX | Date/Time: 5/21/24 @ 1405 |

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

6/5/2024

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

**TestAmerica Laboratories, Inc.**

| Client Contact | Cameron Corley | Pam Norris (505-598-8781) | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | 505-860-3619 | Lab Contact: Rachel Sester | Carrier: | 2 of 3 COCs |
| PO Box 355, MS 4915 | **Analysis Turnaround Time** | | | Sampler: |
| Fruitland, NM 87416 | ☐ CALENDAR DAYS ☑ WORKING DAYS | | | **For Lab Use Only:** |
| Phone | TAT if different from Below _____ | | | Walk-in Client: |
| FAX | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | |
| Site: APS Four Corners Power Plant (Other) | ☐ 2 days | | | Job / SDG No.: |
| PO #: 100622298 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y / N) | Perform MS / MSD (Y / N) | EPA 300.0 (Cl, F, SO4) | EPA 200.7 - Totals (B) | EPA 200.7 - Totals (B, Ca, Be) | EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na) | EPA 200.7 - Totals (B, Ca, K, Mg, Na) | EPA 200.7 - Totals (B, Ca, K, Mg, Na, Mn, Fe) | EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na, Mn, Fe) | EPA 200.7 - Total Lithium | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | EPA 200.8 - Totals (Co, Mo) | EPA 245.1 - Totals (Hg) | SM 4500-HB (pH) | SM 2540C (TDS) | SM 2320B (CO3 Alkalinity as CaCO3, HCO3 Alkalinity as CaCO3) | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW18-0524 -07 | 5/20/2024 | 17:04 | G | W | 3 | N | | X | | | | | | X | X | | X | | X | X | X | Low Flow |
| FC-CCR-MW19-0524 -08 | 5/20/2024 | 14:11 | G | W | 1 | N | | | X | | | | | | | | X | | | | | " |
| FC-CCR-MW21-0524 -09 | 5/16/2024 | 18:28 | G | W | 1 | N | | | X | | | | | | | | X | | | | | " |
| FC-CCR-MW23R-0524 -10 | 5/20/2024 | 18:00 | G | W | 3 | N | | X | | | | | | X | X | | X | | X | X | X | " |
| FC-CCR-MW30-0524 -11 | 5/17/2024 | 9:31 | G | W | 3 | N | Y | | X | | | | | | | | X | | | | | Low Flow, MS + MSD included |
| FC-CCR-MW36R-0524 -12 | 5/20/2024 | 18:40 | G | W | 3 | N | | X | | | | | | X | X | | X | | X | X | X | Low Flow |
| FC-CCR-FD05-0524 -13 | 5/20/2024 | 12:34 | G | W | 1 | N | | | X | | | | | | | | X | | | | | " |
| | | | | | | | | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 1 | 1 | |

**Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____**

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☑ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

**Special Instructions/QC Requirements & Comments:**

*Method 200.8 with collision cell*

2.6°C/1.8°C/ICE/PC

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

| | | | | | |
|---|---|---|---|---|---|
| Relinquished by: | Company: WST | Date/Time: 5/21/24 0800 | Received by: | Company: | Date/Time: 5-21-24 |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: EETA PHX | Date/Time: 5/21/24 1405 |

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

6/5/2024

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

**TestAmerica Laboratories, Inc.**

| Client Contact | Cameron Corley | Pam Norris (505-598-8781) | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | 505-860-3619 | Lab Contact: Rachel Sester | Carrier: | 3 of 3 COCs |
| PO Box 355, MS 4915 | Analysis Turnaround Time | | | Sampler: |
| Fruitland, NM 87416 | ☐ CALENDAR DAYS ☑ WORKING DAYS | | | For Lab Use Only: |
| Phone | TAT if different from Below _____ | | | Walk-in Client: |
| FAX | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | Job / SDG No.: |
| Site: APS Four Corners Power Plant (Other) | ☐ 2 days | | | |
| PO #: 100622298 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y / N) | Perform MS / MSD (Y / N) | EPA 300.0 (Cl, F, SO4) | EPA 200.7 - Totals (B) | EPA 200.7 - Totals (B, Ca, Be) | EPA 200.7 - Totals (B, Mn, Fe) | EPA 200.7 - Totals (B, Ca, K, Mg, Na) | EPA 200.7 - Totals (B, Ca, K, Mg, Na, Mn, Fe) | EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na, Mn, Fe) | EPA 200.7 - Total Lithium | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | EPA 200.8 - Totals (Co, Mo) | EPA 245.1 - Totals (Hg) | SM 4500-HB (pH) | SM 2540C (TDS) | SM 2320B (CO3 Alkalinity as CaCO3, HCO3 Alkalinity as | | | | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW82S-0524 -14 | 5/17/2024 | 18:25 | G | W | 6 | N | Y | X | | | | X | | | | | X | | X | X | X | | | | Low Flow, MS + MSD included |
| FC-CCR-MW60-0524 -15 | 5/16/2024 | 15:22 | G | W | 1 | N | | | X | | | | | | | | X | | | | | | | | Low Flow |
| FC-CCR-MW77S-0524 -16 | 5/17/2024 | 10:31 | G | W | 1 | N | | | X | | | | | | | | X | | | | | | | | " |
| FC-CCR-MW78S-0524 -17 | 5/17/2024 | 11:52 | G | W | 1 | N | | | X | | | | | | | | X | | | | | | | | " |
| FC-CCR-MW79S-0524 -18 | 5/17/2024 | 13:38 | G | W | 1 | N | | | X | | | | | | | | X | | | | | | | | " |
| FC-CCR-FD08-0524 -19 | 5/17/2024 | 11:11 | G | W | 2 | N | | X | | | | X | | | | | X | | X | X | X | | | | " |
| FC-CCR-MW81-0524 -20 | 5/17/2024 | 12:48 | G | W | 3 | N | Y | | X | | | | | | | | X | | | | | | | | Low Flow, MS + MSD included |
| FC-CCR-EW17-0524 -21 | 5/17/2024 | 18:42 | G | W | 3 | N | | | | | | | | X | X | X | | | X | X | X | | | | Grab Sample |
| FC-CCR-EW11R-0524 -22 | 5/17/2024 | 15:52 | G | W | 3 | N | | X | | | | | | X | X | X | | | X | X | X | | | | Low Flow |
| FC-CCR-EW12R-0524 -23 | 5/17/2024 | 17:40 | G | W | 3 | N | | X | | | | | | X | X | X | | | X | X | X | | | | " |
| FC-CCR-FD06-0524 -24 | 5/17/2024 | 16:20 | G | W | 1 | N | | | X | | | | | | | | X | | | | | | | | " |
| FC-CCR-FD07-0524 -25 | 5/17/2024 | 12:34 | G | W | 1 | N | | | X | | | | | | | | X | | | | | | | | " |
| **Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____** | | | | | | | | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 1 | 1 | | | | |

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☑ Return to Client ☑ Disposal by Lab ☑ Archive for _____ Months

**Special Instructions/QC Requirements & Comments:**

*Method 200.8 with collision cell*

2-6°C / 1-8°C / ICE / PL

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

| | Company | Date/Time | | Company | Date/Time |
|---|---|---|---|---|---|
| Relinquished by: | VVSP | 5/21/24 0600 | Received by: | American Hotshot | 5-21-24 |
| Relinquished by: | | | Received by: | | |
| Relinquished by: | | | Received in Laboratory by: | ETA PHX | 5/21/24 @ 1405 |

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins
Environment Testing

| | | | | |
|---|---|---|---|---|
| **Client Information (Sub Contract Lab)** | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-39642.1 |
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 1 of 1 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-218680-1 |
| Address: 4955 Yarrow Street, , | Due Date Requested: 6/4/2024 | | | Preservation Codes: - |
| City: Arvada | TAT Requested (days): | | | |
| State, Zip: CO, 80002 | | | | |
| Phone: 303-736-0100(Tel) 303-431-7171(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: APS - Cholla CCR & Power Plant (BAM)(FAP | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | Other: |

**Analysis Requested**

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Priority Pollutants | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | X | X | | X | |
| FC-CCR-DMX03-0524 (550-218680-2) | 5/20/24 | 15:09 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW05-0524 (550-218680-5) | 5/20/24 | 16:14 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW18-0524 (550-218680-7) | 5/20/24 | 17:04 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW23R-0524 (550-218680-10) | 5/20/24 | 18:00 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW36R-0524 (550-218680-12) | 5/20/24 | 18:40 Arizona | | Water | | | X | 1 | |
| FC-CCR-EW17-0524 (550-218680-21) | 5/17/24 | 18:42 Arizona | | Water | | | X | 1 | |
| FC-CCR-EW11R-0524 (550-218680-22) | 5/17/24 | 15:52 Arizona | | Water | | | X | 1 | |
| FC-CCR-EW12R-0524 (550-218680-23) | 5/17/24 | 17:40 Arizona | | Water | | | X | 1 | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

| | |
|---|---|
| ***Possible Hazard Identification*** *Unconfirmed* | ***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months* |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| | | | |
|---|---|---|---|
| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |

| | | | | | |
|---|---|---|---|---|---|
| Relinquished by: [signature] | Date/Time: 5/23/24 15:45 | Company | Received by: [signature] | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company EETA-PHX | Received by: [signature] | Date/Time: 05/24/24 0930 | Company EETPEN |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| | | |
|---|---|---|
| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 0.4, CF: 7.2, m: NAGR |

Ver: 04/02/2024



6/5/2024

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218680-1
SDG Number: APS - Four Corners Power Plant (Other)

**Login Number: 218680**
**List Number: 1**
**Creator: Gravlin, Andrea**

**List Source: Eurofins Phoenix**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | False | Check done at department level as required. |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218680-1
SDG Number: APS - Four Corners Power Plant (Other)

**Login Number: 218680**
**List Number: 2**
**Creator: Little, Matthew L**

**List Source: Eurofins Denver**
**List Creation: 05/24/24 12:59 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 6/6/2024 4:45:48 PM

## JOB DESCRIPTION

CCR Groundwater Monitoring

## JOB NUMBER

550-218888-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.



my EOL

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

## Authorization



Generated
6/6/2024 4:45:48 PM

Authorized for release by
Rachel Sester, Project Manager I
Rachel.Sester@et.eurofinsus.com
Designee for
Linda Eshelman, Project Manager II
linda.eshelman@et.eurofinsus.com
(602)659-7681

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# Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218888-1

## Qualifiers

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| D2 | Sample required dilution due to high concentration of analyte. |
| E2 | Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix. |
| M2 | Matrix spike recovery was low, the associated blank spike recovery was acceptable. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| E2 | Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix. |
| L4 | The associated blank spike recovery was below method acceptance limits. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| H5 | This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time. |
| T5 | Laboratory not licensed for this parameter |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

## Job ID: 550-218888-1 Eurofins Phoenix

**Job Narrative**
**550-218888-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**
The samples were received on 5/24/2024 5:05 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.1°C.

**HPLC/IC**
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**Metals**
Method 200.8_CWA_LL: The laboratory control sample (LCS) associated with preparation batch 550-321558 and analytical batch 550-321758 was outside acceptance criteria for the analyte Barium. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. FC-CCR-MW66-0524 (550-218888-1), FC-CCR-MW70-0524 (550-218888-2) and FC-CCR-MW86-0524 (550-218888-3)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**General Chemistry**
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218888-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 550-218888-1 | FC-CCR-MW66-0524 | Water | 05/22/24 11:34 | 05/24/24 17:05 |
| 550-218888-2 | FC-CCR-MW70-0524 | Water | 05/22/24 09:11 | 05/24/24 17:05 |
| 550-218888-3 | FC-CCR-MW86-0524 | Water | 05/22/24 09:54 | 05/24/24 17:05 |

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218888-1

## Client Sample ID: FC-CCR-MW66-0524 — Lab Sample ID: 550-218888-1

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2700 | M2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Fluoride | 14 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 2100 | E2 | 2.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Boron | 130 | | 0.25 | | mg/L | 5 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 500 | M3 | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 320 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0065 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.017 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.0091 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.017 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 17000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.1 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 19.2 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW70-0524 — Lab Sample ID: 550-218888-2

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1700 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Fluoride | 0.77 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 9800 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 94 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 540 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 390 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0062 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.011 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.14 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 11000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.2 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 19.9 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW86-0524 — Lab Sample ID: 550-218888-3

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1100 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Sulfate | 7700 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 85 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 510 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 310 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0063 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.016 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 12000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.2 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 19.5 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-MW66-0524

**Lab Sample ID: 550-218888-1**
**Date Collected: 05/22/24 11:34**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2700** | **M2** | 200 | | mg/L | | | 05/28/24 14:48 | 100 |
| **Fluoride** | **14** | | 0.40 | | mg/L | | | 05/28/24 14:29 | 1 |
| **Sulfate** | **2100** | **E2** | 2.0 | | mg/L | | | 05/28/24 14:29 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **130** | | 0.25 | | mg/L | | 05/28/24 07:50 | 06/04/24 23:27 | 5 |
| **Calcium** | **500** | **M3** | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:46 | 1 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:46 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **320** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 22:27 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:01 | 10 |
| **Arsenic** | **0.0065** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:01 | 10 |
| **Barium** | **0.017** | **L4** | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:01 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:01 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:01 | 10 |
| **Cobalt** | **0.0091** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:01 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:01 | 10 |
| **Molybdenum** | **0.017** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:01 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:01 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:01 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 06/03/24 11:45 | 06/03/24 15:21 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **17000** | | 100 | | mg/L | | | 05/28/24 11:05 | 1 |
| **pH (SM 4500 H+ B)** | **7.1** | **H5** | 1.7 | | SU | | | 05/29/24 17:49 | 1 |
| **Temperature (SM 4500 H+ B)** | **19.2** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 17:49 | 1 |

## Client Sample ID: FC-CCR-MW70-0524

**Lab Sample ID: 550-218888-2**
**Date Collected: 05/22/24 09:11**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1700** | **D2** | 200 | | mg/L | | | 05/28/24 16:01 | 100 |
| **Fluoride** | **0.77** | | 0.40 | | mg/L | | | 05/28/24 15:43 | 1 |
| **Sulfate** | **9800** | **D2** | 200 | | mg/L | | | 05/28/24 16:01 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **94** | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:49 | 1 |
| **Calcium** | **540** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:49 | 1 |

## Client Sample ID: FC-CCR-MW70-0524

**Lab Sample ID: 550-218888-2**

**Date Collected: 05/22/24 09:11**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:49 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **390** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 22:47 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:03 | 10 |
| **Arsenic** | **0.0062** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:03 | 10 |
| **Barium** | **0.011** | **L4** | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:03 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:03 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:03 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:03 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:03 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:03 | 10 |
| **Selenium** | **0.14** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:03 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:03 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 06/03/24 11:45 | 06/03/24 15:23 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **11000** | | 100 | | mg/L | | | 05/28/24 11:05 | 1 |
| **pH (SM 4500 H+ B)** | **7.2** | **H5** | 1.7 | | SU | | | 05/29/24 17:52 | 1 |
| **Temperature (SM 4500 H+ B)** | **19.9** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 17:52 | 1 |

## Client Sample ID: FC-CCR-MW86-0524

**Lab Sample ID: 550-218888-3**

**Date Collected: 05/22/24 09:54**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1100** | **D2** | 200 | | mg/L | | | 05/28/24 16:38 | 100 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/28/24 16:20 | 1 |
| **Sulfate** | **7700** | **D2** | 200 | | mg/L | | | 05/28/24 16:38 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **85** | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:53 | 1 |
| **Calcium** | **510** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:53 | 1 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:53 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **310** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 22:50 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:05 | 10 |

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218888-1

## Client Sample ID: FC-CCR-MW86-0524

**Lab Sample ID: 550-218888-3**

**Date Collected: 05/22/24 09:54**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 200.8 LL - Metals (ICP/MS) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **0.0063** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:05 | 10 |
| **Barium** | **0.016** | **L4** | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:05 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:05 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:05 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:05 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:05 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:05 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:05 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:05 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 06/03/24 11:45 | 06/03/24 15:26 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **12000** | | 100 | | mg/L | | | 05/28/24 11:05 | 1 |
| **pH (SM 4500 H+ B)** | **7.2** | **H5** | 1.7 | | SU | | | 05/29/24 17:55 | 1 |
| **Temperature (SM 4500 H+ B)** | **19.5** | **H5 T5** | 0.1 | | Degrees C | | | 05/29/24 17:55 | 1 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 550-321584/2**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 05/28/24 12:57 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/28/24 12:57 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 05/28/24 12:57 | 1 |

**Lab Sample ID: LCS 550-321584/5**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.2 | | mg/L | | 96 | 90 - 110 | | |
| Fluoride | | | 4.00 | 3.92 | | mg/L | | 98 | 90 - 110 | | |
| Sulfate | | | 20.0 | 19.2 | | mg/L | | 96 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321584/6**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.7 | | mg/L | | 98 | 90 - 110 | 2 | 20 |
| Fluoride | | | 4.00 | 3.87 | | mg/L | | 97 | 90 - 110 | 1 | 20 |
| Sulfate | | | 20.0 | 18.8 | | mg/L | | 94 | 90 - 110 | 2 | 20 |

**Lab Sample ID: 550-218888-1 MS**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: FC-CCR-MW66-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2700 | M2 | 2000 | 3750 | M2 | mg/L | | 53 | 80 - 120 | | |
| Fluoride | ND | | 400 | 426 | | mg/L | | 97 | 80 - 120 | | |
| Sulfate | 18000 | E2 M3 | 2000 | 13800 | E2 M3 | mg/L | | -229 | 80 - 120 | | |

**Lab Sample ID: 550-218888-1 MSD**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: FC-CCR-MW66-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2700 | M2 | 2000 | 3860 | M2 | mg/L | | 58 | 80 - 120 | 3 | 20 |
| Fluoride | ND | | 400 | 425 | | mg/L | | 97 | 80 - 120 | 0 | 20 |
| Sulfate | 18000 | E2 M3 | 2000 | 14600 | E2 M3 | mg/L | | -192 | 80 - 120 | 5 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 550-321544/1-A**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | ND | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |
| Calcium | ND | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 550-321544/1-A**
**Matrix: Water**
**Analysis Batch: 321967**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | ND | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 19:47 | 1 |

**Lab Sample ID: LCS 550-321544/2-A**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.13 | | mg/L | | 113 | 85 - 115 | | |
| Calcium | | | 21.0 | 22.8 | | mg/L | | 108 | 85 - 115 | | |
| Beryllium | | | 1.00 | 1.09 | | mg/L | | 109 | 85 - 115 | | |

**Lab Sample ID: LCS 550-321544/2-A**
**Matrix: Water**
**Analysis Batch: 321967**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | | | 21.0 | 22.1 | | mg/L | | 105 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321544/3-A**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.11 | | mg/L | | 111 | 85 - 115 | 2 | 20 |
| Calcium | | | 21.0 | 22.5 | | mg/L | | 107 | 85 - 115 | 1 | 20 |
| Beryllium | | | 1.00 | 1.08 | | mg/L | | 108 | 85 - 115 | 1 | 20 |

**Lab Sample ID: LCSD 550-321544/3-A**
**Matrix: Water**
**Analysis Batch: 321967**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | | | 21.0 | 21.2 | | mg/L | | 101 | 85 - 115 | 4 | 20 |

**Lab Sample ID: 550-218888-1 MS**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: FC-CCR-MW66-0524**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 140 | E2 M3 | 1.00 | 140 | E2 M3 | mg/L | | -431 | 70 - 130 | | |
| Calcium | 500 | M3 | 21.0 | 502 | M3 | mg/L | | 27 | 70 - 130 | | |
| Beryllium | ND | | 1.00 | 1.17 | | mg/L | | 117 | 70 - 130 | | |

**Lab Sample ID: 550-218888-1 MSD**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: FC-CCR-MW66-0524**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 140 | E2 M3 | 1.00 | 144 | E2 M3 | mg/L | | -20 | 70 - 130 | 3 | 20 |
| Calcium | 500 | M3 | 21.0 | 513 | M3 | mg/L | | 78 | 70 - 130 | 2 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: 550-218888-1 MSD** — **Client Sample ID: FC-CCR-MW66-0524**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321935** — **Prep Batch: 321544**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 1.00 | 1.18 | | mg/L | | 118 | 70 - 130 | 1 | 20 |

**Lab Sample ID: MB 280-655283/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 655719** — **Prep Batch: 655283**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 22:09 | 1 |

**Lab Sample ID: LCS 280-655283/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 655719** — **Prep Batch: 655283**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 1000 | 960 | | ug/L | | 96 | 90 - 112 | | |

**Lab Sample ID: 550-218888-1 MS** — **Client Sample ID: FC-CCR-MW66-0524**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 655719** — **Prep Batch: 655283**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 320 | | 1000 | 1400 | | ug/L | | 107 | 70 - 130 | | |

**Lab Sample ID: 550-218888-1 MSD** — **Client Sample ID: FC-CCR-MW66-0524**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 655719** — **Prep Batch: 655283**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 320 | | 1000 | 1400 | | ug/L | | 107 | 70 - 130 | 0 | 20 |

## Method: 200.8 LL - Metals (ICP/MS)

**Lab Sample ID: MB 550-321558/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321758** — **Prep Batch: 321558**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Arsenic | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Barium | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Cobalt | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Selenium | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 550-321558/2-A**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Antimony | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 |
| Arsenic | 0.100 | 0.0999 | | mg/L | | 100 | 85 - 115 |
| Barium | 0.100 | 0.0827 | L4 | mg/L | | 83 | 85 - 115 |
| Cadmium | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 |
| Chromium | 0.100 | 0.0998 | | mg/L | | 100 | 85 - 115 |
| Cobalt | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 |
| Lead | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 |
| Molybdenum | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 |
| Selenium | 0.100 | 0.0971 | | mg/L | | 97 | 85 - 115 |
| Thallium | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 |

**Lab Sample ID: LCSD 550-321558/3-A**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 | 2 | 20 |
| Arsenic | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | 1 | 20 |
| Barium | 0.100 | 0.0793 | L4 | mg/L | | 79 | 85 - 115 | 4 | 20 |
| Cadmium | 0.100 | 0.103 | | mg/L | | 103 | 85 - 115 | 1 | 20 |
| Chromium | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | 1 | 20 |
| Cobalt | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 | 0 | 20 |
| Lead | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | 1 | 20 |
| Molybdenum | 0.100 | 0.109 | | mg/L | | 109 | 85 - 115 | 1 | 20 |
| Selenium | 0.100 | 0.0983 | | mg/L | | 98 | 85 - 115 | 1 | 20 |
| Thallium | 0.100 | 0.107 | | mg/L | | 107 | 85 - 115 | 2 | 20 |

**Lab Sample ID: 550-218890-B-1-B MS ^10**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.107 | | mg/L | | 107 | 70 - 130 |
| Arsenic | 0.0057 | | 0.100 | 0.106 | | mg/L | | 101 | 70 - 130 |
| Barium | 0.015 | L4 | 0.100 | 0.0910 | | mg/L | | 76 | 70 - 130 |
| Cadmium | ND | | 0.100 | 0.0986 | | mg/L | | 98 | 70 - 130 |
| Chromium | ND | | 0.100 | 0.0997 | | mg/L | | 100 | 70 - 130 |
| Cobalt | 0.073 | | 0.100 | 0.170 | | mg/L | | 96 | 70 - 130 |
| Lead | ND | | 0.100 | 0.0934 | | mg/L | | 93 | 70 - 130 |
| Molybdenum | 0.021 | | 0.100 | 0.131 | | mg/L | | 110 | 70 - 130 |
| Selenium | 0.016 | | 0.100 | 0.119 | | mg/L | | 103 | 70 - 130 |
| Thallium | ND | | 0.100 | 0.100 | | mg/L | | 100 | 70 - 130 |

**Lab Sample ID: 550-218890-B-1-C MSD ^10**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.111 | | mg/L | | 111 | 70 - 130 | 4 | 20 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: 550-218890-B-1-C MSD ^10** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321758** — **Prep Batch: 321558**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.0057 | | 0.100 | 0.109 | | mg/L | | 103 | 70 - 130 | 2 | 20 |
| Barium | 0.015 | L4 | 0.100 | 0.0926 | | mg/L | | 77 | 70 - 130 | 2 | 20 |
| Cadmium | ND | | 0.100 | 0.101 | | mg/L | | 100 | 70 - 130 | 2 | 20 |
| Chromium | ND | | 0.100 | 0.103 | | mg/L | | 103 | 70 - 130 | 4 | 20 |
| Cobalt | 0.073 | | 0.100 | 0.174 | | mg/L | | 101 | 70 - 130 | 3 | 20 |
| Lead | ND | | 0.100 | 0.0934 | | mg/L | | 93 | 70 - 130 | 0 | 20 |
| Molybdenum | 0.021 | | 0.100 | 0.135 | | mg/L | | 113 | 70 - 130 | 3 | 20 |
| Selenium | 0.016 | | 0.100 | 0.119 | | mg/L | | 103 | 70 - 130 | 0 | 20 |
| Thallium | ND | | 0.100 | 0.0986 | | mg/L | | 98 | 70 - 130 | 2 | 20 |

## Method: 245.1 - Mercury (CVAA)

**Lab Sample ID: MB 550-321846/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321877** — **Prep Batch: 321846**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 06/03/24 11:45 | 06/03/24 14:52 | 1 |

**Lab Sample ID: LCS 550-321846/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321877** — **Prep Batch: 321846**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00501 | | mg/L | | 100 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321846/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321877** — **Prep Batch: 321846**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00476 | | mg/L | | 95 | 85 - 115 | 5 | 20 |

**Lab Sample ID: 550-218888-3 MS** — **Client Sample ID: FC-CCR-MW86-0524**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321877** — **Prep Batch: 321846**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00532 | | mg/L | | 106 | 70 - 130 | | |

**Lab Sample ID: 550-218923-B-1-C MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321877** — **Prep Batch: 321846**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00487 | | mg/L | | 97 | 70 - 130 | 1 | 20 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 550-321572/1**
**Matrix: Water**
**Analysis Batch: 321572**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 05/28/24 11:05 | 1 |

**Lab Sample ID: LCS 550-321572/2**
**Matrix: Water**
**Analysis Batch: 321572**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 994 | | mg/L | | 99 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321572/3**
**Matrix: Water**
**Analysis Batch: 321572**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1020 | | mg/L | | 102 | 90 - 110 | 2 | 10 |

**Lab Sample ID: 550-218862-A-1 DU**
**Matrix: Water**
**Analysis Batch: 321572**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1300 | | | 1290 | | mg/L | | | | 0.2 | 10 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: LCSSRM 550-321672/1**
**Matrix: Water**
**Analysis Batch: 321672**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.0 | | SU | | 99.7 | 98.5 - 101.5 | | |

**Lab Sample ID: LCSSRM 550-321672/13**
**Matrix: Water**
**Analysis Batch: 321672**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 6.9 | | SU | | 98.7 | 98.5 - 101.5 | | |

**Lab Sample ID: 550-218758-A-1 DU**
**Matrix: Water**
**Analysis Batch: 321672**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | 7.3 | | | 7.3 | | SU | | | | 0.4 | 5 |
| Temperature | 18.4 | | | 18.8 | | Degrees C | | | | 2 | |

## HPLC/IC

### Analysis Batch: 321584

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218888-1 | FC-CCR-MW66-0524 | Total/NA | Water | 300.0 | |
| 550-218888-1 | FC-CCR-MW66-0524 | Total/NA | Water | 300.0 | |
| 550-218888-2 | FC-CCR-MW70-0524 | Total/NA | Water | 300.0 | |
| 550-218888-2 | FC-CCR-MW70-0524 | Total/NA | Water | 300.0 | |
| 550-218888-3 | FC-CCR-MW86-0524 | Total/NA | Water | 300.0 | |
| 550-218888-3 | FC-CCR-MW86-0524 | Total/NA | Water | 300.0 | |
| MB 550-321584/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-321584/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-321584/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-218888-1 MS | FC-CCR-MW66-0524 | Total/NA | Water | 300.0 | |
| 550-218888-1 MSD | FC-CCR-MW66-0524 | Total/NA | Water | 300.0 | |

## Metals

### Prep Batch: 321544

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218888-1 | FC-CCR-MW66-0524 | Total/NA | Water | 200.7 | |
| 550-218888-2 | FC-CCR-MW70-0524 | Total/NA | Water | 200.7 | |
| 550-218888-3 | FC-CCR-MW86-0524 | Total/NA | Water | 200.7 | |
| MB 550-321544/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-321544/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-321544/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-218888-1 MS | FC-CCR-MW66-0524 | Total/NA | Water | 200.7 | |
| 550-218888-1 MSD | FC-CCR-MW66-0524 | Total/NA | Water | 200.7 | |

### Prep Batch: 321558

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218888-1 | FC-CCR-MW66-0524 | Total/NA | Water | 200.8 | |
| 550-218888-2 | FC-CCR-MW70-0524 | Total/NA | Water | 200.8 | |
| 550-218888-3 | FC-CCR-MW86-0524 | Total/NA | Water | 200.8 | |
| MB 550-321558/1-A | Method Blank | Total/NA | Water | 200.8 | |
| LCS 550-321558/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-321558/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-218890-B-1-B MS ^10 | Matrix Spike | Total/NA | Water | 200.8 | |
| 550-218890-B-1-C MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 200.8 | |

### Analysis Batch: 321758

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218888-1 | FC-CCR-MW66-0524 | Total/NA | Water | 200.8 LL | 321558 |
| 550-218888-2 | FC-CCR-MW70-0524 | Total/NA | Water | 200.8 LL | 321558 |
| 550-218888-3 | FC-CCR-MW86-0524 | Total/NA | Water | 200.8 LL | 321558 |
| MB 550-321558/1-A | Method Blank | Total/NA | Water | 200.8 LL | 321558 |
| LCS 550-321558/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 321558 |
| LCSD 550-321558/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 321558 |
| 550-218890-B-1-B MS ^10 | Matrix Spike | Total/NA | Water | 200.8 LL | 321558 |
| 550-218890-B-1-C MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 200.8 LL | 321558 |

### Prep Batch: 321846

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218888-1 | FC-CCR-MW66-0524 | Total/NA | Water | 245.1 | |
| 550-218888-2 | FC-CCR-MW70-0524 | Total/NA | Water | 245.1 | |

## Metals (Continued)

### Prep Batch: 321846 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218888-3 | FC-CCR-MW86-0524 | Total/NA | Water | 245.1 | |
| MB 550-321846/1-A | Method Blank | Total/NA | Water | 245.1 | |
| LCS 550-321846/2-A | Lab Control Sample | Total/NA | Water | 245.1 | |
| LCSD 550-321846/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | |
| 550-218888-3 MS | FC-CCR-MW86-0524 | Total/NA | Water | 245.1 | |
| 550-218923-B-1-C MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | |

### Analysis Batch: 321877

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218888-1 | FC-CCR-MW66-0524 | Total/NA | Water | 245.1 | 321846 |
| 550-218888-2 | FC-CCR-MW70-0524 | Total/NA | Water | 245.1 | 321846 |
| 550-218888-3 | FC-CCR-MW86-0524 | Total/NA | Water | 245.1 | 321846 |
| MB 550-321846/1-A | Method Blank | Total/NA | Water | 245.1 | 321846 |
| LCS 550-321846/2-A | Lab Control Sample | Total/NA | Water | 245.1 | 321846 |
| LCSD 550-321846/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | 321846 |
| 550-218888-3 MS | FC-CCR-MW86-0524 | Total/NA | Water | 245.1 | 321846 |
| 550-218923-B-1-C MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | 321846 |

### Analysis Batch: 321935

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218888-1 | FC-CCR-MW66-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218888-2 | FC-CCR-MW70-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218888-3 | FC-CCR-MW86-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| MB 550-321544/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| LCS 550-321544/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| LCSD 550-321544/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218888-1 MS | FC-CCR-MW66-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218888-1 MSD | FC-CCR-MW66-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |

### Analysis Batch: 321967

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 550-321544/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| LCS 550-321544/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| LCSD 550-321544/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321544 |

### Analysis Batch: 321970

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218888-1 | FC-CCR-MW66-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |

### Prep Batch: 655283

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218888-1 | FC-CCR-MW66-0524 | Total Recoverable | Water | 200.7 | |
| 550-218888-2 | FC-CCR-MW70-0524 | Total Recoverable | Water | 200.7 | |
| 550-218888-3 | FC-CCR-MW86-0524 | Total Recoverable | Water | 200.7 | |
| MB 280-655283/1-A | Method Blank | Total Recoverable | Water | 200.7 | |
| LCS 280-655283/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 | |
| 550-218888-1 MS | FC-CCR-MW66-0524 | Total Recoverable | Water | 200.7 | |
| 550-218888-1 MSD | FC-CCR-MW66-0524 | Total Recoverable | Water | 200.7 | |

# QC Association Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218888-1

## Metals

### Analysis Batch: 655719

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218888-1 | FC-CCR-MW66-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218888-2 | FC-CCR-MW70-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218888-3 | FC-CCR-MW86-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| MB 280-655283/1-A | Method Blank | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| LCS 280-655283/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218888-1 MS | FC-CCR-MW66-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218888-1 MSD | FC-CCR-MW66-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |

## General Chemistry

### Analysis Batch: 321572

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218888-1 | FC-CCR-MW66-0524 | Total/NA | Water | SM 2540C | |
| 550-218888-2 | FC-CCR-MW70-0524 | Total/NA | Water | SM 2540C | |
| 550-218888-3 | FC-CCR-MW86-0524 | Total/NA | Water | SM 2540C | |
| MB 550-321572/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-321572/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-321572/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-218862-A-1 DU | Duplicate | Total/NA | Water | SM 2540C | |

### Analysis Batch: 321672

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218888-1 | FC-CCR-MW66-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218888-2 | FC-CCR-MW70-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218888-3 | FC-CCR-MW86-0524 | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321672/1 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321672/13 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| 550-218758-A-1 DU | Duplicate | Total/NA | Water | SM 4500 H+ B | |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218888-1

## Client Sample ID: FC-CCR-MW66-0524

**Lab Sample ID: 550-218888-1**

**Date Collected: 05/22/24 11:34**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/28/24 14:29 |
| Total/NA | Analysis | 300.0 | | 100 | 321584 | MMH | EET PHX | 05/28/24 14:48 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 22:27 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321935 | GLW | EET PHX | 06/04/24 06:46 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 5 | 321970 | GLW | EET PHX | 06/04/24 23:27 |
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:01 |
| Total/NA | Prep | 245.1 | | | 321846 | HHL | EET PHX | 06/03/24 11:45 |
| Total/NA | Analysis | 245.1 | | 1 | 321877 | HHL | EET PHX | 06/03/24 15:21 |
| Total/NA | Analysis | SM 2540C | | 1 | 321572 | JLO | EET PHX | 05/28/24 11:05 - 05/30/24 17:29 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321672 | ELN | EET PHX | 05/29/24 17:49 |

## Client Sample ID: FC-CCR-MW70-0524

**Lab Sample ID: 550-218888-2**

**Date Collected: 05/22/24 09:11**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/28/24 15:43 |
| Total/NA | Analysis | 300.0 | | 100 | 321584 | MMH | EET PHX | 05/28/24 16:01 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 22:47 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321935 | GLW | EET PHX | 06/04/24 06:49 |
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:03 |
| Total/NA | Prep | 245.1 | | | 321846 | HHL | EET PHX | 06/03/24 11:45 |
| Total/NA | Analysis | 245.1 | | 1 | 321877 | HHL | EET PHX | 06/03/24 15:23 |
| Total/NA | Analysis | SM 2540C | | 1 | 321572 | JLO | EET PHX | 05/28/24 11:05 - 05/30/24 17:29 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321672 | ELN | EET PHX | 05/29/24 17:52 |

## Client Sample ID: FC-CCR-MW86-0524

**Lab Sample ID: 550-218888-3**

**Date Collected: 05/22/24 09:54**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/28/24 16:20 |
| Total/NA | Analysis | 300.0 | | 100 | 321584 | MMH | EET PHX | 05/28/24 16:38 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 22:50 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321935 | GLW | EET PHX | 06/04/24 06:53 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218888-1

## Client Sample ID: FC-CCR-MW86-0524

**Date Collected: 05/22/24 09:54**
**Date Received: 05/24/24 17:05**

## Lab Sample ID: 550-218888-3

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:05 |
| Total/NA | Prep | 245.1 | | | 321846 | HHL | EET PHX | 06/03/24 11:45 |
| Total/NA | Analysis | 245.1 | | 1 | 321877 | HHL | EET PHX | 06/03/24 15:26 |
| Total/NA | Analysis | SM 2540C | | 1 | 321572 | JLO | EET PHX | 05/28/24 11:05 - 05/30/24 17:29 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321672 | ELN | EET PHX | 05/29/24 17:55 |

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

**Laboratory References:**

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

# Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-218888-1
Project/Site: CCR Groundwater Monitoring

## Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0728 | 06-09-24 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

## Laboratory: Eurofins Denver

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0713 | 12-20-24 |

# Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218888-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 300.0 | Anions, Ion Chromatography | EPA | EET PHX |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET DEN |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET PHX |
| 200.8 LL | Metals (ICP/MS) | EPA | EET PHX |
| 245.1 | Mercury (CVAA) | EPA | EET PHX |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET PHX |
| SM 4500 H+ B | pH | SM | EET PHX |
| 200.7 | Preparation, Total Recoverable Metals | EPA | EET DEN |
| 200.7 | Preparation, Total Metals | EPA | EET PHX |
| 200.8 | Preparation, Total Metals | EPA | EET PHX |
| 245.1 | Preparation, Mercury | EPA | EET PHX |

**Protocol References:**

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

**Laboratory References:**

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

218888

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

**TestAmerica Laboratories, Inc.**

| Client Contact | | |

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-39667.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 1 of 1 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-218888-1 |
| Address: 4955 Yarrow Street, , | Due Date Requested: 6/10/2024 | | | Preservation Codes: - |
| City: Arvada | TAT Requested (days): | | | |
| State, Zip: CO, 80002 | | | | |
| Phone: 303-736-0100(Tel) 303-431-7171(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | Other: |

**Analysis Requested**

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Priority Pollutants | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| FC-CCR-MW66-0524 (550-218888-1) | 5/22/24 | 11:34 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW70-0524 (550-218888-2) | 5/22/24 | 09:11 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW86-0524 (550-218888-3) | 5/22/24 | 09:54 Arizona | | Water | | | X | 1 | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

| ***Possible Hazard Identification*** *Unconfirmed* | ***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months* |
|---|---|
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|---|
| 1 | | 5/28/24 1430 | TAL-PHX | | | |
| 2 | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: 5-30-24 0930 | Company EEDEN |
| 3 | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: ∆ Yes ∆ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.1°C NA NA CF0.2 |
|---|---|---|

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218888-1

**Login Number: 218888**
**List Number: 1**
**Creator: Gravlin, Andrea**

**List Source: Eurofins Phoenix**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | False | Check done at department level as required. |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218888-1

**Login Number: 218888**
**List Number: 2**
**Creator: Held, Wesley**

**List Source: Eurofins Denver**
**List Creation: 05/30/24 12:24 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

eurofins | Environment Testing

1 2 3 4 5 6 7 8 9 10 11 12 13 14

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 6/6/2024 4:47:03 PM

## JOB DESCRIPTION

CCR Groundwater Monitoring

## JOB NUMBER

550-218889-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.



my EOL

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

## Authorization



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6/6/2024 4:47:03 PM

Authorized for release by
Rachel Sester, Project Manager I
Rachel.Sester@et.eurofinsus.com
Designee for
Linda Eshelman, Project Manager II
linda.eshelman@et.eurofinsus.com
(602)659-7681

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# Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218889-1

## Qualifiers

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| D2 | Sample required dilution due to high concentration of analyte. |
| E2 | Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix. |
| M2 | Matrix spike recovery was low, the associated blank spike recovery was acceptable. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| E2 | Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix. |
| L4 | The associated blank spike recovery was below method acceptance limits. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| H5 | This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time. |
| T5 | Laboratory not licensed for this parameter |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

## Job ID: 550-218889-1 Eurofins Phoenix

**Job Narrative**
**550-218889-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**
The samples were received on 5/24/2024 5:05 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C.

**HPLC/IC**
Method 300_ORGFMS: Due to the high concentration of Chloride, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 550-321859 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**Metals**
Method 200.8_CWA_LL: The laboratory control sample (LCS) associated with preparation batch 550-321558 and analytical batch 550-321758 was outside acceptance criteria for the analyte Barium. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. FC-CCR-MW62-0524 (550-218889-1), FC-CCR-MW63-0524 (550-218889-2), FC-CCR-MW64-0524 (550-218889-3), FC-CCR-MW65-0524 (550-218889-4), FC-CCR-SW1-0524 (550-218889-5), FC-CCR-SW2-0524 (550-218889-6), FC-CCR-SW3-0524 (550-218889-7) and FC-CCR-FD09-0524 (550-218889-8)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**General Chemistry**
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218889-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 550-218889-1 | FC-CCR-MW62-0524 | Water | 05/22/24 10:32 | 05/24/24 17:05 |
| 550-218889-2 | FC-CCR-MW63-0524 | Water | 05/22/24 13:17 | 05/24/24 17:05 |
| 550-218889-3 | FC-CCR-MW64-0524 | Water | 05/22/24 13:58 | 05/24/24 17:05 |
| 550-218889-4 | FC-CCR-MW65-0524 | Water | 05/22/24 12:23 | 05/24/24 17:05 |
| 550-218889-5 | FC-CCR-SW1-0524 | Water | 05/23/24 20:20 | 05/24/24 17:05 |
| 550-218889-6 | FC-CCR-SW2-0524 | Water | 05/22/24 12:35 | 05/24/24 17:05 |
| 550-218889-7 | FC-CCR-SW3-0524 | Water | 05/22/24 12:48 | 05/24/24 17:05 |
| 550-218889-8 | FC-CCR-FD09-0524 | Water | 05/23/24 16:20 | 05/24/24 17:05 |

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218889-1

## Client Sample ID: FC-CCR-MW62-0524 — Lab Sample ID: 550-218889-1

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 1.3 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 3200 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 2.2 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 540 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 23 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 460 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 6.4 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 10 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 760 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 130 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.012 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.021 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 910 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 910 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 6000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.4 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 18.6 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW63-0524 — Lab Sample ID: 550-218889-2

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 97 | | 2.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Fluoride | 2.1 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 1500 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 1.0 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 330 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 150 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 1.8 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 290 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 64 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0053 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.015 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 260 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 260 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 2700 | | 20 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 19.5 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW64-0524 — Lab Sample ID: 550-218889-3

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 110 | D2 | 20 | | mg/L | 10 | | 300.0 | Total/NA |
| Fluoride | 1.0 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 800 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 0.96 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 210 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.16 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 91 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 1.6 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 6.3 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |

This Detection Summary does not include radiochemical test results.

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## Client Sample ID: FC-CCR-MW64-0524 (Continued) — Lab Sample ID: 550-218889-3

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 250 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 45 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0055 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.048 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 370 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 370 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 1900 | | 20 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.6 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 19.0 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW65-0524 — Lab Sample ID: 550-218889-4

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 100 | D2 | 20 | | mg/L | 10 | | 300.0 | Total/NA |
| Fluoride | 1.3 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 710 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 0.79 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 190 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 100 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 2.2 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 6.3 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 220 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 73 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0052 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.037 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0075 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 340 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 340 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 1700 | | 20 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.6 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 18.9 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-SW1-0524 — Lab Sample ID: 550-218889-5

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 46 | | 2.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Fluoride | 0.73 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 310 | E2 | 2.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Boron | 0.36 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 97 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 33 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 7.3 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 110 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 90 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0068 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.17 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0062 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 130 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 130 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 840 | | 20 | | mg/L | 1 | | SM 2540C | Total/NA |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218889-1

## Client Sample ID: FC-CCR-SW1-0524 (Continued) — Lab Sample ID: 550-218889-5

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| pH | 8.2 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 19.0 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-SW2-0524 — Lab Sample ID: 550-218889-6

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 48 | | 2.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Fluoride | 0.79 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 410 | D2 | 20 | | mg/L | 10 | | 300.0 | Total/NA |
| Boron | 0.46 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 110 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 1.1 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 38 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.053 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 8.0 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 130 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 97 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0071 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.17 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0080 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 130 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 130 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 880 | | 20 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 8.1 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 19.1 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-SW3-0524 — Lab Sample ID: 550-218889-7

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 46 | | 2.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Fluoride | 0.75 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 390 | D2 | 20 | | mg/L | 10 | | 300.0 | Total/NA |
| Boron | 0.34 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 100 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 34 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 8.3 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 130 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 94 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0070 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.18 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0064 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 130 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 130 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 820 | | 20 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 8.2 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 19.2 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-FD09-0524 — Lab Sample ID: 550-218889-8

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 46 | | 2.0 | | mg/L | 1 | | 300.0 | Total/NA |

This Detection Summary does not include radiochemical test results.

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# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218889-1

## Client Sample ID: FC-CCR-FD09-0524 (Continued)

## Lab Sample ID: 550-218889-8

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 0.79 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 390 | D2 | 20 | | mg/L | 10 | | 300.0 | Total/NA |
| Boron | 0.34 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 100 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.29 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 35 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 8.4 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 130 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 94 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0070 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.17 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0060 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 130 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 130 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 820 | | 20 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 8.2 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 19.4 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-MW62-0524

**Date Collected: 05/22/24 10:32**
**Date Received: 05/24/24 17:05**

## Lab Sample ID: 550-218889-1

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | D2 | 200 | | mg/L | | | 05/28/24 18:10 | 100 |
| **Fluoride** | **1.3** | | 0.40 | | mg/L | | | 05/28/24 16:56 | 1 |
| **Sulfate** | **3200** | **D2** | 200 | | mg/L | | | 05/28/24 18:10 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **2.2** | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:56 | 1 |
| **Calcium** | **540** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:56 | 1 |
| **Iron** | **23** | | 0.10 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:56 | 1 |
| **Magnesium** | **460** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:56 | 1 |
| **Manganese** | **6.4** | | 0.010 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:56 | 1 |
| **Potassium** | **10** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 19:57 | 10 |
| **Sodium** | **760** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 19:57 | 10 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:56 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **130** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 22:54 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:07 | 10 |
| **Arsenic** | **0.012** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:07 | 10 |
| **Barium** | **0.021** | **L4** | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:07 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:07 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:07 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:07 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:07 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:07 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:07 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:07 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 06/03/24 11:45 | 06/03/24 15:34 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **910** | | 6.0 | | mg/L | | | 05/29/24 16:54 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/29/24 16:54 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **910** | | 6.0 | | mg/L | | | 05/29/24 16:54 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/29/24 16:54 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/29/24 16:54 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **6000** | | 100 | | mg/L | | | 05/28/24 11:05 | 1 |
| **pH (SM 4500 H+ B)** | **7.4** | **H5** | 1.7 | | SU | | | 05/30/24 14:42 | 1 |
| **Temperature (SM 4500 H+ B)** | **18.6** | **H5 T5** | 0.1 | | Degrees C | | | 05/30/24 14:42 | 1 |

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218889-1

## Client Sample ID: FC-CCR-MW63-0524

**Date Collected: 05/22/24 13:17**
**Date Received: 05/24/24 17:05**

## Lab Sample ID: 550-218889-2

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **97** | | 2.0 | | mg/L | | | 05/28/24 18:28 | 1 |
| **Fluoride** | **2.1** | | 0.40 | | mg/L | | | 05/28/24 18:28 | 1 |
| **Sulfate** | **1500** | **D2** | 200 | | mg/L | | | 05/28/24 18:47 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **1.0** | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:00 | 1 |
| **Calcium** | **330** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:00 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:00 | 1 |
| **Magnesium** | **150** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:00 | 1 |
| **Manganese** | **1.8** | | 0.010 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:00 | 1 |
| Potassium | ND | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:00 | 10 |
| **Sodium** | **290** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:00 | 10 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:00 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **64** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 22:58 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:09 | 10 |
| **Arsenic** | **0.0053** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:09 | 10 |
| **Barium** | **0.015** | **L4** | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:09 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:09 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:09 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:09 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:09 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:09 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:09 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:09 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 06/03/24 11:45 | 06/03/24 15:37 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **260** | | 6.0 | | mg/L | | | 05/30/24 10:31 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 10:31 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **260** | | 6.0 | | mg/L | | | 05/30/24 10:31 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 10:31 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 10:31 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **2700** | | 20 | | mg/L | | | 05/28/24 11:05 | 1 |
| **pH (SM 4500 H+ B)** | **7.5** | **H5** | 1.7 | | SU | | | 05/30/24 14:49 | 1 |
| **Temperature (SM 4500 H+ B)** | **19.5** | **H5 T5** | 0.1 | | Degrees C | | | 05/30/24 14:49 | 1 |

## Client Sample ID: FC-CCR-MW64-0524

**Date Collected: 05/22/24 13:58**
**Date Received: 05/24/24 17:05**

## Lab Sample ID: 550-218889-3

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **110** | **D2** | 20 | | mg/L | | | 06/03/24 21:25 | 10 |
| **Fluoride** | **1.0** | | 0.40 | | mg/L | | | 05/28/24 19:05 | 1 |
| **Sulfate** | **800** | **D2** | 200 | | mg/L | | | 05/28/24 19:24 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **0.96** | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:03 | 1 |
| **Calcium** | **210** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:03 | 1 |
| **Iron** | **0.16** | | 0.10 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:03 | 1 |
| **Magnesium** | **91** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:03 | 1 |
| **Manganese** | **1.6** | | 0.010 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:03 | 1 |
| **Potassium** | **6.3** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:04 | 10 |
| **Sodium** | **250** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:04 | 10 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:03 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **45** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 23:02 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:11 | 10 |
| **Arsenic** | **0.0055** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:11 | 10 |
| **Barium** | **0.048** | **L4** | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:11 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:11 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:11 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:11 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:11 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:11 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:11 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:11 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 06/03/24 11:45 | 06/03/24 15:39 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **370** | | 6.0 | | mg/L | | | 05/30/24 10:47 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 10:47 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **370** | | 6.0 | | mg/L | | | 05/30/24 10:47 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 10:47 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 10:47 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **1900** | | 20 | | mg/L | | | 05/29/24 10:00 | 1 |
| **pH (SM 4500 H+ B)** | **7.6** | **H5** | 1.7 | | SU | | | 05/30/24 14:52 | 1 |
| **Temperature (SM 4500 H+ B)** | **19.0** | **H5 T5** | 0.1 | | Degrees C | | | 05/30/24 14:52 | 1 |

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218889-1

## Client Sample ID: FC-CCR-MW65-0524

**Date Collected: 05/22/24 12:23**
**Date Received: 05/24/24 17:05**

## Lab Sample ID: 550-218889-4

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **100** | **D2** | 20 | | mg/L | | | 06/03/24 21:50 | 10 |
| **Fluoride** | **1.3** | | 0.40 | | mg/L | | | 05/28/24 19:42 | 1 |
| **Sulfate** | **710** | **D2** | 200 | | mg/L | | | 05/28/24 20:00 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **0.79** | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:06 | 1 |
| **Calcium** | **190** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:06 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:06 | 1 |
| **Magnesium** | **100** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:06 | 1 |
| **Manganese** | **2.2** | | 0.010 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:06 | 1 |
| **Potassium** | **6.3** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:07 | 10 |
| **Sodium** | **220** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:07 | 10 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:06 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **73** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 23:17 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:13 | 10 |
| **Arsenic** | **0.0052** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:13 | 10 |
| **Barium** | **0.037** | **L4** | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:13 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:13 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:13 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:13 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:13 | 10 |
| **Molybdenum** | **0.0075** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:13 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:13 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:13 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 06/03/24 11:45 | 06/03/24 15:41 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **340** | | 6.0 | | mg/L | | | 05/30/24 10:56 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 10:56 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **340** | | 6.0 | | mg/L | | | 05/30/24 10:56 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 10:56 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 10:56 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **1700** | | 20 | | mg/L | | | 05/29/24 10:00 | 1 |
| **pH (SM 4500 H+ B)** | **7.6** | **H5** | 1.7 | | SU | | | 05/30/24 14:55 | 1 |
| **Temperature (SM 4500 H+ B)** | **18.9** | **H5 T5** | 0.1 | | Degrees C | | | 05/30/24 14:55 | 1 |

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218889-1

## Client Sample ID: FC-CCR-SW1-0524

**Date Collected: 05/23/24 20:20**
**Date Received: 05/24/24 17:05**

## Lab Sample ID: 550-218889-5

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **46** | | 2.0 | | mg/L | | | 05/28/24 20:19 | 1 |
| **Fluoride** | **0.73** | | 0.40 | | mg/L | | | 05/28/24 20:19 | 1 |
| **Sulfate** | **310** | **E2** | 2.0 | | mg/L | | | 05/28/24 20:19 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **0.36** | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:10 | 1 |
| **Calcium** | **97** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:10 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:10 | 1 |
| **Magnesium** | **33** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:10 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:10 | 1 |
| **Potassium** | **7.3** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:10 | 10 |
| **Sodium** | **110** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:10 | 10 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:10 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **90** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 23:21 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:15 | 10 |
| **Arsenic** | **0.0068** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:15 | 10 |
| **Barium** | **0.17** | **L4** | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:15 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:15 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:15 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:15 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:15 | 10 |
| **Molybdenum** | **0.0062** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:15 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:15 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:15 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 06/03/24 11:45 | 06/03/24 15:43 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **130** | | 6.0 | | mg/L | | | 05/30/24 11:05 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 11:05 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **130** | | 6.0 | | mg/L | | | 05/30/24 11:05 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 11:05 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 11:05 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **840** | | 20 | | mg/L | | | 05/29/24 10:00 | 1 |
| **pH (SM 4500 H+ B)** | **8.2** | **H5** | 1.7 | | SU | | | 05/30/24 14:57 | 1 |
| **Temperature (SM 4500 H+ B)** | **19.0** | **H5 T5** | 0.1 | | Degrees C | | | 05/30/24 14:57 | 1 |

## Client Sample ID: FC-CCR-SW2-0524

**Date Collected: 05/22/24 12:35**
**Date Received: 05/24/24 17:05**

## Lab Sample ID: 550-218889-6

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **48** | | 2.0 | | mg/L | | | 05/28/24 20:37 | 1 |
| **Fluoride** | **0.79** | | 0.40 | | mg/L | | | 05/28/24 20:37 | 1 |
| **Sulfate** | **410** | **D2** | 20 | | mg/L | | | 05/28/24 21:51 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **0.46** | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:17 | 1 |
| **Calcium** | **110** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:17 | 1 |
| **Iron** | **1.1** | | 0.10 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:17 | 1 |
| **Magnesium** | **38** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:17 | 1 |
| **Manganese** | **0.053** | | 0.010 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:17 | 1 |
| **Potassium** | **8.0** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:14 | 10 |
| **Sodium** | **130** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:14 | 10 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:17 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **97** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 23:25 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:17 | 10 |
| **Arsenic** | **0.0071** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:17 | 10 |
| **Barium** | **0.17** | **L4** | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:17 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:17 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:17 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:17 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:17 | 10 |
| **Molybdenum** | **0.0080** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:17 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:17 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:17 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 06/03/24 11:45 | 06/03/24 15:45 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **130** | | 6.0 | | mg/L | | | 05/30/24 11:12 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 11:12 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **130** | | 6.0 | | mg/L | | | 05/30/24 11:12 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 11:12 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 11:12 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **880** | | 20 | | mg/L | | | 05/29/24 10:00 | 1 |
| **pH (SM 4500 H+ B)** | **8.1** | **H5** | 1.7 | | SU | | | 05/30/24 14:59 | 1 |
| **Temperature (SM 4500 H+ B)** | **19.1** | **H5 T5** | 0.1 | | Degrees C | | | 05/30/24 14:59 | 1 |

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218889-1

## Client Sample ID: FC-CCR-SW3-0524

**Date Collected: 05/22/24 12:48**
**Date Received: 05/24/24 17:05**

## Lab Sample ID: 550-218889-7

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **46** | | 2.0 | | mg/L | | | 05/28/24 22:09 | 1 |
| **Fluoride** | **0.75** | | 0.40 | | mg/L | | | 05/28/24 22:09 | 1 |
| **Sulfate** | **390** | **D2** | 20 | | mg/L | | | 05/28/24 22:28 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **0.34** | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:23 | 1 |
| **Calcium** | **100** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:23 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:23 | 1 |
| **Magnesium** | **34** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:23 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:23 | 1 |
| **Potassium** | **8.3** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:17 | 10 |
| **Sodium** | **130** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:17 | 10 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 07:23 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **94** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 23:28 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:25 | 10 |
| **Arsenic** | **0.0070** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:25 | 10 |
| **Barium** | **0.18** | **L4** | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:25 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:25 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:25 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:25 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:25 | 10 |
| **Molybdenum** | **0.0064** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:25 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:25 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:25 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 06/03/24 11:45 | 06/03/24 15:47 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **130** | | 6.0 | | mg/L | | | 05/30/24 11:18 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 11:18 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **130** | | 6.0 | | mg/L | | | 05/30/24 11:18 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 11:18 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 11:18 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **820** | | 20 | | mg/L | | | 05/29/24 10:00 | 1 |
| **pH (SM 4500 H+ B)** | **8.2** | **H5** | 1.7 | | SU | | | 05/30/24 15:01 | 1 |
| **Temperature (SM 4500 H+ B)** | **19.2** | **H5 T5** | 0.1 | | Degrees C | | | 05/30/24 15:01 | 1 |

## Client Sample ID: FC-CCR-FD09-0524

**Date Collected: 05/23/24 16:20**
**Date Received: 05/24/24 17:05**

## Lab Sample ID: 550-218889-8

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **46** | | 2.0 | | mg/L | | | 05/28/24 22:46 | 1 |
| **Fluoride** | **0.79** | | 0.40 | | mg/L | | | 05/28/24 22:46 | 1 |
| **Sulfate** | **390** | **D2** | 20 | | mg/L | | | 05/28/24 23:04 | 10 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **0.34** | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:01 | 1 |
| **Calcium** | **100** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:01 | 1 |
| **Iron** | **0.29** | | 0.10 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:01 | 1 |
| **Magnesium** | **35** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:01 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:01 | 1 |
| **Potassium** | **8.4** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:21 | 10 |
| **Sodium** | **130** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:21 | 10 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:01 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **94** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 23:32 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:27 | 10 |
| **Arsenic** | **0.0070** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:27 | 10 |
| **Barium** | **0.17** | **L4** | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:27 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:27 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:27 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:27 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:27 | 10 |
| **Molybdenum** | **0.0060** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:27 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:27 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:27 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 06/03/24 11:45 | 06/03/24 15:49 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **130** | | 6.0 | | mg/L | | | 05/30/24 11:24 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 11:24 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **130** | | 6.0 | | mg/L | | | 05/30/24 11:24 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 11:24 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 11:24 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **820** | | 20 | | mg/L | | | 05/29/24 10:00 | 1 |
| **pH (SM 4500 H+ B)** | **8.2** | **H5** | 1.7 | | SU | | | 05/30/24 15:03 | 1 |
| **Temperature (SM 4500 H+ B)** | **19.4** | **H5 T5** | 0.1 | | Degrees C | | | 05/30/24 15:03 | 1 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 550-321584/2**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 05/28/24 12:57 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/28/24 12:57 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 05/28/24 12:57 | 1 |

**Lab Sample ID: LCS 550-321584/5**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.2 | | mg/L | | 96 | 90 - 110 | | |
| Fluoride | | | 4.00 | 3.92 | | mg/L | | 98 | 90 - 110 | | |
| Sulfate | | | 20.0 | 19.2 | | mg/L | | 96 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321584/6**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.7 | | mg/L | | 98 | 90 - 110 | 2 | 20 |
| Fluoride | | | 4.00 | 3.87 | | mg/L | | 97 | 90 - 110 | 1 | 20 |
| Sulfate | | | 20.0 | 18.8 | | mg/L | | 94 | 90 - 110 | 2 | 20 |

**Lab Sample ID: 550-218888-A-1 MS ^100**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2700 | M2 | 2000 | 3750 | M2 | mg/L | | 53 | 80 - 120 | | |
| Fluoride | ND | | 400 | 426 | | mg/L | | 97 | 80 - 120 | | |
| Sulfate | 18000 | E2 M3 | 2000 | 13800 | E2 M3 | mg/L | | -229 | 80 - 120 | | |

**Lab Sample ID: 550-218888-A-1 MSD ^100**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2700 | M2 | 2000 | 3860 | M2 | mg/L | | 58 | 80 - 120 | 3 | 20 |
| Fluoride | ND | | 400 | 425 | | mg/L | | 97 | 80 - 120 | 0 | 20 |
| Sulfate | 18000 | E2 M3 | 2000 | 14600 | E2 M3 | mg/L | | -192 | 80 - 120 | 5 | 20 |

**Lab Sample ID: MB 550-321859/2**
**Matrix: Water**
**Analysis Batch: 321859**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 06/03/24 13:29 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 06/03/24 13:29 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 06/03/24 13:29 | 1 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 550-321859/5**
**Matrix: Water**
**Analysis Batch: 321859**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.3 | | mg/L | | 97 | 90 - 110 | | |
| Fluoride | | | 4.00 | 3.88 | | mg/L | | 97 | 90 - 110 | | |
| Sulfate | | | 20.0 | 19.3 | | mg/L | | 97 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321859/6**
**Matrix: Water**
**Analysis Batch: 321859**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.3 | | mg/L | | 97 | 90 - 110 | 0 | 20 |
| Fluoride | | | 4.00 | 3.88 | | mg/L | | 97 | 90 - 110 | 0 | 20 |
| Sulfate | | | 20.0 | 19.3 | | mg/L | | 96 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 550-219142-B-1 MS ^10**
**Matrix: Water**
**Analysis Batch: 321859**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4100 | E2 D2 M3 | 200 | 4170 | D2 E2 M3 | mg/L | | 42 | 80 - 120 | | |
| Fluoride | ND | D1 D5 | 40.0 | 38.7 | D2 | mg/L | | 97 | 80 - 120 | | |
| Sulfate | 1200 | D2 | 200 | 1360 | D2 M3 | mg/L | | 92 | 80 - 120 | | |

**Lab Sample ID: 550-219142-B-1 MSD ^10**
**Matrix: Water**
**Analysis Batch: 321859**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4100 | E2 D2 M3 | 200 | 4160 | D2 E2 M3 | mg/L | | 36 | 80 - 120 | 0 | 20 |
| Fluoride | ND | D1 D5 | 40.0 | 38.9 | D2 | mg/L | | 97 | 80 - 120 | 1 | 20 |
| Sulfate | 1200 | D2 | 200 | 1360 | D2 M3 | mg/L | | 90 | 80 - 120 | 0 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 550-321544/1-A**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | ND | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |
| Calcium | ND | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |
| Magnesium | ND | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: MB 550-321544/1-A**
**Matrix: Water**
**Analysis Batch: 321967**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Potassium | ND | | 0.50 | | mg/L | | 05/28/24 07:50 | 06/04/24 19:47 | 1 |
| Sodium | ND | | 0.50 | | mg/L | | 05/28/24 07:50 | 06/04/24 19:47 | 1 |

**Lab Sample ID: LCS 550-321544/2-A**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.13 | | mg/L | | 113 | 85 - 115 | | |
| Calcium | | | 21.0 | 22.8 | | mg/L | | 108 | 85 - 115 | | |
| Iron | | | 1.00 | 1.02 | | mg/L | | 102 | 85 - 115 | | |
| Magnesium | | | 21.0 | 22.6 | | mg/L | | 108 | 85 - 115 | | |
| Manganese | | | 1.00 | 1.02 | | mg/L | | 102 | 85 - 115 | | |
| Beryllium | | | 1.00 | 1.09 | | mg/L | | 109 | 85 - 115 | | |

**Lab Sample ID: LCS 550-321544/2-A**
**Matrix: Water**
**Analysis Batch: 321967**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Potassium | | | 20.0 | 20.7 | | mg/L | | 103 | 85 - 115 | | |
| Sodium | | | 20.0 | 19.9 | | mg/L | | 100 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321544/3-A**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.11 | | mg/L | | 111 | 85 - 115 | 2 | 20 |
| Calcium | | | 21.0 | 22.5 | | mg/L | | 107 | 85 - 115 | 1 | 20 |
| Iron | | | 1.00 | 1.00 | | mg/L | | 100 | 85 - 115 | 2 | 20 |
| Magnesium | | | 21.0 | 22.4 | | mg/L | | 107 | 85 - 115 | 1 | 20 |
| Manganese | | | 1.00 | 0.999 | | mg/L | | 100 | 85 - 115 | 2 | 20 |
| Beryllium | | | 1.00 | 1.08 | | mg/L | | 108 | 85 - 115 | 1 | 20 |

**Lab Sample ID: LCSD 550-321544/3-A**
**Matrix: Water**
**Analysis Batch: 321967**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Potassium | | | 20.0 | 19.8 | | mg/L | | 99 | 85 - 115 | 4 | 20 |
| Sodium | | | 20.0 | 19.1 | | mg/L | | 96 | 85 - 115 | 4 | 20 |

**Lab Sample ID: 550-218888-C-1-A MS**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 140 | E2 M3 | 1.00 | 140 | E2 M3 | mg/L | | -431 | 70 - 130 | | |
| Calcium | 500 | M3 | 21.0 | 502 | M3 | mg/L | | 27 | 70 - 130 | | |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: 550-218888-C-1-A MS**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 0.85 | | 1.00 | 1.92 | | mg/L | | 107 | 70 - 130 |
| Magnesium | 2700 | E2 M3 | 21.0 | 2670 | E2 M3 | mg/L | | -314 | 70 - 130 |
| Manganese | 8.6 | M3 | 1.00 | 9.18 | M3 | mg/L | | 63 | 70 - 130 |
| Beryllium | ND | | 1.00 | 1.17 | | mg/L | | 117 | 70 - 130 |

**Lab Sample ID: 550-218888-C-1-B MSD**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 140 | E2 M3 | 1.00 | 144 | E2 M3 | mg/L | | -20 | 70 - 130 | 3 | 20 |
| Calcium | 500 | M3 | 21.0 | 513 | M3 | mg/L | | 78 | 70 - 130 | 2 | 20 |
| Iron | 0.85 | | 1.00 | 1.94 | | mg/L | | 109 | 70 - 130 | 1 | 20 |
| Magnesium | 2700 | E2 M3 | 21.0 | 2740 | E2 M3 | mg/L | | -6 | 70 - 130 | 2 | 20 |
| Manganese | 8.6 | M3 | 1.00 | 9.43 | M3 | mg/L | | 87 | 70 - 130 | 3 | 20 |
| Beryllium | ND | | 1.00 | 1.18 | | mg/L | | 118 | 70 - 130 | 1 | 20 |

**Lab Sample ID: MB 280-655283/1-A**
**Matrix: Water**
**Analysis Batch: 655719**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 655283**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 22:09 | 1 |

**Lab Sample ID: LCS 280-655283/2-A**
**Matrix: Water**
**Analysis Batch: 655719**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 655283**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 1000 | 960 | | ug/L | | 96 | 90 - 112 |

**Lab Sample ID: 550-218888-B-1-B MS**
**Matrix: Water**
**Analysis Batch: 655719**

**Client Sample ID: Matrix Spike**
**Prep Type: Total Recoverable**
**Prep Batch: 655283**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | 320 | | 1000 | 1400 | | ug/L | | 107 | 70 - 130 |

**Lab Sample ID: 550-218888-B-1-C MSD**
**Matrix: Water**
**Analysis Batch: 655719**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total Recoverable**
**Prep Batch: 655283**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 320 | | 1000 | 1400 | | ug/L | | 107 | 70 - 130 | 0 | 20 |

## Method: 200.8 LL - Metals (ICP/MS)

**Lab Sample ID: MB 550-321558/1-A**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Arsenic | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Barium | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Cobalt | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Selenium | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |

**Lab Sample ID: LCS 550-321558/2-A**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 | | |
| Arsenic | | | 0.100 | 0.0999 | | mg/L | | 100 | 85 - 115 | | |
| Barium | | | 0.100 | 0.0827 | L4 | mg/L | | 83 | 85 - 115 | | |
| Cadmium | | | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | | |
| Chromium | | | 0.100 | 0.0998 | | mg/L | | 100 | 85 - 115 | | |
| Cobalt | | | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 | | |
| Lead | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | | |
| Molybdenum | | | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 | | |
| Selenium | | | 0.100 | 0.0971 | | mg/L | | 97 | 85 - 115 | | |
| Thallium | | | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321558/3-A**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 | 2 | 20 |
| Arsenic | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | 1 | 20 |
| Barium | | | 0.100 | 0.0793 | L4 | mg/L | | 79 | 85 - 115 | 4 | 20 |
| Cadmium | | | 0.100 | 0.103 | | mg/L | | 103 | 85 - 115 | 1 | 20 |
| Chromium | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | 1 | 20 |
| Cobalt | | | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 | 0 | 20 |
| Lead | | | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | 1 | 20 |
| Molybdenum | | | 0.100 | 0.109 | | mg/L | | 109 | 85 - 115 | 1 | 20 |
| Selenium | | | 0.100 | 0.0983 | | mg/L | | 98 | 85 - 115 | 1 | 20 |
| Thallium | | | 0.100 | 0.107 | | mg/L | | 107 | 85 - 115 | 2 | 20 |

**Lab Sample ID: 550-218890-B-1-B MS ^10**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.107 | | mg/L | | 107 | 70 - 130 | | |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: 550-218890-B-1-B MS ^10**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.0057 | | 0.100 | 0.106 | | mg/L | | 101 | 70 - 130 |
| Barium | 0.015 | L4 | 0.100 | 0.0910 | | mg/L | | 76 | 70 - 130 |
| Cadmium | ND | | 0.100 | 0.0986 | | mg/L | | 98 | 70 - 130 |
| Chromium | ND | | 0.100 | 0.0997 | | mg/L | | 100 | 70 - 130 |
| Cobalt | 0.073 | | 0.100 | 0.170 | | mg/L | | 96 | 70 - 130 |
| Lead | ND | | 0.100 | 0.0934 | | mg/L | | 93 | 70 - 130 |
| Molybdenum | 0.021 | | 0.100 | 0.131 | | mg/L | | 110 | 70 - 130 |
| Selenium | 0.016 | | 0.100 | 0.119 | | mg/L | | 103 | 70 - 130 |
| Thallium | ND | | 0.100 | 0.100 | | mg/L | | 100 | 70 - 130 |

**Lab Sample ID: 550-218890-B-1-C MSD ^10**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.111 | | mg/L | | 111 | 70 - 130 | 4 | 20 |
| Arsenic | 0.0057 | | 0.100 | 0.109 | | mg/L | | 103 | 70 - 130 | 2 | 20 |
| Barium | 0.015 | L4 | 0.100 | 0.0926 | | mg/L | | 77 | 70 - 130 | 2 | 20 |
| Cadmium | ND | | 0.100 | 0.101 | | mg/L | | 100 | 70 - 130 | 2 | 20 |
| Chromium | ND | | 0.100 | 0.103 | | mg/L | | 103 | 70 - 130 | 4 | 20 |
| Cobalt | 0.073 | | 0.100 | 0.174 | | mg/L | | 101 | 70 - 130 | 3 | 20 |
| Lead | ND | | 0.100 | 0.0934 | | mg/L | | 93 | 70 - 130 | 0 | 20 |
| Molybdenum | 0.021 | | 0.100 | 0.135 | | mg/L | | 113 | 70 - 130 | 3 | 20 |
| Selenium | 0.016 | | 0.100 | 0.119 | | mg/L | | 103 | 70 - 130 | 0 | 20 |
| Thallium | ND | | 0.100 | 0.0986 | | mg/L | | 98 | 70 - 130 | 2 | 20 |

## Method: 245.1 - Mercury (CVAA)

**Lab Sample ID: MB 550-321846/1-A**
**Matrix: Water**
**Analysis Batch: 321877**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321846**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 06/03/24 11:45 | 06/03/24 14:52 | 1 |

**Lab Sample ID: LCS 550-321846/2-A**
**Matrix: Water**
**Analysis Batch: 321877**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321846**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00501 | | mg/L | | 100 | 85 - 115 |

**Lab Sample ID: LCSD 550-321846/3-A**
**Matrix: Water**
**Analysis Batch: 321877**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321846**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00476 | | mg/L | | 95 | 85 - 115 | 5 | 20 |

## Method: 245.1 - Mercury (CVAA) (Continued)

**Lab Sample ID: 550-218888-C-3-D MS**
**Matrix: Water**
**Analysis Batch: 321877**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 321846**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00532 | | mg/L | | 106 | 70 - 130 |

**Lab Sample ID: 550-218923-B-1-C MSD**
**Matrix: Water**
**Analysis Batch: 321877**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 321846**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00487 | | mg/L | | 97 | 70 - 130 | 1 | 20 |

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 550-321671/4**
**Matrix: Water**
**Analysis Batch: 321671**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/29/24 13:58 | 1 |
| Alkalinity, Phenolphthalein | ND | | 6.0 | | mg/L | | | 05/29/24 13:58 | 1 |
| Bicarbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/29/24 13:58 | 1 |
| Carbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/29/24 13:58 | 1 |
| Hydroxide Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/29/24 13:58 | 1 |

**Lab Sample ID: LCS 550-321671/3**
**Matrix: Water**
**Analysis Batch: 321671**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 246 | | mg/L | | 98 | 90 - 110 |

**Lab Sample ID: LCSD 550-321671/16**
**Matrix: Water**
**Analysis Batch: 321671**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 238 | | mg/L | | 95 | 90 - 110 | 3 | 20 |

**Lab Sample ID: 550-218738-J-1 DU**
**Matrix: Water**
**Analysis Batch: 321671**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | 120 | | | 115 | | mg/L | | | | 0.2 | 20 |
| Alkalinity, Phenolphthalein | ND | | | ND | | mg/L | | | | NC | 20 |
| Bicarbonate Alkalinity as CaCO3 | 120 | | | 115 | | mg/L | | | | 0.2 | 20 |
| Carbonate Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |
| Hydroxide Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |

## Method: SM 2320B - Alkalinity (Continued)

**Lab Sample ID: MB 550-321743/4**
**Matrix: Water**
**Analysis Batch: 321743**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/30/24 10:27 | 1 |
| Alkalinity, Phenolphthalein | ND | | 6.0 | | mg/L | | | 05/30/24 10:27 | 1 |
| Bicarbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/30/24 10:27 | 1 |
| Carbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/30/24 10:27 | 1 |
| Hydroxide Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/30/24 10:27 | 1 |

**Lab Sample ID: LCS 550-321743/3**
**Matrix: Water**
**Analysis Batch: 321743**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 238 | | mg/L | | 95 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321743/16**
**Matrix: Water**
**Analysis Batch: 321743**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 239 | | mg/L | | 96 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 550-218889-2 DU**
**Matrix: Water**
**Analysis Batch: 321743**

**Client Sample ID: FC-CCR-MW63-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | 260 | | | 266 | | mg/L | | | | 0.8 | 20 |
| Alkalinity, Phenolphthalein | ND | | | ND | | mg/L | | | | NC | 20 |
| Bicarbonate Alkalinity as CaCO3 | 260 | | | 266 | | mg/L | | | | 0.8 | 20 |
| Carbonate Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |
| Hydroxide Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 550-321572/1**
**Matrix: Water**
**Analysis Batch: 321572**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 05/28/24 11:05 | 1 |

**Lab Sample ID: LCS 550-321572/2**
**Matrix: Water**
**Analysis Batch: 321572**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 994 | | mg/L | | 99 | 90 - 110 | | |

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

**Lab Sample ID: LCSD 550-321572/3**
**Matrix: Water**
**Analysis Batch: 321572**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1020 | | mg/L | | 102 | 90 - 110 | 2 | 10 |

**Lab Sample ID: 550-218862-A-1 DU**
**Matrix: Water**
**Analysis Batch: 321572**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1300 | | | 1290 | | mg/L | | | | 0.2 | 10 |

**Lab Sample ID: MB 550-321620/1**
**Matrix: Water**
**Analysis Batch: 321620**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 05/29/24 10:00 | 1 |

**Lab Sample ID: LCS 550-321620/2**
**Matrix: Water**
**Analysis Batch: 321620**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1070 | | mg/L | | 107 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321620/3**
**Matrix: Water**
**Analysis Batch: 321620**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1010 | | mg/L | | 101 | 90 - 110 | 6 | 10 |

**Lab Sample ID: 550-218860-A-1 DU**
**Matrix: Water**
**Analysis Batch: 321620**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1400 | | | 1390 | | mg/L | | | | 1 | 10 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: LCSSRM 550-321754/1**
**Matrix: Water**
**Analysis Batch: 321754**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.0 | | SU | | 99.7 | 98.5 - 101.5 | | |

## Method: SM 4500 H+ B - pH (Continued)

**Lab Sample ID: LCSSRM 550-321754/13**
**Matrix: Water**
**Analysis Batch: 321754**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 6.9 | | SU | | 98.6 | 98.5 - 101.5 | | |

**Lab Sample ID: 550-218889-1 DU**
**Matrix: Water**
**Analysis Batch: 321754**

**Client Sample ID: FC-CCR-MW62-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | 7.4 | H5 | | 7.3 | | SU | | | | 0.8 | 5 |
| Temperature | 18.6 | H5 T5 | | 18.9 | | Degrees C | | | | 2 | |

## HPLC/IC

### Analysis Batch: 321584

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218889-1 | FC-CCR-MW62-0524 | Total/NA | Water | 300.0 | |
| 550-218889-1 | FC-CCR-MW62-0524 | Total/NA | Water | 300.0 | |
| 550-218889-2 | FC-CCR-MW63-0524 | Total/NA | Water | 300.0 | |
| 550-218889-2 | FC-CCR-MW63-0524 | Total/NA | Water | 300.0 | |
| 550-218889-3 | FC-CCR-MW64-0524 | Total/NA | Water | 300.0 | |
| 550-218889-3 | FC-CCR-MW64-0524 | Total/NA | Water | 300.0 | |
| 550-218889-4 | FC-CCR-MW65-0524 | Total/NA | Water | 300.0 | |
| 550-218889-4 | FC-CCR-MW65-0524 | Total/NA | Water | 300.0 | |
| 550-218889-5 | FC-CCR-SW1-0524 | Total/NA | Water | 300.0 | |
| 550-218889-6 | FC-CCR-SW2-0524 | Total/NA | Water | 300.0 | |
| 550-218889-6 | FC-CCR-SW2-0524 | Total/NA | Water | 300.0 | |
| 550-218889-7 | FC-CCR-SW3-0524 | Total/NA | Water | 300.0 | |
| 550-218889-7 | FC-CCR-SW3-0524 | Total/NA | Water | 300.0 | |
| 550-218889-8 | FC-CCR-FD09-0524 | Total/NA | Water | 300.0 | |
| 550-218889-8 | FC-CCR-FD09-0524 | Total/NA | Water | 300.0 | |
| MB 550-321584/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-321584/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-321584/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-218888-A-1 MS ^100 | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-218888-A-1 MSD ^100 | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

### Analysis Batch: 321859

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218889-3 | FC-CCR-MW64-0524 | Total/NA | Water | 300.0 | |
| 550-218889-4 | FC-CCR-MW65-0524 | Total/NA | Water | 300.0 | |
| MB 550-321859/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-321859/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-321859/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-219142-B-1 MS ^10 | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-219142-B-1 MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

## Metals

### Prep Batch: 321544

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218889-1 | FC-CCR-MW62-0524 | Total/NA | Water | 200.7 | |
| 550-218889-2 | FC-CCR-MW63-0524 | Total/NA | Water | 200.7 | |
| 550-218889-3 | FC-CCR-MW64-0524 | Total/NA | Water | 200.7 | |
| 550-218889-4 | FC-CCR-MW65-0524 | Total/NA | Water | 200.7 | |
| 550-218889-5 | FC-CCR-SW1-0524 | Total/NA | Water | 200.7 | |
| 550-218889-6 | FC-CCR-SW2-0524 | Total/NA | Water | 200.7 | |
| 550-218889-7 | FC-CCR-SW3-0524 | Total/NA | Water | 200.7 | |
| 550-218889-8 | FC-CCR-FD09-0524 | Total/NA | Water | 200.7 | |
| MB 550-321544/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-321544/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-321544/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-218888-C-1-A MS | Matrix Spike | Total/NA | Water | 200.7 | |
| 550-218888-C-1-B MSD | Matrix Spike Duplicate | Total/NA | Water | 200.7 | |

## Metals

### Prep Batch: 321558

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218889-1 | FC-CCR-MW62-0524 | Total/NA | Water | 200.8 | |
| 550-218889-2 | FC-CCR-MW63-0524 | Total/NA | Water | 200.8 | |
| 550-218889-3 | FC-CCR-MW64-0524 | Total/NA | Water | 200.8 | |
| 550-218889-4 | FC-CCR-MW65-0524 | Total/NA | Water | 200.8 | |
| 550-218889-5 | FC-CCR-SW1-0524 | Total/NA | Water | 200.8 | |
| 550-218889-6 | FC-CCR-SW2-0524 | Total/NA | Water | 200.8 | |
| 550-218889-7 | FC-CCR-SW3-0524 | Total/NA | Water | 200.8 | |
| 550-218889-8 | FC-CCR-FD09-0524 | Total/NA | Water | 200.8 | |
| MB 550-321558/1-A | Method Blank | Total/NA | Water | 200.8 | |
| LCS 550-321558/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-321558/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-218890-B-1-B MS ^10 | Matrix Spike | Total/NA | Water | 200.8 | |
| 550-218890-B-1-C MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 200.8 | |

### Analysis Batch: 321758

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218889-1 | FC-CCR-MW62-0524 | Total/NA | Water | 200.8 LL | 321558 |
| 550-218889-2 | FC-CCR-MW63-0524 | Total/NA | Water | 200.8 LL | 321558 |
| 550-218889-3 | FC-CCR-MW64-0524 | Total/NA | Water | 200.8 LL | 321558 |
| 550-218889-4 | FC-CCR-MW65-0524 | Total/NA | Water | 200.8 LL | 321558 |
| 550-218889-5 | FC-CCR-SW1-0524 | Total/NA | Water | 200.8 LL | 321558 |
| 550-218889-6 | FC-CCR-SW2-0524 | Total/NA | Water | 200.8 LL | 321558 |
| 550-218889-7 | FC-CCR-SW3-0524 | Total/NA | Water | 200.8 LL | 321558 |
| 550-218889-8 | FC-CCR-FD09-0524 | Total/NA | Water | 200.8 LL | 321558 |
| MB 550-321558/1-A | Method Blank | Total/NA | Water | 200.8 LL | 321558 |
| LCS 550-321558/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 321558 |
| LCSD 550-321558/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 321558 |
| 550-218890-B-1-B MS ^10 | Matrix Spike | Total/NA | Water | 200.8 LL | 321558 |
| 550-218890-B-1-C MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 200.8 LL | 321558 |

### Prep Batch: 321846

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218889-1 | FC-CCR-MW62-0524 | Total/NA | Water | 245.1 | |
| 550-218889-2 | FC-CCR-MW63-0524 | Total/NA | Water | 245.1 | |
| 550-218889-3 | FC-CCR-MW64-0524 | Total/NA | Water | 245.1 | |
| 550-218889-4 | FC-CCR-MW65-0524 | Total/NA | Water | 245.1 | |
| 550-218889-5 | FC-CCR-SW1-0524 | Total/NA | Water | 245.1 | |
| 550-218889-6 | FC-CCR-SW2-0524 | Total/NA | Water | 245.1 | |
| 550-218889-7 | FC-CCR-SW3-0524 | Total/NA | Water | 245.1 | |
| 550-218889-8 | FC-CCR-FD09-0524 | Total/NA | Water | 245.1 | |
| MB 550-321846/1-A | Method Blank | Total/NA | Water | 245.1 | |
| LCS 550-321846/2-A | Lab Control Sample | Total/NA | Water | 245.1 | |
| LCSD 550-321846/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | |
| 550-218888-C-3-D MS | Matrix Spike | Total/NA | Water | 245.1 | |
| 550-218923-B-1-C MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | |

### Analysis Batch: 321877

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218889-1 | FC-CCR-MW62-0524 | Total/NA | Water | 245.1 | 321846 |
| 550-218889-2 | FC-CCR-MW63-0524 | Total/NA | Water | 245.1 | 321846 |
| 550-218889-3 | FC-CCR-MW64-0524 | Total/NA | Water | 245.1 | 321846 |

## Metals (Continued)

### Analysis Batch: 321877 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218889-4 | FC-CCR-MW65-0524 | Total/NA | Water | 245.1 | 321846 |
| 550-218889-5 | FC-CCR-SW1-0524 | Total/NA | Water | 245.1 | 321846 |
| 550-218889-6 | FC-CCR-SW2-0524 | Total/NA | Water | 245.1 | 321846 |
| 550-218889-7 | FC-CCR-SW3-0524 | Total/NA | Water | 245.1 | 321846 |
| 550-218889-8 | FC-CCR-FD09-0524 | Total/NA | Water | 245.1 | 321846 |
| MB 550-321846/1-A | Method Blank | Total/NA | Water | 245.1 | 321846 |
| LCS 550-321846/2-A | Lab Control Sample | Total/NA | Water | 245.1 | 321846 |
| LCSD 550-321846/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | 321846 |
| 550-218888-C-3-D MS | Matrix Spike | Total/NA | Water | 245.1 | 321846 |
| 550-218923-B-1-C MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | 321846 |

### Analysis Batch: 321935

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218889-1 | FC-CCR-MW62-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218889-2 | FC-CCR-MW63-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218889-3 | FC-CCR-MW64-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218889-4 | FC-CCR-MW65-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218889-5 | FC-CCR-SW1-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218889-6 | FC-CCR-SW2-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218889-7 | FC-CCR-SW3-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218889-8 | FC-CCR-FD09-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| MB 550-321544/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| LCS 550-321544/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| LCSD 550-321544/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218888-C-1-A MS | Matrix Spike | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218888-C-1-B MSD | Matrix Spike Duplicate | Total/NA | Water | 200.7 Rev 4.4 | 321544 |

### Analysis Batch: 321967

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218889-1 | FC-CCR-MW62-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218889-2 | FC-CCR-MW63-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218889-3 | FC-CCR-MW64-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218889-4 | FC-CCR-MW65-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218889-5 | FC-CCR-SW1-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218889-6 | FC-CCR-SW2-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218889-7 | FC-CCR-SW3-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218889-8 | FC-CCR-FD09-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| MB 550-321544/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| LCS 550-321544/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| LCSD 550-321544/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321544 |

### Prep Batch: 655283

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218889-1 | FC-CCR-MW62-0524 | Total Recoverable | Water | 200.7 | |
| 550-218889-2 | FC-CCR-MW63-0524 | Total Recoverable | Water | 200.7 | |
| 550-218889-3 | FC-CCR-MW64-0524 | Total Recoverable | Water | 200.7 | |
| 550-218889-4 | FC-CCR-MW65-0524 | Total Recoverable | Water | 200.7 | |
| 550-218889-5 | FC-CCR-SW1-0524 | Total Recoverable | Water | 200.7 | |
| 550-218889-6 | FC-CCR-SW2-0524 | Total Recoverable | Water | 200.7 | |
| 550-218889-7 | FC-CCR-SW3-0524 | Total Recoverable | Water | 200.7 | |
| 550-218889-8 | FC-CCR-FD09-0524 | Total Recoverable | Water | 200.7 | |

## Metals (Continued)

### Prep Batch: 655283 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 280-655283/1-A | Method Blank | Total Recoverable | Water | 200.7 | |
| LCS 280-655283/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 | |
| 550-218888-B-1-B MS | Matrix Spike | Total Recoverable | Water | 200.7 | |
| 550-218888-B-1-C MSD | Matrix Spike Duplicate | Total Recoverable | Water | 200.7 | |

### Analysis Batch: 655719

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218889-1 | FC-CCR-MW62-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218889-2 | FC-CCR-MW63-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218889-3 | FC-CCR-MW64-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218889-4 | FC-CCR-MW65-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218889-5 | FC-CCR-SW1-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218889-6 | FC-CCR-SW2-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218889-7 | FC-CCR-SW3-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218889-8 | FC-CCR-FD09-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| MB 280-655283/1-A | Method Blank | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| LCS 280-655283/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218888-B-1-B MS | Matrix Spike | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218888-B-1-C MSD | Matrix Spike Duplicate | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |

## General Chemistry

### Analysis Batch: 321572

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218889-1 | FC-CCR-MW62-0524 | Total/NA | Water | SM 2540C | |
| 550-218889-2 | FC-CCR-MW63-0524 | Total/NA | Water | SM 2540C | |
| MB 550-321572/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-321572/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-321572/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-218862-A-1 DU | Duplicate | Total/NA | Water | SM 2540C | |

### Analysis Batch: 321620

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218889-3 | FC-CCR-MW64-0524 | Total/NA | Water | SM 2540C | |
| 550-218889-4 | FC-CCR-MW65-0524 | Total/NA | Water | SM 2540C | |
| 550-218889-5 | FC-CCR-SW1-0524 | Total/NA | Water | SM 2540C | |
| 550-218889-6 | FC-CCR-SW2-0524 | Total/NA | Water | SM 2540C | |
| 550-218889-7 | FC-CCR-SW3-0524 | Total/NA | Water | SM 2540C | |
| 550-218889-8 | FC-CCR-FD09-0524 | Total/NA | Water | SM 2540C | |
| MB 550-321620/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-321620/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-321620/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-218860-A-1 DU | Duplicate | Total/NA | Water | SM 2540C | |

### Analysis Batch: 321671

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218889-1 | FC-CCR-MW62-0524 | Total/NA | Water | SM 2320B | |
| MB 550-321671/4 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 550-321671/3 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| LCSD 550-321671/16 | Lab Control Sample Dup | Total/NA | Water | SM 2320B | |
| 550-218738-J-1 DU | Duplicate | Total/NA | Water | SM 2320B | |

# QC Association Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218889-1

## General Chemistry

### Analysis Batch: 321743

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218889-2 | FC-CCR-MW63-0524 | Total/NA | Water | SM 2320B | |
| 550-218889-3 | FC-CCR-MW64-0524 | Total/NA | Water | SM 2320B | |
| 550-218889-4 | FC-CCR-MW65-0524 | Total/NA | Water | SM 2320B | |
| 550-218889-5 | FC-CCR-SW1-0524 | Total/NA | Water | SM 2320B | |
| 550-218889-6 | FC-CCR-SW2-0524 | Total/NA | Water | SM 2320B | |
| 550-218889-7 | FC-CCR-SW3-0524 | Total/NA | Water | SM 2320B | |
| 550-218889-8 | FC-CCR-FD09-0524 | Total/NA | Water | SM 2320B | |
| MB 550-321743/4 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 550-321743/3 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| LCSD 550-321743/16 | Lab Control Sample Dup | Total/NA | Water | SM 2320B | |
| 550-218889-2 DU | FC-CCR-MW63-0524 | Total/NA | Water | SM 2320B | |

### Analysis Batch: 321754

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218889-1 | FC-CCR-MW62-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218889-2 | FC-CCR-MW63-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218889-3 | FC-CCR-MW64-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218889-4 | FC-CCR-MW65-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218889-5 | FC-CCR-SW1-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218889-6 | FC-CCR-SW2-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218889-7 | FC-CCR-SW3-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218889-8 | FC-CCR-FD09-0524 | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321754/1 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321754/13 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| 550-218889-1 DU | FC-CCR-MW62-0524 | Total/NA | Water | SM 4500 H+ B | |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218889-1

## Client Sample ID: FC-CCR-MW62-0524

**Lab Sample ID: 550-218889-1**
**Matrix: Water**
**Date Collected: 05/22/24 10:32**
**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/28/24 16:56 |
| Total/NA | Analysis | 300.0 | | 100 | 321584 | MMH | EET PHX | 05/28/24 18:10 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 22:54 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321935 | GLW | EET PHX | 06/04/24 06:56 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 321967 | GLW | EET PHX | 06/04/24 19:57 |
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:07 |
| Total/NA | Prep | 245.1 | | | 321846 | HHL | EET PHX | 06/03/24 11:45 |
| Total/NA | Analysis | 245.1 | | 1 | 321877 | HHL | EET PHX | 06/03/24 15:34 |
| Total/NA | Analysis | SM 2320B | | 1 | 321671 | ELN | EET PHX | 05/29/24 16:54 |
| Total/NA | Analysis | SM 2540C | | 1 | 321572 | JLO | EET PHX | 05/28/24 11:05 - 05/30/24 17:29 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321754 | ELN | EET PHX | 05/30/24 14:42 |

## Client Sample ID: FC-CCR-MW63-0524

**Lab Sample ID: 550-218889-2**
**Matrix: Water**
**Date Collected: 05/22/24 13:17**
**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/28/24 18:28 |
| Total/NA | Analysis | 300.0 | | 100 | 321584 | MMH | EET PHX | 05/28/24 18:47 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 22:58 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321935 | GLW | EET PHX | 06/04/24 07:00 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 321967 | GLW | EET PHX | 06/04/24 20:00 |
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:09 |
| Total/NA | Prep | 245.1 | | | 321846 | HHL | EET PHX | 06/03/24 11:45 |
| Total/NA | Analysis | 245.1 | | 1 | 321877 | HHL | EET PHX | 06/03/24 15:37 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 10:31 |
| Total/NA | Analysis | SM 2540C | | 1 | 321572 | JLO | EET PHX | 05/28/24 11:05 - 05/30/24 17:29 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321754 | ELN | EET PHX | 05/30/24 14:49 |

## Client Sample ID: FC-CCR-MW64-0524

**Lab Sample ID: 550-218889-3**
**Matrix: Water**
**Date Collected: 05/22/24 13:58**
**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 10 | 321859 | AG1 | EET PHX | 06/03/24 21:25 |
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/28/24 19:05 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218889-1

## Client Sample ID: FC-CCR-MW64-0524

**Lab Sample ID: 550-218889-3**

**Date Collected: 05/22/24 13:58**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 100 | 321584 | MMH | EET PHX | 05/28/24 19:24 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 23:02 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321935 | GLW | EET PHX | 06/04/24 07:03 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 321967 | GLW | EET PHX | 06/04/24 20:04 |
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:11 |
| Total/NA | Prep | 245.1 | | | 321846 | HHL | EET PHX | 06/03/24 11:45 |
| Total/NA | Analysis | 245.1 | | 1 | 321877 | HHL | EET PHX | 06/03/24 15:39 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 10:47 |
| Total/NA | Analysis | SM 2540C | | 1 | 321620 | JLO | EET PHX | 05/29/24 10:00 - 05/30/24 17:36 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321754 | ELN | EET PHX | 05/30/24 14:52 |

## Client Sample ID: FC-CCR-MW65-0524

**Lab Sample ID: 550-218889-4**

**Date Collected: 05/22/24 12:23**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 10 | 321859 | AG1 | EET PHX | 06/03/24 21:50 |
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/28/24 19:42 |
| Total/NA | Analysis | 300.0 | | 100 | 321584 | MMH | EET PHX | 05/28/24 20:00 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 23:17 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321935 | GLW | EET PHX | 06/04/24 07:06 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 321967 | GLW | EET PHX | 06/04/24 20:07 |
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:13 |
| Total/NA | Prep | 245.1 | | | 321846 | HHL | EET PHX | 06/03/24 11:45 |
| Total/NA | Analysis | 245.1 | | 1 | 321877 | HHL | EET PHX | 06/03/24 15:41 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 10:56 |
| Total/NA | Analysis | SM 2540C | | 1 | 321620 | JLO | EET PHX | 05/29/24 10:00 - 05/30/24 17:36 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321754 | ELN | EET PHX | 05/30/24 14:55 |

## Client Sample ID: FC-CCR-SW1-0524

**Lab Sample ID: 550-218889-5**

**Date Collected: 05/23/24 20:20**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/28/24 20:19 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218889-1

## Client Sample ID: FC-CCR-SW1-0524

**Lab Sample ID: 550-218889-5**
**Matrix: Water**
**Date Collected: 05/23/24 20:20**
**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 23:21 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321935 | GLW | EET PHX | 06/04/24 07:10 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 321967 | GLW | EET PHX | 06/04/24 20:10 |
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:15 |
| Total/NA | Prep | 245.1 | | | 321846 | HHL | EET PHX | 06/03/24 11:45 |
| Total/NA | Analysis | 245.1 | | 1 | 321877 | HHL | EET PHX | 06/03/24 15:43 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 11:05 |
| Total/NA | Analysis | SM 2540C | | 1 | 321620 | JLO | EET PHX | 05/29/24 10:00 - 05/30/24 17:36 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321754 | ELN | EET PHX | 05/30/24 14:57 |

## Client Sample ID: FC-CCR-SW2-0524

**Lab Sample ID: 550-218889-6**
**Matrix: Water**
**Date Collected: 05/22/24 12:35**
**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/28/24 20:37 |
| Total/NA | Analysis | 300.0 | | 10 | 321584 | MMH | EET PHX | 05/28/24 21:51 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 23:25 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321935 | GLW | EET PHX | 06/04/24 07:17 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 321967 | GLW | EET PHX | 06/04/24 20:14 |
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:17 |
| Total/NA | Prep | 245.1 | | | 321846 | HHL | EET PHX | 06/03/24 11:45 |
| Total/NA | Analysis | 245.1 | | 1 | 321877 | HHL | EET PHX | 06/03/24 15:45 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 11:12 |
| Total/NA | Analysis | SM 2540C | | 1 | 321620 | JLO | EET PHX | 05/29/24 10:00 - 05/30/24 17:36 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321754 | ELN | EET PHX | 05/30/24 14:59 |

## Client Sample ID: FC-CCR-SW3-0524

**Lab Sample ID: 550-218889-7**
**Matrix: Water**
**Date Collected: 05/22/24 12:48**
**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/28/24 22:09 |
| Total/NA | Analysis | 300.0 | | 10 | 321584 | MMH | EET PHX | 05/28/24 22:28 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 23:28 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218889-1

## Client Sample ID: FC-CCR-SW3-0524

**Lab Sample ID: 550-218889-7**

**Date Collected: 05/22/24 12:48**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321935 | GLW | EET PHX | 06/04/24 07:23 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 321967 | GLW | EET PHX | 06/04/24 20:17 |
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:25 |
| Total/NA | Prep | 245.1 | | | 321846 | HHL | EET PHX | 06/03/24 11:45 |
| Total/NA | Analysis | 245.1 | | 1 | 321877 | HHL | EET PHX | 06/03/24 15:47 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 11:18 |
| Total/NA | Analysis | SM 2540C | | 1 | 321620 | JLO | EET PHX | 05/29/24 10:00 - 05/30/24 17:36 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321754 | ELN | EET PHX | 05/30/24 15:01 |

## Client Sample ID: FC-CCR-FD09-0524

**Lab Sample ID: 550-218889-8**

**Date Collected: 05/23/24 16:20**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/28/24 22:46 |
| Total/NA | Analysis | 300.0 | | 10 | 321584 | MMH | EET PHX | 05/28/24 23:04 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 23:32 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321935 | GLW | EET PHX | 06/04/24 08:01 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 321967 | GLW | EET PHX | 06/04/24 20:21 |
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:27 |
| Total/NA | Prep | 245.1 | | | 321846 | HHL | EET PHX | 06/03/24 11:45 |
| Total/NA | Analysis | 245.1 | | 1 | 321877 | HHL | EET PHX | 06/03/24 15:49 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 11:24 |
| Total/NA | Analysis | SM 2540C | | 1 | 321620 | JLO | EET PHX | 05/29/24 10:00 - 05/30/24 17:36 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321754 | ELN | EET PHX | 05/30/24 15:03 |

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

**Laboratory References:**

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

# Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-218889-1
Project/Site: CCR Groundwater Monitoring

## Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0728 | 06-09-24 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

## Laboratory: Eurofins Denver

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0713 | 12-20-24 |

# Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218889-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 300.0 | Anions, Ion Chromatography | EPA | EET PHX |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET DEN |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET PHX |
| 200.8 LL | Metals (ICP/MS) | EPA | EET PHX |
| 245.1 | Mercury (CVAA) | EPA | EET PHX |
| SM 2320B | Alkalinity | SM | EET PHX |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET PHX |
| SM 4500 H+ B | pH | SM | EET PHX |
| 200.7 | Preparation, Total Recoverable Metals | EPA | EET DEN |
| 200.7 | Preparation, Total Metals | EPA | EET PHX |
| 200.8 | Preparation, Total Metals | EPA | EET PHX |
| 245.1 | Preparation, Mercury | EPA | EET PHX |

**Protocol References:**

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

**Laboratory References:**

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

6/6/2024

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

218889

**TestAmerica Laboratories, Inc.**

| Client Contact | Cameron Corley | Pam Norris (505-598-8781) | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | 505-860-3619 | Lab Contact: Rachel Sester | Carrier: | 1 of 1 COCs |
| PO Box 355, MS 4915 | Analysis Turnaround Time | | | Sampler: |
| Fruitland, NM 87416 | ☐ CALENDAR DAYS ☑ WORKING DAYS | | | For Lab Use Only: |
| | TAT if different from Below ____ | | | Walk-in Client: |
| | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | |
| Site: APS Four Corners Power Plant (CWTP) | ☐ 2 days | | | Job / SDG No.: |
| PO #: 100622298 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | Perform MS / MSD (Y/N) | EPA 300.0 (Cl, F, SO4) | SM 4500-HB (pH) | SM 2540C (TDS) | EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na, Mn, Fe) | EPA 200.7 - Total Lithium | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | EPA 245.1 - Totals (Hg) | SM 2320B (CO3 Alkalinity as CaCO3, HCO3 Alkalinity as CaCO3) | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW62-0524 -01 | 5/22/2024 | 10:32 | G | W | 3 | N | N | X | X | X | X | X | X | X | X | Low Flow |
| FC-CCR-MW63-0524 -02 | 5/22/2024 | 13:17 | G | W | 3 | N | N | X | X | X | X | X | X | X | X | " |
| FC-CCR-MW64-0524 -03 | 5/22/2024 | 13:58 | G | W | 3 | N | N | X | X | X | X | X | X | X | X | " |
| FC-CCR-MW65-0524 -04 | 5/22/2024 | 12:23 | G | W | 3 | N | N | X | X | X | X | X | X | X | X | " |
| FC-CCR-SW1-0524 -05 | 5/23/2024 | 20:20 | G | W | 3 | N | | X | X | X | X | X | X | X | X | Morgan Lake grab sample |
| FC-CCR-SW2-0524 -06 | 5/22/2024 | 12:35 | G | W | 3 | N | | X | X | X | X | X | X | X | X | CWTP surface grab sample |
| FC-CCR-SW3-0524 -07 | 5/22/2024 | 12:48 | G | W | 3 | N | N | X | X | X | X | X | X | X | X | Cooling canal grab sample |
| FC-CCR-FD09-0524 -08 | 5/23/2024 | 16:20 | G | W | 3 | N | N | X | X | X | X | X | X | X | X | Surface water sample duplicate |
| | | | | | | | | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 1 | |

**Preservation Used:** 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

550-218889 Chain of Custody

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if sam**

☐ Return to Client ☑ Disposal by Lab ☐ Archive for ____ Months

**Special Instructions/QC Requirements & Comments:**

*Method 200.8 with collision cell*

2.3°C

| Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | | | | |
|---|---|---|---|---|---|
| Relinquished by: | Company: WSP | Date/Time: 5/24/24 1705 | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: EETAPHX | Date/Time: 5/24/24 17:05 |

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

CDO

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins Environment Testing

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-39667.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 1 of 1 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-218889-1 |
| Address: 4955 Yarrow Street, , | Due Date Requested: 6/10/2024 | | | Preservation Codes: - |
| City: Arvada | TAT Requested (days): | | | |
| State, Zip: CO, 80002 | | | | |
| Phone: 303-736-0100(Tel) 303-431-7171(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | Other: |

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Priority Pollutants | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| FC-CCR-MW62-0524 (550-218889-1) | 5/22/24 | 10:32 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW63-0524 (550-218889-2) | 5/22/24 | 13:17 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW64-0524 (550-218889-3) | 5/22/24 | 13:58 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW65-0524 (550-218889-4) | 5/22/24 | 12:23 Arizona | | Water | | | X | 1 | |
| FC-CCR-SW1-0524 (550-218889-5) | 5/23/24 | 20:20 Arizona | | Water | | | X | 1 | |
| FC-CCR-SW2-0524 (550-218889-6) | 5/22/24 | 12:35 Arizona | | Water | | | X | 1 | |
| FC-CCR-SW3-0524 (550-218889-7) | 5/22/24 | 12:48 Arizona | | Water | | | X | 1 | |
| FC-CCR-FD09-0524 (550-218889-8) | 5/23/24 | 16:20 Arizona | | Water | | | X | 1 | |
| | | | | | | | | | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

| *Possible Hazard Identification* | *Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)* |
|---|---|
| *Unconfirmed* | ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months* |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| | 5/28/24 14:30 | EETA-PHX | Fed Ex | | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| | | | | 5-30-24 0930 | EEIDEN |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| | | | | | |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 0.8°C NACA CF0.2 |
|---|---|---|



6/6/2024

Ver: 04/02/2024

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218889-1

**Login Number: 218889**
**List Number: 1**
**Creator: Gravlin, Andrea**

**List Source: Eurofins Phoenix**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | False | Check done at department level as required. |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218889-1

**Login Number: 218889**
**List Number: 2**
**Creator: Held, Wesley**

**List Source: Eurofins Denver**
**List Creation: 05/30/24 12:24 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 6/6/2024 4:48:09 PM

## JOB DESCRIPTION

Groundwater Monitoring

## JOB NUMBER

550-218890-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.



my EOL

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

## Authorization



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# Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: Groundwater Monitoring

Job ID: 550-218890-1

## Qualifiers

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| D2 | Sample required dilution due to high concentration of analyte. |
| M2 | Matrix spike recovery was low, the associated blank spike recovery was acceptable. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| B1 | Target analyte detected in method blank at or above the method reporting limit. |
| B7 | Target analyte detected in method blank at or above method reporting limit. Concentration found in the sample was 10 times above the concentration found in the blank. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

## Job ID: 550-218890-1 — Eurofins Phoenix

**Job Narrative**
**550-218890-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**
The sample was received on 5/24/2024 5:05 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C.

**HPLC/IC**
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**Metals**
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**General Chemistry**
Method 2540C_Calcd: The method blank for analytical batch 550-321537 contained Total Dissolved Solids (TDS) above the reporting limit (RL). Associated sample(s) were not re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Sample Summary

Client: Arizona Public Service Company
Project/Site: Groundwater Monitoring

Job ID: 550-218890-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 550-218890-1 | FC-Pond3PumpHouse-0524 | Water | 05/21/24 10:07 | 05/24/24 17:05 |

# Detection Summary

Client: Arizona Public Service Company
Project/Site: Groundwater Monitoring

Job ID: 550-218890-1

## Client Sample ID: FC-Pond3PumpHouse-0524 — Lab Sample ID: 550-218890-1

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 510 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 38 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 760 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.073 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.021 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 12000 | B7 | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

This Detection Summary does not include radiochemical test results.

# Client Sample Results

Client: Arizona Public Service Company
Project/Site: Groundwater Monitoring

Job ID: 550-218890-1

## Client Sample ID: FC-Pond3PumpHouse-0524

**Lab Sample ID: 550-218890-1**

**Date Collected: 05/21/24 10:07**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **510** | **D2** | 200 | | mg/L | | | 05/28/24 23:41 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **38** | | 0.050 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:46 | 1 |
| **Magnesium** | **760** | | 2.0 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:46 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:46 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cobalt** | **0.073** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:59 | 10 |
| **Molybdenum** | **0.021** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:59 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **12000** | **B7** | 100 | | mg/L | | | 05/26/24 14:06 | 1 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 550-321584/2**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 05/28/24 12:57 | 1 |

**Lab Sample ID: LCS 550-321584/5**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.2 | | mg/L | | 96 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321584/6**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.7 | | mg/L | | 98 | 90 - 110 | 2 | 20 |

**Lab Sample ID: 550-218888-A-1 MS ^100**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2700 | M2 | 2000 | 3750 | M2 | mg/L | | 53 | 80 - 120 | | |

**Lab Sample ID: 550-218888-A-1 MSD ^100**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2700 | M2 | 2000 | 3860 | M2 | mg/L | | 58 | 80 - 120 | 3 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 550-321555/1-A**
**Matrix: Water**
**Analysis Batch: 321972**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321555**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | ND | | 0.050 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:09 | 1 |
| Magnesium | ND | | 2.0 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:09 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:09 | 1 |

**Lab Sample ID: LCS 550-321555/2-A**
**Matrix: Water**
**Analysis Batch: 321972**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321555**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.06 | | mg/L | | 106 | 85 - 115 | | |
| Magnesium | | | 21.0 | 21.5 | | mg/L | | 102 | 85 - 115 | | |
| Manganese | | | 1.00 | 0.992 | | mg/L | | 99 | 85 - 115 | | |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: LCSD 550-321555/3-A**
**Matrix: Water**
**Analysis Batch: 321972**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321555**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.07 | | mg/L | | 107 | 85 - 115 | 1 | 20 |
| Magnesium | | | 21.0 | 21.9 | | mg/L | | 104 | 85 - 115 | 2 | 20 |
| Manganese | | | 1.00 | 1.00 | | mg/L | | 100 | 85 - 115 | 1 | 20 |

**Lab Sample ID: 550-218892-B-25-A MS**
**Matrix: Water**
**Analysis Batch: 321972**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 321555**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 33 | M3 | 1.00 | 33.4 | M3 | mg/L | | 50 | 70 - 130 | | |
| Magnesium | 360 | M3 | 21.0 | 376 | M3 | mg/L | | 95 | 70 - 130 | | |
| Manganese | ND | | 1.00 | 1.00 | | mg/L | | 100 | 70 - 130 | | |

**Lab Sample ID: 550-218892-B-25-B MSD**
**Matrix: Water**
**Analysis Batch: 321972**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 321555**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 33 | M3 | 1.00 | 32.2 | M3 | mg/L | | -71 | 70 - 130 | 4 | 20 |
| Magnesium | 360 | M3 | 21.0 | 361 | M3 | mg/L | | 27 | 70 - 130 | 4 | 20 |
| Manganese | ND | | 1.00 | 0.969 | | mg/L | | 97 | 70 - 130 | 3 | 20 |

## Method: 200.8 LL - Metals (ICP/MS)

**Lab Sample ID: MB 550-321558/1-A**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |

**Lab Sample ID: LCS 550-321558/2-A**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | | | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 | | |
| Molybdenum | | | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321558/3-A**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | | | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 | 0 | 20 |
| Molybdenum | | | 0.100 | 0.109 | | mg/L | | 109 | 85 - 115 | 1 | 20 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: 550-218890-1 MS**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: FC-Pond3PumpHouse-0524**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.073 | | 0.100 | 0.170 | | mg/L | | 96 | 70 - 130 |
| Molybdenum | 0.021 | | 0.100 | 0.131 | | mg/L | | 110 | 70 - 130 |

**Lab Sample ID: 550-218890-1 MSD**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: FC-Pond3PumpHouse-0524**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.073 | | 0.100 | 0.174 | | mg/L | | 101 | 70 - 130 | 3 | 20 |
| Molybdenum | 0.021 | | 0.100 | 0.135 | | mg/L | | 113 | 70 - 130 | 3 | 20 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 550-321537/1**
**Matrix: Water**
**Analysis Batch: 321537**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 22.0 | B1 | 20 | | mg/L | | | 05/26/24 14:06 | 1 |

**Lab Sample ID: LCS 550-321537/2**
**Matrix: Water**
**Analysis Batch: 321537**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1050 | | mg/L | | 105 | 90 - 110 |

**Lab Sample ID: LCSD 550-321537/3**
**Matrix: Water**
**Analysis Batch: 321537**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1060 | | mg/L | | 106 | 90 - 110 | 2 | 10 |

**Lab Sample ID: 550-218669-A-7 DU**
**Matrix: Water**
**Analysis Batch: 321537**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1000 | B7 | | 1030 | | mg/L | | | | 0.8 | 10 |

## HPLC/IC

### Analysis Batch: 321584

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218890-1 | FC-Pond3PumpHouse-0524 | Total/NA | Water | 300.0 | |
| MB 550-321584/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-321584/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-321584/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-218888-A-1 MS ^100 | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-218888-A-1 MSD ^100 | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

## Metals

### Prep Batch: 321555

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218890-1 | FC-Pond3PumpHouse-0524 | Total/NA | Water | 200.7 | |
| MB 550-321555/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-321555/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-321555/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-218892-B-25-A MS | Matrix Spike | Total/NA | Water | 200.7 | |
| 550-218892-B-25-B MSD | Matrix Spike Duplicate | Total/NA | Water | 200.7 | |

### Prep Batch: 321558

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218890-1 | FC-Pond3PumpHouse-0524 | Total/NA | Water | 200.8 | |
| MB 550-321558/1-A | Method Blank | Total/NA | Water | 200.8 | |
| LCS 550-321558/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-321558/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-218890-1 MS | FC-Pond3PumpHouse-0524 | Total/NA | Water | 200.8 | |
| 550-218890-1 MSD | FC-Pond3PumpHouse-0524 | Total/NA | Water | 200.8 | |

### Analysis Batch: 321758

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218890-1 | FC-Pond3PumpHouse-0524 | Total/NA | Water | 200.8 LL | 321558 |
| MB 550-321558/1-A | Method Blank | Total/NA | Water | 200.8 LL | 321558 |
| LCS 550-321558/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 321558 |
| LCSD 550-321558/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 321558 |
| 550-218890-1 MS | FC-Pond3PumpHouse-0524 | Total/NA | Water | 200.8 LL | 321558 |
| 550-218890-1 MSD | FC-Pond3PumpHouse-0524 | Total/NA | Water | 200.8 LL | 321558 |

### Analysis Batch: 321972

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218890-1 | FC-Pond3PumpHouse-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321555 |
| MB 550-321555/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321555 |
| LCS 550-321555/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321555 |
| LCSD 550-321555/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321555 |
| 550-218892-B-25-A MS | Matrix Spike | Total/NA | Water | 200.7 Rev 4.4 | 321555 |
| 550-218892-B-25-B MSD | Matrix Spike Duplicate | Total/NA | Water | 200.7 Rev 4.4 | 321555 |

## General Chemistry

### Analysis Batch: 321537

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218890-1 | FC-Pond3PumpHouse-0524 | Total/NA | Water | SM 2540C | |
| MB 550-321537/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-321537/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |

## General Chemistry (Continued)

### Analysis Batch: 321537 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCSD 550-321537/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-218669-A-7 DU | Duplicate | Total/NA | Water | SM 2540C | |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: Groundwater Monitoring

Job ID: 550-218890-1

## Client Sample ID: FC-Pond3PumpHouse-0524

**Lab Sample ID: 550-218890-1**

**Date Collected: 05/21/24 10:07**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 100 | 321584 | MMH | EET PHX | 05/28/24 23:41 |
| Total/NA | Prep | 200.7 | | | 321555 | SGO | EET PHX | 05/28/24 09:00 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321972 | GLW | EET PHX | 06/05/24 01:46 |
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 18:59 |
| Total/NA | Analysis | SM 2540C | | 1 | 321537 | JLO | EET PHX | 05/26/24 14:06 - 05/30/24 14:20 [1] |

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

**Laboratory References:**

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

# Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-218890-1
Project/Site: Groundwater Monitoring

## Laboratory: Eurofins Phoenix

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0728 | 06-09-24 |

# Method Summary

Client: Arizona Public Service Company
Project/Site: Groundwater Monitoring

Job ID: 550-218890-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 300.0 | Anions, Ion Chromatography | EPA | EET PHX |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET PHX |
| 200.8 LL | Metals (ICP/MS) | EPA | EET PHX |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET PHX |
| 200.7 | Preparation, Total Metals | EPA | EET PHX |
| 200.8 | Preparation, Total Metals | EPA | EET PHX |

**Protocol References:**

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

**Laboratory References:**

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

218890

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

6/6/2024

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

**TestAmerica Laboratories, Inc.**

| Client Contact | Cameron Corley | Pam Norris (505-598-8781) | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | 505-860-3619 | Lab Contact: Rachel Sester | Carrier: | 1 of 1 COCs |
| PO Box 355, MS 4915 | Analysis Turnaround Time | | | Sampler: |
| Fruitland, NM 87416 | ☐ CALENDAR DAYS ☑ WORKING DAYS | | | For Lab Use Only: |
| Phone | TAT if different from Below ____ | | | Walk-in Client: |
| FAX | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: Groundwater Monitoring | ☐ 1 week | | | |
| Site: APS Four Corners Power Plant (Other) | ☐ 2 days | | | Job / SDG No.: |
| PO #: 100622298 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | Perform MS / MSD (Y/N) | EPA 300.0 (Cl) | EPA 200.7 - Totals (B, Mg, Mn, | EPA 200.8 - Totals (Co, Mo) | SM 2540C (TDS) | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-Pond3PumpHouse-0524 | 5/21/2024 | 10:07 | G | W | 2 | N | | X | X | X | X | Grab Sample |
| | | | | | | | | | | | | |
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550-218890 Chain of Custody

| Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____ | | | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 1 | 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☑ Return to Client ☑ Disposal by Lab ☑ Archive for ____ Months

**Special Instructions/QC Requirements & Comments:**

*Method 200.8 with collision cell*

2-2°C/ICE/CBC

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:____ Corr'd:____ Therm ID No.:____

| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
|---|---|---|---|---|---|
| | WSP | 5/22/24 1705 | | | |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: | Date/Time: |
| | | | | CETA PHX | 5/24/24 @1705 |

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218890-1

**Login Number: 218890**
**List Number: 1**
**Creator: Gravlin, Andrea**

**List Source: Eurofins Phoenix**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | False | Check done at department level as required. |

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 6/6/2024 4:49:39 PM

## JOB DESCRIPTION

CCR Groundwater Monitoring

## JOB NUMBER

550-218891-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.



my EOL

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

## Authorization



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6/6/2024 4:49:39 PM

Authorized for release by
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Rachel.Sester@et.eurofinsus.com
Designee for
Linda Eshelman, Project Manager II
linda.eshelman@et.eurofinsus.com
(602)659-7681

# Table of Contents

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# Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218891-1

## Qualifiers

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| D2 | Sample required dilution due to high concentration of analyte. |
| E2 | Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix. |
| M2 | Matrix spike recovery was low, the associated blank spike recovery was acceptable. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| B1 | Target analyte detected in method blank at or above the method reporting limit. |
| E2 | Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix. |
| L4 | The associated blank spike recovery was below method acceptance limits. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| H5 | This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time. |
| T5 | Laboratory not licensed for this parameter |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

## Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| TNTC | Too Numerous To Count |

## Job ID: 550-218891-1 — Eurofins Phoenix

**Job Narrative**
**550-218891-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**
The samples were received on 5/24/2024 5:05 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.2°C and 2.6°C.

**Receipt Exceptions**
Client wrote 5/29/24 on COC, used sample date in TALS from container; 5-24-24.

FC-CCR-MW07-0524 (550-218891-1), FC-CCR-MW08-0524 (550-218891-2), FC-CCR-MW49A-0524 (550-218891-3), FC-CCR-MW87-0524 (550-218891-4) and FC-CCR-EB01-0524 (550-218891-5)

**HPLC/IC**
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**Metals**
Method 200.8_CWA_LL: The laboratory control sample (LCS) associated with preparation batch 550-321558 and analytical batch 550-321758 was outside acceptance criteria for the analyte Barium. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. FC-CCR-MW07-0524 (550-218891-1), FC-CCR-MW08-0524 (550-218891-2), FC-CCR-MW49A-0524 (550-218891-3), FC-CCR-MW87-0524 (550-218891-4) and FC-CCR-EB01-0524 (550-218891-5)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**General Chemistry**
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218891-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 550-218891-1 | FC-CCR-MW07-0524 | Water | 05/23/24 19:53 | 05/24/24 17:05 |
| 550-218891-2 | FC-CCR-MW08-0524 | Water | 05/23/24 18:57 | 05/24/24 17:05 |
| 550-218891-3 | FC-CCR-MW49A-0524 | Water | 05/23/24 14:32 | 05/24/24 17:05 |
| 550-218891-4 | FC-CCR-MW87-0524 | Water | 05/23/24 11:10 | 05/24/24 17:05 |
| 550-218891-5 | FC-CCR-EB01-0524 | Water | 05/24/24 11:25 | 05/24/24 17:05 |

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218891-1

## Client Sample ID: FC-CCR-MW07-0524 — Lab Sample ID: 550-218891-1

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 600 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Sulfate | 5400 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 8.8 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 420 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 1100 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0056 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.015 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.0073 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 9700 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.6 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 20.0 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW08-0524 — Lab Sample ID: 550-218891-2

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1000 | | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Fluoride | 0.47 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 9200 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 18 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 470 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 1200 | | 20 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 58 | B1 | 0.50 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 4200 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 1400 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0055 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.010 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.015 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 500 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 500 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 17000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 19.6 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW49A-0524 — Lab Sample ID: 550-218891-3

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 470 | | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Sulfate | 2300 | E2 | 2.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Boron | 5.4 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 430 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 1100 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0053 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.022 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.030 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Thallium | 0.0013 | | 0.0010 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 20000 | | 200 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 17.9 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

This Detection Summary does not include radiochemical test results.

Eurofins Phoenix

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218891-1

## Client Sample ID: FC-CCR-MW87-0524 — Lab Sample ID: 550-218891-4

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 3300 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Sulfate | 3800 | E2 | 2.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Boron | 2.4 | | 0.50 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 610 | | 20 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 3.0 | | 1.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 5100 | | 20 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 1.7 | | 0.10 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 160 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 13000 | | 50 | | mg/L | 100 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 3300 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0060 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.0084 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.014 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.043 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.0093 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 1400 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 1400 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 50000 | | 1000 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 18.2 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-EB01-0524 — Lab Sample ID: 550-218891-5

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 18 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Arsenic | 0.0055 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| pH | 6.1 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 18.5 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-MW07-0524

**Lab Sample ID: 550-218891-1**
**Date Collected: 05/23/24 19:53**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **600** | **D2** | 200 | | mg/L | | | 05/29/24 00:18 | 100 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/29/24 00:00 | 1 |
| **Sulfate** | **5400** | **D2** | 200 | | mg/L | | | 05/29/24 00:18 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **8.8** | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:08 | 1 |
| **Calcium** | **420** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:08 | 1 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:08 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **1100** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 23:36 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:29 | 10 |
| **Arsenic** | **0.0056** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:29 | 10 |
| **Barium** | **0.015** | **L4** | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:29 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:29 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:29 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:29 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:29 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:29 | 10 |
| **Selenium** | **0.0073** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:29 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:29 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 06/04/24 11:13 | 06/04/24 15:33 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **9700** | | 100 | | mg/L | | | 05/29/24 10:00 | 1 |
| **pH (SM 4500 H+ B)** | **7.6** | **H5** | 1.7 | | SU | | | 05/30/24 15:07 | 1 |
| **Temperature (SM 4500 H+ B)** | **20.0** | **H5 T5** | 0.1 | | Degrees C | | | 05/30/24 15:07 | 1 |

## Client Sample ID: FC-CCR-MW08-0524

**Lab Sample ID: 550-218891-2**
**Date Collected: 05/23/24 18:57**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1000** | | 200 | | mg/L | | | 05/29/24 01:50 | 100 |
| **Fluoride** | **0.47** | | 0.40 | | mg/L | | | 05/29/24 01:32 | 1 |
| **Sulfate** | **9200** | **D2** | 200 | | mg/L | | | 05/29/24 01:50 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **18** | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:15 | 1 |
| **Calcium** | **470** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:15 | 1 |

## Client Sample ID: FC-CCR-MW08-0524

**Lab Sample ID: 550-218891-2**

**Date Collected: 05/23/24 18:57**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Magnesium** | **1200** | | 20 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:31 | 10 |
| **Potassium** | **58** | **B1** | 0.50 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:15 | 1 |
| **Sodium** | **4200** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:31 | 10 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:15 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **1400** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 23:40 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:31 | 10 |
| **Arsenic** | **0.0055** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:31 | 10 |
| **Barium** | **0.010** | **L4** | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:31 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:31 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:31 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:31 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:31 | 10 |
| **Molybdenum** | **0.015** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:31 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:31 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:31 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 06/04/24 11:13 | 06/04/24 15:36 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **500** | | 6.0 | | mg/L | | | 05/30/24 11:31 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 11:31 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **500** | | 6.0 | | mg/L | | | 05/30/24 11:31 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 11:31 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 11:31 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **17000** | | 100 | | mg/L | | | 05/29/24 10:00 | 1 |
| **pH (SM 4500 H+ B)** | **7.5** | **H5** | 1.7 | | SU | | | 05/30/24 15:10 | 1 |
| **Temperature (SM 4500 H+ B)** | **19.6** | **H5 T5** | 0.1 | | Degrees C | | | 05/30/24 15:10 | 1 |

## Client Sample ID: FC-CCR-MW49A-0524

**Lab Sample ID: 550-218891-3**

**Date Collected: 05/23/24 14:32**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **470** | | 200 | | mg/L | | | 05/29/24 02:27 | 100 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/29/24 02:09 | 1 |
| **Sulfate** | **2300** | **E2** | 2.0 | | mg/L | | | 05/29/24 02:09 | 1 |

## Client Sample ID: FC-CCR-MW49A-0524

**Date Collected: 05/23/24 14:32**
**Date Received: 05/24/24 17:05**

## Lab Sample ID: 550-218891-3

**Matrix: Water**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **5.4** | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:21 | 1 |
| **Calcium** | **430** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:21 | 1 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:21 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **1100** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 23:44 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:33 | 10 |
| **Arsenic** | **0.0053** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:33 | 10 |
| **Barium** | **0.022** | **L4** | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:33 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:33 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:33 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:33 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:33 | 10 |
| **Molybdenum** | **0.030** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:33 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:33 | 10 |
| **Thallium** | **0.0013** | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:33 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 06/04/24 11:13 | 06/04/24 15:38 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **20000** | | 200 | | mg/L | | | 05/29/24 10:00 | 1 |
| **pH (SM 4500 H+ B)** | **7.5** | **H5** | 1.7 | | SU | | | 06/04/24 07:09 | 1 |
| **Temperature (SM 4500 H+ B)** | **17.9** | **H5 T5** | 0.1 | | Degrees C | | | 06/04/24 07:09 | 1 |

## Client Sample ID: FC-CCR-MW87-0524

**Date Collected: 05/23/24 11:10**
**Date Received: 05/24/24 17:05**

## Lab Sample ID: 550-218891-4

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **3300** | **D2** | 200 | | mg/L | | | 05/29/24 03:04 | 100 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/29/24 02:45 | 1 |
| **Sulfate** | **3800** | **E2** | 2.0 | | mg/L | | | 05/29/24 02:45 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **2.4** | | 0.50 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:34 | 10 |
| **Calcium** | **610** | | 20 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:34 | 10 |
| **Iron** | **3.0** | | 1.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:34 | 10 |
| **Magnesium** | **5100** | | 20 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:34 | 10 |
| **Manganese** | **1.7** | | 0.10 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:34 | 10 |
| **Potassium** | **160** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:34 | 10 |
| **Sodium** | **13000** | | 50 | | mg/L | | 05/28/24 07:50 | 06/05/24 20:10 | 100 |
| Beryllium | ND | | 0.010 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:34 | 10 |

## Client Sample ID: FC-CCR-MW87-0524

**Lab Sample ID: 550-218891-4**

**Date Collected: 05/23/24 11:10**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **3300** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 23:47 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:35 | 10 |
| **Arsenic** | **0.0060** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:35 | 10 |
| **Barium** | **0.0084** | **L4** | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:35 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:35 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:35 | 10 |
| **Cobalt** | **0.014** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:35 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:35 | 10 |
| **Molybdenum** | **0.043** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:35 | 10 |
| **Selenium** | **0.0093** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:35 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:35 | 10 |

### Method: EPA 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 06/04/24 11:13 | 06/04/24 15:40 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **1400** | | 6.0 | | mg/L | | | 05/30/24 11:42 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 11:42 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **1400** | | 6.0 | | mg/L | | | 05/30/24 11:42 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 11:42 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 11:42 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **50000** | | 1000 | | mg/L | | | 05/29/24 10:00 | 1 |
| **pH (SM 4500 H+ B)** | **7.5** | **H5** | 1.7 | | SU | | | 06/04/24 07:09 | 1 |
| **Temperature (SM 4500 H+ B)** | **18.2** | **H5 T5** | 0.1 | | Degrees C | | | 06/04/24 07:09 | 1 |

## Client Sample ID: FC-CCR-EB01-0524

**Lab Sample ID: 550-218891-5**

**Date Collected: 05/24/24 11:25**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 05/29/24 03:22 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/29/24 03:22 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 05/29/24 03:22 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | ND | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:35 | 1 |
| Calcium | ND | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:35 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:35 | 1 |
| Magnesium | ND | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:35 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:35 | 1 |
| Potassium | ND | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:38 | 10 |
| **Sodium** | **18** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:38 | 10 |

## Client Sample ID: FC-CCR-EB01-0524

**Date Collected: 05/24/24 11:25**
**Date Received: 05/24/24 17:05**

## Lab Sample ID: 550-218891-5

**Matrix: Water**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:35 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 23:51 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:37 | 10 |
| **Arsenic** | **0.0055** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:37 | 10 |
| Barium | ND | L4 | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:37 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:37 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:37 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:37 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:37 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:37 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:37 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:37 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 12:01 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 12:01 | 1 |
| Bicarbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 12:01 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 12:01 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 12:01 | 1 |
| Total Dissolved Solids (SM 2540C) | ND | | 20 | | mg/L | | | 05/29/24 10:00 | 1 |
| **pH (SM 4500 H+ B)** | **6.1** | **H5** | 1.7 | | SU | | | 06/04/24 07:09 | 1 |
| **Temperature (SM 4500 H+ B)** | **18.5** | **H5 T5** | 0.1 | | Degrees C | | | 06/04/24 07:09 | 1 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 550-321584/2**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 05/28/24 12:57 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/28/24 12:57 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 05/28/24 12:57 | 1 |

**Lab Sample ID: LCS 550-321584/5**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.2 | | mg/L | | 96 | 90 - 110 | | |
| Fluoride | | | 4.00 | 3.92 | | mg/L | | 98 | 90 - 110 | | |
| Sulfate | | | 20.0 | 19.2 | | mg/L | | 96 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321584/6**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.7 | | mg/L | | 98 | 90 - 110 | 2 | 20 |
| Fluoride | | | 4.00 | 3.87 | | mg/L | | 97 | 90 - 110 | 1 | 20 |
| Sulfate | | | 20.0 | 18.8 | | mg/L | | 94 | 90 - 110 | 2 | 20 |

**Lab Sample ID: 550-218888-A-1 MS ^100**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2700 | M2 | 2000 | 3750 | M2 | mg/L | | 53 | 80 - 120 | | |
| Fluoride | ND | | 400 | 426 | | mg/L | | 97 | 80 - 120 | | |
| Sulfate | 18000 | E2 M3 | 2000 | 13800 | E2 M3 | mg/L | | -229 | 80 - 120 | | |

**Lab Sample ID: 550-218888-A-1 MSD ^100**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2700 | M2 | 2000 | 3860 | M2 | mg/L | | 58 | 80 - 120 | 3 | 20 |
| Fluoride | ND | | 400 | 425 | | mg/L | | 97 | 80 - 120 | 0 | 20 |
| Sulfate | 18000 | E2 M3 | 2000 | 14600 | E2 M3 | mg/L | | -192 | 80 - 120 | 5 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 550-321544/1-A**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | ND | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |
| Calcium | ND | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: MB 550-321544/1-A**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Magnesium | ND | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |

**Lab Sample ID: MB 550-321544/1-A**
**Matrix: Water**
**Analysis Batch: 321967**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Potassium | ND | | 0.50 | | mg/L | | 05/28/24 07:50 | 06/04/24 19:47 | 1 |
| Sodium | ND | | 0.50 | | mg/L | | 05/28/24 07:50 | 06/04/24 19:47 | 1 |

**Lab Sample ID: LCS 550-321544/2-A**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.13 | | mg/L | | 113 | 85 - 115 | | |
| Calcium | | | 21.0 | 22.8 | | mg/L | | 108 | 85 - 115 | | |
| Iron | | | 1.00 | 1.02 | | mg/L | | 102 | 85 - 115 | | |
| Magnesium | | | 21.0 | 22.6 | | mg/L | | 108 | 85 - 115 | | |
| Manganese | | | 1.00 | 1.02 | | mg/L | | 102 | 85 - 115 | | |
| Beryllium | | | 1.00 | 1.09 | | mg/L | | 109 | 85 - 115 | | |

**Lab Sample ID: LCS 550-321544/2-A**
**Matrix: Water**
**Analysis Batch: 321967**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Potassium | | | 20.0 | 20.7 | | mg/L | | 103 | 85 - 115 | | |
| Sodium | | | 20.0 | 19.9 | | mg/L | | 100 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321544/3-A**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.11 | | mg/L | | 111 | 85 - 115 | 2 | 20 |
| Calcium | | | 21.0 | 22.5 | | mg/L | | 107 | 85 - 115 | 1 | 20 |
| Iron | | | 1.00 | 1.00 | | mg/L | | 100 | 85 - 115 | 2 | 20 |
| Magnesium | | | 21.0 | 22.4 | | mg/L | | 107 | 85 - 115 | 1 | 20 |
| Manganese | | | 1.00 | 0.999 | | mg/L | | 100 | 85 - 115 | 2 | 20 |
| Beryllium | | | 1.00 | 1.08 | | mg/L | | 108 | 85 - 115 | 1 | 20 |

**Lab Sample ID: LCSD 550-321544/3-A**
**Matrix: Water**
**Analysis Batch: 321967**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Potassium | | | 20.0 | 19.8 | | mg/L | | 99 | 85 - 115 | 4 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: LCSD 550-321544/3-A**
**Matrix: Water**
**Analysis Batch: 321967**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sodium | | | 20.0 | 19.1 | | mg/L | | 96 | 85 - 115 | 4 | 20 |

**Lab Sample ID: 550-218888-C-1-A MS**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 140 | E2 M3 | 1.00 | 140 | E2 M3 | mg/L | | -431 | 70 - 130 | | |
| Calcium | 500 | M3 | 21.0 | 502 | M3 | mg/L | | 27 | 70 - 130 | | |
| Iron | 0.85 | | 1.00 | 1.92 | | mg/L | | 107 | 70 - 130 | | |
| Magnesium | 2700 | E2 M3 | 21.0 | 2670 | E2 M3 | mg/L | | -314 | 70 - 130 | | |
| Manganese | 8.6 | M3 | 1.00 | 9.18 | M3 | mg/L | | 63 | 70 - 130 | | |
| Beryllium | ND | | 1.00 | 1.17 | | mg/L | | 117 | 70 - 130 | | |

**Lab Sample ID: 550-218888-C-1-B MSD**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 140 | E2 M3 | 1.00 | 144 | E2 M3 | mg/L | | -20 | 70 - 130 | 3 | 20 |
| Calcium | 500 | M3 | 21.0 | 513 | M3 | mg/L | | 78 | 70 - 130 | 2 | 20 |
| Iron | 0.85 | | 1.00 | 1.94 | | mg/L | | 109 | 70 - 130 | 1 | 20 |
| Magnesium | 2700 | E2 M3 | 21.0 | 2740 | E2 M3 | mg/L | | -6 | 70 - 130 | 2 | 20 |
| Manganese | 8.6 | M3 | 1.00 | 9.43 | M3 | mg/L | | 87 | 70 - 130 | 3 | 20 |
| Beryllium | ND | | 1.00 | 1.18 | | mg/L | | 118 | 70 - 130 | 1 | 20 |

**Lab Sample ID: MB 280-655283/1-A**
**Matrix: Water**
**Analysis Batch: 655719**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 655283**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 22:09 | 1 |

**Lab Sample ID: LCS 280-655283/2-A**
**Matrix: Water**
**Analysis Batch: 655719**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 655283**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 1000 | 960 | | ug/L | | 96 | 90 - 112 | | |

**Lab Sample ID: 550-218888-B-1-B MS**
**Matrix: Water**
**Analysis Batch: 655719**

**Client Sample ID: Matrix Spike**
**Prep Type: Total Recoverable**
**Prep Batch: 655283**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 320 | | 1000 | 1400 | | ug/L | | 107 | 70 - 130 | | |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: 550-218888-B-1-C MSD**
**Matrix: Water**
**Analysis Batch: 655719**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total Recoverable**
**Prep Batch: 655283**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 320 | | 1000 | 1400 | | ug/L | | 107 | 70 - 130 | 0 | 20 |

## Method: 200.8 LL - Metals (ICP/MS)

**Lab Sample ID: MB 550-321558/1-A**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Arsenic | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Barium | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Cobalt | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Selenium | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |

**Lab Sample ID: LCS 550-321558/2-A**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 | | |
| Arsenic | | | 0.100 | 0.0999 | | mg/L | | 100 | 85 - 115 | | |
| Barium | | | 0.100 | 0.0827 | L4 | mg/L | | 83 | 85 - 115 | | |
| Cadmium | | | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | | |
| Chromium | | | 0.100 | 0.0998 | | mg/L | | 100 | 85 - 115 | | |
| Cobalt | | | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 | | |
| Lead | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | | |
| Molybdenum | | | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 | | |
| Selenium | | | 0.100 | 0.0971 | | mg/L | | 97 | 85 - 115 | | |
| Thallium | | | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321558/3-A**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 | 2 | 20 |
| Arsenic | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | 1 | 20 |
| Barium | | | 0.100 | 0.0793 | L4 | mg/L | | 79 | 85 - 115 | 4 | 20 |
| Cadmium | | | 0.100 | 0.103 | | mg/L | | 103 | 85 - 115 | 1 | 20 |
| Chromium | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | 1 | 20 |
| Cobalt | | | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 | 0 | 20 |
| Lead | | | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | 1 | 20 |
| Molybdenum | | | 0.100 | 0.109 | | mg/L | | 109 | 85 - 115 | 1 | 20 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCSD 550-321558/3-A**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Selenium | | | 0.100 | 0.0983 | | mg/L | | 98 | 85 - 115 | 1 | 20 |
| Thallium | | | 0.100 | 0.107 | | mg/L | | 107 | 85 - 115 | 2 | 20 |

**Lab Sample ID: 550-218890-B-1-B MS ^10**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.107 | | mg/L | | 107 | 70 - 130 |
| Arsenic | 0.0057 | | 0.100 | 0.106 | | mg/L | | 101 | 70 - 130 |
| Barium | 0.015 | L4 | 0.100 | 0.0910 | | mg/L | | 76 | 70 - 130 |
| Cadmium | ND | | 0.100 | 0.0986 | | mg/L | | 98 | 70 - 130 |
| Chromium | ND | | 0.100 | 0.0997 | | mg/L | | 100 | 70 - 130 |
| Cobalt | 0.073 | | 0.100 | 0.170 | | mg/L | | 96 | 70 - 130 |
| Lead | ND | | 0.100 | 0.0934 | | mg/L | | 93 | 70 - 130 |
| Molybdenum | 0.021 | | 0.100 | 0.131 | | mg/L | | 110 | 70 - 130 |
| Selenium | 0.016 | | 0.100 | 0.119 | | mg/L | | 103 | 70 - 130 |
| Thallium | ND | | 0.100 | 0.100 | | mg/L | | 100 | 70 - 130 |

**Lab Sample ID: 550-218890-B-1-C MSD ^10**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.111 | | mg/L | | 111 | 70 - 130 | 4 | 20 |
| Arsenic | 0.0057 | | 0.100 | 0.109 | | mg/L | | 103 | 70 - 130 | 2 | 20 |
| Barium | 0.015 | L4 | 0.100 | 0.0926 | | mg/L | | 77 | 70 - 130 | 2 | 20 |
| Cadmium | ND | | 0.100 | 0.101 | | mg/L | | 100 | 70 - 130 | 2 | 20 |
| Chromium | ND | | 0.100 | 0.103 | | mg/L | | 103 | 70 - 130 | 4 | 20 |
| Cobalt | 0.073 | | 0.100 | 0.174 | | mg/L | | 101 | 70 - 130 | 3 | 20 |
| Lead | ND | | 0.100 | 0.0934 | | mg/L | | 93 | 70 - 130 | 0 | 20 |
| Molybdenum | 0.021 | | 0.100 | 0.135 | | mg/L | | 113 | 70 - 130 | 3 | 20 |
| Selenium | 0.016 | | 0.100 | 0.119 | | mg/L | | 103 | 70 - 130 | 0 | 20 |
| Thallium | ND | | 0.100 | 0.0986 | | mg/L | | 98 | 70 - 130 | 2 | 20 |

## Method: 245.1 - Mercury (CVAA)

**Lab Sample ID: MB 550-321915/1-A**
**Matrix: Water**
**Analysis Batch: 321948**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321915**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00020 | | mg/L | | 06/04/24 11:13 | 06/04/24 15:13 | 1 |

**Lab Sample ID: LCS 550-321915/2-A**
**Matrix: Water**
**Analysis Batch: 321948**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321915**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00486 | | mg/L | | 97 | 85 - 115 |

## Method: 245.1 - Mercury (CVAA)

**Lab Sample ID: LCSD 550-321915/3-A**
**Matrix: Water**
**Analysis Batch: 321948**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321915**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | | | 0.00500 | 0.00489 | | mg/L | | 98 | 85 - 115 | 1 | 20 |

**Lab Sample ID: 550-218908-A-1-D MS**
**Matrix: Water**
**Analysis Batch: 321948**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 321915**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00511 | | mg/L | | 102 | 70 - 130 |

**Lab Sample ID: 550-218908-A-1-E MSD**
**Matrix: Water**
**Analysis Batch: 321948**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 321915**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | | 0.00500 | 0.00499 | | mg/L | | 100 | 70 - 130 | 2 | 20 |

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 550-321743/4**
**Matrix: Water**
**Analysis Batch: 321743**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/30/24 10:27 | 1 |
| Alkalinity, Phenolphthalein | ND | | 6.0 | | mg/L | | | 05/30/24 10:27 | 1 |
| Bicarbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/30/24 10:27 | 1 |
| Carbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/30/24 10:27 | 1 |
| Hydroxide Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/30/24 10:27 | 1 |

**Lab Sample ID: LCS 550-321743/3**
**Matrix: Water**
**Analysis Batch: 321743**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 238 | | mg/L | | 95 | 90 - 110 |

**Lab Sample ID: LCSD 550-321743/16**
**Matrix: Water**
**Analysis Batch: 321743**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 239 | | mg/L | | 96 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 550-218889-A-2 DU**
**Matrix: Water**
**Analysis Batch: 321743**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | 260 | | | 266 | | mg/L | | | | 0.8 | 20 |
| Alkalinity, Phenolphthalein | ND | | | ND | | mg/L | | | | NC | 20 |

## Method: SM 2320B - Alkalinity (Continued)

**Lab Sample ID: 550-218889-A-2 DU**
**Matrix: Water**
**Analysis Batch: 321743**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bicarbonate Alkalinity as CaCO3 | 260 | | | 266 | | mg/L | | | | 0.8 | 20 |
| Carbonate Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |
| Hydroxide Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 550-321620/1**
**Matrix: Water**
**Analysis Batch: 321620**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 05/29/24 10:00 | 1 |

**Lab Sample ID: LCS 550-321620/2**
**Matrix: Water**
**Analysis Batch: 321620**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1070 | | mg/L | | 107 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321620/3**
**Matrix: Water**
**Analysis Batch: 321620**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1010 | | mg/L | | 101 | 90 - 110 | 6 | 10 |

**Lab Sample ID: 550-218860-A-1 DU**
**Matrix: Water**
**Analysis Batch: 321620**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1400 | | | 1390 | | mg/L | | | | 1 | 10 |

**Lab Sample ID: 550-218891-3 DU**
**Matrix: Water**
**Analysis Batch: 321620**

**Client Sample ID: FC-CCR-MW49A-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 20000 | | | 19600 | | mg/L | | | | 1 | 10 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: LCSSRM 550-321754/1**
**Matrix: Water**
**Analysis Batch: 321754**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.0 | | SU | | 99.7 | 98.5 - 101.5 | | |

## Method: SM 4500 H+ B - pH (Continued)

**Lab Sample ID: LCSSRM 550-321754/13**
**Matrix: Water**
**Analysis Batch: 321754**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 6.9 | | SU | | 98.6 | 98.5 - 101.5 | | |

**Lab Sample ID: 550-218889-A-1 DU**
**Matrix: Water**
**Analysis Batch: 321754**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | 7.4 | | | 7.3 | | SU | | | | 0.8 | 5 |
| Temperature | 18.6 | | | 18.9 | | Degrees C | | | | 2 | |

**Lab Sample ID: LCSSRM 550-321890/1**
**Matrix: Water**
**Analysis Batch: 321890**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 7.0 | | SU | | 99.7 | 98.5 - 101.5 | | |

**Lab Sample ID: LCSSRM 550-321890/13**
**Matrix: Water**
**Analysis Batch: 321890**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | | | 7.00 | 6.9 | | SU | | 98.5 | 98.5 - 101.5 | | |

**Lab Sample ID: 550-218891-3 DU**
**Matrix: Water**
**Analysis Batch: 321890**

**Client Sample ID: FC-CCR-MW49A-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pH | 7.5 | H5 | | 7.5 | | SU | | | | 0.5 | 5 |
| Temperature | 17.9 | H5 T5 | | 17.9 | | Degrees C | | | | 0 | |

## HPLC/IC

### Analysis Batch: 321584

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218891-1 | FC-CCR-MW07-0524 | Total/NA | Water | 300.0 | |
| 550-218891-1 | FC-CCR-MW07-0524 | Total/NA | Water | 300.0 | |
| 550-218891-2 | FC-CCR-MW08-0524 | Total/NA | Water | 300.0 | |
| 550-218891-2 | FC-CCR-MW08-0524 | Total/NA | Water | 300.0 | |
| 550-218891-3 | FC-CCR-MW49A-0524 | Total/NA | Water | 300.0 | |
| 550-218891-3 | FC-CCR-MW49A-0524 | Total/NA | Water | 300.0 | |
| 550-218891-4 | FC-CCR-MW87-0524 | Total/NA | Water | 300.0 | |
| 550-218891-4 | FC-CCR-MW87-0524 | Total/NA | Water | 300.0 | |
| 550-218891-5 | FC-CCR-EB01-0524 | Total/NA | Water | 300.0 | |
| MB 550-321584/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-321584/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-321584/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-218888-A-1 MS ^100 | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-218888-A-1 MSD ^100 | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

## Metals

### Prep Batch: 321544

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218891-1 | FC-CCR-MW07-0524 | Total/NA | Water | 200.7 | |
| 550-218891-2 | FC-CCR-MW08-0524 | Total/NA | Water | 200.7 | |
| 550-218891-3 | FC-CCR-MW49A-0524 | Total/NA | Water | 200.7 | |
| 550-218891-4 | FC-CCR-MW87-0524 | Total/NA | Water | 200.7 | |
| 550-218891-5 | FC-CCR-EB01-0524 | Total/NA | Water | 200.7 | |
| MB 550-321544/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-321544/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-321544/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-218888-C-1-A MS | Matrix Spike | Total/NA | Water | 200.7 | |
| 550-218888-C-1-B MSD | Matrix Spike Duplicate | Total/NA | Water | 200.7 | |

### Prep Batch: 321558

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218891-1 | FC-CCR-MW07-0524 | Total/NA | Water | 200.8 | |
| 550-218891-2 | FC-CCR-MW08-0524 | Total/NA | Water | 200.8 | |
| 550-218891-3 | FC-CCR-MW49A-0524 | Total/NA | Water | 200.8 | |
| 550-218891-4 | FC-CCR-MW87-0524 | Total/NA | Water | 200.8 | |
| 550-218891-5 | FC-CCR-EB01-0524 | Total/NA | Water | 200.8 | |
| MB 550-321558/1-A | Method Blank | Total/NA | Water | 200.8 | |
| LCS 550-321558/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-321558/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-218890-B-1-B MS ^10 | Matrix Spike | Total/NA | Water | 200.8 | |
| 550-218890-B-1-C MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 200.8 | |

### Analysis Batch: 321758

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218891-1 | FC-CCR-MW07-0524 | Total/NA | Water | 200.8 LL | 321558 |
| 550-218891-2 | FC-CCR-MW08-0524 | Total/NA | Water | 200.8 LL | 321558 |
| 550-218891-3 | FC-CCR-MW49A-0524 | Total/NA | Water | 200.8 LL | 321558 |
| 550-218891-4 | FC-CCR-MW87-0524 | Total/NA | Water | 200.8 LL | 321558 |
| 550-218891-5 | FC-CCR-EB01-0524 | Total/NA | Water | 200.8 LL | 321558 |
| MB 550-321558/1-A | Method Blank | Total/NA | Water | 200.8 LL | 321558 |

## Metals (Continued)

### Analysis Batch: 321758 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 550-321558/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 321558 |
| LCSD 550-321558/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 321558 |
| 550-218890-B-1-B MS ^10 | Matrix Spike | Total/NA | Water | 200.8 LL | 321558 |
| 550-218890-B-1-C MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 200.8 LL | 321558 |

### Prep Batch: 321915

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218891-1 | FC-CCR-MW07-0524 | Total/NA | Water | 245.1 | |
| 550-218891-2 | FC-CCR-MW08-0524 | Total/NA | Water | 245.1 | |
| 550-218891-3 | FC-CCR-MW49A-0524 | Total/NA | Water | 245.1 | |
| 550-218891-4 | FC-CCR-MW87-0524 | Total/NA | Water | 245.1 | |
| MB 550-321915/1-A | Method Blank | Total/NA | Water | 245.1 | |
| LCS 550-321915/2-A | Lab Control Sample | Total/NA | Water | 245.1 | |
| LCSD 550-321915/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | |
| 550-218908-A-1-D MS | Matrix Spike | Total/NA | Water | 245.1 | |
| 550-218908-A-1-E MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | |

### Analysis Batch: 321935

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218891-1 | FC-CCR-MW07-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218891-2 | FC-CCR-MW08-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218891-3 | FC-CCR-MW49A-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218891-5 | FC-CCR-EB01-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| MB 550-321544/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| LCS 550-321544/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| LCSD 550-321544/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218888-C-1-A MS | Matrix Spike | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218888-C-1-B MSD | Matrix Spike Duplicate | Total/NA | Water | 200.7 Rev 4.4 | 321544 |

### Analysis Batch: 321948

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218891-1 | FC-CCR-MW07-0524 | Total/NA | Water | 245.1 | 321915 |
| 550-218891-2 | FC-CCR-MW08-0524 | Total/NA | Water | 245.1 | 321915 |
| 550-218891-3 | FC-CCR-MW49A-0524 | Total/NA | Water | 245.1 | 321915 |
| 550-218891-4 | FC-CCR-MW87-0524 | Total/NA | Water | 245.1 | 321915 |
| MB 550-321915/1-A | Method Blank | Total/NA | Water | 245.1 | 321915 |
| LCS 550-321915/2-A | Lab Control Sample | Total/NA | Water | 245.1 | 321915 |
| LCSD 550-321915/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | 321915 |
| 550-218908-A-1-D MS | Matrix Spike | Total/NA | Water | 245.1 | 321915 |
| 550-218908-A-1-E MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | 321915 |

### Analysis Batch: 321967

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218891-2 | FC-CCR-MW08-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218891-4 | FC-CCR-MW87-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218891-5 | FC-CCR-EB01-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| MB 550-321544/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| LCS 550-321544/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| LCSD 550-321544/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321544 |

## Metals

### Analysis Batch: 322034

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218891-4 | FC-CCR-MW87-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |

### Prep Batch: 655283

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218891-1 | FC-CCR-MW07-0524 | Total Recoverable | Water | 200.7 | |
| 550-218891-2 | FC-CCR-MW08-0524 | Total Recoverable | Water | 200.7 | |
| 550-218891-3 | FC-CCR-MW49A-0524 | Total Recoverable | Water | 200.7 | |
| 550-218891-4 | FC-CCR-MW87-0524 | Total Recoverable | Water | 200.7 | |
| 550-218891-5 | FC-CCR-EB01-0524 | Total Recoverable | Water | 200.7 | |
| MB 280-655283/1-A | Method Blank | Total Recoverable | Water | 200.7 | |
| LCS 280-655283/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 | |
| 550-218888-B-1-B MS | Matrix Spike | Total Recoverable | Water | 200.7 | |
| 550-218888-B-1-C MSD | Matrix Spike Duplicate | Total Recoverable | Water | 200.7 | |

### Analysis Batch: 655719

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218891-1 | FC-CCR-MW07-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218891-2 | FC-CCR-MW08-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218891-3 | FC-CCR-MW49A-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218891-4 | FC-CCR-MW87-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218891-5 | FC-CCR-EB01-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| MB 280-655283/1-A | Method Blank | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| LCS 280-655283/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218888-B-1-B MS | Matrix Spike | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218888-B-1-C MSD | Matrix Spike Duplicate | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |

## General Chemistry

### Analysis Batch: 321620

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218891-1 | FC-CCR-MW07-0524 | Total/NA | Water | SM 2540C | |
| 550-218891-2 | FC-CCR-MW08-0524 | Total/NA | Water | SM 2540C | |
| 550-218891-3 | FC-CCR-MW49A-0524 | Total/NA | Water | SM 2540C | |
| 550-218891-4 | FC-CCR-MW87-0524 | Total/NA | Water | SM 2540C | |
| 550-218891-5 | FC-CCR-EB01-0524 | Total/NA | Water | SM 2540C | |
| MB 550-321620/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-321620/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-321620/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-218860-A-1 DU | Duplicate | Total/NA | Water | SM 2540C | |
| 550-218891-3 DU | FC-CCR-MW49A-0524 | Total/NA | Water | SM 2540C | |

### Analysis Batch: 321743

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218891-2 | FC-CCR-MW08-0524 | Total/NA | Water | SM 2320B | |
| 550-218891-4 | FC-CCR-MW87-0524 | Total/NA | Water | SM 2320B | |
| 550-218891-5 | FC-CCR-EB01-0524 | Total/NA | Water | SM 2320B | |
| MB 550-321743/4 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 550-321743/3 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| LCSD 550-321743/16 | Lab Control Sample Dup | Total/NA | Water | SM 2320B | |
| 550-218889-A-2 DU | Duplicate | Total/NA | Water | SM 2320B | |

# QC Association Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218891-1

## General Chemistry

### Analysis Batch: 321754

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218891-1 | FC-CCR-MW07-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218891-2 | FC-CCR-MW08-0524 | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321754/1 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321754/13 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| 550-218889-A-1 DU | Duplicate | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 321890

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218891-3 | FC-CCR-MW49A-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218891-4 | FC-CCR-MW87-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218891-5 | FC-CCR-EB01-0524 | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321890/1 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321890/13 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| 550-218891-3 DU | FC-CCR-MW49A-0524 | Total/NA | Water | SM 4500 H+ B | |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218891-1

## Client Sample ID: FC-CCR-MW07-0524

**Lab Sample ID: 550-218891-1**

**Date Collected: 05/23/24 19:53**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/29/24 00:00 |
| Total/NA | Analysis | 300.0 | | 100 | 321584 | MMH | EET PHX | 05/29/24 00:18 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 23:36 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321935 | GLW | EET PHX | 06/04/24 08:08 |
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:29 |
| Total/NA | Prep | 245.1 | | | 321915 | HHL | EET PHX | 06/04/24 11:13 |
| Total/NA | Analysis | 245.1 | | 1 | 321948 | HHL | EET PHX | 06/04/24 15:33 |
| Total/NA | Analysis | SM 2540C | | 1 | 321620 | JLO | EET PHX | 05/29/24 10:00 - 05/30/24 17:36 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321754 | ELN | EET PHX | 05/30/24 15:07 |

## Client Sample ID: FC-CCR-MW08-0524

**Lab Sample ID: 550-218891-2**

**Date Collected: 05/23/24 18:57**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/29/24 01:32 |
| Total/NA | Analysis | 300.0 | | 100 | 321584 | MMH | EET PHX | 05/29/24 01:50 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 23:40 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321935 | GLW | EET PHX | 06/04/24 08:15 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 321967 | GLW | EET PHX | 06/04/24 20:31 |
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:31 |
| Total/NA | Prep | 245.1 | | | 321915 | HHL | EET PHX | 06/04/24 11:13 |
| Total/NA | Analysis | 245.1 | | 1 | 321948 | HHL | EET PHX | 06/04/24 15:36 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 11:31 |
| Total/NA | Analysis | SM 2540C | | 1 | 321620 | JLO | EET PHX | 05/29/24 10:00 - 05/30/24 17:36 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321754 | ELN | EET PHX | 05/30/24 15:10 |

## Client Sample ID: FC-CCR-MW49A-0524

**Lab Sample ID: 550-218891-3**

**Date Collected: 05/23/24 14:32**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/29/24 02:09 |
| Total/NA | Analysis | 300.0 | | 100 | 321584 | MMH | EET PHX | 05/29/24 02:27 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 23:44 |

## Client Sample ID: FC-CCR-MW49A-0524

**Lab Sample ID: 550-218891-3**

**Date Collected: 05/23/24 14:32**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321935 | GLW | EET PHX | 06/04/24 08:21 |
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:33 |
| Total/NA | Prep | 245.1 | | | 321915 | HHL | EET PHX | 06/04/24 11:13 |
| Total/NA | Analysis | 245.1 | | 1 | 321948 | HHL | EET PHX | 06/04/24 15:38 |
| Total/NA | Analysis | SM 2540C | | 1 | 321620 | JLO | EET PHX | 05/29/24 10:00 - 05/30/24 17:36 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321890 | ELN | EET PHX | 06/04/24 07:09 |

## Client Sample ID: FC-CCR-MW87-0524

**Lab Sample ID: 550-218891-4**

**Date Collected: 05/23/24 11:10**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/29/24 02:45 |
| Total/NA | Analysis | 300.0 | | 100 | 321584 | MMH | EET PHX | 05/29/24 03:04 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 23:47 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 321967 | GLW | EET PHX | 06/04/24 20:34 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 100 | 322034 | GLW | EET PHX | 06/05/24 20:10 |
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:35 |
| Total/NA | Prep | 245.1 | | | 321915 | HHL | EET PHX | 06/04/24 11:13 |
| Total/NA | Analysis | 245.1 | | 1 | 321948 | HHL | EET PHX | 06/04/24 15:40 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 11:42 |
| Total/NA | Analysis | SM 2540C | | 1 | 321620 | JLO | EET PHX | 05/29/24 10:00 - 05/30/24 17:36 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321890 | ELN | EET PHX | 06/04/24 07:09 |

## Client Sample ID: FC-CCR-EB01-0524

**Lab Sample ID: 550-218891-5**

**Date Collected: 05/24/24 11:25**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/29/24 03:22 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 23:51 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321935 | GLW | EET PHX | 06/04/24 08:35 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 321967 | GLW | EET PHX | 06/04/24 20:38 |
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:37 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218891-1

## Client Sample ID: FC-CCR-EB01-0524

**Date Collected: 05/24/24 11:25**
**Date Received: 05/24/24 17:05**

## Lab Sample ID: 550-218891-5

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 12:01 |
| Total/NA | Analysis | SM 2540C | | 1 | 321620 | JLO | EET PHX | 05/29/24 10:00 - 05/30/24 17:36 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321890 | ELN | EET PHX | 06/04/24 07:09 |

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

**Laboratory References:**

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

# Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-218891-1
Project/Site: CCR Groundwater Monitoring

## Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0728 | 06-09-24 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

## Laboratory: Eurofins Denver

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0713 | 12-20-24 |

# Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218891-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 300.0 | Anions, Ion Chromatography | EPA | EET PHX |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET DEN |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET PHX |
| 200.8 LL | Metals (ICP/MS) | EPA | EET PHX |
| 245.1 | Mercury (CVAA) | EPA | EET PHX |
| SM 2320B | Alkalinity | SM | EET PHX |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET PHX |
| SM 4500 H+ B | pH | SM | EET PHX |
| 200.7 | Preparation, Total Recoverable Metals | EPA | EET DEN |
| 200.7 | Preparation, Total Metals | EPA | EET PHX |
| 200.8 | Preparation, Total Metals | EPA | EET PHX |
| 245.1 | Preparation, Mercury | EPA | EET PHX |

**Protocol References:**

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

**Laboratory References:**

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

218891

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

6/6/2024

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

**TestAmerica Laboratories, Inc.**

| Client Contact | Cameron Corley | Pam Norris (505-598-8781) | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | 505-860-3619 | Lab Contact: Rachel Sester | Carrier: | 1 of 1 COCs |
| PO Box 355, MS 4915 | Analysis Turnaround Time | | | Sampler: |
| Fruitland, NM 87416 | ☐ CALENDAR DAYS ☑ WORKING DAYS | | | For Lab Use Only: |
| Phone | TAT if different from Below _____ | | | Walk-in Client: |
| FAX | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | |
| Site: APS Four Corners Power Plant (Multiunit) | ☐ 2 days | | | Job / SDG No.: |
| PO #: 100622298 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | Perform MS/MSD (Y/N) | EPA 300.0 (Cl, F, SO4) | EPA 200.7 - Totals (B) | EPA 200.7 - Totals (B, Ca, Be) | EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na) | EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na, Mn, Fe) | EPA 200.7 - Total Lithium | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | EPA 200.8 - Totals (Co, Mo) | EPA 245.1 - Totals (Hg) | SM 4500-HB (pH) | SM 2540C (TDS) | SM 2320B (CO3 Alkalinity as CaCO3, HCO3 Alkalinity as CaCO3) | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW07-0524 -01 | 5/23/2024 | 19:53 | G | W | 3 | N | | X | | X | | | X | X | | X | X | X | | Low Flow |
| FC-CCR-MW08-0524 -02 | 5/23/2024 | 18:57 | G | W | 3 | N | | X | | | X | | X | X | | X | X | X | X | " |
| FC-CCR-MW49A-0524 -03 | 5/23/2024 | 14:32 | G | W | 3 | N | | X | | X | | | X | X | | X | X | X | | " |
| FC-CCR-MW87-0524 -04 | 5/23/2024 | 11:10 | G | W | 3 | N | | X | | | | X | X | X | | X | X | X | X | " |
| FC-CCR-EB01-0524 -05 | 5/23/24 | 1125 | G | W | 3 | N | | X | | | | X | X | X | | | X | X | X | GRAB BTMBLG |
| | | | | | | | | | | | | | | | | | | | | " |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-39667.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 1 of 1 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-218891-1 |
| Address: 4955 Yarrow Street, , | Due Date Requested: 6/10/2024 | Analysis Requested | | Preservation Codes: - |
| City: Arvada | TAT Requested (days): | | | |
| State, Zip: CO, 80002 | | | | |
| Phone: 303-736-0100(Tel) 303-431-7171(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | Other: |

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Priority Pollutants | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| FC-CCR-MW07-0524 (550-218891-1) | 5/23/24 | 19:53 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW08-0524 (550-218891-2) | 5/23/24 | 18:57 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW49A-0524 (550-218891-3) | 5/23/24 | 14:32 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW87-0524 (550-218891-4) | 5/23/24 | 11:10 Arizona | | Water | | | X | 1 | |
| FC-CCR-EB01-0524 (550-218891-5) | 5/24/24 | 11:25 Arizona | | Water | | | X | 1 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

| ***Possible Hazard Identification*** | ***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*** |
|---|---|
| *Unconfirmed* | ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months* |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| | 5/28/24 14:30 | ETA-PHX | FedEx | | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| | | | | 5-30-24 0930 | EETDEN |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| | | | | | |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 0.8°C/NA/ACF02 |
|---|---|---|

Ver: 04/02/2024

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218891-1

**Login Number: 218891**
**List Number: 1**
**Creator: Gravlin, Andrea**

**List Source: Eurofins Phoenix**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | False | Check done at department level as required. |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218891-1

**Login Number: 218891**
**List Number: 2**
**Creator: Held, Wesley**

**List Source: Eurofins Denver**
**List Creation: 05/30/24 12:24 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 7/2/2024 4:02:00 PM Revision 1

## JOB DESCRIPTION

CCR Groundwater Monitoring

## JOB NUMBER

550-218891-2

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.



my EOL

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

## Authorization



Generated
7/2/2024 4:02:00 PM
Revision 1

Authorized for release by
Amanda Seawright, Project Manager I
amanda.seawright@et.eurofinsus.com
Designee for
Linda Eshelman, Project Manager II
linda.eshelman@et.eurofinsus.com
(602)659-7681

# Table of Contents

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# Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218891-2

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

## Job ID: 550-218891-2 — Eurofins Phoenix

**Job Narrative**
**550-218891-2**

REVISION

The report being provided is a revision of the original report sent on 6/27/2024. The report (revision 1) is being revised due to QC not properly linking in original report.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**
The samples were received on 5/24/2024 5:05 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.2°C and 2.6°C.

**Receipt Exceptions**
Client wrote 5/29/24 on COC, used sample date in TALS from container; 5-24-24.

FC-CCR-MW07-0524 (550-218891-1), FC-CCR-MW08-0524 (550-218891-2), FC-CCR-MW49A-0524 (550-218891-3), FC-CCR-MW87-0524 (550-218891-4) and FC-CCR-EB01-0524 (550-218891-5)

**Metals**
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218891-2

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 550-218891-4 | FC-CCR-MW87-0524 | Water | 05/23/24 11:10 | 05/24/24 17:05 |

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218891-2

## Client Sample ID: FC-CCR-MW87-0524

## Lab Sample ID: 550-218891-4

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | 0.027 | | 0.0010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |

This Detection Summary does not include radiochemical test results.

# Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218891-2

**Client Sample ID: FC-CCR-MW87-0524**
**Date Collected: 05/23/24 11:10**
**Date Received: 05/24/24 17:05**

**Lab Sample ID: 550-218891-4**
**Matrix: Water**

**Method: EPA 200.7 Rev 4.4 - Metals (ICP)**

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | 0.027 | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/19/24 17:37 | 1 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 550-321544/1-A**
**Matrix: Water**
**Analysis Batch: 322723**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/19/24 17:27 | 1 |

**Lab Sample ID: LCS 550-321544/2-A**
**Matrix: Water**
**Analysis Batch: 322723**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | | | 1.00 | 0.968 | | mg/L | | 97 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321544/3-A**
**Matrix: Water**
**Analysis Batch: 322723**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | | | 1.00 | 0.986 | | mg/L | | 99 | 85 - 115 | 2 | 20 |

# QC Association Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218891-2

## Metals

### Prep Batch: 321544

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218891-4 | FC-CCR-MW87-0524 | Total/NA | Water | 200.7 | |
| MB 550-321544/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-321544/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-321544/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |

### Analysis Batch: 322723

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218891-4 | FC-CCR-MW87-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| MB 550-321544/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| LCS 550-321544/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| LCSD 550-321544/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321544 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218891-2

## Client Sample ID: FC-CCR-MW87-0524

**Date Collected: 05/23/24 11:10**
**Date Received: 05/24/24 17:05**

## Lab Sample ID: 550-218891-4

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 322723 | JAC | EET PHX | 06/19/24 17:37 |

**Laboratory References:**

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

# Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-218891-2
Project/Site: CCR Groundwater Monitoring

## Laboratory: Eurofins Phoenix

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0728 | 06-10-25 |

# Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218891-2

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET PHX |
| 200.7 | Preparation, Total Metals | EPA | EET PHX |

**Protocol References:**

EPA = US Environmental Protection Agency

**Laboratory References:**

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

218891

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

**TestAmerica Laboratories, Inc.**

| Client Contact | Cameron Corley | Pam Norris (505-598-8781) | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | 505-860-3619 | Lab Contact: Rachel Sester | Carrier: | 1 of 1 COCs |
| PO Box 355, MS 4915 | Analysis Turnaround Time | | | Sampler: |
| Fruitland, NM 87416 | ☐ CALENDAR DAYS ☑ WORKING DAYS | | | For Lab Use Only: |
| Phone | TAT if different from Below _____ | | | Walk-in Client: |
| FAX | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | |
| Site: APS Four Corners Power Plant (Multiunit) | ☐ 2 days | | | Job / SDG No.: |
| PO #: 100622298 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | Perform MS/MSD (Y/N) | EPA 300.0 (Cl, F, SO4) | EPA 200.7 - Totals (B) | EPA 200.7 - Totals (B, Ca, Be) | EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na) | EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na, Mn, Fe) | EPA 200.7 - Total Lithium | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | EPA 200.8 - Totals (Co, Mo) | EPA 245.1 - Totals (Hg) | SM 4500-HB (pH) | SM 2540C (TDS) | SM 2320B (CO3 Alkalinity as CaCO3, HCO3 Alkalinity as CaCO3) | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW07-0524 -01 | 5/23/2024 | 19:53 | G | W | 3 | N | | X | | X | | | X | X | | X | X | X | | Low Flow |
| FC-CCR-MW08-0524 -02 | 5/23/2024 | 18:57 | G | W | 3 | N | | X | | | X | | X | X | | X | X | X | X | " |
| FC-CCR-MW49A-0524 -03 | 5/23/2024 | 14:32 | G | W | 3 | N | | X | | X | | | X | X | | X | X | X | | " |
| FC-CCR-MW87-0524 -04 | 5/23/2024 | 11:10 | G | W | 3 | N | | X | | | | X | X | X | | X | X | X | X | " |
| FC-CCR-EB01-0524 -05 | 5/23/24 | 1125 | G | W | 3 | N | | X | | | | X | X | X | | | X | X | X | GRAB BTMBLG |
| | | | | | | | | | | | | | | | | | | | | " |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218891-2

**Login Number: 218891**
**List Number: 1**
**Creator: Gravlin, Andrea**

**List Source: Eurofins Phoenix**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | False | Check done at department level as required. |

eurofins | Environment Testing

1 2 3 4 5 6 7 8 9 10 11 12 13 14

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Natalie Chrisman
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Generated 6/12/2024 4:35:36 PM

## JOB DESCRIPTION

CCR Groundwater Monitoring

## JOB NUMBER

550-218892-1

Eurofins Phoenix
4625 East Cotton Center Boulevard
Suite #189
Phoenix AZ 85040

See page two for job notes and contact information.



myEOL

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southwest, LLC Project Manager.

## Authorization



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# Table of Contents

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# Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218892-1

## Qualifiers

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| D2 | Sample required dilution due to high concentration of analyte. |
| E2 | Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix. |
| M2 | Matrix spike recovery was low, the associated blank spike recovery was acceptable. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| E2 | Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix. |
| L4 | The associated blank spike recovery was below method acceptance limits. |
| M2 | Matrix spike recovery was low, the associated blank spike recovery was acceptable. |
| M3 | The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable. |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| H5 | This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time. |
| T5 | Laboratory not licensed for this parameter |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

## Glossary (Continued)

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| TNTC | Too Numerous To Count |

## Job ID: 550-218892-1 Eurofins Phoenix

**Job Narrative**
**550-218892-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**
The samples were received on 5/24/2024 5:05 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.2°C and 2.6°C.

**HPLC/IC**
Method 300_ORGFMS: Due to the high concentration of Chloride, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 550-321859 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**Metals**
Method 200.7 - Total Recoverable: The following sample was diluted due to the presence of Na which interferes with Li: FC-CCR-DMX05R-0524 (550-218892-13). Elevated reporting limits (RLs) are provided.

Method 200.8_CWA_LL: The laboratory control sample (LCS) associated with preparation batch 550-321558 and analytical batch 550-321758 was outside acceptance criteria for the analyte Barium. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. FC-CCR-DMX04-0524 (550-218892-1) and FC-CCR-DMX06-0524 (550-218892-2)

Method 200.8_CWA_LL: The laboratory control sample (LCS) associated with preparation batch 550-321559 and analytical batch 550-321759 was outside acceptance criteria for the analyte Barium. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance. FC-CCR-MW15-0524 (550-218892-4), FC-CCR-MW16-0524 (550-218892-5), FC-CCR-MW17R-0524 (550-218892-6), FC-CCR-MW38R-0524 (550-218892-7), FC-CCR-MW56-0524 (550-218892-8), FC-CCR-MW57-0524 (550-218892-9), FC-CCR-MW24-0524 (550-218892-12) and FC-CCR-DMX05R-0524 (550-218892-13)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**General Chemistry**
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218892-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 550-218892-1 | FC-CCR-DMX04-0524 | Water | 05/21/24 14:20 | 05/24/24 17:05 |
| 550-218892-2 | FC-CCR-DMX06-0524 | Water | 05/23/24 12:23 | 05/24/24 17:05 |
| 550-218892-3 | FC-CCR-MW11-0524 | Water | 05/23/24 18:20 | 05/24/24 17:05 |
| 550-218892-4 | FC-CCR-MW15-0524 | Water | 05/23/24 16:00 | 05/24/24 17:05 |
| 550-218892-5 | FC-CCR-MW16-0524 | Water | 05/23/24 17:11 | 05/24/24 17:05 |
| 550-218892-6 | FC-CCR-MW17R-0524 | Water | 05/21/24 13:27 | 05/24/24 17:05 |
| 550-218892-7 | FC-CCR-MW38R-0524 | Water | 05/22/24 17:15 | 05/24/24 17:05 |
| 550-218892-8 | FC-CCR-MW56-0524 | Water | 05/21/24 12:25 | 05/24/24 17:05 |
| 550-218892-9 | FC-CCR-MW57-0524 | Water | 05/21/24 17:35 | 05/24/24 17:05 |
| 550-218892-10 | FC-CCR-MW34-0524 | Water | 05/21/24 15:18 | 05/24/24 17:05 |
| 550-218892-11 | FC-CCR-EW15-0524 | Water | 05/21/24 15:57 | 05/24/24 17:05 |
| 550-218892-12 | FC-CCR-MW24-0524 | Water | 05/21/24 16:39 | 05/24/24 17:05 |
| 550-218892-13 | FC-CCR-DMX05R-0524 | Water | 05/23/24 10:22 | 05/24/24 17:05 |
| 550-218892-14 | FC-CCR-EW14-0524 | Water | 05/23/24 10:22 | 05/24/24 17:05 |
| 550-218892-15 | FC-CCR-SUMP1-0524 | Water | 05/21/24 08:27 | 05/24/24 17:05 |
| 550-218892-16 | FC-CCR-SUMP2-0524 | Water | 05/21/24 08:33 | 05/24/24 17:05 |
| 550-218892-17 | FC-CCR-SUMP3-0524 | Water | 05/21/24 08:42 | 05/24/24 17:05 |
| 550-218892-18 | FC-CCR-SUMP7-0524 | Water | 05/21/24 09:02 | 05/24/24 17:05 |
| 550-218892-19 | FC-CCR-SUMP8-0524 | Water | 05/21/24 08:55 | 05/24/24 17:05 |
| 550-218892-20 | FC-CCR-SUMP9-0524 | Water | 05/21/24 09:09 | 05/24/24 17:05 |
| 550-218892-21 | FC-CCR-SUMP10-0524 | Water | 05/21/24 09:13 | 05/24/24 17:05 |
| 550-218892-22 | FC-CCR-SUMP11-0524 | Water | 05/21/24 09:17 | 05/24/24 17:05 |
| 550-218892-23 | FC-CCR-SUMP12-0524 | Water | 05/21/24 09:22 | 05/24/24 17:05 |
| 550-218892-24 | FC-CCR-SUMP13-0524 | Water | 05/21/24 09:26 | 05/24/24 17:05 |
| 550-218892-25 | FC-CCR-SUMP14-0524 | Water | 05/21/24 09:32 | 05/24/24 17:05 |
| 550-218892-26 | FC-CCR-SUMP15-0524 | Water | 05/21/24 09:39 | 05/24/24 17:05 |
| 550-218892-27 | FC-CCR-SUMP16-0524 | Water | 05/21/24 09:43 | 05/24/24 17:05 |
| 550-218892-28 | FC-CCR-SUMP17-0524 | Water | 05/21/24 09:47 | 05/24/24 17:05 |
| 550-218892-29 | FC-CCR-SUMP18-0524 | Water | 05/21/24 09:53 | 05/24/24 17:05 |
| 550-218892-30 | FC-CCR-AshPond6Vault-0524 | Water | 05/21/24 10:15 | 05/24/24 17:05 |

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218892-1

## Client Sample ID: FC-CCR-DMX04-0524 — Lab Sample ID: 550-218892-1

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 380 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Fluoride | 0.70 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 5900 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 1.3 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 470 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.21 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 840 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 4.6 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 42 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 2100 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 690 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0059 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.014 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.011 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.012 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 350 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 350 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 11000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.7 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 19.4 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-DMX06-0524 — Lab Sample ID: 550-218892-2

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 990 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Sulfate | 7600 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 6.0 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 400 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.18 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 630 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 1.0 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 51 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 4000 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 1100 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0054 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.014 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 520 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 520 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 14000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 19.0 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW11-0524 — Lab Sample ID: 550-218892-3

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 5000 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Sulfate | 3000 | E2 | 2.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Boron | 0.54 | | 0.50 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 530 | | 20 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 9900 | | 20 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |

This Detection Summary does not include radiochemical test results.

Eurofins Phoenix

## Client Sample ID: FC-CCR-MW11-0524 (Continued) — Lab Sample ID: 550-218892-3

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Potassium | 210 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 15000 | | 50 | | mg/L | 100 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.019 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 860 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 860 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 87000 | | 1000 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.0 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 19.0 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW15-0524 — Lab Sample ID: 550-218892-4

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2300 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Sulfate | 13000 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 9.0 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 460 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.19 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 740 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 1.2 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Potassium | 44 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 2400 | | 5.0 | | mg/L | 10 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 1000 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0058 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.018 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 660 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 660 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 12000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.3 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 18.7 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW16-0524 — Lab Sample ID: 550-218892-5

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1800 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Sulfate | 13000 | D2 | 2000 | | mg/L | 1000 | | 300.0 | Total/NA |
| Boron | 9.6 | M3 | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 450 | M3 | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.64 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 2100 | M3 | 200 | | mg/L | 100 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 4600 | M3 | 50 | | mg/L | 100 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 1600 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0056 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.021 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.010 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.030 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 590 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 590 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 23000 | | 200 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.4 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 18.7 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218892-1

## Client Sample ID: FC-CCR-MW17R-0524 — Lab Sample ID: 550-218892-6

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 800 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Sulfate | 7700 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 39 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 480 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.23 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 300 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 1.0 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 1300 | | 50 | | mg/L | 100 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 470 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0057 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.016 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cadmium | 0.0013 | | 0.0010 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.060 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 130 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 130 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 6600 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.4 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 18.9 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW38R-0524 — Lab Sample ID: 550-218892-7

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2200 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Sulfate | 13000 | D2 | 2000 | | mg/L | 1000 | | 300.0 | Total/NA |
| Boron | 8.6 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 440 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.69 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 1700 | | 200 | | mg/L | 100 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 4100 | | 50 | | mg/L | 100 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 1400 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0060 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.016 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Cobalt | 0.028 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.061 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 410 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 410 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 21000 | | 200 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 19.3 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW56-0524 — Lab Sample ID: 550-218892-8

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 8600 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Sulfate | 18000 | D2 | 2000 | | mg/L | 1000 | | 300.0 | Total/NA |
| Boron | 1.6 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 490 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.79 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 3000 | | 200 | | mg/L | 100 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.012 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-MW56-0524 (Continued) — Lab Sample ID: 550-218892-8

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sodium | 6000 | | 50 | | mg/L | 100 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 2000 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0058 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.016 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Selenium | 0.23 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 890 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 890 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 34000 | | 200 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.4 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 16.4 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW57-0524 — Lab Sample ID: 550-218892-9

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 5600 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Sulfate | 18000 | D2 | 2000 | | mg/L | 1000 | | 300.0 | Total/NA |
| Boron | 2.4 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 530 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.86 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 2500 | | 200 | | mg/L | 100 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.090 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 6200 | | 50 | | mg/L | 100 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 2600 | | 20 | | ug/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0061 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.021 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 970 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 970 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 32000 | | 200 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 17.4 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-MW34-0524 — Lab Sample ID: 550-218892-10

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 670 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Fluoride | 0.65 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 9900 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 10 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.30 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 570 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 2.3 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Molybdenum | 0.014 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 8400 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: FC-CCR-EW15-0524 — Lab Sample ID: 550-218892-11

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 880 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Fluoride | 0.70 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 9800 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 12 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-EW15-0524 (Continued) — Lab Sample ID: 550-218892-11

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Iron | 0.27 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 520 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 2.1 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Molybdenum | 0.0068 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 8400 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: FC-CCR-MW24-0524 — Lab Sample ID: 550-218892-12

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 9500 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Fluoride | 0.52 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 10000 | D2 | 2000 | | mg/L | 1000 | | 300.0 | Total/NA |
| Boron | 1.1 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 490 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.50 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 200 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 1.7 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 8200 | | 50 | | mg/L | 100 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 1.6 | | 0.50 | | mg/L | 10 | | 200.7 Rev 4.4 | Total Recoverable |
| Molybdenum | 0.027 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 270 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 270 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 24000 | | 200 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.5 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 18.6 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-DMX05R-0524 — Lab Sample ID: 550-218892-13

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 3800 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Sulfate | 11000 | D2 | 2000 | | mg/L | 1000 | | 300.0 | Total/NA |
| Boron | 11 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Calcium | 460 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 6.7 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 730 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.91 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Sodium | 5300 | | 50 | | mg/L | 100 | | 200.7 Rev 4.4 | Total/NA |
| Lithium | 1000 | | 500 | | ug/L | 25 | | 200.7 Rev 4.4 | Total Recoverable |
| Arsenic | 0.0097 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Barium | 0.017 | L4 | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.016 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Alkalinity as CaCO3 | 480 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 480 | | 6.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 19000 | | 200 | | mg/L | 1 | | SM 2540C | Total/NA |
| pH | 7.6 | H5 | 1.7 | | SU | 1 | | SM 4500 H+ B | Total/NA |
| Temperature | 19.3 | H5 T5 | 0.1 | | Degrees C | 1 | | SM 4500 H+ B | Total/NA |

## Client Sample ID: FC-CCR-EW14-0524 — Lab Sample ID: 550-218892-14

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 520 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-EW14-0524 (Continued) — Lab Sample ID: 550-218892-14

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 8300 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 14 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.21 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 350 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 1.7 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Molybdenum | 0.0059 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 7000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: FC-CCR-SUMP1-0524 — Lab Sample ID: 550-218892-15

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 970 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 77 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 1.6 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 530 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.046 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.091 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 8500 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: FC-CCR-SUMP2-0524 — Lab Sample ID: 550-218892-16

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 970 | D2 | 40 | | mg/L | 20 | | 300.0 | Total/NA |
| Boron | 50 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 1.1 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 600 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.010 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Molybdenum | 0.0086 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 9600 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: FC-CCR-SUMP3-0524 — Lab Sample ID: 550-218892-17

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 990 | D2 | 40 | | mg/L | 20 | | 300.0 | Total/NA |
| Boron | 43 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.57 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 1000 | | 200 | | mg/L | 100 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.87 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Molybdenum | 0.015 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 19000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: FC-CCR-SUMP7-0524 — Lab Sample ID: 550-218892-18

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 920 | D2 | 40 | | mg/L | 20 | | 300.0 | Total/NA |
| Boron | 59 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 1.4 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 780 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.071 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.067 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 10000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218892-1

## Client Sample ID: FC-CCR-SUMP8-0524 — Lab Sample ID: 550-218892-19

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1100 | D2 | 40 | | mg/L | 20 | | 300.0 | Total/NA |
| Boron | 46 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 3.6 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 1700 | | 200 | | mg/L | 100 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.012 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.028 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 17000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: FC-CCR-SUMP9-0524 — Lab Sample ID: 550-218892-20

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 530 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Boron | 33 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 2.5 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 830 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.021 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 10000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: FC-CCR-SUMP10-0524 — Lab Sample ID: 550-218892-21

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 440 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Boron | 55 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.62 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 470 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.010 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.16 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 7700 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: FC-CCR-SUMP11-0524 — Lab Sample ID: 550-218892-22

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 460 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Boron | 50 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.61 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 510 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.12 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 8000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: FC-CCR-SUMP12-0524 — Lab Sample ID: 550-218892-23

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 440 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Boron | 52 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 1.0 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 490 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.011 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.13 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 7600 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218892-1

## Client Sample ID: FC-CCR-SUMP13-0524 — Lab Sample ID: 550-218892-24

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 450 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Boron | 54 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.71 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 510 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.14 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 7600 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: FC-CCR-SUMP14-0524 — Lab Sample ID: 550-218892-25

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 390 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Boron | 33 | M3 | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.46 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 360 | M3 | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.034 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 7300 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: FC-CCR-SUMP15-0524 — Lab Sample ID: 550-218892-26

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 670 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Boron | 19 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.74 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 1300 | | 200 | | mg/L | 100 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.089 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 16000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: FC-CCR-SUMP16-0524 — Lab Sample ID: 550-218892-27

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 430 | D2 | 100 | | mg/L | 50 | | 300.0 | Total/NA |
| Boron | 22 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 2.2 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 410 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.065 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 7500 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: FC-CCR-SUMP17-0524 — Lab Sample ID: 550-218892-28

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 640 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 16 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.42 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 560 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Total Dissolved Solids | 8600 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: FC-CCR-SUMP18-0524 — Lab Sample ID: 550-218892-29

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1400 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 6.0 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 1.1 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 3400 | | 200 | | mg/L | 100 | | 200.7 Rev 4.4 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: FC-CCR-SUMP18-0524 (Continued) — Lab Sample ID: 550-218892-29

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 33000 | | 200 | | mg/L | 1 | | SM 2540C | Total/NA |

## Client Sample ID: FC-CCR-AshPond6Vault-0524 — Lab Sample ID: 550-218892-30

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 610 | D2 | 200 | | mg/L | 100 | | 300.0 | Total/NA |
| Boron | 54 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Iron | 0.40 | | 0.10 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Magnesium | 910 | | 2.0 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Manganese | 0.028 | | 0.010 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Cobalt | 0.050 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Molybdenum | 0.0067 | | 0.0050 | | mg/L | 10 | | 200.8 LL | Total/NA |
| Total Dissolved Solids | 12000 | | 100 | | mg/L | 1 | | SM 2540C | Total/NA |

This Detection Summary does not include radiochemical test results.

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218892-1

## Client Sample ID: FC-CCR-DMX04-0524

**Date Collected: 05/21/24 14:20**
**Date Received: 05/24/24 17:05**

## Lab Sample ID: 550-218892-1

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **380** | **D2** | 200 | | mg/L | | | 05/29/24 03:59 | 100 |
| **Fluoride** | **0.70** | | 0.40 | | mg/L | | | 05/29/24 03:41 | 1 |
| **Sulfate** | **5900** | **D2** | 200 | | mg/L | | | 05/29/24 03:59 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **1.3** | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:42 | 1 |
| **Calcium** | **470** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:42 | 1 |
| **Iron** | **0.21** | | 0.10 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:42 | 1 |
| **Magnesium** | **840** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:42 | 1 |
| **Manganese** | **4.6** | | 0.010 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:42 | 1 |
| **Potassium** | **42** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:41 | 10 |
| **Sodium** | **2100** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:41 | 10 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:42 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **690** | | 20 | | ug/L | | 05/31/24 08:56 | 06/04/24 00:06 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:39 | 10 |
| **Arsenic** | **0.0059** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:39 | 10 |
| **Barium** | **0.014** | **L4** | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:39 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:39 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:39 | 10 |
| **Cobalt** | **0.011** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:39 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:39 | 10 |
| **Molybdenum** | **0.012** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:39 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:39 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:39 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **350** | | 6.0 | | mg/L | | | 05/30/24 12:18 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 12:18 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **350** | | 6.0 | | mg/L | | | 05/30/24 12:18 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 12:18 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 12:18 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **11000** | | 100 | | mg/L | | | 05/28/24 10:55 | 1 |
| **pH (SM 4500 H+ B)** | **7.7** | **H5** | 1.7 | | SU | | | 06/04/24 07:09 | 1 |
| **Temperature (SM 4500 H+ B)** | **19.4** | **H5 T5** | 0.1 | | Degrees C | | | 06/04/24 07:09 | 1 |

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218892-1

## Client Sample ID: FC-CCR-DMX06-0524

**Date Collected: 05/23/24 12:23**
**Date Received: 05/24/24 17:05**

## Lab Sample ID: 550-218892-2

**Matrix: Water**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **990** | **D2** | 200 | | mg/L | | | 05/29/24 05:31 | 100 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/29/24 05:13 | 1 |
| **Sulfate** | **7600** | **D2** | 200 | | mg/L | | | 05/29/24 05:31 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **6.0** | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:49 | 1 |
| **Calcium** | **400** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:49 | 1 |
| **Iron** | **0.18** | | 0.10 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:49 | 1 |
| **Magnesium** | **630** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:49 | 1 |
| **Manganese** | **1.0** | | 0.010 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:49 | 1 |
| **Potassium** | **51** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:44 | 10 |
| **Sodium** | **4000** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:44 | 10 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 08:49 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **1100** | | 20 | | ug/L | | 05/31/24 08:56 | 06/04/24 00:10 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:41 | 10 |
| **Arsenic** | **0.0054** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:41 | 10 |
| **Barium** | **0.014** | **L4** | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:41 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:41 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:41 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:41 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:41 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:41 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:41 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:41 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **520** | | 6.0 | | mg/L | | | 05/30/24 12:35 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 12:35 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **520** | | 6.0 | | mg/L | | | 05/30/24 12:35 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 12:35 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 12:35 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **14000** | | 100 | | mg/L | | | 05/29/24 10:00 | 1 |
| **pH (SM 4500 H+ B)** | **7.5** | **H5** | 1.7 | | SU | | | 06/04/24 07:09 | 1 |
| **Temperature (SM 4500 H+ B)** | **19.0** | **H5 T5** | 0.1 | | Degrees C | | | 06/04/24 07:09 | 1 |

## Client Sample ID: FC-CCR-MW11-0524

**Lab Sample ID: 550-218892-3**

**Date Collected: 05/23/24 18:20**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **5000** | **D2** | 200 | | mg/L | | | 05/29/24 06:08 | 100 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/29/24 05:49 | 1 |
| **Sulfate** | **3000** | **E2** | 2.0 | | mg/L | | | 05/29/24 05:49 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **0.54** | | 0.50 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:48 | 10 |
| **Calcium** | **530** | | 20 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:48 | 10 |
| **Magnesium** | **9900** | | 20 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:48 | 10 |
| **Potassium** | **210** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:48 | 10 |
| **Sodium** | **15000** | | 50 | | mg/L | | 05/28/24 07:50 | 06/05/24 20:13 | 100 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cobalt** | **0.019** | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:43 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 09:55 | 05/30/24 19:43 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **860** | | 6.0 | | mg/L | | | 05/30/24 12:48 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 12:48 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **860** | | 6.0 | | mg/L | | | 05/30/24 12:48 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 12:48 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 12:48 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **87000** | | 1000 | | mg/L | | | 05/29/24 10:00 | 1 |
| **pH (SM 4500 H+ B)** | **7.0** | **H5** | 1.7 | | SU | | | 06/04/24 07:09 | 1 |
| **Temperature (SM 4500 H+ B)** | **19.0** | **H5 T5** | 0.1 | | Degrees C | | | 06/04/24 07:09 | 1 |

## Client Sample ID: FC-CCR-MW15-0524

**Lab Sample ID: 550-218892-4**

**Date Collected: 05/23/24 16:00**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2300** | **D2** | 200 | | mg/L | | | 05/28/24 18:45 | 100 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/28/24 18:17 | 1 |
| **Sulfate** | **13000** | **D2** | 200 | | mg/L | | | 05/28/24 18:45 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **9.0** | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 09:03 | 1 |
| **Calcium** | **460** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 09:03 | 1 |
| **Iron** | **0.19** | | 0.10 | | mg/L | | 05/28/24 07:50 | 06/04/24 09:03 | 1 |
| **Magnesium** | **740** | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 09:03 | 1 |
| **Manganese** | **1.2** | | 0.010 | | mg/L | | 05/28/24 07:50 | 06/04/24 09:03 | 1 |
| **Potassium** | **44** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:51 | 10 |
| **Sodium** | **2400** | | 5.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 20:51 | 10 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 09:03 | 1 |

## Client Sample ID: FC-CCR-MW15-0524

**Lab Sample ID: 550-218892-4**

**Date Collected: 05/23/24 16:00**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **1000** | | 20 | | ug/L | | 05/31/24 08:56 | 06/04/24 00:14 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:01 | 10 |
| **Arsenic** | **0.0058** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:01 | 10 |
| **Barium** | **0.018** | **L4** | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:01 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:01 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:01 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:01 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:01 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:01 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:01 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:01 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **660** | | 6.0 | | mg/L | | | 05/30/24 13:02 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 13:02 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **660** | | 6.0 | | mg/L | | | 05/30/24 13:02 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 13:02 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 13:02 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **12000** | | 100 | | mg/L | | | 05/29/24 10:00 | 1 |
| **pH (SM 4500 H+ B)** | **7.3** | **H5** | 1.7 | | SU | | | 06/04/24 07:09 | 1 |
| **Temperature (SM 4500 H+ B)** | **18.7** | **H5 T5** | 0.1 | | Degrees C | | | 06/04/24 07:09 | 1 |

## Client Sample ID: FC-CCR-MW16-0524

**Lab Sample ID: 550-218892-5**

**Date Collected: 05/23/24 17:11**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1800** | **D2** | 200 | | mg/L | | | 05/28/24 19:41 | 100 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/28/24 19:13 | 1 |
| **Sulfate** | **13000** | **D2** | 2000 | | mg/L | | | 06/03/24 22:15 | 1000 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **9.6** | **M3** | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:14 | 1 |
| **Calcium** | **450** | **M3** | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:14 | 1 |
| **Iron** | **0.64** | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:14 | 1 |
| **Magnesium** | **2100** | **M3** | 200 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:25 | 100 |
| Potassium | ND | M2 | 50 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:25 | 100 |
| **Sodium** | **4600** | **M3** | 50 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:25 | 100 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:14 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **1600** | | 20 | | ug/L | | 05/31/24 08:56 | 06/04/24 00:18 | 1 |

## Client Sample ID: FC-CCR-MW16-0524

**Lab Sample ID: 550-218892-5**

**Date Collected: 05/23/24 17:11**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:03 | 10 |
| **Arsenic** | **0.0056** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:03 | 10 |
| **Barium** | **0.021** | **L4** | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:03 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:03 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:03 | 10 |
| **Cobalt** | **0.010** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:03 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:03 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:03 | 10 |
| **Selenium** | **0.030** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:03 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:03 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **590** | | 6.0 | | mg/L | | | 05/30/24 13:15 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 13:15 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **590** | | 6.0 | | mg/L | | | 05/30/24 13:15 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 13:15 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 13:15 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **23000** | | 200 | | mg/L | | | 05/29/24 10:00 | 1 |
| **pH (SM 4500 H+ B)** | **7.4** | **H5** | 1.7 | | SU | | | 06/04/24 07:09 | 1 |
| **Temperature (SM 4500 H+ B)** | **18.7** | **H5 T5** | 0.1 | | Degrees C | | | 06/04/24 07:09 | 1 |

## Client Sample ID: FC-CCR-MW17R-0524

**Lab Sample ID: 550-218892-6**

**Date Collected: 05/21/24 13:27**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **800** | **D2** | 200 | | mg/L | | | 05/28/24 20:37 | 100 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/28/24 20:09 | 1 |
| **Sulfate** | **7700** | **D2** | 200 | | mg/L | | | 05/28/24 20:37 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **39** | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:17 | 1 |
| **Calcium** | **480** | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:17 | 1 |
| **Iron** | **0.23** | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:17 | 1 |
| **Magnesium** | **300** | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:17 | 1 |
| **Manganese** | **1.0** | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:17 | 1 |
| Potassium | ND | | 50 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:28 | 100 |
| **Sodium** | **1300** | | 50 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:28 | 100 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:17 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **470** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 18:28 | 1 |

## Client Sample ID: FC-CCR-MW17R-0524

**Lab Sample ID: 550-218892-6**

**Date Collected: 05/21/24 13:27**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:05 | 10 |
| **Arsenic** | **0.0057** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:05 | 10 |
| **Barium** | **0.016** | **L4** | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:05 | 10 |
| **Cadmium** | **0.0013** | | 0.0010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:05 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:05 | 10 |
| **Cobalt** | **0.060** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:05 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:05 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:05 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:05 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:05 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **130** | | 6.0 | | mg/L | | | 05/30/24 13:27 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 13:27 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **130** | | 6.0 | | mg/L | | | 05/30/24 13:27 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 13:27 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 13:27 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **6600** | | 100 | | mg/L | | | 05/28/24 10:55 | 1 |
| **pH (SM 4500 H+ B)** | **7.4** | **H5** | 1.7 | | SU | | | 06/04/24 07:09 | 1 |
| **Temperature (SM 4500 H+ B)** | **18.9** | **H5 T5** | 0.1 | | Degrees C | | | 06/04/24 07:09 | 1 |

## Client Sample ID: FC-CCR-MW38R-0524

**Lab Sample ID: 550-218892-7**

**Date Collected: 05/22/24 17:15**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2200** | **D2** | 200 | | mg/L | | | 05/28/24 22:57 | 100 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/28/24 22:29 | 1 |
| **Sulfate** | **13000** | **D2** | 2000 | | mg/L | | | 06/03/24 22:40 | 1000 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **8.6** | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:21 | 1 |
| **Calcium** | **440** | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:21 | 1 |
| **Iron** | **0.69** | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:21 | 1 |
| **Magnesium** | **1700** | | 200 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:31 | 100 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:21 | 1 |
| Potassium | ND | | 50 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:31 | 100 |
| **Sodium** | **4100** | | 50 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:31 | 100 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:21 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **1400** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 18:49 | 1 |

## Client Sample ID: FC-CCR-MW38R-0524

**Lab Sample ID: 550-218892-7**

**Date Collected: 05/22/24 17:15**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:07 | 10 |
| **Arsenic** | **0.0060** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:07 | 10 |
| **Barium** | **0.016** | **L4** | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:07 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:07 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:07 | 10 |
| **Cobalt** | **0.028** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:07 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:07 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:07 | 10 |
| **Selenium** | **0.061** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:07 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:07 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **410** | | 6.0 | | mg/L | | | 05/30/24 13:33 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 13:33 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **410** | | 6.0 | | mg/L | | | 05/30/24 13:33 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 13:33 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 13:33 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **21000** | | 200 | | mg/L | | | 05/29/24 10:00 | 1 |
| **pH (SM 4500 H+ B)** | **7.5** | **H5** | 1.7 | | SU | | | 06/04/24 07:09 | 1 |
| **Temperature (SM 4500 H+ B)** | **19.3** | **H5 T5** | 0.1 | | Degrees C | | | 06/04/24 07:09 | 1 |

## Client Sample ID: FC-CCR-MW56-0524

**Lab Sample ID: 550-218892-8**

**Date Collected: 05/21/24 12:25**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **8600** | **D2** | 200 | | mg/L | | | 05/28/24 23:53 | 100 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/28/24 23:25 | 1 |
| **Sulfate** | **18000** | **D2** | 2000 | | mg/L | | | 06/03/24 23:05 | 1000 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **1.6** | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:24 | 1 |
| **Calcium** | **490** | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:24 | 1 |
| **Iron** | **0.79** | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:24 | 1 |
| **Magnesium** | **3000** | | 200 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:35 | 100 |
| **Manganese** | **0.012** | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:24 | 1 |
| Potassium | ND | | 50 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:35 | 100 |
| **Sodium** | **6000** | | 50 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:35 | 100 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:24 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **2000** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 18:54 | 1 |

## Client Sample ID: FC-CCR-MW56-0524

**Lab Sample ID: 550-218892-8**

**Date Collected: 05/21/24 12:25**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:09 | 10 |
| **Arsenic** | **0.0058** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:09 | 10 |
| **Barium** | **0.016** | **L4** | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:09 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:09 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:09 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:09 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:09 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:09 | 10 |
| **Selenium** | **0.23** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:09 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:09 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **890** | | 6.0 | | mg/L | | | 05/30/24 13:42 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 13:42 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **890** | | 6.0 | | mg/L | | | 05/30/24 13:42 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 13:42 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 13:42 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **34000** | | 200 | | mg/L | | | 05/28/24 10:55 | 1 |
| **pH (SM 4500 H+ B)** | **7.4** | **H5** | 1.7 | | SU | | | 06/04/24 11:10 | 1 |
| **Temperature (SM 4500 H+ B)** | **16.4** | **H5 T5** | 0.1 | | Degrees C | | | 06/04/24 11:10 | 1 |

## Client Sample ID: FC-CCR-MW57-0524

**Lab Sample ID: 550-218892-9**

**Date Collected: 05/21/24 17:35**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **5600** | **D2** | 200 | | mg/L | | | 05/29/24 00:49 | 100 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/29/24 00:21 | 1 |
| **Sulfate** | **18000** | **D2** | 2000 | | mg/L | | | 06/03/24 23:30 | 1000 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **2.4** | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:27 | 1 |
| **Calcium** | **530** | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:27 | 1 |
| **Iron** | **0.86** | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:27 | 1 |
| **Magnesium** | **2500** | | 200 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:38 | 100 |
| **Manganese** | **0.090** | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:27 | 1 |
| Potassium | ND | | 50 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:38 | 100 |
| **Sodium** | **6200** | | 50 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:38 | 100 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:27 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **2600** | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 18:58 | 1 |

## Client Sample ID: FC-CCR-MW57-0524

**Lab Sample ID: 550-218892-9**

**Date Collected: 05/21/24 17:35**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:11 | 10 |
| **Arsenic** | **0.0061** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:11 | 10 |
| **Barium** | **0.021** | **L4** | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:11 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:11 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:11 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:11 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:11 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:11 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:11 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:11 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **970** | | 6.0 | | mg/L | | | 05/30/24 13:57 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 13:57 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **970** | | 6.0 | | mg/L | | | 05/30/24 13:57 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 13:57 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 13:57 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **32000** | | 200 | | mg/L | | | 05/28/24 10:55 | 1 |
| **pH (SM 4500 H+ B)** | **7.5** | **H5** | 1.7 | | SU | | | 06/04/24 11:14 | 1 |
| **Temperature (SM 4500 H+ B)** | **17.4** | **H5 T5** | 0.1 | | Degrees C | | | 06/04/24 11:14 | 1 |

## Client Sample ID: FC-CCR-MW34-0524

**Lab Sample ID: 550-218892-10**

**Date Collected: 05/21/24 15:18**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **670** | **D2** | 200 | | mg/L | | | 05/29/24 01:45 | 100 |
| **Fluoride** | **0.65** | | 0.40 | | mg/L | | | 05/29/24 01:17 | 1 |
| **Sulfate** | **9900** | **D2** | 200 | | mg/L | | | 05/29/24 01:45 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **10** | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:31 | 1 |
| **Iron** | **0.30** | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:31 | 1 |
| **Magnesium** | **570** | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:31 | 1 |
| **Manganese** | **2.3** | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:31 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:13 | 10 |
| **Molybdenum** | **0.014** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:13 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **8400** | | 100 | | mg/L | | | 05/28/24 10:55 | 1 |

## Client Sample ID: FC-CCR-EW15-0524

**Lab Sample ID: 550-218892-11**

**Date Collected: 05/21/24 15:57**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **880** | **D2** | 200 | | mg/L | | | 05/29/24 04:05 | 100 |
| **Fluoride** | **0.70** | | 0.40 | | mg/L | | | 05/29/24 02:13 | 1 |
| **Sulfate** | **9800** | **D2** | 200 | | mg/L | | | 05/29/24 04:05 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **12** | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:34 | 1 |
| **Iron** | **0.27** | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:34 | 1 |
| **Magnesium** | **520** | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:34 | 1 |
| **Manganese** | **2.1** | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:34 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:15 | 10 |
| **Molybdenum** | **0.0068** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:15 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **8400** | | 100 | | mg/L | | | 05/28/24 10:55 | 1 |

## Client Sample ID: FC-CCR-MW24-0524

**Lab Sample ID: 550-218892-12**

**Date Collected: 05/21/24 16:39**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **9500** | **D2** | 200 | | mg/L | | | 05/29/24 05:00 | 100 |
| **Fluoride** | **0.52** | | 0.40 | | mg/L | | | 05/29/24 04:33 | 1 |
| **Sulfate** | **10000** | **D2** | 2000 | | mg/L | | | 06/03/24 23:55 | 1000 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **1.1** | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:38 | 1 |
| **Calcium** | **490** | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:38 | 1 |
| **Iron** | **0.50** | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:38 | 1 |
| **Magnesium** | **200** | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:38 | 1 |
| **Manganese** | **1.7** | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:38 | 1 |
| Potassium | ND | | 50 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:42 | 100 |
| **Sodium** | **8200** | | 50 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:42 | 100 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:38 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **1.6** | | 0.50 | | mg/L | | 06/05/24 06:25 | 06/06/24 10:34 | 10 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:17 | 10 |
| **Molybdenum** | **0.027** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:17 | 10 |

## Client Sample ID: FC-CCR-MW24-0524

**Lab Sample ID: 550-218892-12**

**Date Collected: 05/21/24 16:39**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **270** | | 6.0 | | mg/L | | | 06/04/24 09:42 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 06/04/24 09:42 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **270** | | 6.0 | | mg/L | | | 06/04/24 09:42 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 06/04/24 09:42 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 06/04/24 09:42 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **24000** | | 200 | | mg/L | | | 05/28/24 10:55 | 1 |
| **pH (SM 4500 H+ B)** | **7.5** | **H5** | 1.7 | | SU | | | 06/04/24 11:17 | 1 |
| **Temperature (SM 4500 H+ B)** | **18.6** | **H5 T5** | 0.1 | | Degrees C | | | 06/04/24 11:17 | 1 |

## Client Sample ID: FC-CCR-DMX05R-0524

**Lab Sample ID: 550-218892-13**

**Date Collected: 05/23/24 10:22**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **3800** | **D2** | 200 | | mg/L | | | 05/29/24 05:56 | 100 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/29/24 05:28 | 1 |
| **Sulfate** | **11000** | **D2** | 2000 | | mg/L | | | 06/04/24 01:36 | 1000 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **11** | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:41 | 1 |
| **Calcium** | **460** | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:41 | 1 |
| **Iron** | **6.7** | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:41 | 1 |
| **Magnesium** | **730** | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:41 | 1 |
| **Manganese** | **0.91** | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:41 | 1 |
| Potassium | ND | | 50 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:45 | 100 |
| **Sodium** | **5300** | | 50 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:45 | 100 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:41 | 1 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Lithium** | **1000** | | 500 | | ug/L | | 06/05/24 08:53 | 06/10/24 18:17 | 25 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:19 | 10 |
| **Arsenic** | **0.0097** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:19 | 10 |
| **Barium** | **0.017** | **L4** | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:19 | 10 |
| Cadmium | ND | | 0.0010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:19 | 10 |
| Chromium | ND | | 0.010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:19 | 10 |
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:19 | 10 |
| Lead | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:19 | 10 |
| **Molybdenum** | **0.016** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:19 | 10 |
| Selenium | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:19 | 10 |
| Thallium | ND | | 0.0010 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:19 | 10 |

## Client Sample ID: FC-CCR-DMX05R-0524

**Lab Sample ID: 550-218892-13**
**Date Collected: 05/23/24 10:22**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Alkalinity as CaCO3 (SM 2320B)** | **480** | | 6.0 | | mg/L | | | 05/30/24 14:13 | 1 |
| Alkalinity, Phenolphthalein (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 14:13 | 1 |
| **Bicarbonate Alkalinity as CaCO3 (SM 2320B)** | **480** | | 6.0 | | mg/L | | | 05/30/24 14:13 | 1 |
| Carbonate Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 14:13 | 1 |
| Hydroxide Alkalinity as CaCO3 (SM 2320B) | ND | | 6.0 | | mg/L | | | 05/30/24 14:13 | 1 |
| **Total Dissolved Solids (SM 2540C)** | **19000** | | 200 | | mg/L | | | 05/29/24 10:00 | 1 |
| **pH (SM 4500 H+ B)** | **7.6** | **H5** | 1.7 | | SU | | | 06/04/24 11:21 | 1 |
| **Temperature (SM 4500 H+ B)** | **19.3** | **H5 T5** | 0.1 | | Degrees C | | | 06/04/24 11:21 | 1 |

## Client Sample ID: FC-CCR-EW14-0524

**Lab Sample ID: 550-218892-14**
**Date Collected: 05/23/24 10:22**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **520** | **D2** | 200 | | mg/L | | | 05/29/24 06:52 | 100 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/29/24 06:24 | 1 |
| **Sulfate** | **8300** | **D2** | 200 | | mg/L | | | 05/29/24 06:52 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **14** | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:45 | 1 |
| **Iron** | **0.21** | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:45 | 1 |
| **Magnesium** | **350** | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:45 | 1 |
| **Manganese** | **1.7** | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:45 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:27 | 10 |
| **Molybdenum** | **0.0059** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:27 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **7000** | | 100 | | mg/L | | | 05/29/24 10:00 | 1 |

## Client Sample ID: FC-CCR-SUMP1-0524

**Lab Sample ID: 550-218892-15**
**Date Collected: 05/21/24 08:27**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **970** | **D2** | 200 | | mg/L | | | 05/29/24 07:48 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **77** | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:55 | 1 |
| **Iron** | **1.6** | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:55 | 1 |
| **Magnesium** | **530** | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:55 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:55 | 1 |

## Client Sample ID: FC-CCR-SUMP1-0524

**Lab Sample ID: 550-218892-15**
**Matrix: Water**
**Date Collected: 05/21/24 08:27**
**Date Received: 05/24/24 17:05**

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cobalt** | **0.046** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:29 | 10 |
| **Molybdenum** | **0.091** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:29 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **8500** | | 100 | | mg/L | | | 05/28/24 10:55 | 1 |

## Client Sample ID: FC-CCR-SUMP2-0524

**Lab Sample ID: 550-218892-16**
**Matrix: Water**
**Date Collected: 05/21/24 08:33**
**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **970** | **D2** | 40 | | mg/L | | | 05/29/24 09:40 | 20 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **50** | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:58 | 1 |
| **Iron** | **1.1** | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:58 | 1 |
| **Magnesium** | **600** | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:58 | 1 |
| **Manganese** | **0.010** | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 05:58 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:31 | 10 |
| **Molybdenum** | **0.0086** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:31 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **9600** | | 100 | | mg/L | | | 05/28/24 10:55 | 1 |

## Client Sample ID: FC-CCR-SUMP3-0524

**Lab Sample ID: 550-218892-17**
**Matrix: Water**
**Date Collected: 05/21/24 08:42**
**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **990** | **D2** | 40 | | mg/L | | | 05/29/24 10:08 | 20 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **43** | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:02 | 1 |
| **Iron** | **0.57** | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:02 | 1 |
| **Magnesium** | **1000** | | 200 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:48 | 100 |
| **Manganese** | **0.87** | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:02 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:33 | 10 |
| **Molybdenum** | **0.015** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:33 | 10 |

## Client Sample ID: FC-CCR-SUMP3-0524

**Lab Sample ID: 550-218892-17**

**Date Collected: 05/21/24 08:42**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 19000 | | 100 | | mg/L | | | 05/28/24 10:55 | 1 |

## Client Sample ID: FC-CCR-SUMP7-0524

**Lab Sample ID: 550-218892-18**

**Date Collected: 05/21/24 09:02**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 920 | D2 | 40 | | mg/L | | | 05/29/24 10:36 | 20 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 59 | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:05 | 1 |
| Iron | 1.4 | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:05 | 1 |
| Magnesium | 780 | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:05 | 1 |
| Manganese | 0.071 | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:05 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.067 | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:35 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:35 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 10000 | | 100 | | mg/L | | | 05/28/24 10:55 | 1 |

## Client Sample ID: FC-CCR-SUMP8-0524

**Lab Sample ID: 550-218892-19**

**Date Collected: 05/21/24 08:55**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1100 | D2 | 40 | | mg/L | | | 05/29/24 11:04 | 20 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 46 | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:08 | 1 |
| Iron | 3.6 | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:08 | 1 |
| Magnesium | 1700 | | 200 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:52 | 100 |
| Manganese | 0.012 | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:08 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.028 | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:37 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:37 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 17000 | | 100 | | mg/L | | | 05/28/24 10:55 | 1 |

## Client Sample ID: FC-CCR-SUMP9-0524

**Lab Sample ID: 550-218892-20**

**Date Collected: 05/21/24 09:09**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 530 | D2 | 100 | | mg/L | | | 05/29/24 08:17 | 50 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 33 | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:12 | 1 |
| Iron | 2.5 | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:12 | 1 |
| Magnesium | 830 | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:12 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:12 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.021 | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:39 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:39 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 10000 | | 100 | | mg/L | | | 05/28/24 10:55 | 1 |

## Client Sample ID: FC-CCR-SUMP10-0524

**Lab Sample ID: 550-218892-21**

**Date Collected: 05/21/24 09:13**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 440 | D2 | 100 | | mg/L | | | 05/29/24 09:12 | 50 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 55 | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:15 | 1 |
| Iron | 0.62 | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:15 | 1 |
| Magnesium | 470 | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:15 | 1 |
| Manganese | 0.010 | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:15 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.16 | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:41 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:41 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 7700 | | 100 | | mg/L | | | 05/28/24 10:55 | 1 |

## Client Sample ID: FC-CCR-SUMP11-0524

**Lab Sample ID: 550-218892-22**

**Date Collected: 05/21/24 09:17**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 460 | D2 | 100 | | mg/L | | | 05/29/24 09:30 | 50 |

## Client Sample ID: FC-CCR-SUMP11-0524

**Lab Sample ID: 550-218892-22**

**Date Collected: 05/21/24 09:17**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **50** | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:19 | 1 |
| **Iron** | **0.61** | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:19 | 1 |
| **Magnesium** | **510** | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:19 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:19 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cobalt** | **0.12** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:43 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:43 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **8000** | | 100 | | mg/L | | | 05/28/24 10:55 | 1 |

## Client Sample ID: FC-CCR-SUMP12-0524

**Lab Sample ID: 550-218892-23**

**Date Collected: 05/21/24 09:22**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **440** | **D2** | 100 | | mg/L | | | 05/29/24 09:49 | 50 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **52** | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:22 | 1 |
| **Iron** | **1.0** | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:22 | 1 |
| **Magnesium** | **490** | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:22 | 1 |
| **Manganese** | **0.011** | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:22 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Cobalt** | **0.13** | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:45 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 10:01 | 05/30/24 20:45 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total Dissolved Solids (SM 2540C)** | **7600** | | 100 | | mg/L | | | 05/28/24 10:55 | 1 |

## Client Sample ID: FC-CCR-SUMP13-0524

**Lab Sample ID: 550-218892-24**

**Date Collected: 05/21/24 09:26**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **450** | **D2** | 100 | | mg/L | | | 05/29/24 10:07 | 50 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Boron** | **54** | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:26 | 1 |
| **Iron** | **0.71** | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:26 | 1 |
| **Magnesium** | **510** | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:26 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 06:26 | 1 |

## Client Sample ID: FC-CCR-SUMP13-0524

**Lab Sample ID: 550-218892-24**

**Date Collected: 05/21/24 09:26**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.14 | | 0.0050 | | mg/L | | 05/28/24 10:07 | 05/29/24 18:34 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 10:07 | 05/29/24 18:34 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 7600 | | 100 | | mg/L | | | 05/28/24 10:55 | 1 |

## Client Sample ID: FC-CCR-SUMP14-0524

**Lab Sample ID: 550-218892-25**

**Date Collected: 05/21/24 09:32**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 390 | D2 | 100 | | mg/L | | | 05/29/24 10:25 | 50 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 33 | M3 | 0.050 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:26 | 1 |
| Iron | 0.46 | | 0.10 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:26 | 1 |
| Magnesium | 360 | M3 | 2.0 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:26 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:26 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.034 | | 0.0050 | | mg/L | | 05/28/24 10:07 | 05/29/24 18:36 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 10:07 | 05/29/24 18:36 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 7300 | | 100 | | mg/L | | | 05/28/24 10:55 | 1 |

## Client Sample ID: FC-CCR-SUMP15-0524

**Lab Sample ID: 550-218892-26**

**Date Collected: 05/21/24 09:39**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 670 | D2 | 100 | | mg/L | | | 05/29/24 10:44 | 50 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 19 | | 0.050 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:29 | 1 |
| Iron | 0.74 | | 0.10 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:29 | 1 |
| Magnesium | 1300 | | 200 | | mg/L | | 05/28/24 09:00 | 06/05/24 20:17 | 100 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:29 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.089 | | 0.0050 | | mg/L | | 05/28/24 10:07 | 05/29/24 18:37 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 10:07 | 05/29/24 18:37 | 10 |

## Client Sample ID: FC-CCR-SUMP15-0524

**Lab Sample ID: 550-218892-26**

**Date Collected: 05/21/24 09:39**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 16000 | | 100 | | mg/L | | | 05/28/24 10:55 | 1 |

## Client Sample ID: FC-CCR-SUMP16-0524

**Lab Sample ID: 550-218892-27**

**Date Collected: 05/21/24 09:43**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 430 | D2 | 100 | | mg/L | | | 05/29/24 11:57 | 50 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 22 | | 0.050 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:33 | 1 |
| Iron | 2.2 | | 0.10 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:33 | 1 |
| Magnesium | 410 | | 2.0 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:33 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:33 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.065 | | 0.0050 | | mg/L | | 05/28/24 10:07 | 05/29/24 18:40 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 10:07 | 05/29/24 18:40 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 7500 | | 100 | | mg/L | | | 05/28/24 10:55 | 1 |

## Client Sample ID: FC-CCR-SUMP17-0524

**Lab Sample ID: 550-218892-28**

**Date Collected: 05/21/24 09:47**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 640 | D2 | 200 | | mg/L | | | 05/29/24 12:16 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 16 | | 0.050 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:36 | 1 |
| Iron | 0.42 | | 0.10 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:36 | 1 |
| Magnesium | 560 | | 2.0 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:36 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:36 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 10:07 | 05/29/24 18:41 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 10:07 | 05/29/24 18:41 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 8600 | | 100 | | mg/L | | | 05/28/24 11:05 | 1 |

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218892-1

## Client Sample ID: FC-CCR-SUMP18-0524

**Lab Sample ID: 550-218892-29**

**Date Collected: 05/21/24 09:53**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 1400 | D2 | 200 | | mg/L | | | 05/29/24 12:34 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 6.0 | | 0.050 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:40 | 1 |
| Iron | 1.1 | | 0.10 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:40 | 1 |
| Magnesium | 3400 | | 200 | | mg/L | | 05/28/24 09:00 | 06/05/24 20:20 | 100 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:40 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.0050 | | mg/L | | 05/28/24 10:07 | 05/29/24 18:44 | 10 |
| Molybdenum | ND | | 0.0050 | | mg/L | | 05/28/24 10:07 | 05/29/24 18:44 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 33000 | | 200 | | mg/L | | | 05/28/24 11:05 | 1 |

## Client Sample ID: FC-CCR-AshPond6Vault-0524

**Lab Sample ID: 550-218892-30**

**Date Collected: 05/21/24 10:15**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

### Method: EPA 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 610 | D2 | 200 | | mg/L | | | 05/29/24 12:53 | 100 |

### Method: EPA 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 54 | | 0.050 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:43 | 1 |
| Iron | 0.40 | | 0.10 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:43 | 1 |
| Magnesium | 910 | | 2.0 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:43 | 1 |
| Manganese | 0.028 | | 0.010 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:43 | 1 |

### Method: EPA 200.8 LL - Metals (ICP/MS)

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.050 | | 0.0050 | | mg/L | | 05/28/24 10:07 | 05/29/24 18:46 | 10 |
| Molybdenum | 0.0067 | | 0.0050 | | mg/L | | 05/28/24 10:07 | 05/29/24 18:46 | 10 |

### General Chemistry

| Analyte | Result | Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (SM 2540C) | 12000 | | 100 | | mg/L | | | 05/28/24 11:05 | 1 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 550-321584/2**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 05/28/24 12:57 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/28/24 12:57 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 05/28/24 12:57 | 1 |

**Lab Sample ID: LCS 550-321584/5**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.2 | | mg/L | | 96 | 90 - 110 | | |
| Fluoride | | | 4.00 | 3.92 | | mg/L | | 98 | 90 - 110 | | |
| Sulfate | | | 20.0 | 19.2 | | mg/L | | 96 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321584/6**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.7 | | mg/L | | 98 | 90 - 110 | 2 | 20 |
| Fluoride | | | 4.00 | 3.87 | | mg/L | | 97 | 90 - 110 | 1 | 20 |
| Sulfate | | | 20.0 | 18.8 | | mg/L | | 94 | 90 - 110 | 2 | 20 |

**Lab Sample ID: 550-218888-A-1 MS ^100**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2700 | M2 | 2000 | 3750 | M2 | mg/L | | 53 | 80 - 120 | | |
| Fluoride | ND | | 400 | 426 | | mg/L | | 97 | 80 - 120 | | |
| Sulfate | 18000 | E2 M3 | 2000 | 13800 | E2 M3 | mg/L | | -229 | 80 - 120 | | |

**Lab Sample ID: 550-218888-A-1 MSD ^100**
**Matrix: Water**
**Analysis Batch: 321584**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 2700 | M2 | 2000 | 3860 | M2 | mg/L | | 58 | 80 - 120 | 3 | 20 |
| Fluoride | ND | | 400 | 425 | | mg/L | | 97 | 80 - 120 | 0 | 20 |
| Sulfate | 18000 | E2 M3 | 2000 | 14600 | E2 M3 | mg/L | | -192 | 80 - 120 | 5 | 20 |

**Lab Sample ID: MB 550-321600/2**
**Matrix: Water**
**Analysis Batch: 321600**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 05/28/24 13:10 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 05/28/24 13:10 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 05/28/24 13:10 | 1 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 550-321600/5**
**Matrix: Water**
**Analysis Batch: 321600**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 20.1 | | mg/L | | 101 | 90 - 110 | | |
| Fluoride | | | 4.00 | 3.81 | | mg/L | | 95 | 90 - 110 | | |
| Sulfate | | | 20.0 | 19.3 | | mg/L | | 96 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321600/1005**
**Matrix: Water**
**Analysis Batch: 321600**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 20.1 | | mg/L | | 101 | 90 - 110 | 0 | 20 |
| Fluoride | | | 4.00 | 3.81 | | mg/L | | 95 | 90 - 110 | 0 | 20 |
| Sulfate | | | 20.0 | 19.3 | | mg/L | | 96 | 90 - 110 | 0 | 20 |

**Lab Sample ID: LCSD 550-321600/6**
**Matrix: Water**
**Analysis Batch: 321600**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 20.3 | | mg/L | | 102 | 90 - 110 | 1 | 20 |
| Fluoride | | | 4.00 | 3.80 | | mg/L | | 95 | 90 - 110 | 0 | 20 |
| Sulfate | | | 20.0 | 18.9 | | mg/L | | 94 | 90 - 110 | 2 | 20 |

**Lab Sample ID: 550-218913-A-2 MS**
**Matrix: Water**
**Analysis Batch: 321600**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 120 | M3 | 20.0 | 139 | M3 | mg/L | | 71 | 80 - 120 | | |
| Fluoride | ND | | 4.00 | 4.06 | | mg/L | | 96 | 80 - 120 | | |
| Sulfate | 120 | | 20.0 | 139 | M3 | mg/L | | 85 | 80 - 120 | | |

**Lab Sample ID: 550-218913-A-2 MSD**
**Matrix: Water**
**Analysis Batch: 321600**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 120 | M3 | 20.0 | 139 | M3 | mg/L | | 71 | 80 - 120 | 0 | 20 |
| Fluoride | ND | | 4.00 | 3.98 | | mg/L | | 94 | 80 - 120 | 2 | 20 |
| Sulfate | 120 | | 20.0 | 139 | M3 | mg/L | | 81 | 80 - 120 | 0 | 20 |

**Lab Sample ID: MB 550-321601/62**
**Matrix: Water**
**Analysis Batch: 321601**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 05/29/24 07:21 | 1 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 550-321601/63**
**Matrix: Water**
**Analysis Batch: 321601**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.0 | | mg/L | | 95 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321601/64**
**Matrix: Water**
**Analysis Batch: 321601**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 18.9 | | mg/L | | 94 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 550-218892-20 MS**
**Matrix: Water**
**Analysis Batch: 321601**

**Client Sample ID: FC-CCR-SUMP9-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 530 | D2 | 1000 | 1510 | D2 | mg/L | | 97 | 80 - 120 | | |

**Lab Sample ID: 550-218892-20 MSD**
**Matrix: Water**
**Analysis Batch: 321601**

**Client Sample ID: FC-CCR-SUMP9-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 530 | D2 | 1000 | 1510 | D2 | mg/L | | 98 | 80 - 120 | 0 | 20 |

**Lab Sample ID: MB 550-321859/2**
**Matrix: Water**
**Analysis Batch: 321859**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | | 2.0 | | mg/L | | | 06/03/24 13:29 | 1 |
| Fluoride | ND | | 0.40 | | mg/L | | | 06/03/24 13:29 | 1 |
| Sulfate | ND | | 2.0 | | mg/L | | | 06/03/24 13:29 | 1 |

**Lab Sample ID: LCS 550-321859/5**
**Matrix: Water**
**Analysis Batch: 321859**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.3 | | mg/L | | 97 | 90 - 110 | | |
| Fluoride | | | 4.00 | 3.88 | | mg/L | | 97 | 90 - 110 | | |
| Sulfate | | | 20.0 | 19.3 | | mg/L | | 97 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321859/6**
**Matrix: Water**
**Analysis Batch: 321859**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | | | 20.0 | 19.3 | | mg/L | | 97 | 90 - 110 | 0 | 20 |
| Fluoride | | | 4.00 | 3.88 | | mg/L | | 97 | 90 - 110 | 0 | 20 |
| Sulfate | | | 20.0 | 19.3 | | mg/L | | 96 | 90 - 110 | 0 | 20 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 550-219142-B-1 MS ^10**
**Matrix: Water**
**Analysis Batch: 321859**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4100 | E2 D2 M3 | 200 | 4170 | D2 E2 M3 | mg/L | | 42 | 80 - 120 |
| Fluoride | ND | D1 D5 | 40.0 | 38.7 | D2 | mg/L | | 97 | 80 - 120 |
| Sulfate | 1200 | D2 | 200 | 1360 | D2 M3 | mg/L | | 92 | 80 - 120 |

**Lab Sample ID: 550-219142-B-1 MSD ^10**
**Matrix: Water**
**Analysis Batch: 321859**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4100 | E2 D2 M3 | 200 | 4160 | D2 E2 M3 | mg/L | | 36 | 80 - 120 | 0 | 20 |
| Fluoride | ND | D1 D5 | 40.0 | 38.9 | D2 | mg/L | | 97 | 80 - 120 | 1 | 20 |
| Sulfate | 1200 | D2 | 200 | 1360 | D2 M3 | mg/L | | 90 | 80 - 120 | 0 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 550-321544/1-A**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | ND | | 0.050 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |
| Calcium | ND | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |
| Magnesium | ND | | 2.0 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:50 | 06/04/24 06:29 | 1 |

**Lab Sample ID: MB 550-321544/1-A**
**Matrix: Water**
**Analysis Batch: 321967**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Potassium | ND | | 0.50 | | mg/L | | 05/28/24 07:50 | 06/04/24 19:47 | 1 |
| Sodium | ND | | 0.50 | | mg/L | | 05/28/24 07:50 | 06/04/24 19:47 | 1 |

**Lab Sample ID: LCS 550-321544/2-A**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Boron | 1.00 | 1.13 | | mg/L | | 113 | 85 - 115 |
| Calcium | 21.0 | 22.8 | | mg/L | | 108 | 85 - 115 |
| Iron | 1.00 | 1.02 | | mg/L | | 102 | 85 - 115 |
| Magnesium | 21.0 | 22.6 | | mg/L | | 108 | 85 - 115 |
| Manganese | 1.00 | 1.02 | | mg/L | | 102 | 85 - 115 |
| Beryllium | 1.00 | 1.09 | | mg/L | | 109 | 85 - 115 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: LCS 550-321544/2-A**
**Matrix: Water**
**Analysis Batch: 321967**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Potassium | 20.0 | 20.7 | | mg/L | | 103 | 85 - 115 |
| Sodium | 20.0 | 19.9 | | mg/L | | 100 | 85 - 115 |

**Lab Sample ID: LCSD 550-321544/3-A**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 1.00 | 1.11 | | mg/L | | 111 | 85 - 115 | 2 | 20 |
| Calcium | 21.0 | 22.5 | | mg/L | | 107 | 85 - 115 | 1 | 20 |
| Iron | 1.00 | 1.00 | | mg/L | | 100 | 85 - 115 | 2 | 20 |
| Magnesium | 21.0 | 22.4 | | mg/L | | 107 | 85 - 115 | 1 | 20 |
| Manganese | 1.00 | 0.999 | | mg/L | | 100 | 85 - 115 | 2 | 20 |
| Beryllium | 1.00 | 1.08 | | mg/L | | 108 | 85 - 115 | 1 | 20 |

**Lab Sample ID: LCSD 550-321544/3-A**
**Matrix: Water**
**Analysis Batch: 321967**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Potassium | 20.0 | 19.8 | | mg/L | | 99 | 85 - 115 | 4 | 20 |
| Sodium | 20.0 | 19.1 | | mg/L | | 96 | 85 - 115 | 4 | 20 |

**Lab Sample ID: 550-218888-C-1-A MS**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 140 | E2 M3 | 1.00 | 140 | E2 M3 | mg/L | | -431 | 70 - 130 |
| Calcium | 500 | M3 | 21.0 | 502 | M3 | mg/L | | 27 | 70 - 130 |
| Iron | 0.85 | | 1.00 | 1.92 | | mg/L | | 107 | 70 - 130 |
| Magnesium | 2700 | E2 M3 | 21.0 | 2670 | E2 M3 | mg/L | | -314 | 70 - 130 |
| Manganese | 8.6 | M3 | 1.00 | 9.18 | M3 | mg/L | | 63 | 70 - 130 |
| Beryllium | ND | | 1.00 | 1.17 | | mg/L | | 117 | 70 - 130 |

**Lab Sample ID: 550-218888-C-1-B MSD**
**Matrix: Water**
**Analysis Batch: 321935**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 321544**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 140 | E2 M3 | 1.00 | 144 | E2 M3 | mg/L | | -20 | 70 - 130 | 3 | 20 |
| Calcium | 500 | M3 | 21.0 | 513 | M3 | mg/L | | 78 | 70 - 130 | 2 | 20 |
| Iron | 0.85 | | 1.00 | 1.94 | | mg/L | | 109 | 70 - 130 | 1 | 20 |
| Magnesium | 2700 | E2 M3 | 21.0 | 2740 | E2 M3 | mg/L | | -6 | 70 - 130 | 2 | 20 |
| Manganese | 8.6 | M3 | 1.00 | 9.43 | M3 | mg/L | | 87 | 70 - 130 | 3 | 20 |
| Beryllium | ND | | 1.00 | 1.18 | | mg/L | | 118 | 70 - 130 | 1 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: MB 550-321546/1-A**
**Matrix: Water**
**Analysis Batch: 321980**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321546**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | ND | | 0.050 | | mg/L | | 05/28/24 07:56 | 06/05/24 04:57 | 1 |
| Calcium | ND | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 04:57 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 05/28/24 07:56 | 06/05/24 04:57 | 1 |
| Magnesium | ND | | 2.0 | | mg/L | | 05/28/24 07:56 | 06/05/24 04:57 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 07:56 | 06/05/24 04:57 | 1 |
| Beryllium | ND | | 0.0010 | | mg/L | | 05/28/24 07:56 | 06/05/24 04:57 | 1 |

**Lab Sample ID: MB 550-321546/1-A**
**Matrix: Water**
**Analysis Batch: 322037**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321546**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Potassium | ND | | 0.50 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:08 | 1 |
| Sodium | ND | | 0.50 | | mg/L | | 05/28/24 07:56 | 06/05/24 21:08 | 1 |

**Lab Sample ID: LCS 550-321546/2-A**
**Matrix: Water**
**Analysis Batch: 321980**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321546**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.08 | | mg/L | | 108 | 85 - 115 | | |
| Calcium | | | 21.0 | 21.5 | | mg/L | | 102 | 85 - 115 | | |
| Iron | | | 1.00 | 0.967 | | mg/L | | 97 | 85 - 115 | | |
| Magnesium | | | 21.0 | 21.5 | | mg/L | | 102 | 85 - 115 | | |
| Manganese | | | 1.00 | 0.997 | | mg/L | | 100 | 85 - 115 | | |
| Beryllium | | | 1.00 | 1.02 | | mg/L | | 102 | 85 - 115 | | |

**Lab Sample ID: LCS 550-321546/2-A**
**Matrix: Water**
**Analysis Batch: 322037**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321546**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Potassium | | | 20.0 | 20.0 | | mg/L | | 100 | 85 - 115 | | |
| Sodium | | | 20.0 | 19.4 | | mg/L | | 97 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321546/3-A**
**Matrix: Water**
**Analysis Batch: 321980**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321546**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.08 | | mg/L | | 108 | 85 - 115 | 0 | 20 |
| Calcium | | | 21.0 | 21.5 | | mg/L | | 102 | 85 - 115 | 0 | 20 |
| Iron | | | 1.00 | 0.970 | | mg/L | | 97 | 85 - 115 | 0 | 20 |
| Magnesium | | | 21.0 | 21.5 | | mg/L | | 102 | 85 - 115 | 0 | 20 |
| Manganese | | | 1.00 | 0.996 | | mg/L | | 100 | 85 - 115 | 0 | 20 |
| Beryllium | | | 1.00 | 1.02 | | mg/L | | 102 | 85 - 115 | 0 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: LCSD 550-321546/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 322037** — **Prep Batch: 321546**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Potassium | | | 20.0 | 20.9 | | mg/L | | 105 | 85 - 115 | 4 | 20 |
| Sodium | | | 20.0 | 20.2 | | mg/L | | 101 | 85 - 115 | 4 | 20 |

**Lab Sample ID: 550-218892-5 MS** — **Client Sample ID: FC-CCR-MW16-0524**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321980** — **Prep Batch: 321546**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Boron | 9.6 | M3 | 1.00 | 10.2 | M3 | mg/L | | 56 | 70 - 130 |
| Calcium | 450 | M3 | 21.0 | 435 | M3 | mg/L | | -49 | 70 - 130 |
| Iron | 0.64 | | 1.00 | 1.69 | | mg/L | | 105 | 70 - 130 |
| Manganese | 1.3 | | 1.00 | 2.28 | | mg/L | | 93 | 70 - 130 |
| Beryllium | ND | | 1.00 | 1.10 | | mg/L | | 110 | 70 - 130 |

**Lab Sample ID: 550-218892-5 MS** — **Client Sample ID: FC-CCR-MW16-0524**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 322037** — **Prep Batch: 321546**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Magnesium | 2100 | M3 | 21.0 | 1810 | M3 | mg/L | | -1251 | 70 - 130 |
| Potassium | ND | M2 | 20.0 | ND | M2 | mg/L | | 57 | 70 - 130 |
| Sodium | 4600 | M3 | 20.0 | 3980 | M3 | mg/L | | -3278 | 70 - 130 |

**Lab Sample ID: 550-218892-5 MSD** — **Client Sample ID: FC-CCR-MW16-0524**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321980** — **Prep Batch: 321546**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 9.6 | M3 | 1.00 | 10.3 | M3 | mg/L | | 70 | 70 - 130 | 1 | 20 |
| Calcium | 450 | M3 | 21.0 | 448 | M3 | mg/L | | 9 | 70 - 130 | 3 | 20 |
| Iron | 0.64 | | 1.00 | 1.70 | | mg/L | | 106 | 70 - 130 | 1 | 20 |
| Manganese | 1.3 | | 1.00 | 2.32 | | mg/L | | 97 | 70 - 130 | 2 | 20 |
| Beryllium | ND | | 1.00 | 1.12 | | mg/L | | 112 | 70 - 130 | 2 | 20 |

**Lab Sample ID: 550-218892-5 MSD** — **Client Sample ID: FC-CCR-MW16-0524**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 322037** — **Prep Batch: 321546**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Magnesium | 2100 | M3 | 21.0 | 1670 | M3 | mg/L | | -1942 | 70 - 130 | 8 | 20 |
| Potassium | ND | M2 | 20.0 | ND | M2 | mg/L | | 30 | 70 - 130 | 17 | 20 |
| Sodium | 4600 | M3 | 20.0 | 3690 | M3 | mg/L | | -4703 | 70 - 130 | 7 | 20 |

**Lab Sample ID: MB 550-321555/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321972** — **Prep Batch: 321555**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Boron | ND | | 0.050 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:09 | 1 |
| Iron | ND | | 0.10 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:09 | 1 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: MB 550-321555/1-A**
**Matrix: Water**
**Analysis Batch: 321972**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321555**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Magnesium | ND | | 2.0 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:09 | 1 |
| Manganese | ND | | 0.010 | | mg/L | | 05/28/24 09:00 | 06/05/24 01:09 | 1 |

**Lab Sample ID: LCS 550-321555/2-A**
**Matrix: Water**
**Analysis Batch: 321972**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321555**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.06 | | mg/L | | 106 | 85 - 115 | | |
| Iron | | | 1.00 | 0.971 | | mg/L | | 97 | 85 - 115 | | |
| Magnesium | | | 21.0 | 21.5 | | mg/L | | 102 | 85 - 115 | | |
| Manganese | | | 1.00 | 0.992 | | mg/L | | 99 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321555/3-A**
**Matrix: Water**
**Analysis Batch: 321972**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321555**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | | | 1.00 | 1.07 | | mg/L | | 107 | 85 - 115 | 1 | 20 |
| Iron | | | 1.00 | 0.989 | | mg/L | | 99 | 85 - 115 | 2 | 20 |
| Magnesium | | | 21.0 | 21.9 | | mg/L | | 104 | 85 - 115 | 2 | 20 |
| Manganese | | | 1.00 | 1.00 | | mg/L | | 100 | 85 - 115 | 1 | 20 |

**Lab Sample ID: 550-218892-25 MS**
**Matrix: Water**
**Analysis Batch: 321972**

**Client Sample ID: FC-CCR-SUMP14-0524**
**Prep Type: Total/NA**
**Prep Batch: 321555**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 33 | M3 | 1.00 | 33.4 | M3 | mg/L | | 50 | 70 - 130 | | |
| Iron | 0.46 | | 1.00 | 1.52 | | mg/L | | 106 | 70 - 130 | | |
| Magnesium | 360 | M3 | 21.0 | 376 | M3 | mg/L | | 95 | 70 - 130 | | |
| Manganese | ND | | 1.00 | 1.00 | | mg/L | | 100 | 70 - 130 | | |

**Lab Sample ID: 550-218892-25 MSD**
**Matrix: Water**
**Analysis Batch: 321972**

**Client Sample ID: FC-CCR-SUMP14-0524**
**Prep Type: Total/NA**
**Prep Batch: 321555**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boron | 33 | M3 | 1.00 | 32.2 | M3 | mg/L | | -71 | 70 - 130 | 4 | 20 |
| Iron | 0.46 | | 1.00 | 1.48 | | mg/L | | 102 | 70 - 130 | 3 | 20 |
| Magnesium | 360 | M3 | 21.0 | 361 | M3 | mg/L | | 27 | 70 - 130 | 4 | 20 |
| Manganese | ND | | 1.00 | 0.969 | | mg/L | | 97 | 70 - 130 | 3 | 20 |

**Lab Sample ID: MB 570-447659/1-A**
**Matrix: Water**
**Analysis Batch: 448241**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 447659**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 0.050 | | mg/L | | 06/05/24 06:25 | 06/06/24 10:18 | 1 |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: LCS 570-447659/2-A**
**Matrix: Water**
**Analysis Batch: 448241**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 447659**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 0.500 | 0.496 | | mg/L | | 99 | 85 - 115 | | |

**Lab Sample ID: LCSD 570-447659/3-A**
**Matrix: Water**
**Analysis Batch: 448241**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total Recoverable**
**Prep Batch: 447659**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 0.500 | 0.500 | | mg/L | | 100 | 85 - 115 | 1 | 20 |

**Lab Sample ID: 570-186683-A-1-B MS**
**Matrix: Water**
**Analysis Batch: 448241**

**Client Sample ID: Matrix Spike**
**Prep Type: Total Recoverable**
**Prep Batch: 447659**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 0.500 | 0.515 | | mg/L | | 103 | 80 - 120 | | |

**Lab Sample ID: 570-186683-A-1-C MSD**
**Matrix: Water**
**Analysis Batch: 448241**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total Recoverable**
**Prep Batch: 447659**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 0.500 | 0.512 | | mg/L | | 102 | 80 - 120 | 1 | 20 |

**Lab Sample ID: MB 280-655283/1-A**
**Matrix: Water**
**Analysis Batch: 655719**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 655283**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 22:09 | 1 |

**Lab Sample ID: LCS 280-655283/2-A**
**Matrix: Water**
**Analysis Batch: 655719**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 655283**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 1000 | 960 | | ug/L | | 96 | 90 - 112 | | |

**Lab Sample ID: 550-218892-5 MS**
**Matrix: Water**
**Analysis Batch: 655719**

**Client Sample ID: FC-CCR-MW16-0524**
**Prep Type: Total Recoverable**
**Prep Batch: 655283**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 1600 | | 1000 | 2690 | | ug/L | | 113 | 70 - 130 | | |

**Lab Sample ID: 550-218892-5 MSD**
**Matrix: Water**
**Analysis Batch: 655719**

**Client Sample ID: FC-CCR-MW16-0524**
**Prep Type: Total Recoverable**
**Prep Batch: 655283**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 1600 | | 1000 | 2670 | | ug/L | | 111 | 70 - 130 | 1 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 280-655286/1-A**
**Matrix: Water**
**Analysis Batch: 655719**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 655286**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 20 | | ug/L | | 05/31/24 08:56 | 06/03/24 18:21 | 1 |

**Lab Sample ID: LCS 280-655286/2-A**
**Matrix: Water**
**Analysis Batch: 655719**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 655286**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 1000 | 998 | | ug/L | | 100 | 90 - 112 | | |

**Lab Sample ID: 550-218892-6 MS**
**Matrix: Water**
**Analysis Batch: 655719**

**Client Sample ID: FC-CCR-MW17R-0524**
**Prep Type: Total Recoverable**
**Prep Batch: 655286**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 470 | | 1000 | 1510 | | ug/L | | 104 | 70 - 130 | | |

**Lab Sample ID: 550-218892-6 MSD**
**Matrix: Water**
**Analysis Batch: 655719**

**Client Sample ID: FC-CCR-MW17R-0524**
**Prep Type: Total Recoverable**
**Prep Batch: 655286**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | 470 | | 1000 | 1550 | | ug/L | | 108 | 70 - 130 | 3 | 20 |

**Lab Sample ID: MB 280-655637/1-A**
**Matrix: Water**
**Analysis Batch: 656405**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 655637**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 20 | | ug/L | | 06/05/24 08:53 | 06/07/24 12:46 | 1 |

**Lab Sample ID: LCS 280-655637/2-A**
**Matrix: Water**
**Analysis Batch: 656405**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 655637**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | | | 1000 | 984 | | ug/L | | 98 | 90 - 112 | | |

**Lab Sample ID: 280-192221-E-1-L MS**
**Matrix: Water**
**Analysis Batch: 656405**

**Client Sample ID: Matrix Spike**
**Prep Type: Total Recoverable**
**Prep Batch: 655637**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 1000 | 987 | | ug/L | | 99 | 70 - 130 | | |

**Lab Sample ID: 280-192221-E-1-M MSD**
**Matrix: Water**
**Analysis Batch: 656405**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total Recoverable**
**Prep Batch: 655637**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium | ND | | 1000 | 994 | | ug/L | | 99 | 70 - 130 | 1 | 20 |

## Method: 200.8 LL - Metals (ICP/MS)

**Lab Sample ID: MB 550-321558/1-A**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Arsenic | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Barium | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Cobalt | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Selenium | ND | | 0.00050 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 05/28/24 09:55 | 05/30/24 18:49 | 1 |

**Lab Sample ID: LCS 550-321558/2-A**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 | | |
| Arsenic | | | 0.100 | 0.0999 | | mg/L | | 100 | 85 - 115 | | |
| Barium | | | 0.100 | 0.0827 | L4 | mg/L | | 83 | 85 - 115 | | |
| Cadmium | | | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | | |
| Chromium | | | 0.100 | 0.0998 | | mg/L | | 100 | 85 - 115 | | |
| Cobalt | | | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 | | |
| Lead | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | | |
| Molybdenum | | | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 | | |
| Selenium | | | 0.100 | 0.0971 | | mg/L | | 97 | 85 - 115 | | |
| Thallium | | | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321558/3-A**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.108 | | mg/L | | 108 | 85 - 115 | 2 | 20 |
| Arsenic | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | 1 | 20 |
| Barium | | | 0.100 | 0.0793 | L4 | mg/L | | 79 | 85 - 115 | 4 | 20 |
| Cadmium | | | 0.100 | 0.103 | | mg/L | | 103 | 85 - 115 | 1 | 20 |
| Chromium | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 | 1 | 20 |
| Cobalt | | | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 | 0 | 20 |
| Lead | | | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | 1 | 20 |
| Molybdenum | | | 0.100 | 0.109 | | mg/L | | 109 | 85 - 115 | 1 | 20 |
| Selenium | | | 0.100 | 0.0983 | | mg/L | | 98 | 85 - 115 | 1 | 20 |
| Thallium | | | 0.100 | 0.107 | | mg/L | | 107 | 85 - 115 | 2 | 20 |

**Lab Sample ID: 550-218890-B-1-B MS ^10**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.107 | | mg/L | | 107 | 70 - 130 | | |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: 550-218890-B-1-B MS ^10**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.0057 | | 0.100 | 0.106 | | mg/L | | 101 | 70 - 130 |
| Barium | 0.015 | L4 | 0.100 | 0.0910 | | mg/L | | 76 | 70 - 130 |
| Cadmium | ND | | 0.100 | 0.0986 | | mg/L | | 98 | 70 - 130 |
| Chromium | ND | | 0.100 | 0.0997 | | mg/L | | 100 | 70 - 130 |
| Cobalt | 0.073 | | 0.100 | 0.170 | | mg/L | | 96 | 70 - 130 |
| Lead | ND | | 0.100 | 0.0934 | | mg/L | | 93 | 70 - 130 |
| Molybdenum | 0.021 | | 0.100 | 0.131 | | mg/L | | 110 | 70 - 130 |
| Selenium | 0.016 | | 0.100 | 0.119 | | mg/L | | 103 | 70 - 130 |
| Thallium | ND | | 0.100 | 0.100 | | mg/L | | 100 | 70 - 130 |

**Lab Sample ID: 550-218890-B-1-C MSD ^10**
**Matrix: Water**
**Analysis Batch: 321758**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 321558**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.111 | | mg/L | | 111 | 70 - 130 | 4 | 20 |
| Arsenic | 0.0057 | | 0.100 | 0.109 | | mg/L | | 103 | 70 - 130 | 2 | 20 |
| Barium | 0.015 | L4 | 0.100 | 0.0926 | | mg/L | | 77 | 70 - 130 | 2 | 20 |
| Cadmium | ND | | 0.100 | 0.101 | | mg/L | | 100 | 70 - 130 | 2 | 20 |
| Chromium | ND | | 0.100 | 0.103 | | mg/L | | 103 | 70 - 130 | 4 | 20 |
| Cobalt | 0.073 | | 0.100 | 0.174 | | mg/L | | 101 | 70 - 130 | 3 | 20 |
| Lead | ND | | 0.100 | 0.0934 | | mg/L | | 93 | 70 - 130 | 0 | 20 |
| Molybdenum | 0.021 | | 0.100 | 0.135 | | mg/L | | 113 | 70 - 130 | 3 | 20 |
| Selenium | 0.016 | | 0.100 | 0.119 | | mg/L | | 103 | 70 - 130 | 0 | 20 |
| Thallium | ND | | 0.100 | 0.0986 | | mg/L | | 98 | 70 - 130 | 2 | 20 |

**Lab Sample ID: MB 550-321559/1-A**
**Matrix: Water**
**Analysis Batch: 321759**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 321559**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0010 | | mg/L | | 05/28/24 10:01 | 05/30/24 19:51 | 1 |
| Arsenic | ND | | 0.00050 | | mg/L | | 05/28/24 10:01 | 05/30/24 19:51 | 1 |
| Barium | ND | | 0.00050 | | mg/L | | 05/28/24 10:01 | 05/30/24 19:51 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 05/28/24 10:01 | 05/30/24 19:51 | 1 |
| Chromium | ND | | 0.0010 | | mg/L | | 05/28/24 10:01 | 05/30/24 19:51 | 1 |
| Cobalt | ND | | 0.00050 | | mg/L | | 05/28/24 10:01 | 05/30/24 19:51 | 1 |
| Lead | ND | | 0.00050 | | mg/L | | 05/28/24 10:01 | 05/30/24 19:51 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 05/28/24 10:01 | 05/30/24 19:51 | 1 |
| Selenium | ND | | 0.00050 | | mg/L | | 05/28/24 10:01 | 05/30/24 19:51 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 05/28/24 10:01 | 05/30/24 19:51 | 1 |

**Lab Sample ID: LCS 550-321559/2-A**
**Matrix: Water**
**Analysis Batch: 321759**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321559**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.100 | 0.107 | | mg/L | | 107 | 85 - 115 |
| Arsenic | | | 0.100 | 0.101 | | mg/L | | 101 | 85 - 115 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 550-321559/2-A**
**Matrix: Water**
**Analysis Batch: 321759**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 321559**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Barium | 0.100 | 0.0745 | L4 | mg/L | | 74 | 85 - 115 |
| Cadmium | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 |
| Chromium | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 |
| Cobalt | 0.100 | 0.106 | | mg/L | | 106 | 85 - 115 |
| Lead | 0.100 | 0.0997 | | mg/L | | 100 | 85 - 115 |
| Molybdenum | 0.100 | 0.111 | | mg/L | | 111 | 85 - 115 |
| Selenium | 0.100 | 0.0977 | | mg/L | | 98 | 85 - 115 |
| Thallium | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 |

**Lab Sample ID: LCSD 550-321559/3-A**
**Matrix: Water**
**Analysis Batch: 321759**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 321559**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.100 | 0.109 | | mg/L | | 109 | 85 - 115 | 2 | 20 |
| Arsenic | 0.100 | 0.102 | | mg/L | | 102 | 85 - 115 | 0 | 20 |
| Barium | 0.100 | 0.0786 | L4 | mg/L | | 79 | 85 - 115 | 5 | 20 |
| Cadmium | 0.100 | 0.105 | | mg/L | | 105 | 85 - 115 | 1 | 20 |
| Chromium | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 | 0 | 20 |
| Cobalt | 0.100 | 0.107 | | mg/L | | 107 | 85 - 115 | 0 | 20 |
| Lead | 0.100 | 0.100 | | mg/L | | 100 | 85 - 115 | 1 | 20 |
| Molybdenum | 0.100 | 0.110 | | mg/L | | 110 | 85 - 115 | 0 | 20 |
| Selenium | 0.100 | 0.0981 | | mg/L | | 98 | 85 - 115 | 0 | 20 |
| Thallium | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 | 0 | 20 |

**Lab Sample ID: 550-218892-4 MS**
**Matrix: Water**
**Analysis Batch: 321759**

**Client Sample ID: FC-CCR-MW15-0524**
**Prep Type: Total/NA**
**Prep Batch: 321559**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.109 | | mg/L | | 109 | 70 - 130 |
| Arsenic | 0.0058 | | 0.100 | 0.108 | | mg/L | | 103 | 70 - 130 |
| Barium | 0.018 | L4 | 0.100 | 0.0930 | | mg/L | | 75 | 70 - 130 |
| Cadmium | ND | | 0.100 | 0.0992 | | mg/L | | 99 | 70 - 130 |
| Chromium | ND | | 0.100 | 0.102 | | mg/L | | 102 | 70 - 130 |
| Cobalt | ND | | 0.100 | 0.104 | | mg/L | | 103 | 70 - 130 |
| Lead | ND | | 0.100 | 0.0915 | | mg/L | | 91 | 70 - 130 |
| Molybdenum | ND | | 0.100 | 0.115 | | mg/L | | 115 | 70 - 130 |
| Selenium | ND | | 0.100 | 0.101 | | mg/L | | 101 | 70 - 130 |
| Thallium | ND | | 0.100 | 0.0991 | | mg/L | | 99 | 70 - 130 |

**Lab Sample ID: 550-218892-4 MSD**
**Matrix: Water**
**Analysis Batch: 321759**

**Client Sample ID: FC-CCR-MW15-0524**
**Prep Type: Total/NA**
**Prep Batch: 321559**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.100 | 0.108 | | mg/L | | 108 | 70 - 130 | 1 | 20 |
| Arsenic | 0.0058 | | 0.100 | 0.107 | | mg/L | | 101 | 70 - 130 | 1 | 20 |
| Barium | 0.018 | L4 | 0.100 | 0.0908 | | mg/L | | 73 | 70 - 130 | 2 | 20 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: 550-218892-4 MSD** — **Client Sample ID: FC-CCR-MW15-0524**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321759** — **Prep Batch: 321559**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cadmium | ND | | 0.100 | 0.0984 | | mg/L | | 98 | 70 - 130 | 1 | 20 |
| Chromium | ND | | 0.100 | 0.101 | | mg/L | | 101 | 70 - 130 | 1 | 20 |
| Cobalt | ND | | 0.100 | 0.103 | | mg/L | | 101 | 70 - 130 | 2 | 20 |
| Lead | ND | | 0.100 | 0.0906 | | mg/L | | 91 | 70 - 130 | 1 | 20 |
| Molybdenum | ND | | 0.100 | 0.113 | | mg/L | | 113 | 70 - 130 | 2 | 20 |
| Selenium | ND | | 0.100 | 0.0983 | | mg/L | | 98 | 70 - 130 | 3 | 20 |
| Thallium | ND | | 0.100 | 0.0972 | | mg/L | | 97 | 70 - 130 | 2 | 20 |

**Lab Sample ID: MB 550-321560/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321686** — **Prep Batch: 321560**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ND | | 0.00050 | | mg/L | | 05/28/24 10:07 | 05/29/24 18:24 | 1 |
| Molybdenum | ND | | 0.00050 | | mg/L | | 05/28/24 10:07 | 05/29/24 18:24 | 1 |

**Lab Sample ID: LCS 550-321560/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321686** — **Prep Batch: 321560**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | | | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 | | |
| Molybdenum | | | 0.100 | 0.109 | | mg/L | | 109 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-321560/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321686** — **Prep Batch: 321560**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | | | 0.100 | 0.104 | | mg/L | | 104 | 85 - 115 | 1 | 20 |
| Molybdenum | | | 0.100 | 0.109 | | mg/L | | 109 | 85 - 115 | 0 | 20 |

**Lab Sample ID: 550-218892-24 MS** — **Client Sample ID: FC-CCR-SUMP13-0524**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321686** — **Prep Batch: 321560**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.14 | | 0.100 | 0.244 | | mg/L | | 105 | 70 - 130 | | |
| Molybdenum | ND | | 0.100 | 0.117 | | mg/L | | 117 | 70 - 130 | | |

**Lab Sample ID: 550-218892-24 MSD** — **Client Sample ID: FC-CCR-SUMP13-0524**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 321686** — **Prep Batch: 321560**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.14 | | 0.100 | 0.238 | | mg/L | | 99 | 70 - 130 | 2 | 20 |
| Molybdenum | ND | | 0.100 | 0.113 | | mg/L | | 113 | 70 - 130 | 3 | 20 |

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 550-321743/4**
**Matrix: Water**
**Analysis Batch: 321743**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/30/24 10:27 | 1 |
| Alkalinity, Phenolphthalein | ND | | 6.0 | | mg/L | | | 05/30/24 10:27 | 1 |
| Bicarbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/30/24 10:27 | 1 |
| Carbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/30/24 10:27 | 1 |
| Hydroxide Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 05/30/24 10:27 | 1 |

**Lab Sample ID: LCS 550-321743/3**
**Matrix: Water**
**Analysis Batch: 321743**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 238 | | mg/L | | 95 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321743/16**
**Matrix: Water**
**Analysis Batch: 321743**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 239 | | mg/L | | 96 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 550-218892-1 DU**
**Matrix: Water**
**Analysis Batch: 321743**

**Client Sample ID: FC-CCR-DMX04-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | 350 | | | 357 | | mg/L | | | | 0.5 | 20 |
| Alkalinity, Phenolphthalein | ND | | | ND | | mg/L | | | | NC | 20 |
| Bicarbonate Alkalinity as CaCO3 | 350 | | | 357 | | mg/L | | | | 0.5 | 20 |
| Carbonate Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |
| Hydroxide Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |

**Lab Sample ID: MB 550-321921/4**
**Matrix: Water**
**Analysis Batch: 321921**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 06/04/24 09:33 | 1 |
| Alkalinity, Phenolphthalein | ND | | 6.0 | | mg/L | | | 06/04/24 09:33 | 1 |
| Bicarbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 06/04/24 09:33 | 1 |
| Carbonate Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 06/04/24 09:33 | 1 |
| Hydroxide Alkalinity as CaCO3 | ND | | 6.0 | | mg/L | | | 06/04/24 09:33 | 1 |

**Lab Sample ID: LCS 550-321921/3**
**Matrix: Water**
**Analysis Batch: 321921**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 247 | | mg/L | | 99 | 90 - 110 | | |

## Method: SM 2320B - Alkalinity (Continued)

**Lab Sample ID: LCSD 550-321921/14**
**Matrix: Water**
**Analysis Batch: 321921**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | | | 250 | 237 | | mg/L | | 95 | 90 - 110 | 4 | 20 |

**Lab Sample ID: 550-218892-12 DU**
**Matrix: Water**
**Analysis Batch: 321921**

**Client Sample ID: FC-CCR-MW24-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | 270 | | | 272 | | mg/L | | | | 0.4 | 20 |
| Alkalinity, Phenolphthalein | ND | | | ND | | mg/L | | | | NC | 20 |
| Bicarbonate Alkalinity as CaCO3 | 270 | | | 272 | | mg/L | | | | 0.4 | 20 |
| Carbonate Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |
| Hydroxide Alkalinity as CaCO3 | ND | | | ND | | mg/L | | | | NC | 20 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 550-321571/1**
**Matrix: Water**
**Analysis Batch: 321571**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 05/28/24 10:55 | 1 |

**Lab Sample ID: LCS 550-321571/2**
**Matrix: Water**
**Analysis Batch: 321571**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1000 | | mg/L | | 100 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321571/3**
**Matrix: Water**
**Analysis Batch: 321571**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 998 | | mg/L | | 100 | 90 - 110 | 0 | 10 |

**Lab Sample ID: 550-218892-1 DU**
**Matrix: Water**
**Analysis Batch: 321571**

**Client Sample ID: FC-CCR-DMX04-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 11000 | | | 10800 | | mg/L | | | | 0.4 | 10 |

**Lab Sample ID: 550-218892-18 DU**
**Matrix: Water**
**Analysis Batch: 321571**

**Client Sample ID: FC-CCR-SUMP7-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 10000 | | | 10100 | | mg/L | | | | 2 | 10 |

## Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

**Lab Sample ID: MB 550-321572/1**
**Matrix: Water**
**Analysis Batch: 321572**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 05/28/24 11:05 | 1 |

**Lab Sample ID: LCS 550-321572/2**
**Matrix: Water**
**Analysis Batch: 321572**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 994 | | mg/L | | 99 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321572/3**
**Matrix: Water**
**Analysis Batch: 321572**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1020 | | mg/L | | 102 | 90 - 110 | 2 | 10 |

**Lab Sample ID: 550-218862-A-1 DU**
**Matrix: Water**
**Analysis Batch: 321572**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1300 | | | 1290 | | mg/L | | | | 0.2 | 10 |

**Lab Sample ID: MB 550-321620/1**
**Matrix: Water**
**Analysis Batch: 321620**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 20 | | mg/L | | | 05/29/24 10:00 | 1 |

**Lab Sample ID: LCS 550-321620/2**
**Matrix: Water**
**Analysis Batch: 321620**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1070 | | mg/L | | 107 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-321620/3**
**Matrix: Water**
**Analysis Batch: 321620**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1010 | | mg/L | | 101 | 90 - 110 | 6 | 10 |

**Lab Sample ID: 550-218891-A-3 DU**
**Matrix: Water**
**Analysis Batch: 321620**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 20000 | | | 19600 | | mg/L | | | | 1 | 10 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: LCSSRM 550-321890/1**
**Matrix: Water**
**Analysis Batch: 321890**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| pH | 7.00 | 7.0 | | SU | | 99.7 | 98.5 - 101.5 |

**Lab Sample ID: LCSSRM 550-321890/13**
**Matrix: Water**
**Analysis Batch: 321890**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| pH | 7.00 | 6.9 | | SU | | 98.5 | 98.5 - 101.5 |

**Lab Sample ID: 550-218891-A-3 DU**
**Matrix: Water**
**Analysis Batch: 321890**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| pH | 7.5 | | 7.5 | | SU | | 0.5 | 5 |
| Temperature | 17.9 | | 17.9 | | Degrees C | | 0 | |

**Lab Sample ID: LCSSRM 550-321924/1**
**Matrix: Water**
**Analysis Batch: 321924**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| pH | 7.00 | 7.0 | | SU | | 99.9 | 98.5 - 101.5 |

**Lab Sample ID: LCSSRM 550-321924/13**
**Matrix: Water**
**Analysis Batch: 321924**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSSRM Result | LCSSRM Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| pH | 7.00 | 7.0 | | SU | | 99.6 | 98.5 - 101.5 |

**Lab Sample ID: 550-218892-8 DU**
**Matrix: Water**
**Analysis Batch: 321924**

**Client Sample ID: FC-CCR-MW56-0524**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| pH | 7.4 | H5 | 7.4 | | SU | | 0.5 | 5 |
| Temperature | 16.4 | H5 T5 | 16.6 | | Degrees C | | 1 | |

## HPLC/IC

### Analysis Batch: 321584

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-1 | FC-CCR-DMX04-0524 | Total/NA | Water | 300.0 | |
| 550-218892-1 | FC-CCR-DMX04-0524 | Total/NA | Water | 300.0 | |
| 550-218892-2 | FC-CCR-DMX06-0524 | Total/NA | Water | 300.0 | |
| 550-218892-2 | FC-CCR-DMX06-0524 | Total/NA | Water | 300.0 | |
| 550-218892-3 | FC-CCR-MW11-0524 | Total/NA | Water | 300.0 | |
| 550-218892-3 | FC-CCR-MW11-0524 | Total/NA | Water | 300.0 | |
| MB 550-321584/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-321584/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-321584/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-218888-A-1 MS ^100 | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-218888-A-1 MSD ^100 | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

### Analysis Batch: 321600

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-4 | FC-CCR-MW15-0524 | Total/NA | Water | 300.0 | |
| 550-218892-4 | FC-CCR-MW15-0524 | Total/NA | Water | 300.0 | |
| 550-218892-5 | FC-CCR-MW16-0524 | Total/NA | Water | 300.0 | |
| 550-218892-5 | FC-CCR-MW16-0524 | Total/NA | Water | 300.0 | |
| 550-218892-6 | FC-CCR-MW17R-0524 | Total/NA | Water | 300.0 | |
| 550-218892-6 | FC-CCR-MW17R-0524 | Total/NA | Water | 300.0 | |
| 550-218892-7 | FC-CCR-MW38R-0524 | Total/NA | Water | 300.0 | |
| 550-218892-7 | FC-CCR-MW38R-0524 | Total/NA | Water | 300.0 | |
| 550-218892-8 | FC-CCR-MW56-0524 | Total/NA | Water | 300.0 | |
| 550-218892-8 | FC-CCR-MW56-0524 | Total/NA | Water | 300.0 | |
| 550-218892-9 | FC-CCR-MW57-0524 | Total/NA | Water | 300.0 | |
| 550-218892-9 | FC-CCR-MW57-0524 | Total/NA | Water | 300.0 | |
| 550-218892-10 | FC-CCR-MW34-0524 | Total/NA | Water | 300.0 | |
| 550-218892-10 | FC-CCR-MW34-0524 | Total/NA | Water | 300.0 | |
| 550-218892-11 | FC-CCR-EW15-0524 | Total/NA | Water | 300.0 | |
| 550-218892-11 | FC-CCR-EW15-0524 | Total/NA | Water | 300.0 | |
| 550-218892-12 | FC-CCR-MW24-0524 | Total/NA | Water | 300.0 | |
| 550-218892-12 | FC-CCR-MW24-0524 | Total/NA | Water | 300.0 | |
| 550-218892-13 | FC-CCR-DMX05R-0524 | Total/NA | Water | 300.0 | |
| 550-218892-13 | FC-CCR-DMX05R-0524 | Total/NA | Water | 300.0 | |
| 550-218892-14 | FC-CCR-EW14-0524 | Total/NA | Water | 300.0 | |
| 550-218892-14 | FC-CCR-EW14-0524 | Total/NA | Water | 300.0 | |
| 550-218892-15 | FC-CCR-SUMP1-0524 | Total/NA | Water | 300.0 | |
| 550-218892-16 | FC-CCR-SUMP2-0524 | Total/NA | Water | 300.0 | |
| 550-218892-17 | FC-CCR-SUMP3-0524 | Total/NA | Water | 300.0 | |
| 550-218892-18 | FC-CCR-SUMP7-0524 | Total/NA | Water | 300.0 | |
| 550-218892-19 | FC-CCR-SUMP8-0524 | Total/NA | Water | 300.0 | |
| MB 550-321600/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-321600/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-321600/1005 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| LCSD 550-321600/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-218913-A-2 MS | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-218913-A-2 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

### Analysis Batch: 321601

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-20 | FC-CCR-SUMP9-0524 | Total/NA | Water | 300.0 | |

## HPLC/IC (Continued)

### Analysis Batch: 321601 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-21 | FC-CCR-SUMP10-0524 | Total/NA | Water | 300.0 | |
| 550-218892-22 | FC-CCR-SUMP11-0524 | Total/NA | Water | 300.0 | |
| 550-218892-23 | FC-CCR-SUMP12-0524 | Total/NA | Water | 300.0 | |
| 550-218892-24 | FC-CCR-SUMP13-0524 | Total/NA | Water | 300.0 | |
| 550-218892-25 | FC-CCR-SUMP14-0524 | Total/NA | Water | 300.0 | |
| 550-218892-26 | FC-CCR-SUMP15-0524 | Total/NA | Water | 300.0 | |
| 550-218892-27 | FC-CCR-SUMP16-0524 | Total/NA | Water | 300.0 | |
| 550-218892-28 | FC-CCR-SUMP17-0524 | Total/NA | Water | 300.0 | |
| 550-218892-29 | FC-CCR-SUMP18-0524 | Total/NA | Water | 300.0 | |
| 550-218892-30 | FC-CCR-AshPond6Vault-0524 | Total/NA | Water | 300.0 | |
| MB 550-321601/62 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-321601/63 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-321601/64 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-218892-20 MS | FC-CCR-SUMP9-0524 | Total/NA | Water | 300.0 | |
| 550-218892-20 MSD | FC-CCR-SUMP9-0524 | Total/NA | Water | 300.0 | |

### Analysis Batch: 321859

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-5 | FC-CCR-MW16-0524 | Total/NA | Water | 300.0 | |
| 550-218892-7 | FC-CCR-MW38R-0524 | Total/NA | Water | 300.0 | |
| 550-218892-8 | FC-CCR-MW56-0524 | Total/NA | Water | 300.0 | |
| 550-218892-9 | FC-CCR-MW57-0524 | Total/NA | Water | 300.0 | |
| 550-218892-12 | FC-CCR-MW24-0524 | Total/NA | Water | 300.0 | |
| 550-218892-13 | FC-CCR-DMX05R-0524 | Total/NA | Water | 300.0 | |
| MB 550-321859/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-321859/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-321859/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-219142-B-1 MS ^10 | Matrix Spike | Total/NA | Water | 300.0 | |
| 550-219142-B-1 MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 300.0 | |

## Metals

### Prep Batch: 321544

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-1 | FC-CCR-DMX04-0524 | Total/NA | Water | 200.7 | |
| 550-218892-2 | FC-CCR-DMX06-0524 | Total/NA | Water | 200.7 | |
| 550-218892-3 | FC-CCR-MW11-0524 | Total/NA | Water | 200.7 | |
| 550-218892-4 | FC-CCR-MW15-0524 | Total/NA | Water | 200.7 | |
| MB 550-321544/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-321544/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-321544/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-218888-C-1-A MS | Matrix Spike | Total/NA | Water | 200.7 | |
| 550-218888-C-1-B MSD | Matrix Spike Duplicate | Total/NA | Water | 200.7 | |

### Prep Batch: 321546

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-5 | FC-CCR-MW16-0524 | Total/NA | Water | 200.7 | |
| 550-218892-6 | FC-CCR-MW17R-0524 | Total/NA | Water | 200.7 | |
| 550-218892-7 | FC-CCR-MW38R-0524 | Total/NA | Water | 200.7 | |
| 550-218892-8 | FC-CCR-MW56-0524 | Total/NA | Water | 200.7 | |
| 550-218892-9 | FC-CCR-MW57-0524 | Total/NA | Water | 200.7 | |

## Metals (Continued)

### Prep Batch: 321546 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-10 | FC-CCR-MW34-0524 | Total/NA | Water | 200.7 | |
| 550-218892-11 | FC-CCR-EW15-0524 | Total/NA | Water | 200.7 | |
| 550-218892-12 | FC-CCR-MW24-0524 | Total/NA | Water | 200.7 | |
| 550-218892-13 | FC-CCR-DMX05R-0524 | Total/NA | Water | 200.7 | |
| 550-218892-14 | FC-CCR-EW14-0524 | Total/NA | Water | 200.7 | |
| 550-218892-15 | FC-CCR-SUMP1-0524 | Total/NA | Water | 200.7 | |
| 550-218892-16 | FC-CCR-SUMP2-0524 | Total/NA | Water | 200.7 | |
| 550-218892-17 | FC-CCR-SUMP3-0524 | Total/NA | Water | 200.7 | |
| 550-218892-18 | FC-CCR-SUMP7-0524 | Total/NA | Water | 200.7 | |
| 550-218892-19 | FC-CCR-SUMP8-0524 | Total/NA | Water | 200.7 | |
| 550-218892-20 | FC-CCR-SUMP9-0524 | Total/NA | Water | 200.7 | |
| 550-218892-21 | FC-CCR-SUMP10-0524 | Total/NA | Water | 200.7 | |
| 550-218892-22 | FC-CCR-SUMP11-0524 | Total/NA | Water | 200.7 | |
| 550-218892-23 | FC-CCR-SUMP12-0524 | Total/NA | Water | 200.7 | |
| 550-218892-24 | FC-CCR-SUMP13-0524 | Total/NA | Water | 200.7 | |
| MB 550-321546/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-321546/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-321546/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-218892-5 MS | FC-CCR-MW16-0524 | Total/NA | Water | 200.7 | |
| 550-218892-5 MSD | FC-CCR-MW16-0524 | Total/NA | Water | 200.7 | |

### Prep Batch: 321555

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-25 | FC-CCR-SUMP14-0524 | Total/NA | Water | 200.7 | |
| 550-218892-26 | FC-CCR-SUMP15-0524 | Total/NA | Water | 200.7 | |
| 550-218892-27 | FC-CCR-SUMP16-0524 | Total/NA | Water | 200.7 | |
| 550-218892-28 | FC-CCR-SUMP17-0524 | Total/NA | Water | 200.7 | |
| 550-218892-29 | FC-CCR-SUMP18-0524 | Total/NA | Water | 200.7 | |
| 550-218892-30 | FC-CCR-AshPond6Vault-0524 | Total/NA | Water | 200.7 | |
| MB 550-321555/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-321555/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-321555/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-218892-25 MS | FC-CCR-SUMP14-0524 | Total/NA | Water | 200.7 | |
| 550-218892-25 MSD | FC-CCR-SUMP14-0524 | Total/NA | Water | 200.7 | |

### Prep Batch: 321558

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-1 | FC-CCR-DMX04-0524 | Total/NA | Water | 200.8 | |
| 550-218892-2 | FC-CCR-DMX06-0524 | Total/NA | Water | 200.8 | |
| 550-218892-3 | FC-CCR-MW11-0524 | Total/NA | Water | 200.8 | |
| MB 550-321558/1-A | Method Blank | Total/NA | Water | 200.8 | |
| LCS 550-321558/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-321558/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-218890-B-1-B MS ^10 | Matrix Spike | Total/NA | Water | 200.8 | |
| 550-218890-B-1-C MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 200.8 | |

### Prep Batch: 321559

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-4 | FC-CCR-MW15-0524 | Total/NA | Water | 200.8 | |
| 550-218892-5 | FC-CCR-MW16-0524 | Total/NA | Water | 200.8 | |
| 550-218892-6 | FC-CCR-MW17R-0524 | Total/NA | Water | 200.8 | |

## Metals (Continued)

### Prep Batch: 321559 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-7 | FC-CCR-MW38R-0524 | Total/NA | Water | 200.8 | |
| 550-218892-8 | FC-CCR-MW56-0524 | Total/NA | Water | 200.8 | |
| 550-218892-9 | FC-CCR-MW57-0524 | Total/NA | Water | 200.8 | |
| 550-218892-10 | FC-CCR-MW34-0524 | Total/NA | Water | 200.8 | |
| 550-218892-11 | FC-CCR-EW15-0524 | Total/NA | Water | 200.8 | |
| 550-218892-12 | FC-CCR-MW24-0524 | Total/NA | Water | 200.8 | |
| 550-218892-13 | FC-CCR-DMX05R-0524 | Total/NA | Water | 200.8 | |
| 550-218892-14 | FC-CCR-EW14-0524 | Total/NA | Water | 200.8 | |
| 550-218892-15 | FC-CCR-SUMP1-0524 | Total/NA | Water | 200.8 | |
| 550-218892-16 | FC-CCR-SUMP2-0524 | Total/NA | Water | 200.8 | |
| 550-218892-17 | FC-CCR-SUMP3-0524 | Total/NA | Water | 200.8 | |
| 550-218892-18 | FC-CCR-SUMP7-0524 | Total/NA | Water | 200.8 | |
| 550-218892-19 | FC-CCR-SUMP8-0524 | Total/NA | Water | 200.8 | |
| 550-218892-20 | FC-CCR-SUMP9-0524 | Total/NA | Water | 200.8 | |
| 550-218892-21 | FC-CCR-SUMP10-0524 | Total/NA | Water | 200.8 | |
| 550-218892-22 | FC-CCR-SUMP11-0524 | Total/NA | Water | 200.8 | |
| 550-218892-23 | FC-CCR-SUMP12-0524 | Total/NA | Water | 200.8 | |
| MB 550-321559/1-A | Method Blank | Total/NA | Water | 200.8 | |
| LCS 550-321559/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-321559/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-218892-4 MS | FC-CCR-MW15-0524 | Total/NA | Water | 200.8 | |
| 550-218892-4 MSD | FC-CCR-MW15-0524 | Total/NA | Water | 200.8 | |

### Prep Batch: 321560

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-24 | FC-CCR-SUMP13-0524 | Total/NA | Water | 200.8 | |
| 550-218892-25 | FC-CCR-SUMP14-0524 | Total/NA | Water | 200.8 | |
| 550-218892-26 | FC-CCR-SUMP15-0524 | Total/NA | Water | 200.8 | |
| 550-218892-27 | FC-CCR-SUMP16-0524 | Total/NA | Water | 200.8 | |
| 550-218892-28 | FC-CCR-SUMP17-0524 | Total/NA | Water | 200.8 | |
| 550-218892-29 | FC-CCR-SUMP18-0524 | Total/NA | Water | 200.8 | |
| 550-218892-30 | FC-CCR-AshPond6Vault-0524 | Total/NA | Water | 200.8 | |
| MB 550-321560/1-A | Method Blank | Total/NA | Water | 200.8 | |
| LCS 550-321560/2-A | Lab Control Sample | Total/NA | Water | 200.8 | |
| LCSD 550-321560/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 | |
| 550-218892-24 MS | FC-CCR-SUMP13-0524 | Total/NA | Water | 200.8 | |
| 550-218892-24 MSD | FC-CCR-SUMP13-0524 | Total/NA | Water | 200.8 | |

### Analysis Batch: 321686

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-24 | FC-CCR-SUMP13-0524 | Total/NA | Water | 200.8 LL | 321560 |
| 550-218892-25 | FC-CCR-SUMP14-0524 | Total/NA | Water | 200.8 LL | 321560 |
| 550-218892-26 | FC-CCR-SUMP15-0524 | Total/NA | Water | 200.8 LL | 321560 |
| 550-218892-27 | FC-CCR-SUMP16-0524 | Total/NA | Water | 200.8 LL | 321560 |
| 550-218892-28 | FC-CCR-SUMP17-0524 | Total/NA | Water | 200.8 LL | 321560 |
| 550-218892-29 | FC-CCR-SUMP18-0524 | Total/NA | Water | 200.8 LL | 321560 |
| 550-218892-30 | FC-CCR-AshPond6Vault-0524 | Total/NA | Water | 200.8 LL | 321560 |
| MB 550-321560/1-A | Method Blank | Total/NA | Water | 200.8 LL | 321560 |
| LCS 550-321560/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 321560 |
| LCSD 550-321560/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 321560 |
| 550-218892-24 MS | FC-CCR-SUMP13-0524 | Total/NA | Water | 200.8 LL | 321560 |

## Metals (Continued)

### Analysis Batch: 321686 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-24 MSD | FC-CCR-SUMP13-0524 | Total/NA | Water | 200.8 LL | 321560 |

### Analysis Batch: 321758

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-1 | FC-CCR-DMX04-0524 | Total/NA | Water | 200.8 LL | 321558 |
| 550-218892-2 | FC-CCR-DMX06-0524 | Total/NA | Water | 200.8 LL | 321558 |
| 550-218892-3 | FC-CCR-MW11-0524 | Total/NA | Water | 200.8 LL | 321558 |
| MB 550-321558/1-A | Method Blank | Total/NA | Water | 200.8 LL | 321558 |
| LCS 550-321558/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 321558 |
| LCSD 550-321558/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 321558 |
| 550-218890-B-1-B MS ^10 | Matrix Spike | Total/NA | Water | 200.8 LL | 321558 |
| 550-218890-B-1-C MSD ^10 | Matrix Spike Duplicate | Total/NA | Water | 200.8 LL | 321558 |

### Analysis Batch: 321759

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-4 | FC-CCR-MW15-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-5 | FC-CCR-MW16-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-6 | FC-CCR-MW17R-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-7 | FC-CCR-MW38R-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-8 | FC-CCR-MW56-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-9 | FC-CCR-MW57-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-10 | FC-CCR-MW34-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-11 | FC-CCR-EW15-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-12 | FC-CCR-MW24-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-13 | FC-CCR-DMX05R-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-14 | FC-CCR-EW14-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-15 | FC-CCR-SUMP1-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-16 | FC-CCR-SUMP2-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-17 | FC-CCR-SUMP3-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-18 | FC-CCR-SUMP7-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-19 | FC-CCR-SUMP8-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-20 | FC-CCR-SUMP9-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-21 | FC-CCR-SUMP10-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-22 | FC-CCR-SUMP11-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-23 | FC-CCR-SUMP12-0524 | Total/NA | Water | 200.8 LL | 321559 |
| MB 550-321559/1-A | Method Blank | Total/NA | Water | 200.8 LL | 321559 |
| LCS 550-321559/2-A | Lab Control Sample | Total/NA | Water | 200.8 LL | 321559 |
| LCSD 550-321559/3-A | Lab Control Sample Dup | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-4 MS | FC-CCR-MW15-0524 | Total/NA | Water | 200.8 LL | 321559 |
| 550-218892-4 MSD | FC-CCR-MW15-0524 | Total/NA | Water | 200.8 LL | 321559 |

### Analysis Batch: 321935

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-1 | FC-CCR-DMX04-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218892-2 | FC-CCR-DMX06-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218892-4 | FC-CCR-MW15-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| MB 550-321544/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| LCS 550-321544/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| LCSD 550-321544/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218888-C-1-A MS | Matrix Spike | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218888-C-1-B MSD | Matrix Spike Duplicate | Total/NA | Water | 200.7 Rev 4.4 | 321544 |

## Metals

### Analysis Batch: 321967

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-1 | FC-CCR-DMX04-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218892-2 | FC-CCR-DMX06-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218892-3 | FC-CCR-MW11-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| 550-218892-4 | FC-CCR-MW15-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| MB 550-321544/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| LCS 550-321544/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321544 |
| LCSD 550-321544/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321544 |

### Analysis Batch: 321972

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-25 | FC-CCR-SUMP14-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321555 |
| 550-218892-26 | FC-CCR-SUMP15-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321555 |
| 550-218892-27 | FC-CCR-SUMP16-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321555 |
| 550-218892-28 | FC-CCR-SUMP17-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321555 |
| 550-218892-29 | FC-CCR-SUMP18-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321555 |
| 550-218892-30 | FC-CCR-AshPond6Vault-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321555 |
| MB 550-321555/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321555 |
| LCS 550-321555/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321555 |
| LCSD 550-321555/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321555 |
| 550-218892-25 MS | FC-CCR-SUMP14-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321555 |
| 550-218892-25 MSD | FC-CCR-SUMP14-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321555 |

### Analysis Batch: 321980

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-5 | FC-CCR-MW16-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-6 | FC-CCR-MW17R-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-7 | FC-CCR-MW38R-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-8 | FC-CCR-MW56-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-9 | FC-CCR-MW57-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-10 | FC-CCR-MW34-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-11 | FC-CCR-EW15-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-12 | FC-CCR-MW24-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-13 | FC-CCR-DMX05R-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-14 | FC-CCR-EW14-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-15 | FC-CCR-SUMP1-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-16 | FC-CCR-SUMP2-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-17 | FC-CCR-SUMP3-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-18 | FC-CCR-SUMP7-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-19 | FC-CCR-SUMP8-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-20 | FC-CCR-SUMP9-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-21 | FC-CCR-SUMP10-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-22 | FC-CCR-SUMP11-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-23 | FC-CCR-SUMP12-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-24 | FC-CCR-SUMP13-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| MB 550-321546/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| LCS 550-321546/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| LCSD 550-321546/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-5 MS | FC-CCR-MW16-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-5 MSD | FC-CCR-MW16-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |

## Metals

### Analysis Batch: 322034

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-3 | FC-CCR-MW11-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321544 |

### Analysis Batch: 322035

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-26 | FC-CCR-SUMP15-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321555 |
| 550-218892-29 | FC-CCR-SUMP18-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321555 |

### Analysis Batch: 322037

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-5 | FC-CCR-MW16-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-6 | FC-CCR-MW17R-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-7 | FC-CCR-MW38R-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-8 | FC-CCR-MW56-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-9 | FC-CCR-MW57-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-12 | FC-CCR-MW24-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-13 | FC-CCR-DMX05R-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-17 | FC-CCR-SUMP3-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-19 | FC-CCR-SUMP8-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| MB 550-321546/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| LCS 550-321546/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| LCSD 550-321546/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-5 MS | FC-CCR-MW16-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |
| 550-218892-5 MSD | FC-CCR-MW16-0524 | Total/NA | Water | 200.7 Rev 4.4 | 321546 |

### Prep Batch: 447659

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-12 | FC-CCR-MW24-0524 | Total Recoverable | Water | 200.7 | |
| MB 570-447659/1-A | Method Blank | Total Recoverable | Water | 200.7 | |
| LCS 570-447659/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 | |
| LCSD 570-447659/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.7 | |
| 570-186683-A-1-B MS | Matrix Spike | Total Recoverable | Water | 200.7 | |
| 570-186683-A-1-C MSD | Matrix Spike Duplicate | Total Recoverable | Water | 200.7 | |

### Analysis Batch: 448241

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-12 | FC-CCR-MW24-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 447659 |
| MB 570-447659/1-A | Method Blank | Total Recoverable | Water | 200.7 Rev 4.4 | 447659 |
| LCS 570-447659/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 Rev 4.4 | 447659 |
| LCSD 570-447659/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.7 Rev 4.4 | 447659 |
| 570-186683-A-1-B MS | Matrix Spike | Total Recoverable | Water | 200.7 Rev 4.4 | 447659 |
| 570-186683-A-1-C MSD | Matrix Spike Duplicate | Total Recoverable | Water | 200.7 Rev 4.4 | 447659 |

### Prep Batch: 655283

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-1 | FC-CCR-DMX04-0524 | Total Recoverable | Water | 200.7 | |
| 550-218892-2 | FC-CCR-DMX06-0524 | Total Recoverable | Water | 200.7 | |
| 550-218892-4 | FC-CCR-MW15-0524 | Total Recoverable | Water | 200.7 | |
| 550-218892-5 | FC-CCR-MW16-0524 | Total Recoverable | Water | 200.7 | |
| MB 280-655283/1-A | Method Blank | Total Recoverable | Water | 200.7 | |
| LCS 280-655283/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 | |
| 550-218892-5 MS | FC-CCR-MW16-0524 | Total Recoverable | Water | 200.7 | |

## Metals (Continued)

### Prep Batch: 655283 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-5 MSD | FC-CCR-MW16-0524 | Total Recoverable | Water | 200.7 | |

### Prep Batch: 655286

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-6 | FC-CCR-MW17R-0524 | Total Recoverable | Water | 200.7 | |
| 550-218892-7 | FC-CCR-MW38R-0524 | Total Recoverable | Water | 200.7 | |
| 550-218892-8 | FC-CCR-MW56-0524 | Total Recoverable | Water | 200.7 | |
| 550-218892-9 | FC-CCR-MW57-0524 | Total Recoverable | Water | 200.7 | |
| MB 280-655286/1-A | Method Blank | Total Recoverable | Water | 200.7 | |
| LCS 280-655286/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 | |
| 550-218892-6 MS | FC-CCR-MW17R-0524 | Total Recoverable | Water | 200.7 | |
| 550-218892-6 MSD | FC-CCR-MW17R-0524 | Total Recoverable | Water | 200.7 | |

### Prep Batch: 655637

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-13 | FC-CCR-DMX05R-0524 | Total Recoverable | Water | 200.7 | |
| MB 280-655637/1-A | Method Blank | Total Recoverable | Water | 200.7 | |
| LCS 280-655637/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 | |
| 280-192221-E-1-L MS | Matrix Spike | Total Recoverable | Water | 200.7 | |
| 280-192221-E-1-M MSD | Matrix Spike Duplicate | Total Recoverable | Water | 200.7 | |

### Analysis Batch: 655719

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-1 | FC-CCR-DMX04-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218892-2 | FC-CCR-DMX06-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218892-4 | FC-CCR-MW15-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218892-5 | FC-CCR-MW16-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218892-6 | FC-CCR-MW17R-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655286 |
| 550-218892-7 | FC-CCR-MW38R-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655286 |
| 550-218892-8 | FC-CCR-MW56-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655286 |
| 550-218892-9 | FC-CCR-MW57-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655286 |
| MB 280-655283/1-A | Method Blank | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| MB 280-655286/1-A | Method Blank | Total Recoverable | Water | 200.7 Rev 4.4 | 655286 |
| LCS 280-655283/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| LCS 280-655286/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 Rev 4.4 | 655286 |
| 550-218892-5 MS | FC-CCR-MW16-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218892-5 MSD | FC-CCR-MW16-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655283 |
| 550-218892-6 MS | FC-CCR-MW17R-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655286 |
| 550-218892-6 MSD | FC-CCR-MW17R-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655286 |

### Analysis Batch: 656405

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 280-655637/1-A | Method Blank | Total Recoverable | Water | 200.7 Rev 4.4 | 655637 |
| LCS 280-655637/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 Rev 4.4 | 655637 |
| 280-192221-E-1-L MS | Matrix Spike | Total Recoverable | Water | 200.7 Rev 4.4 | 655637 |
| 280-192221-E-1-M MSD | Matrix Spike Duplicate | Total Recoverable | Water | 200.7 Rev 4.4 | 655637 |

### Analysis Batch: 656568

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-13 | FC-CCR-DMX05R-0524 | Total Recoverable | Water | 200.7 Rev 4.4 | 655637 |

## General Chemistry

### Analysis Batch: 321571

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-1 | FC-CCR-DMX04-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-6 | FC-CCR-MW17R-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-8 | FC-CCR-MW56-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-9 | FC-CCR-MW57-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-10 | FC-CCR-MW34-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-11 | FC-CCR-EW15-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-12 | FC-CCR-MW24-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-15 | FC-CCR-SUMP1-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-16 | FC-CCR-SUMP2-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-17 | FC-CCR-SUMP3-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-18 | FC-CCR-SUMP7-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-19 | FC-CCR-SUMP8-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-20 | FC-CCR-SUMP9-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-21 | FC-CCR-SUMP10-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-22 | FC-CCR-SUMP11-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-23 | FC-CCR-SUMP12-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-24 | FC-CCR-SUMP13-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-25 | FC-CCR-SUMP14-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-26 | FC-CCR-SUMP15-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-27 | FC-CCR-SUMP16-0524 | Total/NA | Water | SM 2540C | |
| MB 550-321571/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-321571/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-321571/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-218892-1 DU | FC-CCR-DMX04-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-18 DU | FC-CCR-SUMP7-0524 | Total/NA | Water | SM 2540C | |

### Analysis Batch: 321572

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-28 | FC-CCR-SUMP17-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-29 | FC-CCR-SUMP18-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-30 | FC-CCR-AshPond6Vault-0524 | Total/NA | Water | SM 2540C | |
| MB 550-321572/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-321572/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-321572/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-218862-A-1 DU | Duplicate | Total/NA | Water | SM 2540C | |

### Analysis Batch: 321620

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-2 | FC-CCR-DMX06-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-3 | FC-CCR-MW11-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-4 | FC-CCR-MW15-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-5 | FC-CCR-MW16-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-7 | FC-CCR-MW38R-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-13 | FC-CCR-DMX05R-0524 | Total/NA | Water | SM 2540C | |
| 550-218892-14 | FC-CCR-EW14-0524 | Total/NA | Water | SM 2540C | |
| MB 550-321620/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 550-321620/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 550-321620/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| 550-218891-A-3 DU | Duplicate | Total/NA | Water | SM 2540C | |

## General Chemistry

### Analysis Batch: 321743

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-1 | FC-CCR-DMX04-0524 | Total/NA | Water | SM 2320B | |
| 550-218892-2 | FC-CCR-DMX06-0524 | Total/NA | Water | SM 2320B | |
| 550-218892-3 | FC-CCR-MW11-0524 | Total/NA | Water | SM 2320B | |
| 550-218892-4 | FC-CCR-MW15-0524 | Total/NA | Water | SM 2320B | |
| 550-218892-5 | FC-CCR-MW16-0524 | Total/NA | Water | SM 2320B | |
| 550-218892-6 | FC-CCR-MW17R-0524 | Total/NA | Water | SM 2320B | |
| 550-218892-7 | FC-CCR-MW38R-0524 | Total/NA | Water | SM 2320B | |
| 550-218892-8 | FC-CCR-MW56-0524 | Total/NA | Water | SM 2320B | |
| 550-218892-9 | FC-CCR-MW57-0524 | Total/NA | Water | SM 2320B | |
| 550-218892-13 | FC-CCR-DMX05R-0524 | Total/NA | Water | SM 2320B | |
| MB 550-321743/4 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 550-321743/3 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| LCSD 550-321743/16 | Lab Control Sample Dup | Total/NA | Water | SM 2320B | |
| 550-218892-1 DU | FC-CCR-DMX04-0524 | Total/NA | Water | SM 2320B | |

### Analysis Batch: 321890

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-1 | FC-CCR-DMX04-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218892-2 | FC-CCR-DMX06-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218892-3 | FC-CCR-MW11-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218892-4 | FC-CCR-MW15-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218892-5 | FC-CCR-MW16-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218892-6 | FC-CCR-MW17R-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218892-7 | FC-CCR-MW38R-0524 | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321890/1 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321890/13 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| 550-218891-A-3 DU | Duplicate | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 321921

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-12 | FC-CCR-MW24-0524 | Total/NA | Water | SM 2320B | |
| MB 550-321921/4 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 550-321921/3 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| LCSD 550-321921/14 | Lab Control Sample Dup | Total/NA | Water | SM 2320B | |
| 550-218892-12 DU | FC-CCR-MW24-0524 | Total/NA | Water | SM 2320B | |

### Analysis Batch: 321924

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-218892-8 | FC-CCR-MW56-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218892-9 | FC-CCR-MW57-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218892-12 | FC-CCR-MW24-0524 | Total/NA | Water | SM 4500 H+ B | |
| 550-218892-13 | FC-CCR-DMX05R-0524 | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321924/1 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| LCSSRM 550-321924/13 | Lab Control Sample | Total/NA | Water | SM 4500 H+ B | |
| 550-218892-8 DU | FC-CCR-MW56-0524 | Total/NA | Water | SM 4500 H+ B | |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218892-1

## Client Sample ID: FC-CCR-DMX04-0524

**Lab Sample ID: 550-218892-1**

**Date Collected: 05/21/24 14:20**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/29/24 03:41 |
| Total/NA | Analysis | 300.0 | | 100 | 321584 | MMH | EET PHX | 05/29/24 03:59 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/04/24 00:06 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321935 | GLW | EET PHX | 06/04/24 08:42 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 321967 | GLW | EET PHX | 06/04/24 20:41 |
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:39 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 12:18 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321890 | ELN | EET PHX | 06/04/24 07:09 |

## Client Sample ID: FC-CCR-DMX06-0524

**Lab Sample ID: 550-218892-2**

**Date Collected: 05/23/24 12:23**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/29/24 05:13 |
| Total/NA | Analysis | 300.0 | | 100 | 321584 | MMH | EET PHX | 05/29/24 05:31 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/04/24 00:10 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321935 | GLW | EET PHX | 06/04/24 08:49 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 321967 | GLW | EET PHX | 06/04/24 20:44 |
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:41 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 12:35 |
| Total/NA | Analysis | SM 2540C | | 1 | 321620 | JLO | EET PHX | 05/29/24 10:00 - 05/30/24 17:36 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321890 | ELN | EET PHX | 06/04/24 07:09 |

## Client Sample ID: FC-CCR-MW11-0524

**Lab Sample ID: 550-218892-3**

**Date Collected: 05/23/24 18:20**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321584 | MMH | EET PHX | 05/29/24 05:49 |
| Total/NA | Analysis | 300.0 | | 100 | 321584 | MMH | EET PHX | 05/29/24 06:08 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 321967 | GLW | EET PHX | 06/04/24 20:48 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 100 | 322034 | GLW | EET PHX | 06/05/24 20:13 |

## Client Sample ID: FC-CCR-MW11-0524

**Lab Sample ID: 550-218892-3**

**Date Collected: 05/23/24 18:20**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.8 | | | 321558 | SGO | EET PHX | 05/28/24 09:55 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321758 | DSJ | EET PHX | 05/30/24 19:43 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 12:48 |
| Total/NA | Analysis | SM 2540C | | 1 | 321620 | JLO | EET PHX | 05/29/24 10:00 - 05/30/24 17:36 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321890 | ELN | EET PHX | 06/04/24 07:09 |

## Client Sample ID: FC-CCR-MW15-0524

**Lab Sample ID: 550-218892-4**

**Date Collected: 05/23/24 16:00**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321600 | AG1 | EET PHX | 05/28/24 18:17 |
| Total/NA | Analysis | 300.0 | | 100 | 321600 | AG1 | EET PHX | 05/28/24 18:45 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/04/24 00:14 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321935 | GLW | EET PHX | 06/04/24 09:03 |
| Total/NA | Prep | 200.7 | | | 321544 | SGO | EET PHX | 05/28/24 07:50 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 10 | 321967 | GLW | EET PHX | 06/04/24 20:51 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:01 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 13:02 |
| Total/NA | Analysis | SM 2540C | | 1 | 321620 | JLO | EET PHX | 05/29/24 10:00 - 05/30/24 17:36 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321890 | ELN | EET PHX | 06/04/24 07:09 |

## Client Sample ID: FC-CCR-MW16-0524

**Lab Sample ID: 550-218892-5**

**Date Collected: 05/23/24 17:11**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1000 | 321859 | AG1 | EET PHX | 06/03/24 22:15 |
| Total/NA | Analysis | 300.0 | | 1 | 321600 | AG1 | EET PHX | 05/28/24 19:13 |
| Total/NA | Analysis | 300.0 | | 100 | 321600 | AG1 | EET PHX | 05/28/24 19:41 |
| Total Recoverable | Prep | 200.7 | | | 655283 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/04/24 00:18 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 05:14 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 100 | 322037 | GLW | EET PHX | 06/05/24 21:25 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:03 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 13:15 |
| Total/NA | Analysis | SM 2540C | | 1 | 321620 | JLO | EET PHX | 05/29/24 10:00 - 05/30/24 17:36 [1] |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218892-1

## Client Sample ID: FC-CCR-MW16-0524

**Lab Sample ID: 550-218892-5**

**Date Collected: 05/23/24 17:11**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321890 | ELN | EET PHX | 06/04/24 07:09 |

## Client Sample ID: FC-CCR-MW17R-0524

**Lab Sample ID: 550-218892-6**

**Date Collected: 05/21/24 13:27**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321600 | AG1 | EET PHX | 05/28/24 20:09 |
| Total/NA | Analysis | 300.0 | | 100 | 321600 | AG1 | EET PHX | 05/28/24 20:37 |
| Total Recoverable | Prep | 200.7 | | | 655286 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 18:28 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 05:17 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 100 | 322037 | GLW | EET PHX | 06/05/24 21:28 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:05 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 13:27 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321890 | ELN | EET PHX | 06/04/24 07:09 |

## Client Sample ID: FC-CCR-MW38R-0524

**Lab Sample ID: 550-218892-7**

**Date Collected: 05/22/24 17:15**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1000 | 321859 | AG1 | EET PHX | 06/03/24 22:40 |
| Total/NA | Analysis | 300.0 | | 1 | 321600 | AG1 | EET PHX | 05/28/24 22:29 |
| Total/NA | Analysis | 300.0 | | 100 | 321600 | AG1 | EET PHX | 05/28/24 22:57 |
| Total Recoverable | Prep | 200.7 | | | 655286 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 18:49 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 05:21 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 100 | 322037 | GLW | EET PHX | 06/05/24 21:31 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:07 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 13:33 |
| Total/NA | Analysis | SM 2540C | | 1 | 321620 | JLO | EET PHX | 05/29/24 10:00 - 05/30/24 17:36 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321890 | ELN | EET PHX | 06/04/24 07:09 |

## Client Sample ID: FC-CCR-MW56-0524

**Lab Sample ID: 550-218892-8**

**Date Collected: 05/21/24 12:25**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1000 | 321859 | AG1 | EET PHX | 06/03/24 23:05 |
| Total/NA | Analysis | 300.0 | | 1 | 321600 | AG1 | EET PHX | 05/28/24 23:25 |
| Total/NA | Analysis | 300.0 | | 100 | 321600 | AG1 | EET PHX | 05/28/24 23:53 |
| Total Recoverable | Prep | 200.7 | | | 655286 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 18:54 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 05:24 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 100 | 322037 | GLW | EET PHX | 06/05/24 21:35 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:09 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 13:42 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321924 | ELN | EET PHX | 06/04/24 11:10 |

## Client Sample ID: FC-CCR-MW57-0524

**Lab Sample ID: 550-218892-9**

**Date Collected: 05/21/24 17:35**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1000 | 321859 | AG1 | EET PHX | 06/03/24 23:30 |
| Total/NA | Analysis | 300.0 | | 1 | 321600 | AG1 | EET PHX | 05/29/24 00:21 |
| Total/NA | Analysis | 300.0 | | 100 | 321600 | AG1 | EET PHX | 05/29/24 00:49 |
| Total Recoverable | Prep | 200.7 | | | 655286 | KO | EET DEN | 05/31/24 08:56 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 655719 | NKC | EET DEN | 06/03/24 18:58 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 05:27 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 100 | 322037 | GLW | EET PHX | 06/05/24 21:38 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:11 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 13:57 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321924 | ELN | EET PHX | 06/04/24 11:14 |

## Client Sample ID: FC-CCR-MW34-0524

**Lab Sample ID: 550-218892-10**

**Date Collected: 05/21/24 15:18**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321600 | AG1 | EET PHX | 05/29/24 01:17 |
| Total/NA | Analysis | 300.0 | | 100 | 321600 | AG1 | EET PHX | 05/29/24 01:45 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218892-1

## Client Sample ID: FC-CCR-MW34-0524

**Lab Sample ID: 550-218892-10**

**Date Collected: 05/21/24 15:18**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 05:31 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:13 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |

## Client Sample ID: FC-CCR-EW15-0524

**Lab Sample ID: 550-218892-11**

**Date Collected: 05/21/24 15:57**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321600 | AG1 | EET PHX | 05/29/24 02:13 |
| Total/NA | Analysis | 300.0 | | 100 | 321600 | AG1 | EET PHX | 05/29/24 04:05 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 05:34 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:15 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |

## Client Sample ID: FC-CCR-MW24-0524

**Lab Sample ID: 550-218892-12**

**Date Collected: 05/21/24 16:39**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1000 | 321859 | AG1 | EET PHX | 06/03/24 23:55 |
| Total/NA | Analysis | 300.0 | | 1 | 321600 | AG1 | EET PHX | 05/29/24 04:33 |
| Total/NA | Analysis | 300.0 | | 100 | 321600 | AG1 | EET PHX | 05/29/24 05:00 |
| Total Recoverable | Prep | 200.7 | | | 447659 | JP8N | EET CAL 4 | 06/05/24 06:25 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 10 | 448241 | P1R | EET CAL 4 | 06/06/24 10:34 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 05:38 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 100 | 322037 | GLW | EET PHX | 06/05/24 21:42 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:17 |
| Total/NA | Analysis | SM 2320B | | 1 | 321921 | ELN | EET PHX | 06/04/24 09:42 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321924 | ELN | EET PHX | 06/04/24 11:17 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218892-1

## Client Sample ID: FC-CCR-DMX05R-0524

**Lab Sample ID: 550-218892-13**

**Date Collected: 05/23/24 10:22**
**Date Received: 05/24/24 17:05**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1000 | 321859 | AG1 | EET PHX | 06/04/24 01:36 |
| Total/NA | Analysis | 300.0 | | 1 | 321600 | AG1 | EET PHX | 05/29/24 05:28 |
| Total/NA | Analysis | 300.0 | | 100 | 321600 | AG1 | EET PHX | 05/29/24 05:56 |
| Total Recoverable | Prep | 200.7 | | | 655637 | AMH | EET DEN | 06/05/24 08:53 |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 25 | 656568 | NKC | EET DEN | 06/10/24 18:17 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 05:41 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 100 | 322037 | GLW | EET PHX | 06/05/24 21:45 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:19 |
| Total/NA | Analysis | SM 2320B | | 1 | 321743 | ELN | EET PHX | 05/30/24 14:13 |
| Total/NA | Analysis | SM 2540C | | 1 | 321620 | JLO | EET PHX | 05/29/24 10:00 - 05/30/24 17:36 [1] |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 321924 | ELN | EET PHX | 06/04/24 11:21 |

## Client Sample ID: FC-CCR-EW14-0524

**Lab Sample ID: 550-218892-14**

**Date Collected: 05/23/24 10:22**
**Date Received: 05/24/24 17:05**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 321600 | AG1 | EET PHX | 05/29/24 06:24 |
| Total/NA | Analysis | 300.0 | | 100 | 321600 | AG1 | EET PHX | 05/29/24 06:52 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 05:45 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:27 |
| Total/NA | Analysis | SM 2540C | | 1 | 321620 | JLO | EET PHX | 05/29/24 10:00 - 05/30/24 17:36 [1] |

## Client Sample ID: FC-CCR-SUMP1-0524

**Lab Sample ID: 550-218892-15**

**Date Collected: 05/21/24 08:27**
**Date Received: 05/24/24 17:05**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 100 | 321600 | AG1 | EET PHX | 05/29/24 07:48 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 05:55 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:29 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218892-1

## Client Sample ID: FC-CCR-SUMP2-0524

**Lab Sample ID: 550-218892-16**

**Date Collected: 05/21/24 08:33**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 20 | 321600 | AG1 | EET PHX | 05/29/24 09:40 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 05:58 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:31 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |

## Client Sample ID: FC-CCR-SUMP3-0524

**Lab Sample ID: 550-218892-17**

**Date Collected: 05/21/24 08:42**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 20 | 321600 | AG1 | EET PHX | 05/29/24 10:08 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 06:02 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 100 | 322037 | GLW | EET PHX | 06/05/24 21:48 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:33 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |

## Client Sample ID: FC-CCR-SUMP7-0524

**Lab Sample ID: 550-218892-18**

**Date Collected: 05/21/24 09:02**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 20 | 321600 | AG1 | EET PHX | 05/29/24 10:36 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 06:05 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:35 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |

## Client Sample ID: FC-CCR-SUMP8-0524

**Lab Sample ID: 550-218892-19**

**Date Collected: 05/21/24 08:55**
**Matrix: Water**
**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 20 | 321600 | AG1 | EET PHX | 05/29/24 11:04 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 06:08 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 100 | 322037 | GLW | EET PHX | 06/05/24 21:52 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:37 |

## Client Sample ID: FC-CCR-SUMP8-0524

**Lab Sample ID: 550-218892-19**

**Date Collected: 05/21/24 08:55**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |

## Client Sample ID: FC-CCR-SUMP9-0524

**Lab Sample ID: 550-218892-20**

**Date Collected: 05/21/24 09:09**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 50 | 321601 | MMH | EET PHX | 05/29/24 08:17 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 06:12 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:39 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |

## Client Sample ID: FC-CCR-SUMP10-0524

**Lab Sample ID: 550-218892-21**

**Date Collected: 05/21/24 09:13**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 50 | 321601 | MMH | EET PHX | 05/29/24 09:12 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 06:15 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:41 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |

## Client Sample ID: FC-CCR-SUMP11-0524

**Lab Sample ID: 550-218892-22**

**Date Collected: 05/21/24 09:17**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 50 | 321601 | MMH | EET PHX | 05/29/24 09:30 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 06:19 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:43 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |

## Client Sample ID: FC-CCR-SUMP12-0524

**Lab Sample ID: 550-218892-23**

**Date Collected: 05/21/24 09:22**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 50 | 321601 | MMH | EET PHX | 05/29/24 09:49 |

## Client Sample ID: FC-CCR-SUMP12-0524

**Lab Sample ID: 550-218892-23**

**Date Collected: 05/21/24 09:22**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 06:22 |
| Total/NA | Prep | 200.8 | | | 321559 | SGO | EET PHX | 05/28/24 10:01 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321759 | DSJ | EET PHX | 05/30/24 20:45 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |

## Client Sample ID: FC-CCR-SUMP13-0524

**Lab Sample ID: 550-218892-24**

**Date Collected: 05/21/24 09:26**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 50 | 321601 | MMH | EET PHX | 05/29/24 10:07 |
| Total/NA | Prep | 200.7 | | | 321546 | SGO | EET PHX | 05/28/24 07:56 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321980 | GLW | EET PHX | 06/05/24 06:26 |
| Total/NA | Prep | 200.8 | | | 321560 | SGO | EET PHX | 05/28/24 10:07 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321686 | DSJ | EET PHX | 05/29/24 18:34 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |

## Client Sample ID: FC-CCR-SUMP14-0524

**Lab Sample ID: 550-218892-25**

**Date Collected: 05/21/24 09:32**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 50 | 321601 | MMH | EET PHX | 05/29/24 10:25 |
| Total/NA | Prep | 200.7 | | | 321555 | SGO | EET PHX | 05/28/24 09:00 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321972 | GLW | EET PHX | 06/05/24 01:26 |
| Total/NA | Prep | 200.8 | | | 321560 | SGO | EET PHX | 05/28/24 10:07 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321686 | DSJ | EET PHX | 05/29/24 18:36 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |

## Client Sample ID: FC-CCR-SUMP15-0524

**Lab Sample ID: 550-218892-26**

**Date Collected: 05/21/24 09:39**

**Matrix: Water**

**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 50 | 321601 | MMH | EET PHX | 05/29/24 10:44 |
| Total/NA | Prep | 200.7 | | | 321555 | SGO | EET PHX | 05/28/24 09:00 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321972 | GLW | EET PHX | 06/05/24 01:29 |
| Total/NA | Prep | 200.7 | | | 321555 | SGO | EET PHX | 05/28/24 09:00 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 100 | 322035 | GLW | EET PHX | 06/05/24 20:17 |
| Total/NA | Prep | 200.8 | | | 321560 | SGO | EET PHX | 05/28/24 10:07 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321686 | DSJ | EET PHX | 05/29/24 18:37 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218892-1

## Client Sample ID: FC-CCR-SUMP16-0524

**Lab Sample ID: 550-218892-27**
**Matrix: Water**
**Date Collected: 05/21/24 09:43**
**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 50 | 321601 | MMH | EET PHX | 05/29/24 11:57 |
| Total/NA | Prep | 200.7 | | | 321555 | SGO | EET PHX | 05/28/24 09:00 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321972 | GLW | EET PHX | 06/05/24 01:33 |
| Total/NA | Prep | 200.8 | | | 321560 | SGO | EET PHX | 05/28/24 10:07 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321686 | DSJ | EET PHX | 05/29/24 18:40 |
| Total/NA | Analysis | SM 2540C | | 1 | 321571 | JLO | EET PHX | 05/28/24 10:55 - 05/30/24 12:45 [1] |

## Client Sample ID: FC-CCR-SUMP17-0524

**Lab Sample ID: 550-218892-28**
**Matrix: Water**
**Date Collected: 05/21/24 09:47**
**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 100 | 321601 | MMH | EET PHX | 05/29/24 12:16 |
| Total/NA | Prep | 200.7 | | | 321555 | SGO | EET PHX | 05/28/24 09:00 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321972 | GLW | EET PHX | 06/05/24 01:36 |
| Total/NA | Prep | 200.8 | | | 321560 | SGO | EET PHX | 05/28/24 10:07 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321686 | DSJ | EET PHX | 05/29/24 18:41 |
| Total/NA | Analysis | SM 2540C | | 1 | 321572 | JLO | EET PHX | 05/28/24 11:05 - 05/30/24 17:29 [1] |

## Client Sample ID: FC-CCR-SUMP18-0524

**Lab Sample ID: 550-218892-29**
**Matrix: Water**
**Date Collected: 05/21/24 09:53**
**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 100 | 321601 | MMH | EET PHX | 05/29/24 12:34 |
| Total/NA | Prep | 200.7 | | | 321555 | SGO | EET PHX | 05/28/24 09:00 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321972 | GLW | EET PHX | 06/05/24 01:40 |
| Total/NA | Prep | 200.7 | | | 321555 | SGO | EET PHX | 05/28/24 09:00 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 100 | 322035 | GLW | EET PHX | 06/05/24 20:20 |
| Total/NA | Prep | 200.8 | | | 321560 | SGO | EET PHX | 05/28/24 10:07 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321686 | DSJ | EET PHX | 05/29/24 18:44 |
| Total/NA | Analysis | SM 2540C | | 1 | 321572 | JLO | EET PHX | 05/28/24 11:05 - 05/30/24 17:29 [1] |

## Client Sample ID: FC-CCR-AshPond6Vault-0524

**Lab Sample ID: 550-218892-30**
**Matrix: Water**
**Date Collected: 05/21/24 10:15**
**Date Received: 05/24/24 17:05**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 100 | 321601 | MMH | EET PHX | 05/29/24 12:53 |
| Total/NA | Prep | 200.7 | | | 321555 | SGO | EET PHX | 05/28/24 09:00 |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 321972 | GLW | EET PHX | 06/05/24 01:43 |
| Total/NA | Prep | 200.8 | | | 321560 | SGO | EET PHX | 05/28/24 10:07 |
| Total/NA | Analysis | 200.8 LL | | 10 | 321686 | DSJ | EET PHX | 05/29/24 18:46 |
| Total/NA | Analysis | SM 2540C | | 1 | 321572 | JLO | EET PHX | 05/28/24 11:05 - 05/30/24 17:29 [1] |

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218892-1

**Laboratory References:**

EET CAL 4 = Eurofins Calscience  Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

# Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218892-1

## Laboratory: Eurofins Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0728 | 06-09-24 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

## Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0830 | 11-16-24 |
| California | Los Angeles County Sanitation Districts | 10109 | 08-01-24 |
| California | State | 3082 | 07-31-24 |
| Kansas | NELAP | E-10420 | 08-01-24 |
| Nevada | State | CA00111 | 07-31-24 |
| Oregon | NELAP | 4175 | 02-03-25 |
| USDA | US Federal Programs | P330-22-00059 | 06-08-26 |
| Washington | State | C916-18 | 10-11-24 |

## Laboratory: Eurofins Denver

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0713 | 12-20-24 |

# Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-218892-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 300.0 | Anions, Ion Chromatography | EPA | EET PHX |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET CAL 4 |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET DEN |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | EET PHX |
| 200.8 LL | Metals (ICP/MS) | EPA | EET PHX |
| SM 2320B | Alkalinity | SM | EET PHX |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET PHX |
| SM 4500 H+ B | pH | SM | EET PHX |
| 200.7 | Preparation, Total Recoverable Metals | EPA | EET CAL 4 |
| 200.7 | Preparation, Total Recoverable Metals | EPA | EET DEN |
| 200.7 | Preparation, Total Metals | EPA | EET PHX |
| 200.8 | Preparation, Total Metals | EPA | EET PHX |

**Protocol References:**

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

**Laboratory References:**

EET CAL 4 = Eurofins Calscience  Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Suite #189, Phoenix, AZ 85040, TEL (602)437-3340

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

550-218892 Chain of Custody

# Chain of Custody Record

218892

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

6/12/2024

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

**TestAmerica Laboratories, Inc.**

| Client Contact | Cameron Corley | Pam Norris (505-598-8781) | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | 505-860-3619 | Lab Contact: Rachel Sester | Carrier: | 1 of 4 COCs |
| PO Box 355, MS 4915 | Analysis Turnaround Time | | | Sampler: |
| Fruitland, NM 87416 | ☐ CALENDAR DAYS ☑ WORKING DAYS | | | For Lab Use Only: |
| Phone | TAT if different from Below | | | Walk-in Client: |
| FAX | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | |
| Site: APS Four Corners Power Plant (Other) | ☐ 2 days | | | Job / SDG No.: |
| PO #: 100622298 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | Perform MS/MSD (Y/N) | EPA 300.0 (Cl, F, SO4) | EPA 200.7 - Totals (B) | EPA 200.7 - Totals (B, Ca, Be) | EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na, Fe) | EPA 200.7 - Totals (B, Ca, K, Mg, Na) | EPA 200.7 - Totals (B, Ca, K, Mg, Na, Mn, Fe) | EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na, Mn, Fe) | EPA 200.7 - Total Lithium | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | EPA 200.8 - Totals (Co, Mo) | EPA 245.1 - Totals (Hg) | SM 4500-HB (pH) | SM 2540C (TDS) | SM 2320B (CO3 Alkalinity as CaCO3, HCO3 Alkalinity as | EPA 200.7 - Totals (B, Mg, Mn, Fe) | | | | | | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-DMX04-0524 -01 | 5/21/2024 | 14:20 | G | W | 3 | N | | X | | | | | | X | X | X | | | X | X | X | | | | | | | Low Flow |
| FC-CCR-DMX06-0524 -02 | 5/23/2024 | 12:23 | G | W | 3 | N | | X | | | | | | X | X | X | | | X | X | X | | | | | | | " |
| FC-CCR-MW11-0524 -03 | 5/23/2024 | 18:20 | G | W | 2 | N | | X | | | | X | | | | | X | | X | X | X | | | | | | | " |
| FC-CCR-MW15-0524 -04 | 5/23/2024 | 16:00 | G | W | 3 | N | | X | | | | | | X | X | X | | | X | X | X | | | | | | | " |
| FC-CCR-MW16-0524 -05 | 5/23/2024 | 17:11 | G | W | 2 | N | | X | | | X | | | | X | X | | | X | X | X | | | | | | | " |
| FC-CCR-MW17R-0524 -06 | 5/21/2024 | 13:27 | G | W | 3 | N | | X | | | | | | X | X | X | | | X | X | X | | | | | | | " |
| FC-CCR-MW38R-0524 -07 | 5/22/2024 | 17:15 | G | W | 3 | N | | X | | | | | | X | X | X | | | X | X | X | | | | | | | " |
| FC-CCR-MW56-0524 -08 | 5/21/2024 | 12:25 | G | W | 3 | N | | X | | | | | | X | X | X | | | X | X | X | | | | | | | " |
| FC-CCR-MW57-0524 -09 | 5/21/2024 | 17:35 | G | W | 2 | N | | X | | | | | | X | X | X | | | X | X | X | | | | | | | " |
| FC-CCR-MW34-0524 -10 | 5/21/2024 | 15:18 | G | W | 2 | N | | X | | | | | | | | | X | | | X | | X | | | | | | " |
| FC-CCR-EW15-0524 -11 | 5/21/2024 | 15:57 | G | W | 2 | N | | X | | | | | | | | | X | | | X | | X | | | | | | " |
| FC-CCR-MW24-0524 -12 | 5/21/2024 | 16:39 | G | W | 2 | N | | X | | | | | | X | | X | | X | X | X | | | | | | | | " |
| **Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other** | | | | | | | | 1 | 4 | 4 | 4 | 4 | 4 | 4 | | 4 | 4 | 4 | 1 | 1 | 1 | | | | | | |

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

**Special Instructions/QC Requirements & Comments:**

*Method 200.8 with collision cell*

2.2°C/2.6°C/ICE/CBC

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
|---|---|---|---|---|---|
| | WSP | 5/24/24 1705 | | | |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: | Date/Time: |
| | | | | EETA PHX | 5/24/24 @1705 |

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

218892

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

6/12/2024

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

**TestAmerica Laboratories, Inc.**

| Client Contact | Cameron Corley | Pam Norris (505-598-8781) | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | 505-860-3619 | Lab Contact: Rachel Sester | Carrier: | 2 of 4 COCs |
| PO Box 355, MS 4915 | Analysis Turnaround Time | | | Sampler: |
| Fruitland, NM 87416 | ☐ CALENDAR DAYS ☑ WORKING DAYS | | | For Lab Use Only: |
| Phone | TAT if different from Below _____ | | | Walk-in Client: |
| FAX | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | |
| Site: APS Four Corners Power Plant (Other) | ☐ 2 days | | | Job / SDG No.: |
| PO #: 100622298 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y / N) | Perform MS / MSD (Y / N) | EPA 300.0 (Cl, F, SO4) | EPA 200.7 - Totals (B) | EPA 200.7 - Totals (B, Ca, Be) | EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na) | EPA 200.7 - Totals (B, Ca, K, Mg, Na) | EPA 200.7 - Totals (B, Ca, K, Mg, Na, Mn, Fe) | EPA 200.7 - Totals (B, Ca, Be, K, Mg, Na, Mn, Fe) | EPA 200.7 - Total Lithium | EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl) | EPA 200.8 - Totals (Co, Mo) | EPA 245.1 - Totals (Hg) | SM 4500-HB (pH) | SM 2540C (TDS) | SM 2320B (CO3 Alkalinity as CaCO3, HCO3 Alkalinity as CaCO3) | EPA 200.7 - Totals (B, Mg, Mn, Fe) | | | | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-DMX05R-0524 -13 | 5/23/2024 | 10:22 | G | W | 3 | N | | X | | | | | | X | X | X | | | X | X | X | | | | | Low Flow |
| FC-CCR-EW14-0524 -14 | 5/23/2024 | 10:22 | G | W | 2 | N | | X | | | | | | | | | X | | | X | | X | | | | " |
| | | | | | | | | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 1 | 1 | | | | | |

**Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____**

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☑ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

**Special Instructions/QC Requirements & Comments:**

*Method 200.8 with collision cell*

2.2°C/2.6°C/1.0°C/1.0°C

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
|---|---|---|---|---|---|
| [signature] | WSP | 5/24/24 1705 | | | |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: [signature] | Company: EETA PHX | Date/Time: 5/24/24 @1705 |

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

218892

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

**TestAmerica Laboratories, Inc.**

| Client Contact | Cameron Corley | Pam Norris (505-598-8781) | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | 505-860-3619 | Lab Contact: Rachel Sester | Carrier: | 3 of 4 COCs |
| PO Box 355, MS 4915 | Analysis Turnaround Time | | | Sampler: |
| Fruitland, NM 87416 | ☐ CALENDAR DAYS ☑ WORKING DAYS | | | For Lab Use Only: |
| Phone | TAT if different from Below _____ | | | Walk-in Client: |
| FAX | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | Job / SDG No.: |
| Site: APS Four Corners Power Plant (Other) | ☐ 2 days | | | |
| PO #: 100622298 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y / N) | Perform MS / MSD (Y / N) | EPA 300.0 (Cl) | EPA 200.7 - Totals (B, Mg, Mn, Fe) | EPA 200.8 - Totals (Co, Mo) | SM 2540C (TDS) | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-SUMP1-0524 -15 | 5/21/2024 | 8:27 | G | W | 2 | N | | X | X | X | X | Grab Sample |
| FC-CCR-SUMP2-0524 -16 | 5/21/2024 | 8:33 | G | W | 2 | N | | X | X | X | X | " |
| FC-CCR-SUMP3-0524 -17 | 5/21/2024 | 8:42 | G | W | 2 | N | | X | X | X | X | " |
| FC-CCR-SUMP7-0524 -18 | 5/21/2024 | 9:02 | G | W | 2 | N | | X | X | X | X | " |
| FC-CCR-SUMP8-0524 -19 | 5/21/2024 | 8:55 | G | W | 2 | N | | X | X | X | X | " |
| FC-CCR-SUMP9-0524 -20 | 5/21/2024 | 9:09 | G | W | 2 | N | | X | X | X | X | " |
| FC-CCR-SUMP10-0524 -21 | 5/21/2024 | 9:13 | G | W | 2 | N | | X | X | X | X | " |
| FC-CCR-SUMP11-0524 -22 | 5/21/2024 | 9:17 | G | W | 2 | N | | X | X | X | X | " |
| FC-CCR-SUMP12-0524 -23 | 5/21/2024 | 9:22 | G | W | 2 | N | | X | X | X | X | " |
| FC-CCR-SUMP13-0524 -24 | 5/21/2024 | 9:26 | G | W | 2 | N | | X | X | X | X | " |
| FC-CCR-SUMP14-0524 -25 | 5/21/2024 | 9:32 | G | W | 2 | N | | X | X | X | X | " |
| FC-CCR-SUMP15-0524 -26 | 5/21/2024 | 9:39 | G | W | 2 | N | | X | X | X | X | " |
| **Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____** | | | | | | | | 1 | 4 | 4 | 1 | |

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☑ Return to Client ☑ Disposal by Lab ☑ Archive for_____ Months

**Special Instructions/QC Requirements & Comments:**

*Method 200.8 with collision cell*

2-7°C 12-6°C / ICE / CPO

| Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____ | | |
|---|---|---|---|---|---|
| Relinquished by: | Company: WSP | Date/Time: 5/24/24 1705 | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: EETA PHX | Date/Time: 5/24/24 @1705 |

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013



6/12/2024

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

218892

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

**Regulatory Program:** ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

**TestAmerica Laboratories, Inc.**

| Client Contact | Cameron Corley | Pam Norris (505-598-8781) | Date: | COC No: |
|---|---|---|---|---|
| Arizona Public Service | 505-860-3619 | Lab Contact: Rachel Sester | Carrier: | 4 of 4 COCs |
| PO Box 355, MS 4915 | **Analysis Turnaround Time** | | | Sampler: |
| Fruitland, NM 87416 | ☐ CALENDAR DAYS ☑ WORKING DAYS | | | **For Lab Use Only:** |
| Phone | TAT if different from Below _____ | | | Walk-in Client: |
| FAX | ☑ 2 weeks | | | Lab Sampling: |
| Project Name: CCR Groundwater Monitoring | ☐ 1 week | | | |
| Site: APS Four Corners Power Plant (Other) | ☐ 2 days | | | Job / SDG No.: |
| PO #: 100622298 | ☐ 1 day | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y / N) | Perform MS / MSD (Y / N) | EPA 300.0 (Cl) | EPA 200.7 - Totals (B, Mg, Mn, Fe) | EPA 200.8 - Totals (Co, Mo) | SM 2540C (TDS) | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-SUMP16-0524 -27 | 5/21/2024 | 9:43 | G | W | 2 | N | | X | X | X | X | Grab Sample |
| FC-CCR-SUMP17-0524 -28 | 5/21/2024 | 9:47 | G | W | 2 | N | | X | X | X | X | " |
| FC-CCR-SUMP18-0524 -29 | 5/21/2024 | 9:53 | G | W | 2 | N | | X | X | X | X | " |
| FC-CCR-AshPond6Vault-0524 -30 | 5/21/2024 | 10:15 | G | W | 2 | N | | X | X | X | X | " |
| | | | | | | | | 1 | 4 | 4 | 1 | |

**Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____**

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

☑ Return to Client ☑ Disposal by Lab ☑ Archive for_____ Months

**Special Instructions/QC Requirements & Comments:**

*Method 200.8 with collision cell*

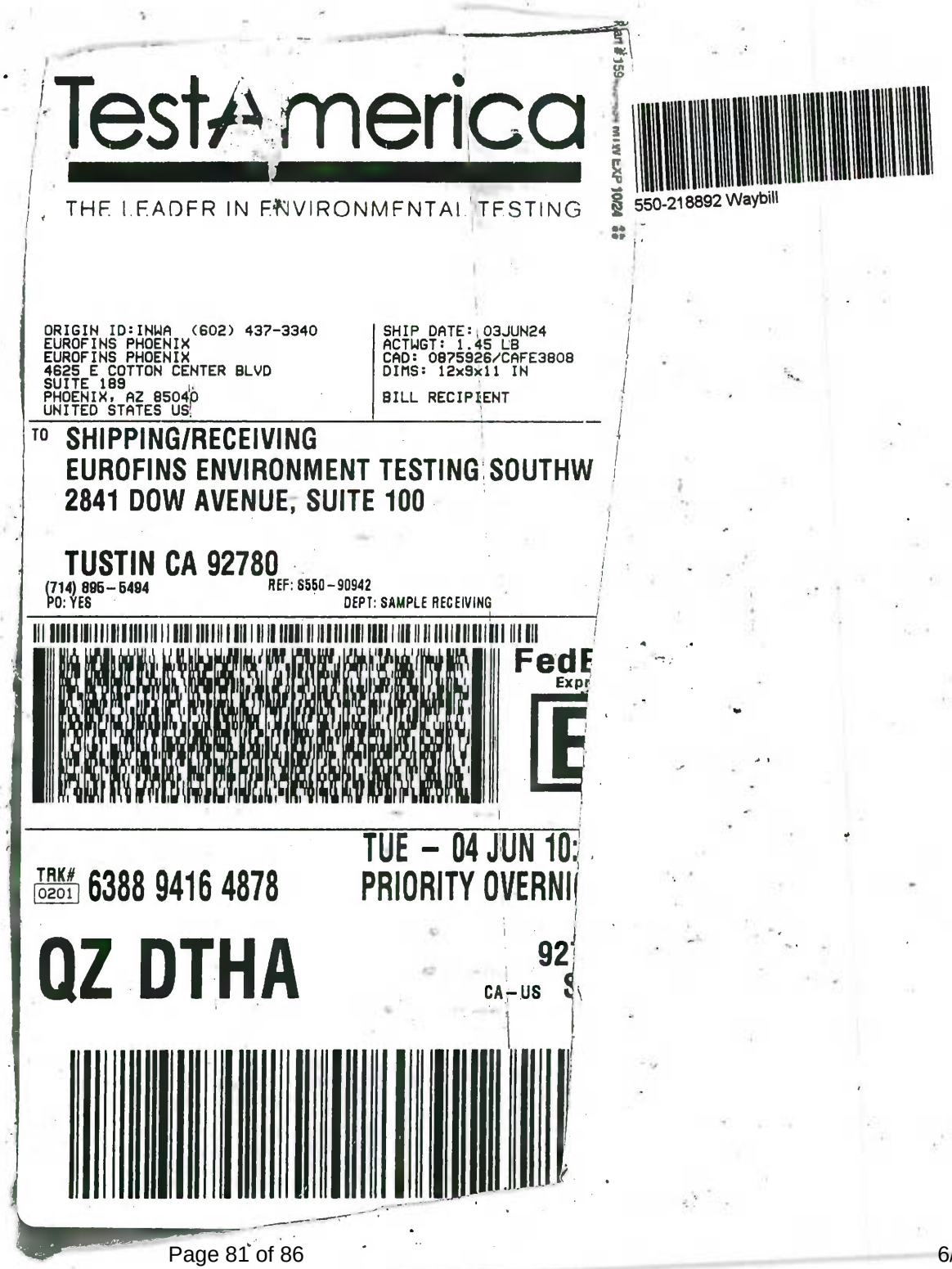
2-6°C/2-2°C ICE/CDC

| Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____ | | |
|---|---|---|---|---|
| Relinquished by: | Company: WSP | Date/Time: 5/24/24 1208 | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: FEDEX PHX | Date/Time: 5/24/24 1705 |

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013



6/12/2024


TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
550-218892 Waybill
ORIGIN ID:INWA (602) 437-3340
EUROFINS PHOENIX
EUROFINS PHOENIX
4625 E COTTON CENTER BLVD
SUITE 189
PHOENIX, AZ 85040
UNITED STATES US
SHIP DATE: 03JUN24
ACTWGT: 1.45 LB
CAD: 0875926/CAFE3808
DIMS: 12x9x11 IN
BILL RECIPIENT
TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING SOUTHW
2841 DOW AVENUE, SUITE 100
TUSTIN CA 92780
(714) 895-5494
REF: 6550-90942
PO: YES
DEPT: SAMPLE RECEIVING
TUE - 04 JUN 10:
TRK# 0201 6388 9416 4878
PRIORITY OVERNI
QZ DTHA
CA-US

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-39667.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 1 of 1 |
| Company: TestAmerica Laboratories, Inc. | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-218892-1 |
| Address: 4955 Yarrow Street, , | Due Date Requested: 6/10/2024 | | | Preservation Codes: - |
| City: Arvada | TAT Requested (days): | | | |
| State, Zip: CO, 80002 | | | | |
| Phone: 303-736-0100(Tel) 303-431-7171(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | Other: |

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Priority Pollutants | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| FC-CCR-DMX04-0524 (550-218892-1) | 5/21/24 | 14:20 Arizona | | Water | | | X | 1 | |
| FC-CCR-DMX06-0524 (550-218892-2) | 5/23/24 | 12:23 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW15-0524 (550-218892-4) | 5/23/24 | 16:00 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW16-0524 (550-218892-5) | 5/23/24 | 17:11 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW17R-0524 (550-218892-6) | 5/21/24 | 13:27 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW38R-0524 (550-218892-7) | 5/22/24 | 17:15 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW56-0524 (550-218892-8) | 5/21/24 | 12:25 Arizona | | Water | | | X | 1 | |
| FC-CCR-MW57-0524 (550-218892-9) | 5/21/24 | 17:35 Arizona | | Water | | | X | 1 | |
| FC-CCR-DMX05R-0524 (550-218892-13) | 5/23/24 | 10:22 Arizona | | Water | | | X | 1 | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

| Possible Hazard Identification | Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) |
|---|---|
| Unconfirmed | ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| | 5/28/24 1430 | EETA-PHX | | | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| | | | | 5/30/24 0930 | EEDEN |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| | | | | | |

| Custody Seals Intact: ∆ Yes ∆ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 0-8°C NAEA CF0-2 |
|---|---|---|

**Eurofins Phoenix**
4625 East Cotton Center Boulevard Suite #189
Phoenix, AZ 85040
Phone: 602-437-3340

# Chain of Custody Record

eurofins

Loc: 550
218892

| | | | | |
|---|---|---|---|---|
| **Client Information (Sub Contract Lab)** | Sampler: | Lab PM: Eshelman, Linda | Carrier Tracking No(s): | COC No: 550-39710.1 |
| Client Contact: Shipping/Receiving | Phone: | E-Mail: linda.eshelman@et.eurofinsus.com | State of Origin: Arizona | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing Southwest, | | Accreditations Required (See note): State - Arizona; State Program - Arizona | | Job #: 550-218892-1 |
| Address: 2841 Dow Avenue, Suite 100, , | Due Date Requested: 6/10/2024 | | | Preservation Codes: |
| City: Tustin | TAT Requested (days): | | | |
| State, Zip: CA, 92780 | | | | |
| Phone: 714-895-5494(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR Groundwater Monitoring | Project #: 55009651 | | | |
| Site: Arizona Public Service | SSOW#: | | | Other: |

**Analysis Requested**

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.7/200.7_P_TR (MOD) Custom 200.7 Metals List | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| FC-CCR-MW24-0524 (550-218892-12) | 5/21/24 | 16:39 Arizona | | Water | | | X | 1 | |

550-218892 Chain of Custody

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Southwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Southwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Southwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Southwest, LLC.

| | |
|---|---|
| ***Possible Hazard Identification*** *Unconfirmed* | ***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months* |
| Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 | Special Instructions/QC Requirements: |

| | | | |
|---|---|---|---|
| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| [signature] | 06-03-24 15:00 | EETSW | Fedex | | |
| (Fedex) | | | [signature] | 6/4/24 0945 | [signature] |
| | | | | | |

| | | |
|---|---|---|
| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: (Box) 19.2/19.3 S44 |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218892-1

**Login Number: 218892**
**List Number: 1**
**Creator: Gravlin, Andrea**

**List Source: Eurofins Phoenix**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | False | Check done at department level as required. |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218892-1

**Login Number: 218892**
**List Number: 3**
**Creator: Khana, Piyush**

**List Source: Eurofins Calscience**
**List Creation: 06/04/24 12:05 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | Seal present with no number. |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | False | Thermal preservation not required. |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 19.3 |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | Received project as a subcontract. |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-218892-1

**Login Number: 218892**
**List Number: 2**
**Creator: Held, Wesley**

**List Source: Eurofins Denver**
**List Creation: 05/30/24 12:24 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 28, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-EW12R-1024 | 0.8 ± 0.2 | 1.8 ± 0.4 | 2.6 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/12/2024 | 11/12/2024 | 11/12/2024 |
| | 8:44 | 8:44 | 8:44 |

11/13/2024
Robert L. Metzger, Ph.D., C.H.P. Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 28, 2024 (Sample Date) 12:12 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/12/2024 | 2.6 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/12/2024 | 0.8 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/12/2024 | 1.8 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75685

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-EW12R-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 26, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-EW11R-1024 | 0.8 ± 0.2 | 0.9 ± 0.4 | 1.7 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/12/2024 12:46 | 11/12/2024 12:46 | 11/12/2024 12:46 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 26, 2024 (Sample Date) 13:40 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/12/2024 | 1.7 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/12/2024 | 0.8 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/12/2024 | 0.9 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75686

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-EW11R-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

| Client Information | |
|---|---|
| Name: | Cameron Corley/505-860-3619<br>Pam Norris/505-598-8781 |
| Company | Arizona Public Service |
| Address | PO Box 355, MS 4915<br>Fruitland, NM 87416 |
| Phone | |
| Site | APS Four Corners Power Plant – ADDITIONAL |

**Radiation Safety Engineering, Inc.**
3245 North Washington Street, Chandler, Arizona 85225
**Analysis Request**

| Sample ID & Location (DWR#) | Collection Date | Collection Time | Media (DW* WW* Other) | Drinking Water Compliance | Gross Alpha | Gross Beta | Total Uranium | Isotopic Uranium | Ra-226 | Ra-228 | Ra-226 + Ra-228, Combined | H-3 | Gamma Spectroscopy | Sr-89/Sr-90 | Radon in Water | Radon in Air |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-EW12R-1024 | 102024 | 1212 | GW | | | | | | X | X | X | | | | 75685 | |
| FC-CCR-EW11R-1024 | 102624 | 1340 | 1 | | | | | | X | X | X | | | | 75686 | |
| ~~FC-CCR-MW01-1024~~ | ~~102524~~ | | | | | | | | | | | | | | | |
| ~~FC-CCR-MW15-1024~~ | 1 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| Sample Receipt | |
|---|---|
| Total No. of Containers | |
| Chain of Custody Seals | |
| Container Condition | |
| Lab No. | |

Invoice to:
PO#: 100622094

Instructions/Comments
**Method HPGe**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Relinguished By: H Bar | Company: WSP | Date/time: 103124 1530 | Received By: Pat Flannery | | Company: RSE | Date/time: 10/31/24 3:30 |
| Relinguished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |
| Relinguished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

*u/client/forms/cofc.frm*

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW07-1024 | 1.1 ± 0.2 | 1.9 ± 0.4 | 3.0 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/30/2024 | 11/30/2024 | 11/30/2024 |
| | 6:39 | 6:39 | 6:39 |

Robert L. Metzger, Ph.D., C.H.P. — 12/4/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 12:32 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/30/2024 | 3.0 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/30/2024 | 1.1 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/30/2024 | 1.9 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75823

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW07-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW08-1024 | 1.2 ± 0.2 | 2.4 ± 0.4 | 3.6 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/30/2024 | 11/30/2024 | 11/30/2024 |
| | 10:41 | 10:41 | 10:41 |

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 11:35 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/30/2024 | 3.6 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/30/2024 | 1.2 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/30/2024 | 2.4 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75824

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW08-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW49A-1024 | 1.1 ± 0.2 | 1.4 ± 0.4 | 2.5 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/30/2024 14:43 | 11/30/2024 14:43 | 11/30/2024 14:43 |

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 9:09 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/30/2024 | 2.5 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/30/2024 | 1.1 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/30/2024 | 1.4 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75825

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW49A-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 22, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-DMX03-1024 | 1.5 ± 0.2 | < 0.8 | 1.5 ± 0.2 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/30/2024 18:44 | 11/30/2024 18:44 | 11/30/2024 18:44 |

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 22, 2024 (Sample Date) 13:38 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/30/2024 | 1.5 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/30/2024 | 1.5 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/30/2024 | < 0.8 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

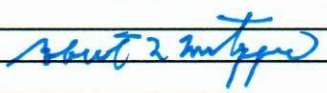
Specimen Number: RSE75826

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-DMX03-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-DMX06-1024 | 1.0 ± 0.2 | 0.8 ± 0.3 | 1.8 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/30/2024 22:46 | 11/30/2024 22:46 | 11/30/2024 22:46 |

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 14:50 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/30/2024 | 1.8 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/30/2024 | 1.0 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/30/2024 | 0.8 ± 0.3 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75827

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-DMX06-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW87-1024 | 1.1 ± 0.2 | 4.1 ± 0.5 | 5.2 ± 0.5 |

| | | | |
|---|---|---|---|
| Date of Analysis | 12/1/2024 | 12/1/2024 | 12/1/2024 |
| | 2:48 | 2:48 | 2:48 |

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 16:07 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 12/1/2024 | 5.2 ± 0.5 | | X |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 12/1/2024 | 1.1 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 12/1/2024 | 4.1 ± 0.5 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75828

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW87-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 13, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-DMX05R-1124 | 1.8 ± 0.2 | 5.1 ± 0.5 | 6.9 ± 0.5 |

| | | | |
|---|---|---|---|
| Date of Analysis | 12/1/2024 | 12/1/2024 | 12/1/2024 |
| | 6:50 | 6:50 | 6:50 |

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 13, 2024 (Sample Date) 11:56 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 12/1/2024 | 6.9 ± 0.5 | | X |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 12/1/2024 | 1.8 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 12/1/2024 | 5.1 ± 0.5 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75829

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-DMX05R-1124

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 14, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW16-1124 | 2.1 ± 0.2 | 3.0 ± 0.4 | 5.1 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 12/1/2024 10:52 | 12/1/2024 10:52 | 12/1/2024 10:52 |

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 14, 2024 (Sample Date) 12:18 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 12/1/2024 | 5.1 ± 0.4 | | X |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 12/1/2024 | 2.1 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 12/1/2024 | 3.0 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75830

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW16-1124

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 14, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW15-1124 | 1.0 ± 0.2 | < 0.8 | 1.0 ± 0.2 |

| | | | |
|---|---|---|---|
| Date of Analysis | 12/1/2024 14:54 | 12/1/2024 14:54 | 12/1/2024 14:54 |

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 14, 2024 (Sample Date) 13:22 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 12/1/2024 | 1.0 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 12/1/2024 | 1.0 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 12/1/2024 | < 0.8 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75831

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW15-1124

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 14, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW17R-1124 | 2.0 ± 0.2 | 1.0 ± 0.4 | 3.0 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 12/1/2024 18:56 | 12/1/2024 18:56 | 12/1/2024 18:56 |

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 14, 2024 (Sample Date) 14:48 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 12/1/2024 | 3.0 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 12/1/2024 | 2.0 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 12/1/2024 | 1.0 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75832

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW17R-1124

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 14, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-DMX04-1124 | < 0.6 | < 0.7 | < 0.7 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/26/2024 10:43 | 11/26/2024 10:43 | 11/26/2024 10:43 |

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 14, 2024 (Sample Date) 17:14 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/26/2024 | < 0.7 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/26/2024 | < 0.6 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/26/2024 | < 0.7 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75833

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-DMX04-1124

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 14, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-FD09-1124 | 1.0 ± 0.3 | 2.7 ± 0.4 | 3.7 ± 0.5 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/26/2024 14:47 | 11/26/2024 14:47 | 11/26/2024 14:47 |

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 14, 2024 (Sample Date) 7:35 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/26/2024 | 3.7 ± 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/26/2024 | 1.0 ± 0.3 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/26/2024 | 2.7 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75834

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-FD09-1124

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 16, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW38R-1124 | 0.6 ± 0.2 | 2.1 ± 0.4 | 2.7 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/26/2024 18:49 | 11/26/2024 18:49 | 11/26/2024 18:49 |

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 16, 2024 (Sample Date) 8:38 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/26/2024 | 2.7 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/26/2024 | 0.6 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/26/2024 | 2.1 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75835

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW38R-1124

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 15, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW56-1124 | < 0.5 | 3.2 ± 0.4 | 3.2 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/26/2024 | 11/26/2024 | 11/26/2024 |
| | 22:52 | 22:52 | 22:52 |

Robert L. Metzger, Ph.D., C.H.P. — 12/4/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 15, 2024 (Sample Date) 15:24 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/26/2024 | 3.2 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/26/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/26/2024 | 3.2 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75836

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW56-1124

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 15, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW57-1124 | 0.5 ± 0.2 | 2.0 ± 0.4 | 2.5 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/27/2024 2:54 | 11/27/2024 2:54 | 11/27/2024 2:54 |

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 15, 2024 (Sample Date) 16:56 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/27/2024 | 2.5 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/27/2024 | 0.5 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/27/2024 | 2.0 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75837

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW57-1124

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 16, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-EB01-1124 | < 0.5 | < 0.7 | < 0.7 |

| Date of Analysis | 11/27/2024 | 11/27/2024 | 11/27/2024 |
|---|---|---|---|
| | 6:55 | 6:55 | 6:55 |

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 16, 2024 (Sample Date) 9:30 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/27/2024 | < 0.7 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/27/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/27/2024 | < 0.7 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75838

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-EB01-1124

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

| Client Information | |
|---|---|
| Name: | **Cameron Corley/505-860-3619**<br>**Pam Norris/505-598-8781** |
| Company | **Arizona Public Service** |
| Address | **PO Box 355, MS 4915**<br>**Fruitland, NM 87416** |
| Phone | |
| Site | **APS Four Corners Power Plant** |

**Radiation Safety Engineering, Inc.**
3245 North Washington Street, Chandler, Arizona 85225
**Analysis Request**

| Sample ID & Location (DWR#) | Collection Date | Collection Time | Media (DW* WW* Other) | Drinking Water Compliance | Gross Alpha | Gross Beta | Total Uranium | Isotopic Uranium | Ra-226 | Ra-228 | Ra-226 + Ra-228, Combined | H-3 | Gamma Spectroscopy | Sr-89/Sr-90 | Radon in Water | Radon in Air | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW07-1024 | 111224 | 1232 | | | | | | | √ | √ | √ | | | | | | 75823 |
| FC-CCR-MW08-1024 | 111224 | 1135 | | | | | | | √ | √ | √ | | | | | | 75824 |
| FC-CCR-MW49A-1024 | 111224 | 0909 | | | | | | | √ | √ | √ | | | | | | 75825 |
| FC-CCR-DMX03-1024 | 111224 | 1338 | | | | | | | √ | √ | √ | | | | | | 75826 |
| FC-CCR-DMX06-1024 | 111224 | 1450 | | | | | | | √ | √ | √ | | | | | | 75827 |
| FC-CCR-MW07-1024 | 111224 | 1607 | | | | | | | √ | √ | √ | | | | | | 75828 |
| FC-CCR-DMX05R-1124 | 111324 | 1150 | | | | | | | √ | √ | √ | | | | | | 75829 |
| FC-CCR-MW16-1124 | 111424 | 1218 | | | | | | | √ | √ | √ | | | | | | 75830 |
| FC-CCR-MW15-1124 | 111424 | 1322 | | | | | | | √ | √ | √ | | | | | | 75831 |
| FC-CCR-MW17R-1124 | 111424 | 1448 | | | | | | | √ | √ | √ | | | | | | 75832 |

| Sample Receipt | |
|---|---|
| Total No. of Containers | |
| Chain of Custody Seals | |
| Container Condition | |
| Lab No. | |

Invoice to:
PO#: 100622094

Instructions/Comments
**Method HPGe**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Relinguished By: | Company: WSP | Date/time: 1545 | Received By: | | Company: RSE | Date/time: 11-18-24 3:45 |
| Relinguished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |
| Relinguished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

*u/client/forms/cofc.frm*

| Client Information | |
|---|---|
| Name: | **Cameron Corley/505-860-3619**<br>**Pam Norris/505-598-8781** |
| Company | **Arizona Public Service** |
| Address | **PO Box 355, MS 4915**<br>**Fruitland, NM 87416** |
| Phone | |
| Site | **APS Four Corners Power Plant** |

**Radiation Safety Engineering, Inc.**
3245 North Washington Street, Chandler, Arizona 85225
**Analysis Request**

| Sample ID & Location (DWR#) | Collection Date | Collection Time | Media (DW* WW* Other) | Drinking Water Compliance | Gross Alpha | Gross Beta | Total Uranium | Isotopic Uranium | Ra-226 | Ra-228 | Ra-226 + Ra-228, Combined | H-3 | Gamma Spectroscopy | Sr-89/Sr-90 | Radon in Water | Radon in Air | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-DMX04-1124 | 111424 | 1714 | GW | | | | | | ✓ | ✓ | ✓ | | | | | 75833 | |
| FC-CCR-FD09-1124 | 111424 | 0735 | | | | | | | ✓ | ✓ | ✓ | | | | | 75834 | |
| FC-CCR-MW30R-1124 | 111624 | 0838 | | | | | | | ✓ | ✓ | ✓ | | | | | 75835 | |
| FC-CCR-MW56-1124 | 111524 | 1524 | | | | | | | ✓ | ✓ | ✓ | | | | | 75836 | |
| FC-CCR-MW57-1124 | 111524 | 1656 | | | | | | | ✓ | ✓ | ✓ | | | | | 75837 | |
| FC-CCR-EB01-1124 | 111624 | 0930 | | | | | | | ✓ | ✓ | ✓ | | | | | 75838 | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| Sample Receipt | |
|---|---|
| Total No. of Containers | |
| Chain of Custody Seals | |
| Container Condition | |
| Lab No. | |

Invoice to:
PO#: 100622094

Instructions/Comments
**Method HPGe**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Relinquished By: | Company: WSP | Date/time: 1545 | Received By: | | Company: RSE | Date/time: 11-18-24 3:45 |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

*u/client/forms/cofc.frm*

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 05, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-DMX03-1024 | 1.5 ± 0.2 | < 0.8 | 1.5 ± 0.2 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/30/2024 18:44 | 11/30/2024 18:44 | 11/30/2024 18:44 |

12/5/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 13:38 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/30/2024 | 1.5 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/30/2024 | 1.5 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/30/2024 | < 0.8 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

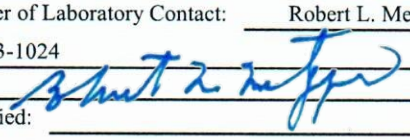
Specimen Number: RSE75826

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-DMX03-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

# ANALYTICAL REPORT

November 19, 2024



## WSP (Formely Wood E&I)-Phoenix, AZ

| | |
|---|---|
| Sample Delivery Group: | L1794416 |
| Samples Received: | 10/31/2024 |
| Project Number: | US0023513.6155 |
| Description: | |

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



**Pace Analytical National**
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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## RC-CCR-MW30-1024 L1794416-01 WW

Collected by | Collected date/time 10/26/24 10:28 | Received date/time 10/31/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## RC-CCR-FD04-1024 L1794416-02 WW

Collected by | Collected date/time 10/26/24 07:35 | Received date/time 10/31/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-EW11R-1024 L1794416-03 WW

Collected by | Collected date/time 10/26/24 13:40 | Received date/time 10/31/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2393491 | 1 | 11/01/24 10:39 | 11/01/24 10:39 | ARD | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393199 | 10 | 11/03/24 20:21 | 11/03/24 20:21 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393199 | 100 | 11/04/24 01:43 | 11/04/24 01:43 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2393403 | 1 | 11/01/24 10:00 | 11/01/24 10:00 | BRT | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW01-1024 L1794416-04 WW

Collected by | Collected date/time 10/25/24 16:37 | Received date/time 10/31/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-SUMP7-1024 L1794416-05 WW

Collected by | Collected date/time 10/30/24 08:49 | Received date/time 10/31/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393574 | 50 | 11/01/24 16:06 | 11/01/24 16:06 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-SUMP8-1024 L1794416-06 WW

Collected by | Collected date/time 10/30/24 08:38 | Received date/time 10/31/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393574 | 100 | 11/01/24 16:15 | 11/01/24 16:15 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-SUMP9-1024 L1794416-07 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/30/24 08:58 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393574 | 50 | 11/01/24 16:25 | 11/01/24 16:25 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-SUMP10-1024 L1794416-08 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/30/24 09:06 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393574 | 50 | 11/01/24 16:35 | 11/01/24 16:35 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-SUMP11-1024 L1794416-09 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/30/24 09:35 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393574 | 50 | 11/01/24 16:44 | 11/01/24 16:44 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-POND3PUMP-1024 L1794416-10 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/30/24 10:58 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393574 | 100 | 11/01/24 16:54 | 11/01/24 16:54 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-SUMP1-1024 L1794416-11 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/30/24 08:05 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393574 | 50 | 11/01/24 17:22 | 11/01/24 17:22 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-SUMP3-1024 L1794416-12 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/30/24 08:25 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393574 | 100 | 11/01/24 17:32 | 11/01/24 17:32 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-SUMP12-1024 L1794416-13 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/30/24 09:44 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393574 | 50 | 11/01/24 17:41 | 11/01/24 17:41 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-SUMP13-1024 L1794416-14 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/30/24 09:52 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393574 | 50 | 11/01/24 17:51 | 11/01/24 17:51 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-ASHPONDV6-1024 L1794416-15 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/30/24 11:10 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393574 | 50 | 11/01/24 18:00 | 11/01/24 18:00 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-SUMP14-1024 L1794416-16 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/30/24 10:03 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393574 | 50 | 11/01/24 18:10 | 11/01/24 18:10 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-SUMP15-1024 L1794416-17 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/30/24 10:07 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393574 | 50 | 11/01/24 18:19 | 11/01/24 18:19 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-SUMP16-1024 L1794416-18 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/30/24 10:13 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393574 | 100 | 11/01/24 18:29 | 11/01/24 18:29 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-SUMP17-1024 L1794416-19 WW

Collected by | Collected date/time 10/30/24 10:24 | Received date/time 10/31/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393574 | 50 | 11/01/24 18:38 | 11/01/24 18:38 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-SUMP18-1024 L1794416-20 WW

Collected by | Collected date/time 10/30/24 10:35 | Received date/time 10/31/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393608 | 50 | 11/04/24 20:10 | 11/04/24 20:10 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW82S-1024 L1794416-21 WW

Collected by | Collected date/time 10/30/24 11:18 | Received date/time 10/31/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393210 | 1 | 10/31/24 17:28 | 11/01/24 15:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2393491 | 1 | 11/01/24 10:54 | 11/01/24 10:54 | ARD | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393608 | 50 | 11/04/24 20:27 | 11/04/24 20:27 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2401598 | 5 | 11/14/24 16:55 | 11/14/24 16:55 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2393403 | 1 | 11/01/24 10:00 | 11/01/24 10:00 | BRT | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-EW12R-1024 L1794416-22 WW

Collected by | Collected date/time 10/30/24 12:12 | Received date/time 10/31/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393210 | 1 | 10/31/24 17:28 | 11/01/24 15:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2393491 | 1 | 11/01/24 11:00 | 11/01/24 11:00 | ARD | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393608 | 50 | 11/04/24 22:11 | 11/04/24 22:11 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2401598 | 5 | 11/14/24 18:05 | 11/14/24 18:05 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2393403 | 1 | 11/01/24 10:00 | 11/01/24 10:00 | BRT | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-FD08-1024 L1794416-23 WW

Collected by | Collected date/time 10/30/24 06:21 | Received date/time 10/31/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393210 | 1 | 10/31/24 17:28 | 11/01/24 15:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2393491 | 1 | 11/01/24 11:06 | 11/01/24 11:06 | ARD | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393608 | 50 | 11/04/24 22:46 | 11/04/24 22:46 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2401598 | 5 | 11/14/24 19:14 | 11/14/24 19:14 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2393403 | 1 | 11/01/24 10:00 | 11/01/24 10:00 | BRT | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW03-1024 L1794416-24 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/28/24 14:25 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW19-1024 L1794416-25 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/28/24 15:31 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW21-1024 L1794416-26 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/28/24 16:32 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW60-1024 L1794416-27 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/28/24 10:30 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-DMX01-1024 L1794416-28 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/26/24 12:23 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-FD06-1024 L1794416-29 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/26/24 11:11 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-FD07-1024 L1794416-30 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/28/24 12:34 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Subcontracted Analyses | WG2393785 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

## Project Narrative

L1794416 -01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -28, -29, -30 contains subout data that is included after the chain of custody.

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 8570000 | | 100000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 291000 | | 4750 | 20000 | 1 | 11/01/2024 10:39 | WG2393491 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/01/2024 10:39 | WG2393491 |

Sample Narrative:

L1794416-03 WG2393491: Endpoint pH 4.5 headspace

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 541000 | | 5470 | 10000 | 10 | 11/03/2024 20:21 | WG2393199 |
| Fluoride | U | | 761 | 1500 | 10 | 11/03/2024 20:21 | WG2393199 |
| Sulfate | 4900000 | | 63700 | 500000 | 100 | 11/04/2024 01:43 | WG2393199 |

Sample Narrative:

L1794416-03 WG2393199: Dilution due to matrix impact on instrumentation at lower dilution

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.03 | T8 | 1 | 11/01/2024 10:00 | WG2393403 |

Sample Narrative:

L1794416-03 WG2393403: 7.03 at 19.7C

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 9940000 | | 200000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 644000 | | 27400 | 50000 | 50 | 11/01/2024 16:06 | WG2393574 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 18700000 | | 200000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 743000 | | 54700 | 100000 | 100 | 11/01/2024 16:15 | WG2393574 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 9940000 | | 200000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 595000 | | 27400 | 50000 | 50 | 11/01/2024 16:25 | WG2393574 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 7650000 | | 100000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 499000 | | 27400 | 50000 | 50 | 11/01/2024 16:35 | WG2393574 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 7740000 | | 100000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 497000 | | 27400 | 50000 | 50 | 11/01/2024 16:44 | WG2393574 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 16300000 | | 200000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 721000 | | 54700 | 100000 | 100 | 11/01/2024 16:54 | WG2393574 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 8380000 | | 100000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 499000 | | 27400 | 50000 | 50 | 11/01/2024 17:22 | WG2393574 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 18500000 | | 200000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 664000 | | 54700 | 100000 | 100 | 11/01/2024 17:32 | WG2393574 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 7760000 | | 100000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 498000 | | 27400 | 50000 | 50 | 11/01/2024 17:41 | WG2393574 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 7350000 | | 100000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 442000 | | 27400 | 50000 | 50 | 11/01/2024 17:51 | WG2393574 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 15400000 | | 200000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 673000 | | 27400 | 50000 | 50 | 11/01/2024 18:00 | WG2393574 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 8090000 | | 100000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 437000 | | 27400 | 50000 | 50 | 11/01/2024 18:10 | WG2393574 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 11700000 | | 200000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 617000 | | 27400 | 50000 | 50 | 11/01/2024 18:19 | WG2393574 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 27900000 | | 400000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1200000 | | 54700 | 100000 | 100 | 11/01/2024 18:29 | WG2393574 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 13700000 | | 200000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 831000 | | 27400 | 50000 | 50 | 11/01/2024 18:38 | WG2393574 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 36100000 | | 400000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1450000 | | 27400 | 50000 | 50 | 11/04/2024 20:10 | WG2393608 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 8970000 | | 100000 | 1 | 11/01/2024 15:52 | WG2393210 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 279000 | | 4750 | 20000 | 1 | 11/01/2024 10:54 | WG2393491 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/01/2024 10:54 | WG2393491 |

Sample Narrative:

L1794416-21 WG2393491: Endpoint pH 4.5 headspace

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 602000 | V | 27400 | 50000 | 50 | 11/04/2024 20:27 | WG2393608 |
| Fluoride | 403 | J P1 | 380 | 750 | 5 | 11/14/2024 16:55 | WG2401598 |
| Sulfate | 5520000 | V | 31800 | 250000 | 50 | 11/04/2024 20:27 | WG2393608 |

Sample Narrative:

L1794416-21 WG2393608: Dilution due to matrix impact on instrumentation at lower dilution

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.36 | T8 | 1 | 11/01/2024 10:00 | WG2393403 |

Sample Narrative:

L1794416-21 WG2393403: 7.36 at 19.7C

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 10000000 | | 200000 | 1 | 11/01/2024 15:52 | WG2393210 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 428000 | | 4750 | 20000 | 1 | 11/01/2024 11:00 | WG2393491 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/01/2024 11:00 | WG2393491 |

Sample Narrative:

L1794416-22 WG2393491: Endpoint pH 4.5 headspace

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 839000 | | 27400 | 50000 | 50 | 11/04/2024 22:11 | WG2393608 |
| Fluoride | 800 | | 380 | 750 | 5 | 11/14/2024 18:05 | WG2401598 |
| Sulfate | 6980000 | | 31800 | 250000 | 50 | 11/04/2024 22:11 | WG2393608 |

Sample Narrative:

L1794416-22 WG2393608: Dilution due to matrix impact on instrumentation at lower dilution

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.32 | T8 | 1 | 11/01/2024 10:00 | WG2393403 |

Sample Narrative:

L1794416-22 WG2393403: 7.32 at 19.6C

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 9590000 | | 100000 | 1 | 11/01/2024 15:52 | WG2393210 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 272000 | | 4750 | 20000 | 1 | 11/01/2024 11:06 | WG2393491 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/01/2024 11:06 | WG2393491 |

Sample Narrative:

L1794416-23 WG2393491: Endpoint pH 4.5 headspace

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 609000 | | 27400 | 50000 | 50 | 11/04/2024 22:46 | WG2393608 |
| Fluoride | 472 | J | 380 | 750 | 5 | 11/14/2024 19:14 | WG2401598 |
| Sulfate | 5620000 | | 31800 | 250000 | 50 | 11/04/2024 22:46 | WG2393608 |

Sample Narrative:

L1794416-23 WG2393608: Dilution due to matrix impact on instrumentation at lower dilution

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.38 | T8 | 1 | 11/01/2024 10:00 | WG2393403 |

Sample Narrative:

L1794416-23 WG2393403: 7.38 at 19.8C

## Method Blank (MB)

(MB) R4141711-1 11/01/24 15:52

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Dissolved Solids | U | | 10000 | 10000 |

## L1794257-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1794257-01 11/01/24 15:52 • (DUP) R4141711-3 11/01/24 15:52

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Dissolved Solids | 195000 | 200000 | 1 | 2.53 | | 10 |

## L1794416-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1794416-23 11/01/24 15:52 • (DUP) R4141711-4 11/01/24 15:52

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Dissolved Solids | 9590000 | 9950000 | 1 | 3.68 | | 10 |

## Laboratory Control Sample (LCS)

(LCS) R4141711-2 11/01/24 15:52

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | ug/l | ug/l | % | % | |
| Dissolved Solids | 8800000 | 8350000 | 94.9 | 85.0-115 | |

## Method Blank (MB)

(MB) R4141782-1 11/01/24 10:52

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Dissolved Solids | U | | 10000 | 10000 |

## L1793319-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793319-01 11/01/24 10:52 • (DUP) R4141782-3 11/01/24 10:52

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Dissolved Solids | 11000 | 13000 | 1 | 16.7 | P1 | 10 |

## L1794416-20 Original Sample (OS) • Duplicate (DUP)

(OS) L1794416-20 11/01/24 10:52 • (DUP) R4141782-4 11/01/24 10:52

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Dissolved Solids | 36100000 | 36100000 | 1 | 0.000 | | 10 |

## Laboratory Control Sample (LCS)

(LCS) R4141782-2 11/01/24 10:52

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | ug/l | ug/l | % | % | |
| Dissolved Solids | 8800000 | 8750000 | 99.4 | 85.0-115 | |

## Method Blank (MB)

(MB) R4140795-2 11/01/24 09:46

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Alkalinity,Bicarbonate | U | | 4750 | 20000 |
| Alkalinity,Carbonate | U | | 4750 | 20000 |

Sample Narrative:

BLANK: Endpoint pH 4.5

## L1794257-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1794257-01 11/01/24 09:57 • (DUP) R4140795-3 11/01/24 10:03

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | 162000 | 162000 | 1 | 0.0100 | | 20 |
| Alkalinity,Carbonate | U | U | 1 | 0.000 | | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

## L1792873-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1792873-01 11/01/24 12:06 • (DUP) R4140795-4 11/01/24 12:12

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | 901000 | 890000 | 1 | 1.16 | | 20 |
| Alkalinity,Carbonate | U | U | 1 | 0.000 | | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

## Method Blank (MB)

(MB) R4141819-1 11/03/24 19:55

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 547 | 1000 |
| Fluoride | U | | 76.1 | 150 |
| Sulfate | 2350 | J | 637 | 5000 |

## L1794422-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1794422-01 11/03/24 20:35 • (DUP) R4141819-3 11/04/24 01:57

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 13800 | 14000 | 1 | 1.38 | | 15 |
| Fluoride | 116 | 138 | 1 | 17.2 | J P1 | 15 |
| Sulfate | 30400 | 28500 | 1 | 6.42 | | 15 |

## Laboratory Control Sample (LCS)

(LCS) R4141819-2 11/03/24 20:08

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Chloride | 40000 | 39300 | 98.3 | 90.0-110 | |
| Fluoride | 8000 | 7780 | 97.2 | 90.0-110 | |
| Sulfate | 40000 | 43300 | 108 | 90.0-110 | |

## L1794422-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1794422-01 11/03/24 20:35 • (MS) R4141819-4 11/04/24 02:10

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 13800 | 48500 | 86.7 | 1 | 90.0-110 | J6 |
| Fluoride | 8000 | 116 | 9620 | 119 | 1 | 90.0-110 | J5 |
| Sulfate | 40000 | 30400 | 63300 | 82.2 | 1 | 90.0-110 | J6 |

## Method Blank (MB)

(MB) R4140849-1 11/01/24 12:55

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 547 | 1000 |

## L1794369-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1794369-08 11/01/24 14:41 • (DUP) R4140849-3 11/01/24 14:50

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 36800 | 36800 | 1 | 0.101 | | 15 |

## L1794369-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1794369-09 11/01/24 15:18 • (DUP) R4140849-6 11/01/24 15:28

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 25900 | 25900 | 1 | 0.0810 | | 15 |

## Laboratory Control Sample (LCS)

(LCS) R4140849-2 11/01/24 13:03

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Chloride | 40000 | 39900 | 99.8 | 90.0-110 | |

## L1794369-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794369-08 11/01/24 14:41 • (MS) R4140849-4 11/01/24 14:59 • (MSD) R4140849-5 11/01/24 15:09

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 36800 | 69600 | 69600 | 82.0 | 82.1 | 1 | 90.0-110 | J6 | J6 | 0.0145 | 15 |

## L1794369-09 Original Sample (OS) • Matrix Spike (MS)

(OS) L1794369-09 11/01/24 15:18 • (MS) R4140849-7 11/01/24 15:37

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 25900 | 61000 | 87.6 | 1 | 90.0-110 | J6 |

## Method Blank (MB)

(MB) R4142368-1 11/04/24 12:02

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 547 | 1000 |
| Sulfate | U | | 637 | 5000 |

## L1794053-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1794053-08 11/04/24 12:37 • (DUP) R4142368-3 11/04/24 12:54

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | U | U | 1 | 0.000 | | 15 |
| Sulfate | U | U | 1 | 0.000 | | 15 |

## L1794416-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1794416-21 11/04/24 20:27 • (DUP) R4142368-5 11/04/24 20:44

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 602000 | 595000 | 50 | 1.10 | | 15 |
| Sulfate | 5520000 | 5460000 | 50 | 1.08 | | 15 |

Sample Narrative:

OS: Dilution due to matrix impact on instrumentation at lower dilution

## Laboratory Control Sample (LCS)

(LCS) R4142368-2 11/04/24 12:20

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Chloride | 40000 | 40700 | 102 | 90.0-110 | |
| Sulfate | 40000 | 41200 | 103 | 90.0-110 | |

## L1794053-08 Original Sample (OS) • Matrix Spike (MS)

(OS) L1794053-08 11/04/24 12:37 • (MS) R4142368-4 11/04/24 13:12

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Chloride | 40000 | U | 41400 | 104 | 1 | 90.0-110 | |
| Sulfate | 40000 | U | 42100 | 105 | 1 | 90.0-110 | |

## L1794416-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794416-21 11/04/24 20:27 • (MS) R4142368-6 11/04/24 21:02 • (MSD) R4142368-7 11/04/24 21:19

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 602000 | 527000 | 526000 | 0.000 | 0.000 | 50 | 90.0-110 | V | V | 0.0918 | 15 |
| Sulfate | 40000 | 5520000 | 4510000 | 4550000 | 0.000 | 0.000 | 50 | 90.0-110 | V | V | 1.02 | 15 |

Sample Narrative:

OS: Dilution due to matrix impact on instrumentation at lower dilution

## Method Blank (MB)

(MB) R4146364-1 11/14/24 14:36

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Fluoride | U | | 76.1 | 150 |

## L1794416-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1794416-21 11/14/24 16:55 • (DUP) R4146364-3 11/14/24 17:12

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Fluoride | 403 | 469 | 5 | 15.1 | J P1 | 15 |

## L1794416-22 Original Sample (OS) • Duplicate (DUP)

(OS) L1794416-22 11/14/24 18:05 • (DUP) R4146364-6 11/14/24 18:22

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Fluoride | 800 | 748 | 5 | 6.73 | J | 15 |

## Laboratory Control Sample (LCS)

(LCS) R4146364-2 11/14/24 14:53

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | ug/l | ug/l | % | % | |
| Fluoride | 8000 | 8180 | 102 | 90.0-110 | |

## L1794416-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794416-21 11/14/24 16:55 • (MS) R4146364-4 11/14/24 17:30 • (MSD) R4146364-5 11/14/24 17:47

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Fluoride | 8000 | 403 | 8010 | 8000 | 95.1 | 94.9 | 5 | 90.0-110 | | | 0.220 | 15 |

## L1794416-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794416-22 11/14/24 18:05 • (MS) R4146364-7 11/14/24 18:39 • (MSD) R4146364-8 11/14/24 18:57

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Fluoride | 8000 | 800 | 8790 | 9010 | 99.9 | 103 | 5 | 90.0-110 | | | 2.41 | 15 |

## L1794416-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794416-23 11/14/24 19:14 • (MS) R4146364-9 11/14/24 19:32 • (MSD) R4146364-10 11/14/24 19:49

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 8000 | 472 | 8330 | 8260 | 98.3 | 97.3 | 5 | 90.0-110 | | | 0.922 | 15 |

## L1793876-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793876-01 11/01/24 10:00 • (DUP) R4140699-2 11/01/24 10:00

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.75 | 7.74 | 1 | 0.129 | | 1 |

Sample Narrative:

OS: 7.75 at 18.6C

DUP: 7.74 at 18.8C

## L1794416-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1794416-23 11/01/24 10:00 • (DUP) R4140699-3 11/01/24 10:00

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.38 | 7.45 | 1 | 0.944 | | 1 |

Sample Narrative:

OS: 7.38 at 19.8C

DUP: 7.45 at 19.9C

## Laboratory Control Sample (LCS)

(LCS) R4140699-1 11/01/24 10:00

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | su | su | % | % | |
| pH | 10.0 | 10.0 | 100 | 99.0-101 | |

Sample Narrative:

LCS: 10 at 19.8C

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

## Abbreviations and Definitions

| | |
|---|---|
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| Rec. | Recovery. |
| RPD | Relative Percent Difference. |
| SDG | Sample Delivery Group. |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| Analyte | The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported. |
| Dilution | If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor. |
| Limits | These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| Qualifier | This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable. |
| Result | The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte. |
| Uncertainty (Radiochemistry) | Confidence level of 2 sigma. |
| Case Narrative (Cn) | A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report. |
| Quality Control Summary (Qc) | This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material. |
| Sample Chain of Custody (Sc) | This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis. |
| Sample Results (Sr) | This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported. |
| Sample Summary (Ss) | This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis. |

| Qualifier | Description |
|---|---|
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J5 | The sample matrix interfered with the ability to make any accurate determination; spike value is high. |
| J6 | The sample matrix interfered with the ability to make any accurate determination; spike value is low. |
| P1 | RPD value not applicable for sample concentrations less than 5 times the reporting limit. |
| T8 | Sample(s) received past/too close to holding time expiration. |
| V | The sample concentration is too high to evaluate accurate spike recoveries. |

# ACCREDITATIONS & LOCATIONS

## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nebraska | NE-OS-15-05 |
| Alaska | 17-026 | Nevada | TN000032021-1 |
| Arizona | AZ0612 | New Hampshire | 2975 |
| Arkansas | 88-0469 | New Jersey–NELAP | TN002 |
| California | 2932 | New Mexico [1] | TN00003 |
| Colorado | TN00003 | New York | 11742 |
| Connecticut | PH-0197 | North Carolina | Env375 |
| Florida | E87487 | North Carolina [1] | DW21704 |
| Georgia | NELAP | North Carolina [3] | 41 |
| Georgia [1] | 923 | North Dakota | R-140 |
| Idaho | TN00003 | Ohio–VAP | CL0069 |
| Illinois | 200008 | Oklahoma | 9915 |
| Indiana | C-TN-01 | Oregon | TN200002 |
| Iowa | 364 | Pennsylvania | 68-02979 |
| Kansas | E-10277 | Rhode Island | LAO000356 |
| Kentucky [1 6] | KY90010 | South Carolina | 84004002 |
| Kentucky [2] | 16 | South Dakota | n/a |
| Louisiana | AI30792 | Tennessee [1 4] | 2006 |
| Louisiana | LA018 | Texas | T104704245-20-18 |
| Maine | TN00003 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | TN000032021-11 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 110033 |
| Minnesota | 047-999-395 | Washington | C847 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 998093910 |
| Montana | CERT0086 | Wyoming | A2LA |
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC EMLAP | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | P330-15-00234 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: Samantha O'Shea
Email To: samantha.oshea@wsp.com

Project Description:
City/State Collected: FRUITLAND, NM
Please Circle: PT (MT) CT ET

Phone: 602-733-6110
Client Project # US0023513.6155
Lab Project # AMECTAZ-FOURCORNERS - ADDITIONAL

Collected by (print):
Site/Facility ID #
P.O. #

Collected by (signature):
Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Quote #
Date Results Needed

Immediately Packed on Ice N___ Y___

Analysis / Container / Preservative

Chain of Custody Page 1 of 6

Pace PEOPLE ADVANCING SCIENCE
MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 4794416
H183
Ta
Acctnum: AMECTAZ
Template: T261976
Prelogin: P1107674
PM: 288 - Daphne Richards
PB:
Shipped Via: FedEX Ground

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ~~ALKCA/OH~~ 125mlHDPE-NoPres SM2320B CO3 Alkalinity as CaCO3 | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | SM4500HB, pH 250ml HDPE NO PRES | 125ml HDPE NO pres. HCO3 Alkalinity as CaCO3 SM2320B | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW30-1024 | | GW ~~WW~~ | | 102624 | 1028 | 2 | X | X | | | | | | | | | REMARK #2 | -01 |
| FC-CCR-MW30-1024-MS | | ~~WW~~ | | | 1028 | | X | X | | | | | | | | | | -02 |
| FC-CCR-MW30-1024-SD | | ~~WW~~ | | | 1028 | | X | X | | | | | | | | | | -01 |
| FC-CCR-FD04-1024 | | ~~WW~~ | | | 0735 | | X | X | | | | | | | | | | -02 |
| FC-CCR-EW11R-1024 | | ~~WW~~ | | 102624 | 1340 | 5 | X | X | X | X | X | | X | X | X | X | REMARK #1 | -03 |
| FC-CCR-MW01-1024 | | ~~WW~~ | | 102524 | 1637 | 2 | X | X | | | | | | | | | REMARK #2 | -04 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, Ca, Be, Li, Fe, Mn, K, Mg, Na. } REMARK #1
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co
REMARK #2: 200.7: TOTAL B
200.8: TOTAL Mo, Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR | |
|---|---|---|---|---|---|
| [signature] | 103024 | 1621 | | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C Bottles Received: 118 | If preservation required by Login: Date/Time |
| Relinquished by : (Signature) | Da | Time: | Received for lab by: (Signature) CRoberd | Date: 10.31.24 Time: 0900 | Hold: Condition: NCF / OK |

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 2 of 6

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MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project # US0023513.6155

Lab Project # AMECTAZ-FOURCORNERS - ADDITIONAL

SDG # L1794416

Table #

Collected by (print):

Site/Facility ID #

P.O. #

Acctnum: AMECTAZ
Template: T261976
Prelogin: P1107674
PM: 288 - Daphne Richards
PB:

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y ___

Shipped Via: FedEX Ground

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKCA/OH 125mlHDPE-NoPres | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | | | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-SUMP7-1024 | G | WW | | 103024 | 0849 | 4 | X | X | | X | | | | X | | | | -05 |
| FC-CCR-SUMP8-1024 | | WW | | | 0838 | | X | X | | X | | | | X | | | | -06 |
| FC-CCR-SUMP9-1024 | | WW | | | 0858 | | X | X | | X | | | | X | | | | -07 |
| FC-CCR-SUMP10-1024 | | WW | | | 0906 | | X | X | | X | | | | X | | | | -08 |
| FC-CCR-SUMP11-1024 | | WW | | | 0935 | | X | X | | X | | | | X | | | | -09 |
| FC-CCR-POND3PUMP-1024 | | WW | | | 1058 | | X | X | | X | | | | X | | | | -10 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, ~~Ca, Be, Li,~~ Fe, Mn, ~~K,~~ Mg, ~~Na.~~
200.8: Total ~~Sb, As, Ba, Cd, Cr, Pb,~~ Mo, ~~Se, Tl~~, Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR | |
|---|---|---|---|---|---|
| FEDEX [signature] | 103024 | 1620 | | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C Bottles Received: 118 | If preservation required by Login: Date/Time |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) CRoberts | Date: 10.30.24 CR Time: 0900 | Hold: Condition: NCF / OK |

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: **Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT (MT) CT ET

Phone: **602-733-6110**

Client Project # US80823513.0155

Lab Project # AMECTAZ-FOURCORNERS-ADDITIONAL

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

***Rush?*** (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKCA/OH 125mlHDPE-NoPres | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | | | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-SUMP1-1024 | G | WW | | 10/30/24 | 0805 | 4 | X | X | | X | | | | X | | | | -11 |
| FC-CCR-SUMP3-1024 | | WW | | | 0825 | | X | X | | X | | | | X | | | | -12 |
| FC-CCR-SUMP12-1024 | | WW | | | 0944 | | X | X | | X | | | | X | | | | -13 |
| FC-CCR-SUMP13-1024 | | WW | | | 0952 | | X | X | | X | | | | X | | | | -14 |
| FC-CCR-ASTPOND16-1024 | | WW | | | 1110 | | X | X | | X | | | | X | | | | -15 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

Chain of Custody Page 3 of 4

Pace
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1944116

Table #

Acctnum: **AMECTAZ**
Template: **T261976**
Prelogin: **P1107674**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, ~~Ca,Be,Li,~~ Fe, Mn, ~~K,~~ Mg, ~~Na.~~
200.8: Total ~~Sb, As, Ba, Cd, Cr, Pb,~~ Mo, ~~Se, Tl,~~ Co

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR | |
|---|---|---|---|---|---|
| | 103024 | 1625 | | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C Bottles Received: 118 | If preservation required by Login: Date/Time |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) CRodarte | Date: 10.31.24 Time: 0900 | Hold: Condition: NCF / OK |

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to:
**Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT (MT) CT ET

Phone: **602-733-6110**

Client Project # US00235513.0155

Lab Project # **AMECTAZ-FOURCORNERS** - ADDITIONAL

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N____ Y____

***Rush?*** (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKCA/OH 125mlHDPE-NoPres | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | | | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-SUMP14-1024 | G | WW | | 10/30/24 | 1003 | 4 | X | X | | X | | | | X | | | | -16 |
| FC-CCR-SUMP15-1024 | | WW | | | 1007 | | X | X | | X | | | | X | | | | -17 |
| FC-CCR-SUMP16-1024 | | WW | | | 1013 | | X | X | | X | | | | X | | | | -18 |
| FC-CCR-SUMP17-1024 | | WW | | | 1024 | | X | X | | X | | | | X | | | | -19 |
| FC-CCR-SUMP18-1024 | | WW | | | 1035 | | X | X | | X | | | | X | | | | -20 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

Chain of Custody Page 4 of 6

Pace
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1744116

Table #

Acctnum: **AMECTAZ**
Template: **T261976**
Prelogin: **P1107674**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, ~~Ca,Be,Li;~~ Fe, Mn, ~~K;~~ Mg, ~~Na.~~
200.8: Total ~~Sb, As, Ba, Cd, Cr, Pb,~~ Mo, ~~Se, Tl~~, Co

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

| | | |
|---|---|---|
| COC Seal Present/Intact: | NP | Y N |
| COC Signed/Accurate: | | Y N |
| Bottles arrive intact: | | Y N |
| Correct bottles used: | | Y N |
| Sufficient volume sent: | | Y N |
| **If Applicable** | | |
| VOA Zero Headspace: | | Y N |
| Preservation Correct/Checked: | | Y N |
| RAD Screen <0.5 mR/hr: | | Y N |

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR | |
|---|---|---|---|---|---|
| | 10/30/24 | 1615 | FedEx | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C Bottles Received: 118 | If preservation required by Login: Date/Time |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: 10/31/24 Time: 0900 | Hold: / Condition: NCF / OK |
| | | | CRoberts | | |

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project # US0023513.6155

Lab Project # AMECTAZ-FOURCORNERS-ADDITIONAL

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N___ Y___

Analysis / Container / Preservative

Chain of Custody Page 5 of 6

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1794416

Table #

Acctnum: AMECTAZ
Template: T261976
Prelogin: P1107674
PM: 288 - Daphne Richards
PB:
Shipped Via: FedEX Ground

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ~~ALKCA/OH~~ 125mlHDPE-NoPres $CO_3$ Alkalinity as $CaCO_3$ SM2320B | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | 250ml HDPE, No pres. SM4500 HB, pH | ~~[illegible]~~ $HCO_3$ Alkalinity as $CaCO_3$ SM2320B, 125ml HDPE No pres. | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW82S-1024 | | GW ~~WW~~ | | 10/28/24 | 1118 | 5 | X | X | X | X | X | | X | X | X | X | REMARK #1 | -21 |
| FC-CCR-MW82S-1024-MS | | ~~WW~~ | | | 1118 | | X | X | X | X | X | | X | X | X | X | | -21 |
| FC-CCR-MW82S-1024-SD | | ~~WW~~ | | | 1118 | | X | X | X | X | X | | X | X | X | X | | -21 |
| FC-CCR-EW12R-1024 | | ~~WW~~ | | | 1212 | | X | X | X | X | X | | X | X | X | X | REMARK #2 | -22 |
| FC-CCR-FD08-1024 | | ~~WW~~ | | | 0621 | | X | X | X | X | X | | X | X | X | X | REMARK #1 | -23 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, Ca, ~~Be, Li, Fe, Mn~~, K, Mg, Na. ] - REMARK #1
200.8: Total ~~Sb, As, Ba, Cd, Cr, Pb~~, Mo, ~~Se, Tl~~, Co
REMARK #2: 200.7: TOTAL B, Ca, Be, Li, K, Mg, Mn, Na, Fe
200.8: TOTAL Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR |
|---|---|---|---|---|
| [signature] | 10 30 24 | 1616 | FEDEX | |

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C | Bottles Received: 118 | If preservation required by Login: Date/Time |
|---|---|---|---|---|---|---|
| | | | | | | |

| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: | Time: | Hold: | Condition: NCF / OK |
|---|---|---|---|---|---|---|---|
| | | | [signature] | 10.31.24 | 0900 | | |

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to:
**Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT (MT) CT ET

Phone: **602-733-6110**

Client Project # US00223513.0155

Lab Project # **AMECTAZ-FOURCORNERS-ADDITIONAL**

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N____ Y____

***Rush?*** (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Quote #

Date Results Needed

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKCA/OH 125mlHDPE-NoPres | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW03-1024 | | GW ~~WW~~ | | 102824 | 1425 | 2 | X | X | | | | | | | | -24 |
| FC-CCR-MW19-1024 | | ~~WW~~ | | | 1531 | | X | X | | | | | | | | -25 |
| FC-CCR-MW21-1024 | | ~~WW~~ | | | 1632 | | X | X | | | | | | | | -26 |
| FC-CCR-MW60-1024 | | ~~WW~~ | | | 1030 | | X | X | | | | | | | | -27 |
| FC-CCR-DMX01-1024 | | ~~WW~~ | | 102624 | 1223 | | X | X | | | | | | | | -28 |
| FC-CCR-FD06-1024 | | ~~WW~~ | | 102624 | 1111 | | X | X | | | | | | | | -29 |
| FC-CCR-FD07-1024 | | ~~WW~~ | | 102824 | 1234 | | X | X | | | | | | | | -30 |
| | | WW | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | |

Analysis / Container / Preservative

Chain of Custody Page 6 of 6

Pace
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L794416

Table #

Acctnum: **AMECTAZ**
Template: **T261976**
Prelogin: **P1107674**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:200.7: Total B, ~~Ca,Be,Li, Fe, Mn, K, Mg, Na.~~
200.8: Total ~~Sb, As, Ba, Cd, Cr, Pb~~, Mo, ~~Se, Tl~~, Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / (No) HCL / MeoH TBR |
|---|---|---|---|---|
| | 103024 | 1622 | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C Bottles Received: 18 |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) CROBERTS | Date: 10.31.24 Time: 0900 |

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

LT244116

| Fed Ex tracking # | Gun ID | Temperature |
|---|---|---|
| 4102 9171 4979 | TLA9 | 5.3 +0.3 = 5.6 |
| 4212 6467 0785 | | 1.5 +0.3 = 1.8 |
| 4212 6467 0763 | | 4.0 +0.3 = 4.3 |
| 4102 9171 5026 | | 4.7 +0.3 = 5.0 |
| 4212 6467 0774 | | 5.3 +0.3 = 5.6 |
| 4102 9171 5081 | | 3.3 +0.3 = 3.6 |
| | | |
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| | | |
| | | |
| | | |
| | | |

Name

Date

**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

November 12, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1794416 WG2393785
Pace Project No.: 10714605

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 05, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation



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**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

# CERTIFICATIONS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Pace Analytical Services, LLC - Minneapolis MN**
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208



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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## SAMPLE SUMMARY

Project: L1794416 WG2393785
Pace Project No.: 10714605

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **10714605001** | **RC-CCR-MW30-1024** | Water | 10/26/24 10:28 | 11/05/24 09:50 |
| **10714605002** | **RC-CCR-FD04-1024** | Water | 10/26/24 07:35 | 11/05/24 09:50 |
| **10714605003** | **FC-CCR-EW11R-1024** | Water | 10/26/24 13:40 | 11/05/24 09:50 |
| **10714605004** | **FC-CCR-MW01-1024** | Water | 10/25/24 16:37 | 11/05/24 09:50 |
| **10714605005** | **FC-CCR-SUMP7-1024** | Water | 10/30/24 08:49 | 11/05/24 09:50 |
| **10714605006** | **FC-CCR-SUMP8-1024** | Water | 10/30/24 08:38 | 11/05/24 09:50 |
| **10714605007** | **FC-CCR-SUMP9-1024** | Water | 10/30/24 08:58 | 11/05/24 09:50 |
| **10714605008** | **FC-CCR-SUMP10-1024** | Water | 10/30/24 09:06 | 11/05/24 09:50 |
| **10714605009** | **FC-CCR-SUMP11-1024** | Water | 10/30/24 09:35 | 11/05/24 09:50 |
| **10714605010** | **FC-CCR-POND3PUMP-1024** | Water | 10/30/24 10:58 | 11/05/24 09:50 |
| **10714605011** | **FC-CCR-SUMP1-1024** | Water | 10/30/24 08:05 | 11/05/24 09:50 |
| **10714605012** | **FC-CCR-SUMP3-1024** | Water | 10/30/24 08:25 | 11/05/24 09:50 |
| **10714605013** | **FC-CCR-SUMP12-1024** | Water | 10/30/24 09:44 | 11/05/24 09:50 |
| **10714605014** | **FC-CCR-SUMP13-1024** | Water | 10/30/24 09:52 | 11/05/24 09:50 |
| **10714605015** | **FC-CCR-ASHPONDV6-1024** | Water | 10/30/24 11:10 | 11/05/24 09:50 |
| **10714605016** | **FC-CCR-SUMP14-1024** | Water | 10/30/24 10:03 | 11/05/24 09:50 |
| **10714605017** | **FC-CCR-SUMP15-1024** | Water | 10/30/24 10:07 | 11/05/24 09:50 |
| **10714605018** | **FC-CCR-SUMP16-1024** | Water | 10/30/24 10:13 | 11/05/24 09:50 |
| **10714605019** | **FC-CCR-SUMP17-1024** | Water | 10/30/24 10:24 | 11/05/24 09:50 |
| **10714605020** | **FC-CCR-SUMP18-1024** | Water | 10/30/24 10:35 | 11/05/24 09:50 |
| **10714605021** | **FC-CCR-MW82S-1024** | Water | 10/30/24 11:18 | 11/05/24 09:50 |
| **10714605022** | **FC-CCR-EW12R-1024** | Water | 10/30/24 12:12 | 11/05/24 09:50 |
| **10714605023** | **FC-CCR-FD08-1024** | Water | 10/30/24 06:21 | 11/05/24 09:50 |
| **10714605024** | **FC-CCR-MW03-1024** | Water | 10/28/24 14:25 | 11/05/24 09:50 |
| **10714605025** | **FC-CCR-MW19-1024** | Water | 10/28/24 15:31 | 11/05/24 09:50 |
| **10714605026** | **FC-CCR-MW21-1024** | Water | 10/28/24 16:32 | 11/05/24 09:50 |
| **10714605027** | **FC-CCR-MW60-1024** | Water | 10/28/24 10:30 | 11/05/24 09:50 |
| **10714605028** | **FC-CCR-DMX01-1024** | Water | 10/26/24 12:23 | 11/05/24 09:50 |
| **10714605029** | **FC-CCR-FD06-1024** | Water | 10/26/24 11:11 | 11/05/24 09:50 |
| **10714605030** | **FC-CCR-FD07-1024** | Water | 10/28/24 12:34 | 11/05/24 09:50 |

## REPORT OF LABORATORY ANALYSIS

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**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## SAMPLE ANALYTE COUNT

Project: L1794416 WG2393785
Pace Project No.: 10714605

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **10714605001** | **RC-CCR-MW30-1024** | EPA 200.7 | SMB | 1 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605002** | **RC-CCR-FD04-1024** | EPA 200.7 | SMB | 1 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605003** | **FC-CCR-EW11R-1024** | EPA 200.7 | SMB | 8 | PASI-M |
| | | EPA 200.8 | GAS1 | 11 | PASI-M |
| **10714605004** | **FC-CCR-MW01-1024** | EPA 200.7 | SMB | 1 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605005** | **FC-CCR-SUMP7-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605006** | **FC-CCR-SUMP8-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605007** | **FC-CCR-SUMP9-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605008** | **FC-CCR-SUMP10-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605009** | **FC-CCR-SUMP11-1024** | EPA 200.7 | SMB | 5 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605010** | **FC-CCR-POND3PUMP-1024** | EPA 200.7 | SMB | 8 | PASI-M |
| | | EPA 200.8 | GAS1 | 11 | PASI-M |
| **10714605011** | **FC-CCR-SUMP1-1024** | EPA 200.7 | SMB | 2 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605012** | **FC-CCR-SUMP3-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605013** | **FC-CCR-SUMP12-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605014** | **FC-CCR-SUMP13-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605015** | **FC-CCR-ASHPONDV6-1024** | EPA 200.7 | SMB | 8 | PASI-M |
| | | EPA 200.8 | GAS1 | 11 | PASI-M |
| **10714605016** | **FC-CCR-SUMP14-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605017** | **FC-CCR-SUMP15-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605018** | **FC-CCR-SUMP16-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605019** | **FC-CCR-SUMP17-1024** | EPA 200.7 | SMB | 3 | PASI-M |



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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## SAMPLE ANALYTE COUNT

Project: L1794416 WG2393785
Pace Project No.: 10714605

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605020** | **FC-CCR-SUMP18-1024** | EPA 200.7 | IP | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605021** | **FC-CCR-MW82S-1024** | EPA 200.7 | IP | 5 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605022** | **FC-CCR-EW12R-1024** | EPA 200.7 | IP | 8 | PASI-M |
| | | EPA 200.8 | GAS1 | 11 | PASI-M |
| **10714605023** | **FC-CCR-FD08-1024** | EPA 200.7 | IP | 5 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605024** | **FC-CCR-MW03-1024** | EPA 200.7 | IP | 1 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605025** | **FC-CCR-MW19-1024** | EPA 200.7 | IP | 1 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605026** | **FC-CCR-MW21-1024** | EPA 200.7 | IP | 1 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605027** | **FC-CCR-MW60-1024** | EPA 200.7 | IP | 1 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605028** | **FC-CCR-DMX01-1024** | EPA 200.7 | IP | 1 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605029** | **FC-CCR-FD06-1024** | EPA 200.7 | IP | 1 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |
| **10714605030** | **FC-CCR-FD07-1024** | EPA 200.7 | IP | 1 | PASI-M |
| | | EPA 200.8 | GAS1 | 2 | PASI-M |

PASI-M = Pace Analytical Services - Minneapolis



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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: RC-CCR-MW30-1024** **Lab ID: 10714605001** Collected: 10/26/24 10:28 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **50200** | ug/L | 750 | 5 | 11/07/24 05:33 | 11/08/24 14:39 | 7440-42-8 | P6 |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **<0.48** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 11:51 | 7440-48-4 | D3 |
| Molybdenum | **1.7J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 11:51 | 7439-98-7 | D3 |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: RC-CCR-FD04-1024** **Lab ID: 10714605002** Collected: 10/26/24 07:35 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **47600** | ug/L | 750 | 5 | 11/07/24 05:33 | 11/08/24 14:44 | 7440-42-8 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **<0.48** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 13:06 | 7440-48-4 | D3 |
| Molybdenum | **1.8J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 13:06 | 7439-98-7 | D3 |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-EW11R-1024** **Lab ID: 10714605003** Collected: 10/26/24 13:40 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/08/24 13:40 | 7440-41-7 | |
| Boron | **28600** | ug/L | 1500 | 10 | 11/07/24 05:33 | 11/08/24 14:29 | 7440-42-8 | |
| Calcium | **388000** | ug/L | 500 | 1 | 11/07/24 05:33 | 11/08/24 13:40 | 7440-70-2 | |
| Iron | **148** | ug/L | 50.0 | 1 | 11/07/24 05:33 | 11/08/24 13:40 | 7439-89-6 | |
| Magnesium | **568000** | ug/L | 500 | 1 | 11/07/24 05:33 | 11/08/24 13:40 | 7439-95-4 | |
| Manganese | **784** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/08/24 13:40 | 7439-96-5 | |
| Potassium | **30200** | ug/L | 2500 | 1 | 11/07/24 05:33 | 11/08/24 13:40 | 7440-09-7 | |
| Sodium | **1010000** | ug/L | 10000 | 10 | 11/07/24 05:33 | 11/08/24 14:29 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 13:15 | 7440-36-0 | D3 |
| Arsenic | **<0.61** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 13:15 | 7440-38-2 | D3 |
| Barium | **14.5** | ug/L | 1.5 | 5 | 11/07/24 05:28 | 11/08/24 13:15 | 7440-39-3 | |
| Cadmium | **0.38J** | ug/L | 0.40 | 5 | 11/07/24 05:28 | 11/08/24 13:15 | 7440-43-9 | D3 |
| Chromium | **4.7J** | ug/L | 10.0 | 5 | 11/07/24 05:28 | 11/08/24 13:15 | 7440-47-3 | D3 |
| Cobalt | **9.6** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 13:15 | 7440-48-4 | |
| Lead | **0.93J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 13:15 | 7439-92-1 | D3 |
| Lithium | **508** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 13:15 | 7439-93-2 | |
| Molybdenum | **0.99J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 13:15 | 7439-98-7 | D3 |
| Selenium | **<0.37** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 13:15 | 7782-49-2 | D3 |
| Thallium | **0.44J** | ug/L | 0.50 | 5 | 11/07/24 05:28 | 11/08/24 13:15 | 7440-28-0 | D3 |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-MW01-1024** **Lab ID: 10714605004** Collected: 10/25/24 16:37 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **56400** | ug/L | 750 | 5 | 11/07/24 05:33 | 11/08/24 14:46 | 7440-42-8 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **28.9** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 13:23 | 7440-48-4 | |
| Molybdenum | **15.0** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 13:23 | 7439-98-7 | |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-SUMP7-1024** **Lab ID: 10714605005** Collected: 10/30/24 08:49 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **56200** | ug/L | 750 | 5 | 11/07/24 05:33 | 11/08/24 14:47 | 7440-42-8 | |
| Iron | **254** | ug/L | 50.0 | 1 | 11/07/24 05:33 | 11/08/24 13:43 | 7439-89-6 | |
| Manganese | **86.5** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/08/24 13:43 | 7439-96-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **55.8** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 13:32 | 7440-48-4 | |
| Molybdenum | **2.3J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 13:32 | 7439-98-7 | |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-SUMP8-1024** **Lab ID: 10714605006** Collected: 10/30/24 08:38 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **33200** | ug/L | 750 | 5 | 11/07/24 05:33 | 11/08/24 14:49 | 7440-42-8 | |
| Iron | **1050** | ug/L | 50.0 | 1 | 11/07/24 05:33 | 11/08/24 13:45 | 7439-89-6 | |
| Manganese | **5.8** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/08/24 13:45 | 7439-96-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **8.2** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 13:40 | 7440-48-4 | |
| Molybdenum | **3.9** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 13:40 | 7439-98-7 | |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-SUMP9-1024** **Lab ID: 10714605007** Collected: 10/30/24 08:58 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **28400** | ug/L | 750 | 5 | 11/07/24 05:33 | 11/08/24 14:54 | 7440-42-8 | |
| Iron | **2230** | ug/L | 50.0 | 1 | 11/07/24 05:33 | 11/08/24 13:47 | 7439-89-6 | |
| Manganese | **5.8** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/08/24 13:47 | 7439-96-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **18.6** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 13:57 | 7440-48-4 | |
| Molybdenum | **1.2J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 13:57 | 7439-98-7 | D3 |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-SUMP10-1024** **Lab ID: 10714605008** Collected: 10/30/24 09:06 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **49800** | ug/L | 750 | 5 | 11/07/24 05:33 | 11/08/24 14:56 | 7440-42-8 | |
| Iron | **1130** | ug/L | 50.0 | 1 | 11/07/24 05:33 | 11/08/24 13:48 | 7439-89-6 | |
| Manganese | **21.5** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/08/24 13:48 | 7439-96-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **137** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 14:05 | 7440-48-4 | |
| Molybdenum | **1.1J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 14:05 | 7439-98-7 | D3 |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-SUMP11-1024** **Lab ID: 10714605009** Collected: 10/30/24 09:35 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **49400** | ug/L | 750 | 5 | 11/07/24 05:33 | 11/08/24 14:57 | 7440-42-8 | |
| Calcium | **393000** | ug/L | 500 | 1 | 11/07/24 05:33 | 11/08/24 13:50 | 7440-70-2 | |
| Magnesium | **422000** | ug/L | 500 | 1 | 11/07/24 05:33 | 11/08/24 13:50 | 7439-95-4 | |
| Potassium | **28100** | ug/L | 2500 | 1 | 11/07/24 05:33 | 11/08/24 13:50 | 7440-09-7 | |
| Sodium | **982000** | ug/L | 10000 | 10 | 11/07/24 05:33 | 11/08/24 15:22 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **131** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 14:14 | 7440-48-4 | |
| Molybdenum | **0.75J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 14:14 | 7439-98-7 | D3 |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-POND3PUMP-1024** **Lab ID: 10714605010** Collected: 10/30/24 10:58 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/08/24 13:52 | 7440-41-7 | |
| Boron | **40600** | ug/L | 1500 | 10 | 11/07/24 05:33 | 11/08/24 14:34 | 7440-42-8 | P6 |
| Calcium | **374000** | ug/L | 500 | 1 | 11/07/24 05:33 | 11/08/24 13:52 | 7440-70-2 | |
| Iron | **26.0J** | ug/L | 50.0 | 1 | 11/07/24 05:33 | 11/08/24 13:52 | 7439-89-6 | |
| Magnesium | **1090000** | ug/L | 5000 | 10 | 11/07/24 05:33 | 11/08/24 14:34 | 7439-95-4 | P6 |
| Manganese | **0.97J** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/08/24 13:52 | 7439-96-5 | |
| Potassium | **51500** | ug/L | 2500 | 1 | 11/07/24 05:33 | 11/08/24 13:52 | 7440-09-7 | |
| Sodium | **2480000** | ug/L | 20000 | 20 | 11/07/24 05:33 | 11/08/24 15:17 | 7440-23-5 | P6 |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 14:22 | 7440-36-0 | D3 |
| Arsenic | **<0.61** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 14:22 | 7440-38-2 | D3 |
| Barium | **13.6** | ug/L | 1.5 | 5 | 11/07/24 05:28 | 11/08/24 14:22 | 7440-39-3 | |
| Cadmium | **0.45** | ug/L | 0.40 | 5 | 11/07/24 05:28 | 11/08/24 14:22 | 7440-43-9 | |
| Chromium | **<2.7** | ug/L | 10.0 | 5 | 11/07/24 05:28 | 11/08/24 14:22 | 7440-47-3 | D3 |
| Cobalt | **22.4** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 14:22 | 7440-48-4 | |
| Lead | **<0.90** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 14:22 | 7439-92-1 | D3 |
| Lithium | **886** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 14:22 | 7439-93-2 | |
| Molybdenum | **5.8** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 14:22 | 7439-98-7 | |
| Selenium | **32.0** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 14:22 | 7782-49-2 | |
| Thallium | **0.35J** | ug/L | 0.50 | 5 | 11/07/24 05:28 | 11/08/24 14:22 | 7440-28-0 | D3 |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-SUMP1-1024** **Lab ID: 10714605011** Collected: 10/30/24 08:05 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **38.7** | ug/L | 10.0 | 1 | 11/07/24 05:33 | 11/08/24 13:55 | 7440-48-4 | |
| Molybdenum | **101** | ug/L | 15.0 | 1 | 11/07/24 05:33 | 11/08/24 13:55 | 7439-98-7 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **39.8** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 14:31 | 7440-48-4 | |
| Molybdenum | **98.0** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 14:31 | 7439-98-7 | |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-SUMP3-1024** **Lab ID: 10714605012** Collected: 10/30/24 08:25 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **34000** | ug/L | 750 | 5 | 11/07/24 05:33 | 11/08/24 14:59 | 7440-42-8 | |
| Iron | **36.0J** | ug/L | 50.0 | 1 | 11/07/24 05:33 | 11/08/24 14:04 | 7439-89-6 | |
| Manganese | **572** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/08/24 14:04 | 7439-96-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **1.5J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 14:56 | 7440-48-4 | D3 |
| Molybdenum | **13.1** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 14:56 | 7439-98-7 | |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-SUMP12-1024** **Lab ID: 10714605013** Collected: 10/30/24 09:44 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **49500** | ug/L | 750 | 5 | 11/07/24 05:33 | 11/08/24 15:01 | 7440-42-8 | |
| Iron | **607** | ug/L | 50.0 | 1 | 11/07/24 05:33 | 11/08/24 14:06 | 7439-89-6 | |
| Manganese | **17.5** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/08/24 14:06 | 7439-96-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **130** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 15:04 | 7440-48-4 | |
| Molybdenum | **0.71J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 15:04 | 7439-98-7 | D3 |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-SUMP13-1024** **Lab ID: 10714605014** Collected: 10/30/24 09:52 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **33200** | ug/L | 750 | 5 | 11/07/24 05:33 | 11/08/24 15:02 | 7440-42-8 | |
| Iron | **781** | ug/L | 50.0 | 1 | 11/07/24 05:33 | 11/08/24 14:07 | 7439-89-6 | |
| Manganese | **7.8** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/08/24 14:07 | 7439-96-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **30.1** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 15:13 | 7440-48-4 | |
| Molybdenum | **2.6** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 15:13 | 7439-98-7 | |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-ASHPONDV6-1024** **Lab ID: 10714605015** Collected: 10/30/24 11:10 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/08/24 14:09 | 7440-41-7 | |
| Boron | **42900** | ug/L | 1500 | 10 | 11/07/24 05:33 | 11/08/24 14:37 | 7440-42-8 | |
| Calcium | **361000** | ug/L | 500 | 1 | 11/07/24 05:33 | 11/08/24 14:09 | 7440-70-2 | |
| Iron | **11.2J** | ug/L | 50.0 | 1 | 11/07/24 05:33 | 11/08/24 14:09 | 7439-89-6 | |
| Magnesium | **946000** | ug/L | 5000 | 10 | 11/07/24 05:33 | 11/08/24 14:37 | 7439-95-4 | |
| Manganese | **5.8** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/08/24 14:09 | 7439-96-5 | |
| Potassium | **46000** | ug/L | 2500 | 1 | 11/07/24 05:33 | 11/08/24 14:09 | 7440-09-7 | |
| Sodium | **2230000** | ug/L | 20000 | 20 | 11/07/24 05:33 | 11/08/24 15:21 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 15:21 | 7440-36-0 | D3 |
| Arsenic | **<0.61** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 15:21 | 7440-38-2 | D3 |
| Barium | **12.2** | ug/L | 1.5 | 5 | 11/07/24 05:28 | 11/08/24 15:21 | 7440-39-3 | |
| Cadmium | **0.41** | ug/L | 0.40 | 5 | 11/07/24 05:28 | 11/08/24 15:21 | 7440-43-9 | |
| Chromium | **<2.7** | ug/L | 10.0 | 5 | 11/07/24 05:28 | 11/08/24 15:21 | 7440-47-3 | D3 |
| Cobalt | **27.9** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 15:21 | 7440-48-4 | |
| Lead | **<0.90** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 15:21 | 7439-92-1 | D3 |
| Lithium | **822** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 15:21 | 7439-93-2 | |
| Molybdenum | **7.4** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 15:21 | 7439-98-7 | |
| Selenium | **25.8** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 15:21 | 7782-49-2 | |
| Thallium | **0.33J** | ug/L | 0.50 | 5 | 11/07/24 05:28 | 11/08/24 15:21 | 7440-28-0 | D3 |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-SUMP14-1024** **Lab ID: 10714605016** Collected: 10/30/24 10:03 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **27700** | ug/L | 300 | 2 | 11/07/24 05:33 | 11/08/24 15:04 | 7440-42-8 | |
| Iron | **418** | ug/L | 50.0 | 1 | 11/07/24 05:33 | 11/08/24 14:11 | 7439-89-6 | |
| Manganese | **6.1** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/08/24 14:11 | 7439-96-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **75.9** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 15:38 | 7440-48-4 | |
| Molybdenum | **18.2** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 15:38 | 7439-98-7 | |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-SUMP15-1024** **Lab ID: 10714605017** Collected: 10/30/24 10:07 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **19100** | ug/L | 300 | 2 | 11/07/24 05:33 | 11/08/24 15:06 | 7440-42-8 | |
| Iron | **87.5** | ug/L | 50.0 | 1 | 11/07/24 05:33 | 11/08/24 14:12 | 7439-89-6 | |
| Manganese | **4.0J** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/08/24 14:12 | 7439-96-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **36.4** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 15:46 | 7440-48-4 | |
| Molybdenum | **1.1J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 15:46 | 7439-98-7 | D3 |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-SUMP16-1024** **Lab ID: 10714605018** Collected: 10/30/24 10:13 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **11800** | ug/L | 150 | 1 | 11/07/24 05:33 | 11/08/24 14:14 | 7440-42-8 | |
| Iron | **485** | ug/L | 50.0 | 1 | 11/07/24 05:33 | 11/08/24 14:14 | 7439-89-6 | |
| Manganese | **7.7** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/08/24 14:14 | 7439-96-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **15.1** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 15:55 | 7440-48-4 | |
| Molybdenum | **1.8J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 15:55 | 7439-98-7 | D3 |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-SUMP17-1024** **Lab ID: 10714605019** Collected: 10/30/24 10:24 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **13600** | ug/L | 150 | 1 | 11/07/24 05:33 | 11/08/24 14:16 | 7440-42-8 | |
| Iron | **60.2** | ug/L | 50.0 | 1 | 11/07/24 05:33 | 11/08/24 14:16 | 7439-89-6 | |
| Manganese | **2.6J** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/08/24 14:16 | 7439-96-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **0.69J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 16:03 | 7440-48-4 | D3 |
| Molybdenum | **1.0J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 16:03 | 7439-98-7 | D3 |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-SUMP18-1024** **Lab ID: 10714605020** Collected: 10/30/24 10:35 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **5860** | ug/L | 300 | 2 | 11/07/24 05:33 | 11/10/24 12:55 | 7440-42-8 | |
| Iron | **744** | ug/L | 100 | 2 | 11/07/24 05:33 | 11/10/24 12:55 | 7439-89-6 | |
| Manganese | **14.6** | ug/L | 10.0 | 2 | 11/07/24 05:33 | 11/10/24 12:55 | 7439-96-5 | B |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **0.80J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 16:28 | 7440-48-4 | D3 |
| Molybdenum | **2.3J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 16:28 | 7439-98-7 | D3 |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-MW82S-1024** **Lab ID: 10714605021** Collected: 10/30/24 11:18 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **60300** | ug/L | 1500 | 10 | 11/07/24 05:33 | 11/10/24 12:57 | 7440-42-8 | P6 |
| Calcium | **395000** | ug/L | 500 | 1 | 11/07/24 05:33 | 11/10/24 11:57 | 7440-70-2 | P6 |
| Magnesium | **650000** | ug/L | 500 | 1 | 11/07/24 05:33 | 11/10/24 11:57 | 7439-95-4 | P6 |
| Potassium | **30700** | ug/L | 2500 | 1 | 11/07/24 05:33 | 11/10/24 11:57 | 7440-09-7 | P6 |
| Sodium | **1290000** | ug/L | 10000 | 10 | 11/07/24 05:33 | 11/10/24 12:57 | 7440-23-5 | P6 |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **90.9** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 12:41 | 7440-48-4 | |
| Molybdenum | **2.7** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 12:41 | 7439-98-7 | |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-EW12R-1024** **Lab ID: 10714605022** Collected: 10/30/24 12:12 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Beryllium | **1.3J** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/10/24 12:02 | 7440-41-7 | |
| Boron | **42800** | ug/L | 1500 | 10 | 11/07/24 05:33 | 11/10/24 13:02 | 7440-42-8 | |
| Calcium | **366000** | ug/L | 500 | 1 | 11/07/24 05:33 | 11/10/24 12:02 | 7440-70-2 | |
| Iron | **14700** | ug/L | 50.0 | 1 | 11/07/24 05:33 | 11/10/24 12:02 | 7439-89-6 | |
| Magnesium | **702000** | ug/L | 500 | 1 | 11/07/24 05:33 | 11/10/24 12:02 | 7439-95-4 | |
| Manganese | **1210** | ug/L | 5.0 | 1 | 11/07/24 05:33 | 11/10/24 12:02 | 7439-96-5 | |
| Potassium | **43700** | ug/L | 2500 | 1 | 11/07/24 05:33 | 11/10/24 12:02 | 7440-09-7 | |
| Sodium | **2010000** | ug/L | 20000 | 20 | 11/07/24 05:33 | 11/10/24 13:28 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 16:37 | 7440-36-0 | D3 |
| Arsenic | **0.88J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 16:37 | 7440-38-2 | D3 |
| Barium | **15.6** | ug/L | 1.5 | 5 | 11/07/24 05:28 | 11/08/24 16:37 | 7440-39-3 | |
| Cadmium | **<0.15** | ug/L | 0.40 | 5 | 11/07/24 05:28 | 11/08/24 16:37 | 7440-43-9 | D3 |
| Chromium | **<2.7** | ug/L | 10.0 | 5 | 11/07/24 05:28 | 11/08/24 16:37 | 7440-47-3 | D3 |
| Cobalt | **<0.48** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 16:37 | 7440-48-4 | D3 |
| Lead | **<0.90** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 16:37 | 7439-92-1 | D3 |
| Lithium | **727** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 16:37 | 7439-93-2 | |
| Molybdenum | **6.7** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 16:37 | 7439-98-7 | |
| Selenium | **<0.37** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 16:37 | 7782-49-2 | D3 |
| Thallium | **<0.13** | ug/L | 0.50 | 5 | 11/07/24 05:28 | 11/08/24 16:37 | 7440-28-0 | D3 |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-FD08-1024** **Lab ID: 10714605023** Collected: 10/30/24 06:21 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **61300** | ug/L | 1500 | 10 | 11/07/24 05:33 | 11/10/24 13:04 | 7440-42-8 | |
| Calcium | **404000** | ug/L | 500 | 1 | 11/07/24 05:33 | 11/10/24 12:04 | 7440-70-2 | |
| Magnesium | **668000** | ug/L | 500 | 1 | 11/07/24 05:33 | 11/10/24 12:04 | 7439-95-4 | |
| Potassium | **31500** | ug/L | 2500 | 1 | 11/07/24 05:33 | 11/10/24 12:04 | 7440-09-7 | |
| Sodium | **1340000** | ug/L | 10000 | 10 | 11/07/24 05:33 | 11/10/24 13:04 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **87.3** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 16:45 | 7440-48-4 | |
| Molybdenum | **2.2J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 16:45 | 7439-98-7 | D3 |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-MW03-1024** **Lab ID: 10714605024** Collected: 10/28/24 14:25 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **9140** | ug/L | 750 | 5 | 11/07/24 05:33 | 11/10/24 13:05 | 7440-42-8 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **1.1J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 16:53 | 7440-48-4 | D3 |
| Molybdenum | **1.6J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 16:53 | 7439-98-7 | D3 |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-MW19-1024** **Lab ID: 10714605025** Collected: 10/28/24 15:31 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **2200** | ug/L | 750 | 5 | 11/07/24 05:33 | 11/10/24 13:07 | 7440-42-8 | B |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **1.3J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 17:02 | 7440-48-4 | D3 |
| Molybdenum | **2.4J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 17:02 | 7439-98-7 | D3 |



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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-MW21-1024** **Lab ID: 10714605026** Collected: 10/28/24 16:32 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **4750** | ug/L | 750 | 5 | 11/07/24 05:33 | 11/10/24 13:14 | 7440-42-8 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **4.3** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 17:19 | 7440-48-4 | |
| Molybdenum | **1.9J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 17:19 | 7439-98-7 | D3 |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-MW60-1024** **Lab ID: 10714605027** Collected: 10/28/24 10:30 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **58400** | ug/L | 750 | 5 | 11/07/24 05:33 | 11/10/24 13:16 | 7440-42-8 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **161** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 17:27 | 7440-48-4 | |
| Molybdenum | **154** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 17:27 | 7439-98-7 | |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-DMX01-1024** **Lab ID: 10714605028** Collected: 10/26/24 12:23 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **62200** | ug/L | 750 | 5 | 11/07/24 05:33 | 11/10/24 13:17 | 7440-42-8 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **1.9J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 17:35 | 7440-48-4 | D3 |
| Molybdenum | **11.7** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 17:35 | 7439-98-7 | |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-FD06-1024** **Lab ID: 10714605029** Collected: 10/26/24 11:11 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **58600** | ug/L | 750 | 5 | 11/07/24 05:33 | 11/10/24 13:19 | 7440-42-8 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **1.9J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 17:44 | 7440-48-4 | D3 |
| Molybdenum | **11.7** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 17:44 | 7439-98-7 | |

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## ANALYTICAL RESULTS

Project: L1794416 WG2393785
Pace Project No.: 10714605

**Sample: FC-CCR-FD07-1024** **Lab ID: 10714605030** Collected: 10/28/24 12:34 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Boron | **2570** | ug/L | 750 | 5 | 11/07/24 05:33 | 11/10/24 13:21 | 7440-42-8 | B |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | |
| Cobalt | **1.1J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 16:11 | 7440-48-4 | D3 |
| Molybdenum | **2.3J** | ug/L | 2.5 | 5 | 11/07/24 05:28 | 11/08/24 16:11 | 7439-98-7 | D3 |

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# QUALITY CONTROL DATA

Project: L1794416 WG2393785
Pace Project No.: 10714605

QC Batch: 978199
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714605001, 10714605002, 10714605003, 10714605004, 10714605005, 10714605006, 10714605007, 10714605008, 10714605009, 10714605010, 10714605011, 10714605012, 10714605013, 10714605014, 10714605015, 10714605016, 10714605017, 10714605018, 10714605019

METHOD BLANK: 5112074
Matrix: Water
Associated Lab Samples: 10714605001, 10714605002, 10714605003, 10714605004, 10714605005, 10714605006, 10714605007, 10714605008, 10714605009, 10714605010, 10714605011, 10714605012, 10714605013, 10714605014, 10714605015, 10714605016, 10714605017, 10714605018, 10714605019

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 5.0 | 11/08/24 13:26 | |
| Boron | ug/L | <16.0 | 150 | 11/08/24 13:26 | |
| Calcium | ug/L | <31.8 | 500 | 11/08/24 13:26 | |
| Cobalt | ug/L | <1.2 | 10.0 | 11/08/24 13:26 | |
| Iron | ug/L | <7.5 | 50.0 | 11/08/24 13:26 | |
| Magnesium | ug/L | <28.9 | 500 | 11/08/24 13:26 | |
| Manganese | ug/L | <0.50 | 5.0 | 11/08/24 13:26 | |
| Molybdenum | ug/L | <1.7 | 15.0 | 11/08/24 13:26 | |
| Potassium | ug/L | <108 | 2500 | 11/08/24 13:26 | |
| Sodium | ug/L | <45.4 | 1000 | 11/08/24 13:26 | |

LABORATORY CONTROL SAMPLE: 5112075

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Beryllium | ug/L | 1000 | 1010 | 101 | 85-115 | |
| Boron | ug/L | 1000 | 997 | 100 | 85-115 | |
| Calcium | ug/L | 20000 | 18800 | 94 | 85-115 | |
| Cobalt | ug/L | 1000 | 975 | 98 | 85-115 | |
| Iron | ug/L | 20000 | 19600 | 98 | 85-115 | |
| Magnesium | ug/L | 20000 | 19500 | 97 | 85-115 | |
| Manganese | ug/L | 1000 | 999 | 100 | 85-115 | |
| Molybdenum | ug/L | 1000 | 958 | 96 | 85-115 | |
| Potassium | ug/L | 20000 | 19500 | 97 | 85-115 | |
| Sodium | ug/L | 20000 | 19800 | 99 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112076 5112077

| Parameter | Units | 10714605001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 1000 | 1000 | 1100 | 1070 | 110 | 107 | 70-130 | 3 | 20 | |
| Boron | ug/L | 50200 | 1000 | 1000 | 49800 | 50000 | -40 | -19 | 70-130 | 0 | 20 | P6 |
| Calcium | ug/L | 383000 | 20000 | 20000 | 393000 | 387000 | 50 | 22 | 70-130 | 1 | 20 | P6 |
| Cobalt | ug/L | 2.4J | 1000 | 1000 | 939 | 907 | 94 | 90 | 70-130 | 4 | 20 | |
| Iron | ug/L | 65.7 | 20000 | 20000 | 19500 | 18800 | 97 | 94 | 70-130 | 4 | 20 | |

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## QUALITY CONTROL DATA

Project: L1794416 WG2393785
Pace Project No.: 10714605

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112076 5112077

| Parameter | Units | 10714605001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Magnesium | ug/L | 1540000 | 20000 | 20000 | 1500000 | 1510000 | -184 | -130 | 70-130 | 1 | 20 | P6 |
| Manganese | ug/L | 41.5 | 1000 | 1000 | 1050 | 1010 | 100 | 97 | 70-130 | 3 | 20 | |
| Molybdenum | ug/L | 4.0J | 1000 | 1000 | 996 | 972 | 99 | 97 | 70-130 | 2 | 20 | |
| Potassium | ug/L | 59000 | 20000 | 20000 | 84200 | 82800 | 126 | 119 | 70-130 | 2 | 20 | |
| Sodium | ug/L | 2560000 | 20000 | 20000 | 2520000 | 2540000 | -187 | -132 | 70-130 | 0 | 20 | P6 |

MATRIX SPIKE SAMPLE: 5112078

| Parameter | Units | 10714605010 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 1000 | 1070 | 107 | 70-130 | |
| Boron | ug/L | 40600 | 1000 | 42200 | 159 | 70-130 | P6 |
| Calcium | ug/L | 374000 | 20000 | 391000 | 84 | 70-130 | |
| Cobalt | ug/L | 24.6 | 1000 | 944 | 92 | 70-130 | |
| Iron | ug/L | 26.0J | 20000 | 18900 | 94 | 70-130 | |
| Magnesium | ug/L | 1090000 | 20000 | 1110000 | 133 | 70-130 | P6 |
| Manganese | ug/L | 0.97J | 1000 | 982 | 98 | 70-130 | |
| Molybdenum | ug/L | 8.2J | 1000 | 994 | 99 | 70-130 | |
| Potassium | ug/L | 51500 | 20000 | 75100 | 118 | 70-130 | |
| Sodium | ug/L | 2480000 | 20000 | 2430000 | -248 | 70-130 | P6 |

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## QUALITY CONTROL DATA

Project: L1794416 WG2393785
Pace Project No.: 10714605

QC Batch: 978205
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714605020, 10714605021, 10714605022, 10714605023, 10714605024, 10714605025, 10714605026, 10714605027, 10714605028, 10714605029, 10714605030

METHOD BLANK: 5112090 Matrix: Water
Associated Lab Samples: 10714605020, 10714605021, 10714605022, 10714605023, 10714605024, 10714605025, 10714605026, 10714605027, 10714605028, 10714605029, 10714605030

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 5.0 | 11/10/24 15:21 | |
| Boron | ug/L | 64.2J | 150 | 11/10/24 15:21 | |
| Calcium | ug/L | 43.7J | 500 | 11/10/24 15:21 | |
| Iron | ug/L | <7.5 | 50.0 | 11/10/24 15:21 | |
| Magnesium | ug/L | 127J | 500 | 11/10/24 15:21 | |
| Manganese | ug/L | 0.80J | 5.0 | 11/10/24 15:21 | |
| Potassium | ug/L | <108 | 2500 | 11/10/24 15:21 | |
| Sodium | ug/L | 147J | 1000 | 11/10/24 15:21 | |

LABORATORY CONTROL SAMPLE: 5112091

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Beryllium | ug/L | 1000 | 1010 | 101 | 85-115 | |
| Boron | ug/L | 1000 | 1010 | 101 | 85-115 | |
| Calcium | ug/L | 20000 | 19000 | 95 | 85-115 | |
| Iron | ug/L | 20000 | 19900 | 99 | 85-115 | |
| Magnesium | ug/L | 20000 | 19600 | 98 | 85-115 | |
| Manganese | ug/L | 1000 | 1010 | 101 | 85-115 | |
| Potassium | ug/L | 20000 | 20100 | 100 | 85-115 | |
| Sodium | ug/L | 20000 | 20100 | 101 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112092 5112093

| Parameter | Units | 10714605021 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 1000 | 1000 | 1100 | 1100 | 110 | 110 | 70-130 | 0 | 20 | |
| Boron | ug/L | 60300 | 1000 | 1000 | 61600 | 65300 | 135 | 497 | 70-130 | 6 | 20 | P6 |
| Calcium | ug/L | 395000 | 20000 | 20000 | 412000 | 425000 | 87 | 153 | 70-130 | 3 | 20 | P6 |
| Iron | ug/L | 41.6J | 20000 | 20000 | 20400 | 20400 | 102 | 102 | 70-130 | 0 | 20 | |
| Magnesium | ug/L | 650000 | 20000 | 20000 | 672000 | 693000 | 112 | 217 | 70-130 | 3 | 20 | P6 |
| Manganese | ug/L | 1790 | 1000 | 1000 | 2780 | 2840 | 99 | 104 | 70-130 | 2 | 20 | |
| Potassium | ug/L | 30700 | 20000 | 20000 | 56000 | 57000 | 127 | 132 | 70-130 | 2 | 20 | P6 |
| Sodium | ug/L | 1290000 | 20000 | 20000 | 1370000 | 1410000 | 386 | 602 | 70-130 | 3 | 20 | P6 |

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## QUALITY CONTROL DATA

Project: L1794416 WG2393785
Pace Project No.: 10714605

MATRIX SPIKE SAMPLE: 5112094

| Parameter | Units | 10714605030 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Beryllium | ug/L | <2.2 | 1000 | 1020 | 102 | 70-130 | |
| Boron | ug/L | 2570 | 1000 | 3320 | 76 | 70-130 | |
| Calcium | ug/L | 411000 | 20000 | 420000 | 47 | 70-130 | P6 |
| Iron | ug/L | 775 | 20000 | 20500 | 98 | 70-130 | |
| Magnesium | ug/L | 2240000 | 20000 | 2210000 | -144 | 70-130 | P6 |
| Manganese | ug/L | 411 | 1000 | 1390 | 98 | 70-130 | |
| Potassium | ug/L | 92900 | 20000 | 116000 | 117 | 70-130 | |
| Sodium | ug/L | 8140000 | 20000 | 7570000 | -2850 | 70-130 | P6 |

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## QUALITY CONTROL DATA

Project: L1794416 WG2393785
Pace Project No.: 10714605

QC Batch: 978202
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714605001, 10714605002, 10714605003, 10714605004, 10714605005, 10714605006, 10714605007, 10714605008, 10714605009, 10714605010, 10714605011, 10714605012, 10714605013, 10714605014, 10714605015, 10714605016, 10714605017, 10714605018, 10714605019

METHOD BLANK: 5112079
Matrix: Water
Associated Lab Samples: 10714605001, 10714605002, 10714605003, 10714605004, 10714605005, 10714605006, 10714605007, 10714605008, 10714605009, 10714605010, 10714605011, 10714605012, 10714605013, 10714605014, 10714605015, 10714605016, 10714605017, 10714605018, 10714605019

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Antimony | ug/L | <0.087 | 0.50 | 11/08/24 11:25 | |
| Arsenic | ug/L | <0.12 | 0.50 | 11/08/24 11:25 | |
| Barium | ug/L | <0.070 | 0.30 | 11/08/24 11:25 | |
| Cadmium | ug/L | <0.030 | 0.080 | 11/08/24 11:25 | |
| Chromium | ug/L | <0.54 | 2.0 | 11/08/24 11:25 | |
| Cobalt | ug/L | <0.095 | 0.50 | 11/08/24 11:25 | |
| Lead | ug/L | <0.18 | 0.50 | 11/08/24 11:25 | |
| Lithium | ug/L | <0.18 | 0.50 | 11/08/24 11:25 | |
| Molybdenum | ug/L | <0.13 | 0.50 | 11/08/24 11:25 | |
| Selenium | ug/L | <0.074 | 0.50 | 11/08/24 11:25 | |
| Thallium | ug/L | <0.026 | 0.10 | 11/08/24 11:25 | |

LABORATORY CONTROL SAMPLE: 5112080

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Antimony | ug/L | 100 | 102 | 102 | 85-115 | |
| Arsenic | ug/L | 100 | 99.1 | 99 | 85-115 | |
| Barium | ug/L | 100 | 101 | 101 | 85-115 | |
| Cadmium | ug/L | 100 | 98.9 | 99 | 85-115 | |
| Chromium | ug/L | 100 | 105 | 105 | 85-115 | |
| Cobalt | ug/L | 100 | 106 | 106 | 85-115 | |
| Lead | ug/L | 100 | 99.6 | 100 | 85-115 | |
| Lithium | ug/L | 100 | 100 | 100 | 85-115 | |
| Molybdenum | ug/L | 100 | 99.4 | 99 | 85-115 | |
| Selenium | ug/L | 100 | 103 | 103 | 85-115 | |
| Thallium | ug/L | 100 | 99.7 | 100 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112081 5112082

| Parameter | Units | 10714605001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ug/L | <0.44 | 100 | 100 | 99.2 | 97.6 | 99 | 98 | 70-130 | 2 | 20 | |
| Arsenic | ug/L | <0.61 | 100 | 100 | 104 | 103 | 104 | 103 | 70-130 | 0 | 20 | |
| Barium | ug/L | 24.2 | 100 | 100 | 124 | 123 | 100 | 99 | 70-130 | 1 | 20 | |

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## QUALITY CONTROL DATA

Project: L1794416 WG2393785
Pace Project No.: 10714605

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112081 5112082

| Parameter | Units | 10714605001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cadmium | ug/L | <0.15 | 100 | 100 | 91.4 | 90.2 | 91 | 90 | 70-130 | 1 | 20 | |
| Chromium | ug/L | <2.7 | 100 | 100 | 109 | 108 | 107 | 107 | 70-130 | 0 | 20 | |
| Cobalt | ug/L | <0.48 | 100 | 100 | 101 | 102 | 101 | 101 | 70-130 | 1 | 20 | |
| Lead | ug/L | <0.90 | 100 | 100 | 98.1 | 97.8 | 98 | 98 | 70-130 | 0 | 20 | |
| Lithium | ug/L | 1020 | 100 | 100 | 1120 | 1130 | 98 | 111 | 70-130 | 1 | 20 | |
| Molybdenum | ug/L | 1.7J | 100 | 100 | 98.2 | 96.5 | 96 | 95 | 70-130 | 2 | 20 | |
| Selenium | ug/L | 100 | 100 | 100 | 207 | 204 | 107 | 104 | 70-130 | 2 | 20 | |
| Thallium | ug/L | 0.32J | 100 | 100 | 103 | 101 | 102 | 101 | 70-130 | 1 | 20 | |

MATRIX SPIKE SAMPLE: 5112083

| Parameter | Units | 10714605011 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Antimony | ug/L | <0.44 | 100 | 98.1 | 98 | 70-130 | |
| Arsenic | ug/L | <0.61 | 100 | 102 | 102 | 70-130 | |
| Barium | ug/L | 13.9 | 100 | 113 | 99 | 70-130 | |
| Cadmium | ug/L | 0.68 | 100 | 90.6 | 90 | 70-130 | |
| Chromium | ug/L | <2.7 | 100 | 104 | 102 | 70-130 | |
| Cobalt | ug/L | 39.8 | 100 | 138 | 98 | 70-130 | |
| Lead | ug/L | <0.90 | 100 | 97.4 | 97 | 70-130 | |
| Lithium | ug/L | 729 | 100 | 810 | 81 | 70-130 | |
| Molybdenum | ug/L | 98.0 | 100 | 197 | 99 | 70-130 | |
| Selenium | ug/L | 1.2J | 100 | 99.7 | 99 | 70-130 | |
| Thallium | ug/L | 0.20J | 100 | 101 | 101 | 70-130 | |

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## QUALITY CONTROL DATA

Project: L1794416 WG2393785
Pace Project No.: 10714605

QC Batch: 978207
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714605020, 10714605021, 10714605022, 10714605023, 10714605024, 10714605025, 10714605026, 10714605027, 10714605028, 10714605029, 10714605030

METHOD BLANK: 5112095 Matrix: Water
Associated Lab Samples: 10714605020, 10714605021, 10714605022, 10714605023, 10714605024, 10714605025, 10714605026, 10714605027, 10714605028, 10714605029, 10714605030

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Antimony | ug/L | <0.087 | 0.50 | 11/08/24 12:16 | |
| Arsenic | ug/L | <0.12 | 0.50 | 11/08/24 12:16 | |
| Barium | ug/L | <0.070 | 0.30 | 11/08/24 12:16 | |
| Cadmium | ug/L | <0.030 | 0.080 | 11/08/24 12:16 | |
| Chromium | ug/L | <0.54 | 2.0 | 11/08/24 12:16 | |
| Cobalt | ug/L | <0.095 | 0.50 | 11/08/24 12:16 | |
| Lead | ug/L | <0.18 | 0.50 | 11/08/24 12:16 | |
| Lithium | ug/L | <0.18 | 0.50 | 11/08/24 12:16 | |
| Molybdenum | ug/L | <0.13 | 0.50 | 11/08/24 12:16 | |
| Selenium | ug/L | <0.074 | 0.50 | 11/08/24 12:16 | |
| Thallium | ug/L | <0.026 | 0.10 | 11/08/24 12:16 | |

LABORATORY CONTROL SAMPLE: 5112096

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Antimony | ug/L | 100 | 104 | 104 | 85-115 | |
| Arsenic | ug/L | 100 | 99.9 | 100 | 85-115 | |
| Barium | ug/L | 100 | 103 | 103 | 85-115 | |
| Cadmium | ug/L | 100 | 98.2 | 98 | 85-115 | |
| Chromium | ug/L | 100 | 106 | 106 | 85-115 | |
| Cobalt | ug/L | 100 | 106 | 106 | 85-115 | |
| Lead | ug/L | 100 | 102 | 102 | 85-115 | |
| Lithium | ug/L | 100 | 99.1 | 99 | 85-115 | |
| Molybdenum | ug/L | 100 | 97.3 | 97 | 85-115 | |
| Selenium | ug/L | 100 | 101 | 101 | 85-115 | |
| Thallium | ug/L | 100 | 102 | 102 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112097 5112098

| Parameter | Units | 10714605021 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ug/L | <0.44 | 100 | 100 | 99.7 | 98.4 | 100 | 98 | 70-130 | 1 | 20 | |
| Arsenic | ug/L | <0.61 | 100 | 100 | 104 | 102 | 104 | 102 | 70-130 | 2 | 20 | |
| Barium | ug/L | 14.4 | 100 | 100 | 115 | 114 | 101 | 99 | 70-130 | 1 | 20 | |
| Cadmium | ug/L | 0.95 | 100 | 100 | 94.0 | 94.4 | 93 | 93 | 70-130 | 0 | 20 | |
| Chromium | ug/L | <2.7 | 100 | 100 | 108 | 106 | 105 | 103 | 70-130 | 2 | 20 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

## REPORT OF LABORATORY ANALYSIS

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## QUALITY CONTROL DATA

Project: L1794416 WG2393785
Pace Project No.: 10714605

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112097 5112098

| Parameter | Units | 10714605021 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | ug/L | 90.9 | 100 | 100 | 196 | 193 | 105 | 102 | 70-130 | 2 | 20 | |
| Lead | ug/L | 2.0J | 100 | 100 | 98.5 | 98.3 | 96 | 96 | 70-130 | 0 | 20 | |
| Lithium | ug/L | 658 | 100 | 100 | 789 | 774 | 130 | 115 | 70-130 | 2 | 20 | |
| Molybdenum | ug/L | 2.7 | 100 | 100 | 103 | 99.3 | 100 | 97 | 70-130 | 3 | 20 | |
| Selenium | ug/L | <0.37 | 100 | 100 | 103 | 101 | 102 | 101 | 70-130 | 1 | 20 | |
| Thallium | ug/L | 0.38J | 100 | 100 | 101 | 100 | 100 | 100 | 70-130 | 1 | 20 | |

MATRIX SPIKE SAMPLE: 5112106

| Parameter | Units | 10714605029 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Antimony | ug/L | <0.44 | 100 | 97.5 | 97 | 70-130 | |
| Arsenic | ug/L | 0.79J | 100 | 104 | 103 | 70-130 | |
| Barium | ug/L | 11.6 | 100 | 112 | 100 | 70-130 | |
| Cadmium | ug/L | 0.30J | 100 | 86.0 | 86 | 70-130 | |
| Chromium | ug/L | <2.7 | 100 | 103 | 102 | 70-130 | |
| Cobalt | ug/L | 1.9J | 100 | 98.0 | 96 | 70-130 | |
| Lead | ug/L | <0.90 | 100 | 98.7 | 99 | 70-130 | |
| Lithium | ug/L | 1290 | 100 | 1410 | 118 | 70-130 | |
| Molybdenum | ug/L | 11.7 | 100 | 105 | 94 | 70-130 | |
| Selenium | ug/L | 0.86J | 100 | 105 | 104 | 70-130 | |
| Thallium | ug/L | 0.22J | 100 | 103 | 103 | 70-130 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

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# QUALIFIERS

Project: L1794416 WG2393785
Pace Project No.: 10714605

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## ANALYTE QUALIFIERS

| | |
|---|---|
| B | Analyte was detected in the associated method blank. |
| D3 | Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference. |
| P6 | Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level. |



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1794416 WG2393785
Pace Project No.: 10714605

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **10714605004** | **FC-CCR-MW01-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605002** | **RC-CCR-FD04-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605001** | **RC-CCR-MW30-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605029** | **FC-CCR-FD06-1024** | EPA 200.7 | 978205 | EPA 200.7 | 978498 |
| **10714605028** | **FC-CCR-DMX01-1024** | EPA 200.7 | 978205 | EPA 200.7 | 978498 |
| **10714605003** | **FC-CCR-EW11R-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605027** | **FC-CCR-MW60-1024** | EPA 200.7 | 978205 | EPA 200.7 | 978498 |
| **10714605030** | **FC-CCR-FD07-1024** | EPA 200.7 | 978205 | EPA 200.7 | 978498 |
| **10714605024** | **FC-CCR-MW03-1024** | EPA 200.7 | 978205 | EPA 200.7 | 978498 |
| **10714605025** | **FC-CCR-MW19-1024** | EPA 200.7 | 978205 | EPA 200.7 | 978498 |
| **10714605026** | **FC-CCR-MW21-1024** | EPA 200.7 | 978205 | EPA 200.7 | 978498 |
| **10714605023** | **FC-CCR-FD08-1024** | EPA 200.7 | 978205 | EPA 200.7 | 978498 |
| **10714605011** | **FC-CCR-SUMP1-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605012** | **FC-CCR-SUMP3-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605006** | **FC-CCR-SUMP8-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605005** | **FC-CCR-SUMP7-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605007** | **FC-CCR-SUMP9-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605008** | **FC-CCR-SUMP10-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605009** | **FC-CCR-SUMP11-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605013** | **FC-CCR-SUMP12-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605014** | **FC-CCR-SUMP13-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605016** | **FC-CCR-SUMP14-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605017** | **FC-CCR-SUMP15-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605018** | **FC-CCR-SUMP16-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605019** | **FC-CCR-SUMP17-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605020** | **FC-CCR-SUMP18-1024** | EPA 200.7 | 978205 | EPA 200.7 | 978498 |
| **10714605010** | **FC-CCR-POND3PUMP-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605015** | **FC-CCR-ASHPONDV6-1024** | EPA 200.7 | 978199 | EPA 200.7 | 978499 |
| **10714605021** | **FC-CCR-MW82S-1024** | EPA 200.7 | 978205 | EPA 200.7 | 978498 |
| **10714605022** | **FC-CCR-EW12R-1024** | EPA 200.7 | 978205 | EPA 200.7 | 978498 |
| **10714605004** | **FC-CCR-MW01-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |
| **10714605002** | **RC-CCR-FD04-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |
| **10714605001** | **RC-CCR-MW30-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |
| **10714605029** | **FC-CCR-FD06-1024** | EPA 200.8 | 978207 | EPA 200.8 | 978532 |
| **10714605028** | **FC-CCR-DMX01-1024** | EPA 200.8 | 978207 | EPA 200.8 | 978532 |
| **10714605003** | **FC-CCR-EW11R-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |
| **10714605027** | **FC-CCR-MW60-1024** | EPA 200.8 | 978207 | EPA 200.8 | 978532 |
| **10714605030** | **FC-CCR-FD07-1024** | EPA 200.8 | 978207 | EPA 200.8 | 978532 |
| **10714605024** | **FC-CCR-MW03-1024** | EPA 200.8 | 978207 | EPA 200.8 | 978532 |
| **10714605025** | **FC-CCR-MW19-1024** | EPA 200.8 | 978207 | EPA 200.8 | 978532 |
| **10714605026** | **FC-CCR-MW21-1024** | EPA 200.8 | 978207 | EPA 200.8 | 978532 |
| **10714605023** | **FC-CCR-FD08-1024** | EPA 200.8 | 978207 | EPA 200.8 | 978532 |
| **10714605011** | **FC-CCR-SUMP1-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1794416 WG2393785
Pace Project No.: 10714605

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **10714605012** | **FC-CCR-SUMP3-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |
| **10714605006** | **FC-CCR-SUMP8-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |
| **10714605005** | **FC-CCR-SUMP7-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |
| **10714605007** | **FC-CCR-SUMP9-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |
| **10714605008** | **FC-CCR-SUMP10-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |
| **10714605009** | **FC-CCR-SUMP11-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |
| **10714605013** | **FC-CCR-SUMP12-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |
| **10714605014** | **FC-CCR-SUMP13-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |
| **10714605016** | **FC-CCR-SUMP14-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |
| **10714605017** | **FC-CCR-SUMP15-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |
| **10714605018** | **FC-CCR-SUMP16-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |
| **10714605019** | **FC-CCR-SUMP17-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |
| **10714605020** | **FC-CCR-SUMP18-1024** | EPA 200.8 | 978207 | EPA 200.8 | 978532 |
| **10714605010** | **FC-CCR-POND3PUMP-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |
| **10714605015** | **FC-CCR-ASHPONDV6-1024** | EPA 200.8 | 978202 | EPA 200.8 | 978530 |
| **10714605021** | **FC-CCR-MW82S-1024** | EPA 200.8 | 978207 | EPA 200.8 | 978532 |
| **10714605022** | **FC-CCR-EW12R-1024** | EPA 200.8 | 978207 | EPA 200.8 | 978532 |



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# Sub-Contract Chain of Custody

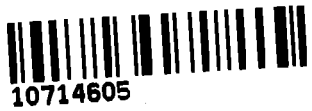
**Batch Date/Time:** 11/01/24 14:22
**Sub-Contract Lab:** PACEMN
**Address:** 1700 Elm Street Suite 200 SE
**City/State:** Minneapolis, MN 55414
**Contact:** tong.lee@pacelabs.com
**Owner Lab:** PACEMTJL
**Address:** 12065 Lebanon Rd.
**City/State:** Mt. Juliet, TN 37122
**Phone:** (615) 773-9756
**Fax:** (615) 758-5859

**WO:** WG2393785
**Email:** MTJLSuboutTeam@pacelabs.com
**Results Due Date:** 11/11/24
**ESC Purchase Order #:** L1794416
**Send Reports to:** James C Huckaba

Pace Analytical®

12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone:(615) 773-9756
Fax:(615) 758-5859

WO# : 10714605




70 - 250 HAA5/HM3

| Sample ID<br>Container ID | Matrix | State | Collect Date | Description | Sample Number<br>Lab Use Only | Sample Comments<br>Lab Use Only |
|---|---|---|---|---|---|---|
| **RC-CCR-MW30-1024**<br>250mlHDPE-HNO3 - 49865662<br>250mlHDPE-HNO3 - 49865663<br>250mlHDPE-HNO3 - 49865666<br>250mlHDPE-HNO3 - 49865667<br>250mlHDPE-HNO3 - 49865668<br>250mlHDPE-HNO3 - 49865669 | WW | NM | 10/26/24 10:28 | Metals | 1. L1794416-01 | MS/MSD, 200.7 B, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>001 |
| **RC-CCR-FD04-1024**<br>250mlHDPE-HNO3 - 49865664<br>250mlHDPE-HNO3 - 49865665 | WW | NM | 10/26/24 07:35 | Metals | 2. L1794416-02 | 200.7 B, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>002 |
| **FC-CCR-EW11R-1024**<br>250mlHDPE-HNO3 - 49865781<br>250mlHDPE-HNO3 - 49865784 | WW | NM | 10/26/24 13:40 | Metals | 3. L1794416-03 | 200.7 B, Ca, Be, Li, Fe, Mn, K, Mg, Na, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, TL, Co, MATRIXGAZ EDD and MDLRDL<br>003 |
| **FC-CCR-MW01-1024**<br>250mlHDPE-HNO3 - 49865786<br>250mlHDPE-HNO3 - 49865787 | WW | NM | 10/25/24 16:37 | Metals | 4. L1794416-04 | 200.7 B, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>004 |
| **FC-CCR-SUMP7-1024**<br>250mlHDPE-HNO3 - 49865789<br>250mlHDPE-HNO3 - 49865791 | WW | NM | 10/30/24 08:49 | Metals | 5. L1794416-05 | 200.7 B, Fe, Mn, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>005 |
| **FC-CCR-SUMP8-1024**<br>250mlHDPE-HNO3 - 49865793<br>250mlHDPE-HNO3 - 49865795 | WW | NM | 10/30/24 08:38 | Metals | 6. L1794416-06 | 200.7 B, Fe, Mn, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>006 |
| **FC-CCR-SUMP9-1024**<br>250mlHDPE-HNO3 - 49865797<br>250mlHDPE-HNO3 - 49865799 | WW | NM | 10/30/24 08:58 | Metals | 7. L1794416-07 | 200.7 B, Fe, Mn, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>007 |
| **FC-CCR-SUMP10-1024**<br>250mlHDPE-HNO3 - 49865801<br>250mlHDPE-HNO3 - 49865803 | WW | NM | 10/30/24 09:06 | Metals | 8. L1794416-08 | 200.7 B, Fe, Mn, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>008 |
| **FC-CCR-SUMP11-1024**<br>250mlHDPE-HNO3 - 49865805<br>250mlHDPE-HNO3 - | WW | NM | 10/30/24 09:35 | Metals | 9. L1794416-09 | 200.7 B, Fe, Mn, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>009 |

| Sample ID<br>Container ID | Matrix | State | Collect Date | Description | Sample Number<br>Lab Use Only | Sample Comments<br>Lab Use Only |
|---|---|---|---|---|---|---|
| 49865807 | | | | | | |
| **FC-CCR-POND3PUMP-1024**<br>250mlHDPE-HNO3 - 49865809<br>250mlHDPE-HNO3 - 49865811 | WW | NM | 10/30/24 10:58 | Metals | 10. L1794416-10 | 200.7 B, Fe, Mn, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>010 |
| **FC-CCR-SUMP1-1024**<br>250mlHDPE-HNO3 - 49865813<br>250mlHDPE-HNO3 - 49865815 | WW | NM | 10/30/24 08:05 | Metals | 11. L1794416-11 | 200.7 B, Fe, Mn, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>011 |
| **FC-CCR-SUMP3-1024**<br>250mlHDPE-HNO3 - 49865817<br>250mlHDPE-HNO3 - 49865819 | WW | NM | 10/30/24 08:25 | Metals | 12. L1794416-12 | 200.7 B, Fe, Mn, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>012 |
| **FC-CCR-SUMP12-1024**<br>250mlHDPE-HNO3 - 49865821<br>250mlHDPE-HNO3 - 49865823 | WW | NM | 10/30/24 09:44 | Metals | 13. L1794416-13 | 200.7 B, Fe, Mn, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>013 |
| **FC-CCR-SUMP13-1024**<br>250mlHDPE-HNO3 - 49865825<br>250mlHDPE-HNO3 - 49865827 | WW | NM | 10/30/24 09:52 | Metals | 14. L1794416-14 | 200.7 B, Fe, Mn, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>014 |
| **FC-CCR-ASHPONDV6-1024**<br>250mlHDPE-HNO3 - 49865829<br>250mlHDPE-HNO3 - 49865831 | WW | NM | 10/30/24 11:10 | Metals | 15. L1794416-15 | 200.7 B, Fe, Mn, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>015 |
| **FC-CCR-SUMP14-1024**<br>250mlHDPE-HNO3 - 49865833<br>250mlHDPE-HNO3 - 49865835 | WW | NM | 10/30/24 10:03 | Metals | 16. L1794416-16 | 200.7 B, Fe, Mn, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>016 |
| **FC-CCR-SUMP15-1024**<br>250mlHDPE-HNO3 - 49865837<br>250mlHDPE-HNO3 - 49865839 | WW | NM | 10/30/24 10:07 | Metals | 17. L1794416-17 | 200.7 B, Fe, Mn, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>017 |
| **FC-CCR-SUMP16-1024**<br>250mlHDPE-HNO3 - 49865841<br>250mlHDPE-HNO3 - 49865843 | WW | NM | 10/30/24 10:13 | Metals | 18. L1794416-18 | 200.7 B, Fe, Mn, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>018 |
| **FC-CCR-SUMP17-1024**<br>250mlHDPE-HNO3 - 49865845<br>250mlHDPE-HNO3 - 49865847 | WW | NM | 10/30/24 10:24 | Metals | 19. L1794416-19 | 200.7 B, Fe, Mn, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>019 |

| Sample ID<br>Container ID | Matrix | State | Collect Date | Description | Sample Number<br>Lab Use Only | Sample Comments<br>Lab Use Only |
|---|---|---|---|---|---|---|
| **FC-CCR-SUMP18-1024**<br>250mlHDPE-HNO3 - 49865849<br>250mlHDPE-HNO3 - 49865851 | WW | NM | 10/30/24 10:35 | Metals | 20. L1794416-20 | 200.7 B, Fe, Mn, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>020 |
| **FC-CCR-MW82S-1024**<br>250mlHDPE-HNO3 - 49865853<br>250mlHDPE-HNO3 - 49865855<br>250mlHDPE-HNO3 - 49866554<br>250mlHDPE-HNO3 - 49866555<br>250mlHDPE-HNO3 - 49866556<br>250mlHDPE-HNO3 - 49866557 | WW | NM | 10/30/24 11:18 | Metals | 21. L1794416-21 | MS/MSD, 200.7 B, Ca, K, Mg, Na, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>021 |
| **FC-CCR-EW12R-1024**<br>250mlHDPE-HNO3 - 49865858<br>250mlHDPE-HNO3 - 49865860 | WW | NM | 10/30/24 12:12 | Metals | 22. L1794416-22 | 200.7 B, Ca, Be, Li, K, Mg, Mn, Na, Fe200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, TL, Co, MATRIXGAZ EDD and MDLRDL<br>022 |
| **FC-CCR-FD08-1024**<br>250mlHDPE-HNO3 - 49865863<br>250mlHDPE-HNO3 - 49865865 | WW | NM | 10/30/24 06:21 | Metals | 23. L1794416-23 | 200.7 B, Ca, K, Mg, Na, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>023 |
| **FC-CCR-MW03-1024**<br>250mlHDPE-HNO3 - 49865993<br>250mlHDPE-HNO3 - 49865994 | WW | NM | 10/28/24 14:25 | Metals | 24. L1794416-24 | 200.7 B, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>024 |
| **FC-CCR-MW19-1024**<br>250mlHDPE-HNO3 - 49865995<br>250mlHDPE-HNO3 - 49865996 | WW | NM | 10/28/24 15:31 | Metals | 25. L1794416-25 | 200.7 B, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>025 |
| **FC-CCR-MW21-1024**<br>250mlHDPE-HNO3 - 49865997<br>250mlHDPE-HNO3 - 49865998 | WW | NM | 10/28/24 16:32 | Metals | 26. L1794416-26 | 200.7 B, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>026 |
| **FC-CCR-MW60-1024**<br>250mlHDPE-HNO3 - 49865999<br>250mlHDPE-HNO3 - 49866000 | WW | NM | 10/28/24 10:30 | Metals | 27. L1794416-27 | 200.7 B, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>027 |
| **FC-CCR-DMX01-1024**<br>250mlHDPE-HNO3 - 49866001<br>250mlHDPE-HNO3 - | WW | NM | 10/26/24 12:23 | Metals | 28. L1794416-28 | 200.7 B, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>028 |

| Sample ID<br>Container ID | Matrix | State | Collect Date | Description | Sample Number<br>Lab Use Only | Sample Comments<br>Lab Use Only |
|---|---|---|---|---|---|---|
| HNO3 -<br>49866002 | | | | | | |
| **FC-CCR-FD06-1024**<br>250mlHDPE-HNO3 -<br>49866003<br>250mlHDPE-HNO3 -<br>49866004 | WW | NM | 10/26/24 11:11 | Metals | 29. L1794416-29 | 200.7 B, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>029 |
| **FC-CCR-FD07-1024**<br>250mlHDPE-HNO3 -<br>49866005<br>250mlHDPE-HNO3 -<br>49866006 | WW | NM | 10/28/24 12:34 | Metals | 30. L1794416-30 | 200.7 B, 200.8 Co, Mo, MATRIXGAZ EDD and MDLRDL<br>030 |

*= Container used for multiple Samples and/or Analyses

**Relinquished by:** _____ **Date** _____

**Received by:** [redacted] Pdq **Date** 11-5-24 9:50

**Relinquished by:** _____ **Date** _____

**Received by:** _____ **Date** _____

**NO ICE**

# ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

**CLIENT NAME:** Pace MTJL **PROJECT #:** **WO#: 10714605**

PM: TKL Due Date: 11/11/24
CLIENT: PASI-TN

**COURIER:** ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

**TRACKING NUMBER:** _____ ☑ See Exceptions form ENV-FRM-MIN4-0142

**Custody Seal on Cooler/Box Present:** ☑ YES ☐ NO **Seals Intact:** ☑ YES ☐ NO **Biological Tissue Frozen:** ☐ YES ☐ NO ☑ N/A

**Packing Material:** ☐ Bubble Bags ☑ Bubble Wrap ☐ None ☐ Other **Temp Blank:** ☐ YES ☑ NO **Type of Ice:** ☐ Blue ☐ Dry ☐ Wet ☐ Melted ☑ None

**Thermometer:** ☑ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

| | |
|---|---|
| **Did Samples Originate in West Virginia:** ☐ YES ☑ NO | **Were All Container Temps taken:** ☐ YES ☐ NO ☑ N/A |
| **Correction Factor:** +0.1 **Cooler Temp Read w/Temp Blank:** _____ °C **Cooler Temp Corrected w/Temp Blank:** _____ °C | **Average Corrected Temp (no Temp Blank Only):** 18.0/18.4 °C |
| ***NOTE:*** *Temp should be above freezing to 6°C.* | ☑ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container |
| **USDA Regulated Soil:** ☑ N/A ☐ Water Sample/Other (describe): _____ | **Initials & Date of Person Examining Contents:** EC 11-5-24 |
| Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO | Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO |
| **NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.** | |

| **LOCATION (check one):** ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA | YES | NO | N/A | COMMENT(S) |
|---|---|---|---|---|
| Chain of Custody Present and Filled Out? | ☑ | ☐ | | 1. |
| Chain of Custody Relinquished? | ☑ | ☐ | | 2. |
| Sampler Name and/or Signature on COC? | ☐ | ☑ | ☐ | 3. |
| Samples Arrived within Hold Time? | ☑ | ☐ | | 4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No |
| **Short Hold Time Analysis (<72 hr)?** | ☐ | ☑ | | 5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____ |
| **Rush Turn Around Time Requested?** | ☑ | ☐ | | 6. 11-11-24 |
| Sufficient Sample Volume? | ☑ | ☐ | | 7. |
| Correct Containers Used? – Pace Containers Used? | ☑ ☑ | ☐ ☐ | ☐ | 8. |
| Containers Intact? | ☑ | ☐ | | 9. |
| Field Filtered Volume Received for Dissolved Tests? | ☐ | ☑ | ☐ | 10. Is sediment visible in the dissolved container: ☐ YES ☐ NO |
| Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other | ☑ | ☐ | | 11. **If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142 |
| All containers needing acid/base preservation have been checked? | ☑ | ☐ | ☐ | 12. Sample #: 001-030 |
| All containers needing preservation are found to be in compliance with EPA recommendation? ($HNO_3$, $H_2SO_4$, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide) | ☑ | ☐ | ☐ | 001, 021 1/6 002-020, 022-030: 2/2 ☑ $HNO_3$ ☐ $H_2SO_4$ ☐ NaOH ☐ Zinc Acetate |
| Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS | ☐ | ☐ | ☑ | Positive for Residual Chlorine: ☐ YES ☐ NO |
| **NOTE:** If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs. | | | | **pH Paper Lot #** |

| Residual Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip |
|---|---|---|---|
| | 205224 | | |

☐ See Exceptions form ENV-FRM-MIN4-0142

| | | | | |
|---|---|---|---|---|
| Headspace in Methyl Mercury Container? | ☐ | ☐ | ☑ | 13. |
| Extra labels present on soil VOA or WIDRO containers? | ☐ | ☐ | ☑ | 14. |
| Headspace in VOA Vials (greater than 6mm)? | ☐ | ☐ | ☑ | ☐ See Exceptions form ENV-FRM-MIN4-0140 |
| Trip Blanks Present? | ☐ | ☐ | ☑ | 15. |
| Trip Blank Custody Seals Present? | ☐ | ☐ | ☑ | Pace Trip Blank Lot # (if purchased): _____ |

**CLIENT NOTIFICATION / RESOLUTION** **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

**Project Manager Review:** _____ **Date:** 11/06/24

***NOTE:*** *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

**Labeled By:** EC **Line:** 2

**Workorder #:** _____

| No Temp Blank | | | | |
|---|---|---|---|---|
| Read Temp | | Corrected Temp | | Average temp |
| 18.0 | 18.4 | 18.1 | 18.5 | 18.0 18.4 |
| 17.8 | 18.4 | 17.9 | 18.5 | |
| 18.0 | 18.1 | 18.1 | 18.2 | |
| 17.8 | 18.3 | 17.9 | 18.4 | |

**PM Notified of Out of Temp Cooler?** ☐ YES ☐ NO

If yes, indicate who was contacted, date and time.
If no, indicate reason why.

_____

**Multiple Cooler Project?** ☐ YES ☐ NO

**If anything is OVER 6.0°C, you MUST document containers in this section HERE**

| Tracking Number | Temperature |
|---|---|
| 4212 6475 8537 | 18.0 |
| 4212 6475 8548 | 18.4 |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| Out of Temp Sample ID | Container Type | # of Containers |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

**pH Adjustment Log for Preserved Samples**

| Sample ID | Type Of Preserve | pH Upon Receipt | Date Adjusted | Time Adjusted | Amount Added (mL) | Lot # Added | pH After | In Compliance After Addition? YES | In Compliance After Addition? NO | Initials |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |

**Comments:**

_____

_____

_____

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



| **Section A** Required Client Information: | | **Section B** Required Project Information: | | **Section C** Invoice Information: | |
|---|---|---|---|---|---|
| Company: | Pace Analytical | Report To: | Pace Analytical Subout Team | Attention: | Samantha O'Shea |
| Address: | 12065 Lebanon Rd. | Copy To: | | Company Name: | |
| Mt. Juliet, TN 37122 | | | | Address: | |
| Email: | MTJLSuboutTeam@pacelabs.com | Purchase Order #: | L1794416 | Pace Quote: | |
| Phone: (615) 773-9756 | Fax: (615) 758-5859 | Project Name: | | Pace Project Manager: | Tong Lee |
| Requested Due Date: | 11-Nov | Project #: | US0023513.6155 | Pace Profile #: | 38076 |

| Regulatory Agency |
|---|
| |
| **State / Location** |
| **NM** |

**SAMPLE ID**
**One Character per box.**
**(A-Z, 0-9 / , -)**
**Sample Ids must be unique**

| MATRIX | CODE |
|---|---|
| Drinking Water | DW |
| Water | WT |
| Waste Water | WW |
| Product | P |
| Soil/Solid | SL |
| Oil | OL |
| Wipe | WP |
| Air | AR |
| Other | OT |
| Tissue | TS |

| ITEM # | SAMPLE ID | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | Analyses Test Y/N | Analyses Test: Metals | Residual Chlorine (Y/N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | RC-CCR-MW30-1024 | WT | | | | 26-Oct | 10:28 | | 1 | | | 1 | | | | | | | X | | MS/MSD, 200.7 B, 200.8 Co, Mo |
| 2 | RC-CCR-FD04-1024 | WT | | | | 26-Oct | 7:35 | | 1 | | | 1 | | | | | | | X | | 200.7 B, 200.8 Co, Mo, MATRIX |
| 3 | FC-CCR-EW11R-1024 | WT | | | | 26-Oct | 13:40 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Ca, Be, Fe, Mn, K, Mg, |
| 4 | FC-CCR-MW01-1024 | WT | | | | 25-Oct | 16:37 | | 1 | | | 1 | | | | | | | X | | 200.7 B, 200.8 Co, Mo, MATRIX |
| 5 | FC-CCR-SUMP7-1024 | WT | | | | 30-Oct | 8:49 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Fe, Mn, 200.8 Co, Mo, |
| 6 | FC-CCR-SUMP8-1024 | WT | | | | 30-Oct | 8:38 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Fe, Mn, 200.8 Co, Mo, |
| 7 | FC-CCR-SUMP9-1024 | WT | | | | 30-Oct | 8:58 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Fe, Mn, 200.8 Co, Mo, |
| 8 | FC-CCR-SUMP10-1024 | WT | | | | 30-Oct | 9:06 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Fe, Mn, 200.8 Co, Mo, |
| 9 | FC-CCR-SUMP11-1024 | WT | | | | 30-Oct | 9:35 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Fe, Mn, 200.8 Co, Mo, |
| 10 | FC-CCR-POND3PUMP-1024 | WT | | | | 30-Oct | 10:58 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Fe, Mn, 200.8 Co, Mo, |
| 11 | FC-CCR-SUMP1-1024 | WT | | | | 30-Oct | 8:05 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Fe, Mn, 200.8 Co, Mo, |
| 12 | FC-CCR-SUMP3-1024 | WT | | | | 30-Oct | 8:25 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Fe, Mn, 200.8 Co, Mo, |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | James C Huckaba | 1-Nov | 15:34 | | | | | | | |
| Pace Analytical Batch: WG2393785 | | | | | | | | | | |
| **Pace Analytical SDGs: L1794416** | | | | | | | | | | |
| **Location: Minneapolis, MN 55414** | | | | | | | | | | |

| SAMPLER NAME AND SIGNATURE | | TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
|---|---|---|---|---|---|
| **PRINT Name of SAMPLER:** | | | | | |
| **SIGNATURE of SAMPLER:** | **DATE Signed:** | | | | |

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



| **Section A** Required Client Information: | | **Section B** Required Project Information: | | **Section C** Invoice Information: | |
|---|---|---|---|---|---|
| Company: | Pace Analytical | Report To: | Pace Analytical Subout Team | Attention: | Samantha O'Shea |
| Address: | 12065 Lebanon Rd. | Copy To: | | Company Name: | |
| Mt. Juliet, TN 37122 | | | | Address: | |
| Email: | MTJLSuboutTeam@pacelabs.com | Purchase Order #: | L1794416 | Pace Quote: | |
| Phone: (615) 773-9756 | Fax: (615) 758-5859 | Project Name: | | Pace Project Manager: | Tong Lee |
| Requested Due Date: | 11-Nov | Project #: | US0023513.6155 | Pace Profile #: | 38076 |

| Regulatory Agency |
|---|
| |
| **State / Location** |
| **NM** |

| MATRIX | CODE |
|---|---|
| Drinking Water | DW |
| Water | WT |
| Waste Water | WW |
| Product | P |
| Soil/Solid | SL |
| Oil | OL |
| Wipe | WP |
| Air | AR |
| Other | OT |
| Tissue | TS |

| ITEM # | **SAMPLE ID** One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | Analyses Test Y/N | Analyses Test: Metals | Residual Chlorine (Y/N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FC-CCR-SUMP12-1024 | WT | | | | 30-Oct | 9:44 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Fe, Mn, 200.8 Co, Mo, |
| 2 | FC-CCR-SUMP13-1024 | WT | | | | 30-Oct | 9:52 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Fe, Mn, 200.8 Co, Mo, |
| 3 | FC-CCR-ASHPONDV6-1024 | WT | | | | 30-Oct | 11:10 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Fe, Mn, 200.8 Co, Mo, |
| 4 | FC-CCR-SUMP14-1024 | WT | | | | 30-Oct | 10:03 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Fe, Mn, 200.8 Co, Mo, |
| 5 | FC-CCR-SUMP15-1024 | WT | | | | 30-Oct | 10:07 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Fe, Mn, 200.8 Co, Mo, |
| 6 | FC-CCR-SUMP16-1024 | WT | | | | 30-Oct | 10:13 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Fe, Mn, 200.8 Co, Mo, |
| 7 | FC-CCR-SUMP17-1024 | WT | | | | 30-Oct | 10:24 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Fe, Mn, 200.8 Co, Mo, |
| 8 | FC-CCR-SUMP18-1024 | WT | | | | 30-Oct | 10:35 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Fe, Mn, 200.8 Co, Mo, |
| 9 | FC-CCR-MW82S-1024 | WT | | | | 30-Oct | 11:18 | | 1 | | | 1 | | | | | | | X | | MS/MSD, 200.7 B, Ca, K, Mg, Na |
| 10 | FC-CCR-EW12R-1024 | WT | | | | 30-Oct | 12:12 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Ca, Be, K, Mg, Mn, Na, |
| 11 | FC-CCR-FD08-1024 | WT | | | | 30-Oct | 6:21 | | 1 | | | 1 | | | | | | | X | | 200.7 B, Ca, K, Mg, Na, 200.8 C |
| 12 | FC-CCR-MW03-1024 | WT | | | | 28-Oct | 14:25 | | 1 | | | 1 | | | | | | | X | | 200.7 B, 200.8 Co, Mo, MATRIX |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS |
|---|---|---|---|---|---|---|---|
| | James C Huckaba | 1-Nov | 15:34 | | | | |
| Pace Analytical Batch: WG2393785 | | | | | | | |
| **Pace Analytical SDGs: L1794416** | | | | | | | |
| **Location: Minneapolis, MN 55414** | | | | | | | |

| SAMPLER NAME AND SIGNATURE | | TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
|---|---|---|---|---|---|
| **PRINT Name of SAMPLER:** | | | | | |
| **SIGNATURE of SAMPLER:** | **DATE Signed:** | | | | |

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



| **Section A** Required Client Information: | | **Section B** Required Project Information: | | **Section C** Invoice Information: | |
|---|---|---|---|---|---|
| Company: | Pace Analytical | Report To: | Pace Analytical Subout Team | Attention: | Samantha O'Shea |
| Address: | 12065 Lebanon Rd. | Copy To: | | Company Name: | |
| Mt. Juliet, TN 37122 | | | | Address: | |
| Email: | MTJLSuboutTeam@pacelabs.com | Purchase Order #: | L1794416 | Pace Quote: | |
| Phone: (615) 773-9756 | Fax: (615) 758-5859 | Project Name: | | Pace Project Manager: | Tong Lee |
| Requested Due Date: | 11-Nov | Project #: | US0023513.6155 | Pace Profile #: | 38076 |

| Regulatory Agency |
|---|
| |
| **State / Location** |
| **NM** |

**SAMPLE ID**
**One Character per box.**
**(A-Z, 0-9 / , -)**
**Sample Ids must be unique**

| MATRIX | CODE |
|---|---|
| Drinking Water | DW |
| Water | WT |
| Waste Water | WW |
| Product | P |
| Soil/Solid | SL |
| Oil | OL |
| Wipe | WP |
| Air | AR |
| Other | OT |
| Tissue | TS |

| ITEM # | SAMPLE ID | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | Analyses Test Y/N | Analyses Test: Metals | Residual Chlorine (Y/N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FC-CCR-MW19-1024 | WT | | | | 28-Oct | 15:31 | | 1 | | | 1 | | | | | | | X | | 200.7 B, 200.8 Co, Mo, MATRIX |
| 2 | FC-CCR-MW21-1024 | WT | | | | 28-Oct | 16:32 | | 1 | | | 1 | | | | | | | X | | 200.7 B, 200.8 Co, Mo, MATRIX |
| 3 | FC-CCR-MW60-1024 | WT | | | | 28-Oct | 10:30 | | 1 | | | 1 | | | | | | | X | | 200.7 B, 200.8 Co, Mo, MATRIX |
| 4 | FC-CCR-DMX01-1024 | WT | | | | 26-Oct | 12:23 | | 1 | | | 1 | | | | | | | X | | 200.7 B, 200.8 Co, Mo, MATRIX |
| 5 | FC-CCR-FD06-1024 | WT | | | | 26-Oct | 11:11 | | 1 | | | 1 | | | | | | | X | | 200.7 B, 200.8 Co, Mo, MATRIX |
| 6 | FC-CCR-FD07-1024 | WT | | | | 28-Oct | 12:34 | | 1 | | | 1 | | | | | | | X | | 200.7 B, 200.8 Co, Mo, MATRIX |
| 7 | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS |
|---|---|---|---|---|---|---|---|
| | James C Huckaba | 1-Nov | 15:34 | | | | |
| Pace Analytical Batch: WG2393785 | | | | | | | |
| **Pace Analytical SDGs: L1794416** | | | | | | | |
| **Location: Minneapolis, MN 55414** | | | | | | | |

**SAMPLER NAME AND SIGNATURE**

**PRINT Name of SAMPLER:**

**SIGNATURE of SAMPLER:** **DATE Signed:**

| TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
|---|---|---|---|
| | | | |

**Address**
1700 Elm Street Suite 200 SE
Minneapolis, MN 55414

# ANALYTICAL REPORT

December 12, 2024



## WSP (Formely Wood E&I)-Phoenix, AZ

| | |
|---|---|
| Sample Delivery Group: | L1800977 |
| Samples Received: | 11/16/2024 |
| Project Number: | US0023513.6155 |
| Description: | |

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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## FC-CCR-MW24-1124 L1800977-01 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/13/24 13:37 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403847 | 1 | 11/19/24 08:53 | 11/19/24 12:12 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2404160 | 1 | 11/19/24 11:13 | 11/19/24 11:13 | ARD | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2404576 | 1 | 11/19/24 21:30 | 11/19/24 21:30 | KRB | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 100 | 11/25/24 15:35 | 11/25/24 15:35 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 5 | 11/26/24 22:39 | 11/26/24 22:39 | DLH | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404214 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-EW14-1124 L1800977-02 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/13/24 12:47 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403847 | 1 | 11/19/24 08:53 | 11/19/24 12:12 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 10 | 11/25/24 15:48 | 11/25/24 15:48 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404214 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW34-1124 L1800977-03 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/13/24 15:03 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403847 | 1 | 11/19/24 08:53 | 11/19/24 12:12 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 10 | 11/25/24 16:01 | 11/25/24 16:01 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404214 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-DMX05R-1124 L1800977-04 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/13/24 11:56 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403847 | 1 | 11/19/24 08:53 | 11/19/24 12:12 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2404160 | 1 | 11/19/24 11:29 | 11/19/24 11:29 | ARD | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2404576 | 1 | 11/19/24 21:30 | 11/19/24 21:30 | KRB | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 100 | 11/25/24 16:13 | 11/25/24 16:13 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 5 | 11/26/24 22:52 | 11/26/24 22:52 | DLH | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404214 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW15-1124 L1800977-05 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/14/24 13:22 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403847 | 1 | 11/19/24 08:53 | 11/19/24 12:12 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2404160 | 1 | 11/19/24 11:39 | 11/19/24 11:39 | ARD | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2404576 | 1 | 11/19/24 21:30 | 11/19/24 21:30 | KRB | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 100 | 11/25/24 16:39 | 11/25/24 16:39 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 5 | 11/26/24 23:05 | 11/26/24 23:05 | DLH | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404214 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW11-1124 L1800977-06 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/14/24 11:11 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403847 | 1 | 11/19/24 08:53 | 11/19/24 12:12 | JAC | Mt. Juliet, TN |
| Gravimetric Analysis by Method 2540 C-2011 | WG2408425 | 1 | 11/25/24 17:32 | 11/26/24 14:17 | DLS | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2403979 | 1 | 11/19/24 10:36 | 11/19/24 10:36 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2404576 | 1 | 11/19/24 21:30 | 11/19/24 21:30 | KRB | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 100 | 11/25/24 17:04 | 11/25/24 17:04 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 1000 | 11/25/24 17:17 | 11/25/24 17:17 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 5 | 11/26/24 23:18 | 11/26/24 23:18 | DLH | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404214 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW18-1124 L1800977-07 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/14/24 16:01 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403850 | 1 | 11/19/24 08:50 | 11/19/24 16:48 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2403981 | 1 | 11/19/24 17:44 | 11/19/24 17:44 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2404576 | 1 | 11/19/24 21:30 | 11/19/24 21:30 | KRB | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 100 | 11/25/24 17:56 | 11/25/24 17:56 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 5 | 11/26/24 23:30 | 11/26/24 23:30 | DLH | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404214 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW16-1124 L1800977-08 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/14/24 12:18 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403850 | 1 | 11/19/24 08:50 | 11/19/24 16:48 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2403985 | 1 | 11/19/24 13:49 | 11/19/24 13:49 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2404576 | 1 | 11/19/24 21:30 | 11/19/24 21:30 | KRB | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 100 | 11/25/24 18:44 | 11/25/24 18:44 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 5 | 11/26/24 23:43 | 11/26/24 23:43 | DLH | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404214 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW17R-1124 L1800977-09 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/14/24 14:48 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403850 | 1 | 11/19/24 08:50 | 11/19/24 16:48 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2403985 | 1 | 11/19/24 14:10 | 11/19/24 14:10 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2404576 | 1 | 11/19/24 21:30 | 11/19/24 21:30 | KRB | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 100 | 11/25/24 19:10 | 11/25/24 19:10 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 5 | 11/26/24 23:56 | 11/26/24 23:56 | DLH | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404214 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-DMX06-1024 L1800977-10 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/12/24 14:50 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403648 | 1 | 11/18/24 15:07 | 11/19/24 09:47 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2404603 | 1 | 11/20/24 09:16 | 11/20/24 09:16 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2405390 | 1 | 11/20/24 21:35 | 11/20/24 21:35 | KRB | Mt. Juliet, TN |

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

## FC-CCR-DMX06-1024 L1800977-10 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/12/24 14:50 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Wet Chemistry by Method 9056A | WG2403215 | 100 | 11/25/24 19:35 | 11/25/24 19:35 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 5 | 11/27/24 00:09 | 11/27/24 00:09 | DLH | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404214 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-DMX04-1124 L1800977-11 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/14/24 17:14 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403850 | 1 | 11/19/24 08:50 | 11/19/24 16:48 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2403981 | 1 | 11/19/24 17:47 | 11/19/24 17:47 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2404576 | 1 | 11/19/24 21:30 | 11/19/24 21:30 | KRB | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 100 | 11/25/24 20:01 | 11/25/24 20:01 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 5 | 11/27/24 00:22 | 11/27/24 00:22 | DLH | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404214 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-FD09-1124 L1800977-12 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/14/24 07:35 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403850 | 1 | 11/19/24 08:50 | 11/19/24 16:48 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2404603 | 1 | 11/20/24 07:51 | 11/20/24 07:51 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2404576 | 1 | 11/19/24 21:30 | 11/19/24 21:30 | KRB | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 100 | 11/25/24 20:52 | 11/25/24 20:52 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 5 | 11/27/24 00:35 | 11/27/24 00:35 | DLH | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404214 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-EW15-1124 L1800977-13 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/14/24 10:12 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403850 | 1 | 11/19/24 08:50 | 11/19/24 16:48 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 100 | 11/25/24 21:17 | 11/25/24 21:17 | DLH | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404214 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-DMX03-1024 L1800977-14 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/12/24 13:38 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403648 | 1 | 11/18/24 15:07 | 11/19/24 09:47 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2403979 | 1 | 11/19/24 10:39 | 11/19/24 10:39 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2404576 | 1 | 11/19/24 21:30 | 11/19/24 21:30 | KRB | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 100 | 11/25/24 21:30 | 11/25/24 21:30 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2403215 | 5 | 11/27/24 01:26 | 11/27/24 01:26 | DLH | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404214 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

# SAMPLE SUMMARY

## FC-CCR-MW05-1124 L1800977-15 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/13/24 10:58 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403850 | 1 | 11/19/24 08:50 | 11/19/24 16:48 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2404160 | 1 | 11/19/24 11:43 | 11/19/24 11:43 | ARD | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2404576 | 1 | 11/19/24 21:30 | 11/19/24 21:30 | KRB | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2404511 | 100 | 11/23/24 06:53 | 11/23/24 06:53 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2404511 | 5 | 11/23/24 06:36 | 11/23/24 06:36 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404214 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

## Project Narrative

L1800977 -01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15 contains subout data that is included after the chain of custody.

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 22900000 | | 400000 | 1 | 11/19/2024 12:12 | WG2403847 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 276000 | | 4750 | 20000 | 1 | 11/19/2024 11:13 | WG2404160 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/19/2024 11:13 | WG2404160 |

Sample Narrative:

L1800977-01 WG2404160: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.88 | T8 | 1 | 11/19/2024 21:30 | WG2404576 |

Sample Narrative:

L1800977-01 WG2404576: 7.88 at 18.9C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 4390000 | | 54700 | 100000 | 100 | 11/25/2024 15:35 | WG2403215 |
| Fluoride | 818 | | 380 | 750 | 5 | 11/26/2024 22:39 | WG2403215 |
| Sulfate | 11200000 | | 63700 | 500000 | 100 | 11/25/2024 15:35 | WG2403215 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 6830000 | | 100000 | 1 | 11/19/2024 12:12 | WG2403847 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 256000 | | 5470 | 10000 | 10 | 11/25/2024 15:48 | WG2403215 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 8450000 | | 100000 | 1 | 11/19/2024 12:12 | WG2403847 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 345000 | | 5470 | 10000 | 10 | 11/25/2024 16:01 | WG2403215 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 22600000 | | 400000 | 1 | 11/19/2024 12:12 | WG2403847 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 500000 | | 4750 | 20000 | 1 | 11/19/2024 11:29 | WG2404160 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/19/2024 11:29 | WG2404160 |

Sample Narrative:

L1800977-04 WG2404160: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.75 | T8 | 1 | 11/19/2024 21:30 | WG2404576 |

Sample Narrative:

L1800977-04 WG2404576: 7.75 at 18.7C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 2040000 | | 54700 | 100000 | 100 | 11/25/2024 16:13 | WG2403215 |
| Fluoride | 448 | J | 380 | 750 | 5 | 11/26/2024 22:52 | WG2403215 |
| Sulfate | 13500000 | | 63700 | 500000 | 100 | 11/25/2024 16:13 | WG2403215 |

Sample Narrative:

L1800977-04 WG2403215: Dilution due to matrix impact on instrumentation at lower dilution

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 12100000 | | 200000 | 1 | 11/19/2024 12:12 | WG2403847 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 675000 | | 4750 | 20000 | 1 | 11/19/2024 11:39 | WG2404160 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/19/2024 11:39 | WG2404160 |

Sample Narrative:

L1800977-05 WG2404160: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.40 | T8 | 1 | 11/19/2024 21:30 | WG2404576 |

Sample Narrative:

L1800977-05 WG2404576: 7.4 at 18.6C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1090000 | | 54700 | 100000 | 100 | 11/25/2024 16:39 | WG2403215 |
| Fluoride | 391 | J | 380 | 750 | 5 | 11/26/2024 23:05 | WG2403215 |
| Sulfate | 7020000 | | 63700 | 500000 | 100 | 11/25/2024 16:39 | WG2403215 |

Sample Narrative:

L1800977-05 WG2403215: Dilution due to matrix impact on instrumentation at lower dilution

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result ug/l | Qualifier | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|
| Dissolved Solids | 90800000 | J3 | 1000000 | 1 | 11/19/2024 12:12 | WG2403847 |
| Dissolved Solids | 97800000 | Q | 1000000 | 1 | 11/26/2024 14:17 | WG2408425 |

Sample Narrative:

L1800977-06 WG2403847: Duplicate Analysis performed due to QC failure. Results confirm; reporting in hold data

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | 865000 | | 4750 | 20000 | 1 | 11/19/2024 10:36 | WG2403979 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/19/2024 10:36 | WG2403979 |

Sample Narrative:

L1800977-06 WG2403979: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result su | Qualifier | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|
| pH | 7.29 | T8 | 1 | 11/19/2024 21:30 | WG2404576 |

Sample Narrative:

L1800977-06 WG2404576: 7.29 at 18.7C

## Wet Chemistry by Method 9056A

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Chloride | 2920000 | | 54700 | 100000 | 100 | 11/25/2024 17:04 | WG2403215 |
| Fluoride | U | | 380 | 750 | 5 | 11/26/2024 23:18 | WG2403215 |
| Sulfate | 60000000 | | 637000 | 5000000 | 1000 | 11/25/2024 17:17 | WG2403215 |

Sample Narrative:

L1800977-06 WG2403215: Dilution due to matrix impact on instrumentation at lower dilution

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 30000000 | | 400000 | 1 | 11/19/2024 16:48 | WG2403850 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 961000 | | 4750 | 20000 | 1 | 11/19/2024 17:44 | WG2403981 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/19/2024 17:44 | WG2403981 |

Sample Narrative:

L1800977-07 WG2403981: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.45 | T8 | 1 | 11/19/2024 21:30 | WG2404576 |

Sample Narrative:

L1800977-07 WG2404576: 7.45 at 18.6C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 4460000 | | 54700 | 100000 | 100 | 11/25/2024 17:56 | WG2403215 |
| Fluoride | 399 | J | 380 | 750 | 5 | 11/26/2024 23:30 | WG2403215 |
| Sulfate | 14900000 | | 63700 | 500000 | 100 | 11/25/2024 17:56 | WG2403215 |

Sample Narrative:

L1800977-07 WG2403215: Dilution due to matrix impact on instrumentation at lower dilution

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 21500000 | | 200000 | 1 | 11/19/2024 16:48 | WG2403850 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 597000 | | 4750 | 20000 | 1 | 11/19/2024 13:49 | WG2403985 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/19/2024 13:49 | WG2403985 |

Sample Narrative:

L1800977-08 WG2403985: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.57 | T8 | 1 | 11/19/2024 21:30 | WG2404576 |

Sample Narrative:

L1800977-08 WG2404576: 7.57 at 18.5C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 757000 | | 54700 | 100000 | 100 | 11/25/2024 18:44 | WG2403215 |
| Fluoride | U | | 380 | 750 | 5 | 11/26/2024 23:43 | WG2403215 |
| Sulfate | 12900000 | | 63700 | 500000 | 100 | 11/25/2024 18:44 | WG2403215 |

Sample Narrative:

L1800977-08 WG2403215: Dilution due to matrix impact on instrumentation at lower dilution

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 6730000 | | 100000 | 1 | 11/19/2024 16:48 | WG2403850 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 147000 | | 4750 | 20000 | 1 | 11/19/2024 14:10 | WG2403985 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/19/2024 14:10 | WG2403985 |

Sample Narrative:

L1800977-09 WG2403985: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.65 | T8 | 1 | 11/19/2024 21:30 | WG2404576 |

Sample Narrative:

L1800977-09 WG2404576: 7.65 at 18.5C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 346000 | | 54700 | 100000 | 100 | 11/25/2024 19:10 | WG2403215 |
| Fluoride | 515 | J | 380 | 750 | 5 | 11/26/2024 23:56 | WG2403215 |
| Sulfate | 3830000 | | 63700 | 500000 | 100 | 11/25/2024 19:10 | WG2403215 |

Sample Narrative:

L1800977-09 WG2403215: Dilution due to matrix impact on instrumentation at lower dilution

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 12700000 | | 200000 | 1 | 11/19/2024 09:47 | WG2403648 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 507000 | | 4750 | 20000 | 1 | 11/20/2024 09:16 | WG2404603 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/20/2024 09:16 | WG2404603 |

Sample Narrative:

L1800977-10 WG2404603: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.47 | T8 | 1 | 11/20/2024 21:35 | WG2405390 |

Sample Narrative:

L1800977-10 WG2405390: 7.47 at 20.2C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 882000 | | 54700 | 100000 | 100 | 11/25/2024 19:35 | WG2403215 |
| Fluoride | 503 | J | 380 | 750 | 5 | 11/27/2024 00:09 | WG2403215 |
| Sulfate | 7700000 | | 63700 | 500000 | 100 | 11/25/2024 19:35 | WG2403215 |

Sample Narrative:

L1800977-10 WG2403215: Dilution due to matrix impact on instrumentation at lower dilution

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 10500000 | | 200000 | 1 | 11/19/2024 16:48 | WG2403850 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 375000 | | 4750 | 20000 | 1 | 11/19/2024 17:47 | WG2403981 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/19/2024 17:47 | WG2403981 |

Sample Narrative:

L1800977-11 WG2403981: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.87 | T8 | 1 | 11/19/2024 21:30 | WG2404576 |

Sample Narrative:

L1800977-11 WG2404576: 7.87 at 18.5C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 366000 | | 54700 | 100000 | 100 | 11/25/2024 20:01 | WG2403215 |
| Fluoride | 712 | J | 380 | 750 | 5 | 11/27/2024 00:22 | WG2403215 |
| Sulfate | 6300000 | | 63700 | 500000 | 100 | 11/25/2024 20:01 | WG2403215 |

Sample Narrative:

L1800977-11 WG2403215: Dilution due to matrix impact on instrumentation at lower dilution

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 6700000 | | 100000 | 1 | 11/19/2024 16:48 | WG2403850 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 145000 | | 4750 | 20000 | 1 | 11/20/2024 07:51 | WG2404603 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/20/2024 07:51 | WG2404603 |

Sample Narrative:

L1800977-12 WG2404603: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.65 | T8 | 1 | 11/19/2024 21:30 | WG2404576 |

Sample Narrative:

L1800977-12 WG2404576: 7.65 at 18.6C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 353000 | | 54700 | 100000 | 100 | 11/25/2024 20:52 | WG2403215 |
| Fluoride | 495 | J | 380 | 750 | 5 | 11/27/2024 00:35 | WG2403215 |
| Sulfate | 3930000 | | 63700 | 500000 | 100 | 11/25/2024 20:52 | WG2403215 |

Sample Narrative:

L1800977-12 WG2403215: Dilution due to matrix impact on instrumentation at lower dilution

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 8340000 | | 100000 | 1 | 11/19/2024 16:48 | WG2403850 |

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 394000 | | 54700 | 100000 | 100 | 11/25/2024 21:17 | WG2403215 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 21600000 | | 200000 | 1 | 11/19/2024 09:47 | WG2403648 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 873000 | | 4750 | 20000 | 1 | 11/19/2024 10:39 | WG2403979 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/19/2024 10:39 | WG2403979 |

Sample Narrative:

L1800977-14 WG2403979: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.64 | T8 | 1 | 11/19/2024 21:30 | WG2404576 |

Sample Narrative:

L1800977-14 WG2404576: 7.64 at 18.7C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1060000 | | 54700 | 100000 | 100 | 11/25/2024 21:30 | WG2403215 |
| Fluoride | U | | 380 | 750 | 5 | 11/27/2024 01:26 | WG2403215 |
| Sulfate | 12300000 | | 63700 | 500000 | 100 | 11/25/2024 21:30 | WG2403215 |

Sample Narrative:

L1800977-14 WG2403215: Dilution due to matrix impact on instrumentation at lower dilution

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 26700000 | | 400000 | 1 | 11/19/2024 16:48 | WG2403850 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 789000 | | 4750 | 20000 | 1 | 11/19/2024 11:43 | WG2404160 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/19/2024 11:43 | WG2404160 |

Sample Narrative:

L1800977-15 WG2404160: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.57 | T8 | 1 | 11/19/2024 21:30 | WG2404576 |

Sample Narrative:

L1800977-15 WG2404576: 7.57 at 18.7C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | U | | 2740 | 5000 | 5 | 11/23/2024 06:36 | WG2404511 |
| Fluoride | 591 | B J | 380 | 750 | 5 | 11/23/2024 06:36 | WG2404511 |
| Sulfate | 12700000 | | 63700 | 500000 | 100 | 11/23/2024 06:53 | WG2404511 |

Sample Narrative:

L1800977-15 WG2404511: Dilution due to matrix impact on instrumentation at lower dilution

## Method Blank (MB)

(MB) R4149227-1 11/19/24 09:47

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Dissolved Solids | U | | 10000 | 10000 |

## L1800290-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800290-02 11/19/24 09:47 • (DUP) R4149227-3 11/19/24 09:47

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 3730000 | 2460000 | 1 | 41.2 | J3 | 10 |

## L1800977-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1800977-14 11/19/24 09:47 • (DUP) R4149227-4 11/19/24 09:47

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 21600000 | 21500000 | 1 | 0.464 | | 10 |

## Laboratory Control Sample (LCS)

(LCS) R4149227-2 11/19/24 09:47

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Dissolved Solids | 8800000 | 8700000 | 98.9 | 85.0-115 | |

## Method Blank (MB)

(MB) R4149633-1 11/19/24 12:12

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Dissolved Solids | U | | 10000 | 10000 |

## L1800856-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1800856-10 11/19/24 12:12 • (DUP) R4149633-3 11/19/24 12:12

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 1600000 | 1650000 | 1 | 3.08 | | 10 |

## Laboratory Control Sample (LCS)

(LCS) R4149633-2 11/19/24 12:12

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Dissolved Solids | 8800000 | 8620000 | 98.0 | 85.0-115 | |

# QUALITY CONTROL SUMMARY

L1800977-07,08,09,11,12,13,15

## Method Blank (MB)

(MB) R4149210-1 11/19/24 16:48

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Dissolved Solids | U | | 10000 | 10000 |

## L1799540-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1799540-09 11/19/24 16:48 • (DUP) R4149210-3 11/19/24 16:48

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 338000 | 332000 | 1 | 1.79 | | 10 |

## Laboratory Control Sample (LCS)

(LCS) R4149210-2 11/19/24 16:48

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Dissolved Solids | 8800000 | 8680000 | 98.6 | 85.0-115 | |

## Method Blank (MB)

(MB) R4151914-1 11/26/24 14:17

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Dissolved Solids | U | J | 10000 | 10000 |

## L1800977-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1800977-06 11/26/24 14:17 • (DUP) R4151914-3 11/26/24 14:17

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 97800000 | 104000000 | 1 | 5.76 | | 10 |

## L1803502-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1803502-05 11/26/24 14:17 • (DUP) R4151914-4 11/26/24 14:17

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 3440000 | 3410000 | 1 | 0.876 | | 10 |

## Laboratory Control Sample (LCS)

(LCS) R4151914-2 11/26/24 14:17

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Dissolved Solids | 8800000 | 8990000 | 102 | 85.0-115 | |

## Method Blank (MB)

(MB) R4148104-2 11/19/24 09:08

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Alkalinity,Bicarbonate | U | | 4750 | 20000 |
| Alkalinity,Carbonate | U | | 4750 | 20000 |

Sample Narrative:

BLANK: Endpoint pH 4.5

## L1800064-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800064-01 11/19/24 09:24 • (DUP) R4148104-4 11/19/24 09:31

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Alkalinity,Bicarbonate | 159000 | 165000 | 1 | 3.72 | | 20 |
| Alkalinity,Carbonate | 29100 | 22700 | 1 | 24.9 | P1 | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

## L1800973-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800973-01 11/19/24 11:20 • (DUP) R4148104-6 11/19/24 11:24

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Alkalinity,Bicarbonate | 1560000 | 1580000 | 1 | 1.65 | | 20 |
| Alkalinity,Carbonate | U | U | 1 | 0.000 | | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

## Method Blank (MB)

(MB) R4148106-2 11/19/24 15:16

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Alkalinity,Bicarbonate | U | | 4750 | 20000 |
| Alkalinity,Carbonate | U | | 4750 | 20000 |

Sample Narrative:

BLANK: Endpoint pH 4.5

## L1800385-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800385-01 11/19/24 15:31 • (DUP) R4148106-4 11/19/24 15:35

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | 88500 | 89100 | 1 | 0.696 | | 20 |
| Alkalinity,Carbonate | U | U | 1 | 0.000 | | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

## Method Blank (MB)

(MB) R4148105-2 11/19/24 12:19

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Alkalinity,Bicarbonate | U | | 4750 | 20000 |
| Alkalinity,Carbonate | U | | 4750 | 20000 |

Sample Narrative:

BLANK: Endpoint pH 4.5

## L1800242-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800242-02 11/19/24 12:28 • (DUP) R4148105-3 11/19/24 12:32

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | 205000 | 206000 | 1 | 0.578 | | 20 |
| Alkalinity,Carbonate | U | U | 1 | 0.000 | | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

## Method Blank (MB)

(MB) R4147883-2 11/19/24 09:08

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Alkalinity,Bicarbonate | U | | 4750 | 20000 |
| Alkalinity,Carbonate | U | | 4750 | 20000 |

Sample Narrative:

BLANK: Endpoint pH 4.5

## L1799027-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799027-01 11/19/24 09:29 • (DUP) R4147883-3 11/19/24 09:34

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | 109000 | 110000 | 1 | 0.963 | | 20 |
| Alkalinity,Carbonate | U | U | 1 | 0.000 | | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

## L1800977-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800977-04 11/19/24 11:29 • (DUP) R4147883-4 11/19/24 11:34

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | 500000 | 510000 | 1 | 2.00 | | 20 |
| Alkalinity,Carbonate | U | U | 1 | 0.000 | | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

## Method Blank (MB)

(MB) R4148551-2 11/20/24 07:11

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Alkalinity,Bicarbonate | U | | 4750 | 20000 |
| Alkalinity,Carbonate | U | | 4750 | 20000 |

Sample Narrative:

BLANK: Endpoint pH 4.5

## L1800031-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800031-01 11/20/24 07:21 • (DUP) R4148551-3 11/20/24 07:26

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | 94900 | 94600 | 1 | 0.362 | | 20 |
| Alkalinity,Carbonate | U | U | 1 | 0.000 | | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

## L1800977-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1800977-10 11/20/24 09:16 • (DUP) R4148551-4 11/20/24 09:20

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | 507000 | 517000 | 1 | 2.00 | | 20 |
| Alkalinity,Carbonate | U | U | 1 | 0.000 | | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

## L1800805-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800805-01 11/19/24 21:30 • (DUP) R4148074-2 11/19/24 21:30

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.89 | 7.89 | 1 | 0.000 | | 1 |

Sample Narrative:

OS: 7.89 at 19.1C

DUP: 7.89 at 19.1C

## L1801310-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801310-01 11/19/24 21:30 • (DUP) R4148074-3 11/19/24 21:30

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.28 | 7.27 | 1 | 0.137 | | 1 |

Sample Narrative:

OS: 7.28 at 19.2C

DUP: 7.27 at 19.4C

## Laboratory Control Sample (LCS)

(LCS) R4148074-1 11/19/24 21:30

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | su | su | % | % | |
| pH | 10.0 | 10.0 | 100 | 99.0-101 | |

Sample Narrative:

LCS: 10.01 at 19.9C

## L1800938-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800938-01 11/20/24 21:35 • (DUP) R4148673-2 11/20/24 21:35

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.71 | 7.71 | 1 | 0.000 | | 1 |

Sample Narrative:

OS: 7.71 at 21.6C

DUP: 7.71 at 21.4C

## L1801924-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801924-01 11/20/24 21:35 • (DUP) R4148673-3 11/20/24 21:35

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.92 | 7.96 | 1 | 0.504 | | 1 |

Sample Narrative:

OS: 7.92 at 19.5C

DUP: 7.96 at 19.6C

## Laboratory Control Sample (LCS)

(LCS) R4148673-1 11/20/24 21:35

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | su | su | % | % | |
| pH | 10.0 | 9.99 | 99.9 | 99.0-101 | |

Sample Narrative:

LCS: 9.99 at 19.9C

## Method Blank (MB)

(MB) R4150493-1 11/25/24 10:51

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 547 | 1000 |
| Fluoride | U | | 76.1 | 150 |
| Sulfate | U | | 637 | 5000 |

## L1800957-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800957-01 11/25/24 11:33 • (DUP) R4150493-3 11/25/24 11:46

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 175000 | 173000 | 1 | 0.949 | | 15 |
| Fluoride | 119 | 117 | 1 | 1.44 | J | 15 |
| Sulfate | 70800 | 70100 | 1 | 0.989 | | 15 |

## L1800957-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800957-02 11/25/24 12:49 • (DUP) R4150493-7 11/25/24 13:02

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Fluoride | 538 | 530 | 1 | 1.50 | | 15 |
| Sulfate | 17100 | 17100 | 1 | 0.164 | | 15 |

## L1800957-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800957-02 11/25/24 13:28 • (DUP) R4150493-9 11/25/24 13:40

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 200000 | 199000 | 5 | 0.568 | | 15 |

## Laboratory Control Sample (LCS)

(LCS) R4150493-2 11/25/24 11:03

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Chloride | 40000 | 39000 | 97.5 | 80.0-120 | |
| Fluoride | 8000 | 8060 | 101 | 80.0-120 | |
| Sulfate | 40000 | 39800 | 99.4 | 80.0-120 | |

## L1800957-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800957-01 11/25/24 11:33 • (MS) R4150493-4 11/25/24 11:58 • (MSD) R4150493-5 11/25/24 12:11

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 175000 | 180000 | 180000 | 12.4 | 11.9 | 1 | 80.0-120 | V | V | 0.0996 | 15 |
| Fluoride | 8000 | 119 | 8230 | 8170 | 101 | 101 | 1 | 80.0-120 | | | 0.796 | 15 |
| Sulfate | 40000 | 70800 | 97800 | 97500 | 67.5 | 66.7 | 1 | 80.0-120 | J6 | J6 | 0.323 | 15 |

## L1800957-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1800957-02 11/25/24 12:49 • (MS) R4150493-8 11/25/24 13:15

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Fluoride | 8000 | 538 | 8320 | 97.3 | 1 | 80.0-120 | |
| Sulfate | 40000 | 17100 | 53800 | 91.9 | 1 | 80.0-120 | |

## Method Blank (MB)

(MB) R4150042-1 11/23/24 03:24

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | 559 | J | 547 | 1000 |
| Fluoride | 80.4 | J | 76.1 | 150 |
| Sulfate | 1040 | J | 637 | 5000 |

## Laboratory Control Sample (LCS)

(LCS) R4150042-2 11/23/24 03:42

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Chloride | 40000 | 41300 | 103 | 80.0-120 | |
| Fluoride | 8000 | 8370 | 105 | 80.0-120 | |
| Sulfate | 40000 | 41800 | 104 | 80.0-120 | |

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

## Abbreviations and Definitions

| | |
|---|---|
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| Rec. | Recovery. |
| RPD | Relative Percent Difference. |
| SDG | Sample Delivery Group. |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| Analyte | The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported. |
| Dilution | If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor. |
| Limits | These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| Qualifier | This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable. |
| Result | The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte. |
| Uncertainty (Radiochemistry) | Confidence level of 2 sigma. |
| Case Narrative (Cn) | A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report. |
| Quality Control Summary (Qc) | This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material. |
| Sample Chain of Custody (Sc) | This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis. |
| Sample Results (Sr) | This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported. |
| Sample Summary (Ss) | This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis. |

| Qualifier | Description |
|---|---|
| B | The same analyte is found in the associated blank. |
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J3 | The associated batch QC was outside the established quality control range for precision. |
| J6 | The sample matrix interfered with the ability to make any accurate determination; spike value is low. |
| P1 | RPD value not applicable for sample concentrations less than 5 times the reporting limit. |
| Q | Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values. |
| T8 | Sample(s) received past/too close to holding time expiration. |
| V | The sample concentration is too high to evaluate accurate spike recoveries. |

# ACCREDITATIONS & LOCATIONS

## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nebraska | NE-OS-15-05 |
| Alaska | 17-026 | Nevada | TN000032021-1 |
| Arizona | AZ0612 | New Hampshire | 2975 |
| Arkansas | 88-0469 | New Jersey–NELAP | TN002 |
| California | 2932 | New Mexico [1] | TN00003 |
| Colorado | TN00003 | New York | 11742 |
| Connecticut | PH-0197 | North Carolina | Env375 |
| Florida | E87487 | North Carolina [1] | DW21704 |
| Georgia | NELAP | North Carolina [3] | 41 |
| Georgia [1] | 923 | North Dakota | R-140 |
| Idaho | TN00003 | Ohio–VAP | CL0069 |
| Illinois | 200008 | Oklahoma | 9915 |
| Indiana | C-TN-01 | Oregon | TN200002 |
| Iowa | 364 | Pennsylvania | 68-02979 |
| Kansas | E-10277 | Rhode Island | LA000356 |
| Kentucky [1 6] | KY90010 | South Carolina | 84004002 |
| Kentucky [2] | 16 | South Dakota | n/a |
| Louisiana | AI30792 | Tennessee [1 4] | 2006 |
| Louisiana | LA018 | Texas | T104704245-20-18 |
| Maine | TN00003 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | TN000032021-11 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 110033 |
| Minnesota | 047-999-395 | Washington | C847 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 998093910 |
| Montana | CERT0086 | Wyoming | A2LA |
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC EMLAP | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | P330-15-00234 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to:
**Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project # VSBB23513.6155

Lab Project # **AMECTAZ-FOURCORNERS** - ADDITIONAL

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N____ Y____

***Rush?*** (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Date Results Needed

**Quote #**

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKCA/OH 125mlHDPE-NoPres SM23203 CO3 Alkalinity as CaCO3 | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | pH, 4510 Hg, 250ml HDPE NoPres | 125ml HDPE NoPres SM23203 HCO3 Alkalinity as CaCO3 | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW24-1124 | | ~~WW~~ GW | | 111324 | 1337 | 5 | X | X | X | X | X | | X | X | X | X | #2 | -01 |
| FC-CCR-EW14-1124 | | ~~WW~~ | | | 1247 | 4 | X | X | | X | | | | X | | | #3 | -02 |
| FC-CCR-MW34-1124 | | ~~WW~~ | | | 1503 | 4 | X | X | | X | | | | X | | | #3 | -03 |
| FC-CCR-DMX05R-1124 | | ~~WW~~ | | | 1150 | 5 | X | X | X | X | X | | X | X | X | X | #1 | -04 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

Chain of Custody Page 1 of 4

Pace PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 180977
B246

Acctnum: **AMECTAZ**
Template: **T261976**
Prelogin: **P1107674**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
~~OT - Other~~ _____

**Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na.** -#1
**200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co**
#2: 200.7; B, Ca, Be, Li, Fe, Mn, K, Mg, Na
200.8: Mo, Co
#3: 200.7; B, Mg, Mn, Fe / 200.8; Mo, Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR | |
|---|---|---|---|---|---|
| | 111524 | 1015 | FEDEX | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C Bottles Received: 12 | If preservation required by Login: Date/Time |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: 11/14/24 Time: 0900 | Hold: Condition: NCF / OK |
| | | | Alexa Mitchell | | |

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to: **Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT (MT) CT ET

Phone: **602-733-6110**

Client Project # USDD23513.6155

Lab Project # **AMECTAZ-FOURCORNERS-ADDITIONAL**

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N____ Y____

***Rush?*** (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKALINITY 125mlHDPE-NoPres SM 2320B CO3, Alkalinity as CaCO3 | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | 4500 HB, PH 250ml HDPE NO PRES | SM2320B 125ml HDPE NoPres HCO3 Alkalinity as CaCO3 | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW15-1124 | | GW WW | | 111424 | 1322 | 5 | X | X | X | X | X | | X | X | X | X | REMARK #1 | -06 |
| FC-CCR-MW11-1124 | | WW | | | 1111 | 5 | X | X | X | X | X | | X | X | X | X | #2 | -05 |
| FC-CCR-MW18-1124 | | WW | | | 1601 | 5 | X | X | X | X | X | | X | X | X | X | #4 | -07 |
| FC-CCR-MW16-1124 | | WW | | | 1210 | 5 | X | X | X | X | X | | X | X | X | X | #3 | -08 |
| FC-CCR-MW17R-1124 | | WW | | | 1440 | 5 | X | X | X | X | X | | X | X | X | X | REMARK #1 | -09 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

Chain of Custody Page 1 of 4

Pace
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 180977

Tu

Acctnum: **AMECTAZ**
Template: **T261976**
Prelogin: **P1107674**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, Ca, Be, Li, Fe, Mn, K, Mg, Na. 200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co

#2: 200.7; B, Ca, K, Mg, Na TOTAL 200.8; Co, Mo

#3: 200.7; ~~TOTAL~~ B, Ca, Be, Li, Fe, K, Mg, Na TOTALS 200.8; Sb, As, ~~Ba~~, Cd, Cr, Pb, Mo, Se, Tl, Co

#4: 200.7; B, Ca, Li, Fe, Mn, ~~TOTAL~~ K, Mg, Na 200.8; Co, Mo

REMARK #1

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4102 9171 8871

Sample Receipt Checklist

| | | |
|---|---|---|
| COC Seal Present/Intact: | NP | Y N |
| COC Signed/Accurate: | | Y N |
| Bottles arrive intact: | | Y N |
| Correct bottles used: | | Y N |
| Sufficient volume sent: | | Y N |
| If Applicable | | |
| VOA Zero Headspace: | | Y N |
| Preservation Correct/Checked: | | Y N |
| RAD Screen <0.5 mR/hr: | | Y N |

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR | |
|---|---|---|---|---|---|
| | 111524 | 1019 | FedEx | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: 11.9 °C Bottles Received: 5.5+0=5.5 7225 | If preservation required by Login: Date/Time |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: 11/11/24 Time: 0900 | Hold: Condition: NCF / OK |
| | | | Aurora Mitchell | | |

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to: **Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT (MT) CT ET

Phone: **602-733-6110**

Client Project # VSB0 23783.6155

Lab Project # **AMECTAZ-FOURCORNERS-ADDITIONAL**

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N____ Y____

***Rush?*** (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Quote #

Date Results Needed

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ~~ALKA/OH~~ 125mlHDPE-NoPres SM2320B ($CO_3$ Alkalinity as $CaCO_3$) | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | pH, 4500 HB, 250ml HDPE NoPres | 125ml HDPE NoPres SM2320B ($HCO_3$ Alkalinity as $CaCO_3$) | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-DMX00-1024 | | ~~GW~~ WW | | 111224 | 1450 | 5 | X | X | X | X | X | | X | Y | X | X | #1 | -10 |
| FC-CCR-DMX01-1124 | | ~~WW~~ | | 111424 | 1714 | \| | X | X | X | X | X | | X | X | X | X | \| | -11 |
| FC-CCR-FD09-1124 | | ~~WW~~ | | 111424 | 0735 | \| | X | X | X | X | X | | X | X | X | X | \| | -12 |
| FC-CCR-EW15-1124 | | ~~WW~~ | | 111424 | 1012 | 4 | X | X | | X | | | | X | | | #2 | -13 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

* Matrix:
**SS** - Soil **AIR** - Air **F** - Filter
**GW** - Groundwater **B** - Bioassay
**WW** - WasteWater
**DW** - Drinking Water
**OT** - Other_____

Remarks: 200.7: Total B, Ca, Be, Li, Fe, Mn, K, Mg, Na. 200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co } #1
#2: 200.7: B, Mg, Mn, Fe
200.8: Mo, Co

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| [signature] | 111524 | 1013 | FedEx |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) [signature] |

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received: 72

Date: 11/14/24 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Sample Receipt Checklist

| | | |
|---|---|---|
| COC Seal Present/Intact: | NP | Y / N |
| COC Signed/Accurate: | | Y / N |
| Bottles arrive intact: | | Y / N |
| Correct bottles used: | | Y / N |
| Sufficient volume sent: | | Y / N |
| **If Applicable** | | |
| VOA Zero Headspace: | | Y / N |
| Preservation Correct/Checked: | | Y / N |
| RAD Screen <0.5 mR/hr: | | Y / N |

Chain of Custody Page 3 of 4

Pace
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 1800977

Table #

Acctnum: **AMECTAZ**
Template: **T261976**
Prelogin: **P1107674**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEx Ground**

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to: **Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project # VSB023513.0155

Lab Project # **AMECTAZ-FOURCORNERS** ADDITIONAL

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N____ Y____

***Rush?*** (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Quote #

Date Results Needed

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ~~ALKCA/OH~~ 125mlHDPE-NoPres 2320B CO3 Alkalinity as CaCO3 | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | pH 4500 HB 250ml NoPres | SM2320B 125ml NoPres HCO3 Alkalinity as CaCO3 | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-DMX03-1024 | | ~~GW~~ WW | | 111224 | 1338 | 5 | X | X | X | X | X | | X | X | X | X | #1 | -014 |
| FC-CCR-MW05-1124 | | ~~GW~~ WW | | 111324 | 1058 | 5 | X | X | X | X | X | | X | X | X | X | #2 | -015 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

11/16/24

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, Ca, Be, Li, Fe, Mn, K, Mg, Na. 200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co ]-#1
#2; 200.7: B, Ca, Be, Li, Fe, Mn, K, Mg, Na
200.8: Mo, Co

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR |
|---|---|---|---|---|
| | 111524 | 1021 | FedEx | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C Bottles Received: 72 |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) Alexa Mitchem | Date: 11/16/24 Time: 0900 |

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y __N
COC Signed/Accurate: Y __N
Bottles arrive intact: Y __N
Correct bottles used: Y __N
Sufficient volume sent: Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: Y __N

Chain of Custody Page 4 of 4

Pace
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 180977

Table #

Acctnum: **AMECTAZ**
Template: **T261976**
Prelogin: **P1107674**
PM: **288 - Daphne Richards**
PB:
Shipped Via: **FedEX Ground**

L1800977

| Fed Ex tracking # | Gun ID | Temperature |
|---|---|---|
| 4102 9171 9477 | | 2.5 to=2.5 |
| 4102 9171 8816 | | 3.4 to=3.4 |
| 4102 9171 9466 | | 1.1 to=1.1 |
| 4102 9171 8871 | | 5.5 to=5.5 |
| | | |
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| | | |

Alexa Mitchell
Name

11/16/24
Date

**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

December 12, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1800977 WG2404214
Pace Project No.: 10716438

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 20, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

This report was revised on December 12, 2024, to update analyte list for Pace sample 10716438-015.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation



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**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

# CERTIFICATIONS

Project: L1800977 WG2404214
Pace Project No.: 10716438

**Pace Analytical Services, LLC - Minneapolis MN**
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

## REPORT OF LABORATORY ANALYSIS

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**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## SAMPLE SUMMARY

Project: L1800977 WG2404214
Pace Project No.: 10716438

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **10716438001** | **FC-CCR-MW24-1124** | Water | 11/13/24 13:37 | 11/20/24 10:05 |
| **10716438002** | **FC-CCR-EW14-1124** | Water | 11/13/24 12:47 | 11/20/24 10:05 |
| **10716438003** | **FC-CCR-MW34-1124** | Water | 11/13/24 15:03 | 11/20/24 10:05 |
| **10716438004** | **FC-CCR-DMX05R-1124** | Water | 11/13/24 11:56 | 11/20/24 10:05 |
| **10716438005** | **FC-CCR-MW15-1124** | Water | 11/14/24 13:22 | 11/20/24 10:05 |
| **10716438006** | **FC-CCR-MW11-1124** | Water | 11/14/24 11:11 | 11/20/24 10:05 |
| **10716438007** | **FC-CCR-MW18-1124** | Water | 11/14/24 16:01 | 11/20/24 10:05 |
| **10716438008** | **FC-CCR-MW16-1124** | Water | 11/14/24 12:18 | 11/20/24 10:05 |
| **10716438009** | **FC-CCR-MW17R-1124** | Water | 11/14/24 14:48 | 11/20/24 10:05 |
| **10716438010** | **FC-CCR-DMX06-1024** | Water | 11/12/24 14:50 | 11/20/24 10:05 |
| **10716438011** | **FC-CCR-DMX04-1124** | Water | 11/14/24 17:14 | 11/20/24 10:05 |
| **10716438012** | **FC-CCR-FD09-1124** | Water | 11/14/24 07:35 | 11/20/24 10:05 |
| **10716438013** | **FC-CCR-EW15-1124** | Water | 11/14/24 10:12 | 11/20/24 10:05 |
| **10716438014** | **FC-CCR-DMX03-1024** | Water | 11/12/24 13:38 | 11/20/24 10:05 |
| **10716438015** | **FC-CCR-MW05-1124** | Water | 11/13/24 10:58 | 11/20/24 10:05 |



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**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## SAMPLE ANALYTE COUNT

Project: L1800977 WG2404214
Pace Project No.: 10716438

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **10716438001** | **FC-CCR-MW24-1124** | EPA 200.7 | IP | 8 | PASI-M |
| | | EPA 200.8 | IMB | 4 | PASI-M |
| **10716438002** | **FC-CCR-EW14-1124** | EPA 200.7 | IP | 4 | PASI-M |
| | | EPA 200.8 | IMB | 2 | PASI-M |
| **10716438003** | **FC-CCR-MW34-1124** | EPA 200.7 | IP | 4 | PASI-M |
| | | EPA 200.8 | IMB | 2 | PASI-M |
| **10716438004** | **FC-CCR-DMX05R-1124** | EPA 200.7 | IP | 8 | PASI-M |
| | | EPA 200.8 | IMB | 11 | PASI-M |
| **10716438005** | **FC-CCR-MW15-1124** | EPA 200.7 | SMB | 8 | PASI-M |
| | | EPA 200.8 | IMB | 11 | PASI-M |
| **10716438006** | **FC-CCR-MW11-1124** | EPA 200.7 | IP | 5 | PASI-M |
| | | EPA 200.8 | IMB | 2 | PASI-M |
| **10716438007** | **FC-CCR-MW18-1124** | EPA 200.7 | IP | 7 | PASI-M |
| | | EPA 200.8 | IMB | 3 | PASI-M |
| **10716438008** | **FC-CCR-MW16-1124** | EPA 200.7 | IP | 7 | PASI-M |
| | | EPA 200.8 | IMB | 11 | PASI-M |
| **10716438009** | **FC-CCR-MW17R-1124** | EPA 200.7 | IP | 7 | PASI-M |
| | | EPA 200.8 | IMB | 11 | PASI-M |
| **10716438010** | **FC-CCR-DMX06-1024** | EPA 200.7 | IP | 8 | PASI-M |
| | | EPA 200.8 | IMB | 11 | PASI-M |
| **10716438011** | **FC-CCR-DMX04-1124** | EPA 200.7 | IP | 8 | PASI-M |
| | | EPA 200.8 | IMB | 11 | PASI-M |
| **10716438012** | **FC-CCR-FD09-1124** | EPA 200.7 | IP | 8 | PASI-M |
| | | EPA 200.8 | IMB | 11 | PASI-M |
| **10716438013** | **FC-CCR-EW15-1124** | EPA 200.7 | IP | 4 | PASI-M |
| | | EPA 200.8 | IMB | 2 | PASI-M |
| **10716438014** | **FC-CCR-DMX03-1024** | EPA 200.7 | SMB | 8 | PASI-M |
| | | EPA 200.8 | IMB | 11 | PASI-M |
| **10716438015** | **FC-CCR-MW05-1124** | EPA 200.7 | IP | 8 | PASI-M |
| | | EPA 200.8 | IMB | 3 | PASI-M |

PASI-M = Pace Analytical Services - Minneapolis



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**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## ANALYTICAL RESULTS

Project: L1800977 WG2404214
Pace Project No.: 10716438

**Sample: FC-CCR-MW24-1124** **Lab ID: 10716438001** Collected: 11/13/24 13:37 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/26/24 10:20 | 12/03/24 14:29 | 7440-41-7 | |
| Boron | **1110** | ug/L | 150 | 16.0 | 1 | 11/26/24 10:20 | 12/03/24 14:29 | 7440-42-8 | |
| Calcium | **374000** | ug/L | 500 | 31.8 | 1 | 11/26/24 10:20 | 12/03/24 14:29 | 7440-70-2 | P6 |
| Iron | **31.1J** | ug/L | 50.0 | 7.5 | 1 | 11/26/24 10:20 | 12/03/24 14:29 | 7439-89-6 | B |
| Magnesium | **193000** | ug/L | 500 | 28.9 | 1 | 11/26/24 10:20 | 12/03/24 14:29 | 7439-95-4 | |
| Manganese | **1740** | ug/L | 5.0 | 0.50 | 1 | 11/26/24 10:20 | 12/03/24 14:29 | 7439-96-5 | |
| Potassium | **55200** | ug/L | 2500 | 108 | 1 | 11/26/24 10:20 | 12/03/24 14:29 | 7440-09-7 | |
| Sodium | **6740000** | ug/L | 50000 | 2270 | 50 | 11/26/24 10:20 | 12/03/24 16:48 | 7440-23-5 | P6 |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Boron | **959** | ug/L | 200 | 45.4 | 20 | 12/05/24 05:17 | 12/05/24 13:03 | 7440-42-8 | |
| Cobalt | **1.5J** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 17:03 | 7440-48-4 | D3 |
| Lithium | **1480** | ug/L | 2.5 | 1.0 | 5 | 12/05/24 05:17 | 12/05/24 17:03 | 7439-93-2 | |
| Molybdenum | **24.4** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 17:03 | 7439-98-7 | |

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## ANALYTICAL RESULTS

Project: L1800977 WG2404214
Pace Project No.: 10716438

**Sample: FC-CCR-EW14-1124** **Lab ID: 10716438002** Collected: 11/13/24 12:47 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Boron | **13900** | ug/L | 150 | 16.0 | 1 | 11/26/24 10:20 | 12/03/24 14:34 | 7440-42-8 | |
| Iron | **28.4J** | ug/L | 50.0 | 7.5 | 1 | 11/26/24 10:20 | 12/03/24 14:34 | 7439-89-6 | B |
| Magnesium | **352000** | ug/L | 500 | 28.9 | 1 | 11/26/24 10:20 | 12/03/24 14:34 | 7439-95-4 | |
| Manganese | **1850** | ug/L | 5.0 | 0.50 | 1 | 11/26/24 10:20 | 12/03/24 14:34 | 7439-96-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Cobalt | **3.8** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 16:57 | 7440-48-4 | |
| Molybdenum | **5.1** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 16:57 | 7439-98-7 | |

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## ANALYTICAL RESULTS

Project: L1800977 WG2404214
Pace Project No.: 10716438

**Sample: FC-CCR-MW34-1124** **Lab ID: 10716438003** Collected: 11/13/24 15:03 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Boron | **10400** | ug/L | 150 | 16.0 | 1 | 11/26/24 10:20 | 12/03/24 14:36 | 7440-42-8 | |
| Iron | **28.3J** | ug/L | 50.0 | 7.5 | 1 | 11/26/24 10:20 | 12/03/24 14:36 | 7439-89-6 | B |
| Magnesium | **531000** | ug/L | 500 | 28.9 | 1 | 11/26/24 10:20 | 12/03/24 14:36 | 7439-95-4 | |
| Manganese | **2370** | ug/L | 5.0 | 0.50 | 1 | 11/26/24 10:20 | 12/03/24 14:36 | 7439-96-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Cobalt | **3.2** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 17:09 | 7440-48-4 | |
| Molybdenum | **10.9** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 17:09 | 7439-98-7 | |

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## ANALYTICAL RESULTS

Project: L1800977 WG2404214
Pace Project No.: 10716438

**Sample: FC-CCR-DMX05R-1124** **Lab ID: 10716438004** Collected: 11/13/24 11:56 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/26/24 10:20 | 12/03/24 14:43 | 7440-41-7 | |
| Boron | **8610** | ug/L | 150 | 16.0 | 1 | 11/26/24 10:20 | 12/03/24 14:43 | 7440-42-8 | |
| Calcium | **329000** | ug/L | 500 | 31.8 | 1 | 11/26/24 10:20 | 12/03/24 14:43 | 7440-70-2 | |
| Iron | **5660** | ug/L | 50.0 | 7.5 | 1 | 11/26/24 10:20 | 12/03/24 14:43 | 7439-89-6 | |
| Magnesium | **684000** | ug/L | 500 | 28.9 | 1 | 11/26/24 10:20 | 12/03/24 14:43 | 7439-95-4 | |
| Manganese | **888** | ug/L | 5.0 | 0.50 | 1 | 11/26/24 10:20 | 12/03/24 14:43 | 7439-96-5 | |
| Potassium | **61500** | ug/L | 2500 | 108 | 1 | 11/26/24 10:20 | 12/03/24 14:43 | 7440-09-7 | |
| Sodium | **5980000** | ug/L | 50000 | 2270 | 50 | 11/26/24 10:20 | 12/03/24 16:11 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.30** | ug/L | 2.5 | 0.30 | 5 | 12/05/24 05:17 | 12/05/24 16:19 | 7440-36-0 | D3 |
| Arsenic | **4.1** | ug/L | 2.5 | 0.66 | 5 | 12/05/24 05:17 | 12/05/24 16:19 | 7440-38-2 | |
| Barium | **14.5** | ug/L | 1.5 | 0.45 | 5 | 12/05/24 05:17 | 12/05/24 16:19 | 7440-39-3 | |
| Cadmium | **<0.18** | ug/L | 0.40 | 0.18 | 5 | 12/05/24 05:17 | 12/05/24 16:19 | 7440-43-9 | D3 |
| Chromium | **<2.5** | ug/L | 10.0 | 2.5 | 5 | 12/05/24 05:17 | 12/05/24 16:19 | 7440-47-3 | D3 |
| Cobalt | **0.85J** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 16:19 | 7440-48-4 | D3 |
| Lead | **<0.32** | ug/L | 2.5 | 0.32 | 5 | 12/05/24 05:17 | 12/05/24 16:19 | 7439-92-1 | D3 |
| Lithium | **981** | ug/L | 2.5 | 1.0 | 5 | 12/05/24 05:17 | 12/05/24 16:19 | 7439-93-2 | |
| Molybdenum | **12.4** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 16:19 | 7439-98-7 | |
| Selenium | **<0.31** | ug/L | 2.5 | 0.31 | 5 | 12/05/24 05:17 | 12/05/24 16:19 | 7782-49-2 | D3 |
| Thallium | **<0.13** | ug/L | 0.50 | 0.13 | 5 | 12/05/24 05:17 | 12/05/24 16:19 | 7440-28-0 | D3 |

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## ANALYTICAL RESULTS

Project: L1800977 WG2404214
Pace Project No.: 10716438

**Sample: FC-CCR-MW15-1124** **Lab ID: 10716438005** Collected: 11/14/24 13:22 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 12/05/24 05:47 | 12/06/24 14:15 | 7440-41-7 | |
| Boron | **7140** | ug/L | 150 | 16.0 | 1 | 12/05/24 05:47 | 12/06/24 14:15 | 7440-42-8 | |
| Calcium | **411000** | ug/L | 500 | 31.8 | 1 | 12/05/24 05:47 | 12/06/24 14:15 | 7440-70-2 | P6 |
| Iron | **55.3** | ug/L | 50.0 | 7.5 | 1 | 12/05/24 05:47 | 12/06/24 14:15 | 7439-89-6 | |
| Magnesium | **597000** | ug/L | 500 | 28.9 | 1 | 12/05/24 05:47 | 12/06/24 14:15 | 7439-95-4 | P6 |
| Manganese | **746** | ug/L | 5.0 | 0.50 | 1 | 12/05/24 05:47 | 12/06/24 14:15 | 7439-96-5 | |
| Potassium | **39800** | ug/L | 2500 | 108 | 1 | 12/05/24 05:47 | 12/06/24 14:15 | 7440-09-7 | |
| Sodium | **2330000** | ug/L | 25000 | 1140 | 25 | 12/05/24 05:47 | 12/06/24 14:29 | 7440-23-5 | P6 |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.30** | ug/L | 2.5 | 0.30 | 5 | 12/05/24 05:17 | 12/05/24 18:13 | 7440-36-0 | D3 |
| Arsenic | **<0.66** | ug/L | 2.5 | 0.66 | 5 | 12/05/24 05:17 | 12/05/24 18:13 | 7440-38-2 | D3 |
| Barium | **17.5** | ug/L | 1.5 | 0.45 | 5 | 12/05/24 05:17 | 12/05/24 18:13 | 7440-39-3 | |
| Cadmium | **<0.18** | ug/L | 0.40 | 0.18 | 5 | 12/05/24 05:17 | 12/05/24 18:13 | 7440-43-9 | D3 |
| Chromium | **<2.5** | ug/L | 10.0 | 2.5 | 5 | 12/05/24 05:17 | 12/05/24 18:13 | 7440-47-3 | D3 |
| Cobalt | **1.6J** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 18:13 | 7440-48-4 | D3 |
| Lead | **<0.32** | ug/L | 2.5 | 0.32 | 5 | 12/05/24 05:17 | 12/05/24 18:13 | 7439-92-1 | D3 |
| Lithium | **975** | ug/L | 2.5 | 1.0 | 5 | 12/05/24 05:17 | 12/05/24 18:13 | 7439-93-2 | |
| Molybdenum | **1.2J** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 18:13 | 7439-98-7 | D3 |
| Selenium | **<0.31** | ug/L | 2.5 | 0.31 | 5 | 12/05/24 05:17 | 12/05/24 18:13 | 7782-49-2 | D3 |
| Thallium | **<0.13** | ug/L | 0.50 | 0.13 | 5 | 12/05/24 05:17 | 12/05/24 18:13 | 7440-28-0 | D3 |

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## ANALYTICAL RESULTS

Project: L1800977 WG2404214
Pace Project No.: 10716438

**Sample: FC-CCR-MW11-1124** **Lab ID: 10716438006** Collected: 11/14/24 11:11 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Boron | **657J** | ug/L | 750 | 80.0 | 5 | 11/26/24 10:20 | 12/03/24 15:49 | 7440-42-8 | |
| Calcium | **403000** | ug/L | 2500 | 159 | 5 | 11/26/24 10:20 | 12/03/24 15:49 | 7440-70-2 | |
| Magnesium | **7860000** | ug/L | 25000 | 1440 | 50 | 11/26/24 10:20 | 12/03/24 16:18 | 7439-95-4 | |
| Potassium | **200000** | ug/L | 12500 | 540 | 5 | 11/26/24 10:20 | 12/03/24 15:49 | 7440-09-7 | |
| Sodium | **13000000** | ug/L | 100000 | 4540 | 100 | 11/26/24 10:20 | 12/03/24 16:56 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Cobalt | **21.1** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 17:53 | 7440-48-4 | |
| Molybdenum | **<0.57** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 17:53 | 7439-98-7 | D3 |

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## ANALYTICAL RESULTS

Project: L1800977 WG2404214
Pace Project No.: 10716438

**Sample: FC-CCR-MW18-1124** **Lab ID: 10716438007** Collected: 11/14/24 16:01 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Boron | **1300** | ug/L | 750 | 80.0 | 5 | 11/26/24 10:20 | 12/03/24 15:51 | 7440-42-8 | |
| Calcium | **412000** | ug/L | 2500 | 159 | 5 | 11/26/24 10:20 | 12/03/24 15:51 | 7440-70-2 | |
| Iron | **180J** | ug/L | 250 | 37.3 | 5 | 11/26/24 10:20 | 12/03/24 15:51 | 7439-89-6 | B,D3 |
| Magnesium | **998000** | ug/L | 2500 | 144 | 5 | 11/26/24 10:20 | 12/03/24 15:51 | 7439-95-4 | |
| Manganese | **2610** | ug/L | 25.0 | 2.5 | 5 | 11/26/24 10:20 | 12/03/24 15:51 | 7439-96-5 | |
| Potassium | **84900** | ug/L | 12500 | 540 | 5 | 11/26/24 10:20 | 12/03/24 15:51 | 7440-09-7 | |
| Sodium | **7320000** | ug/L | 50000 | 2270 | 50 | 11/26/24 10:20 | 12/03/24 16:19 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Cobalt | **10.0** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 18:25 | 7440-48-4 | |
| Lithium | **2150** | ug/L | 50.0 | 20.5 | 100 | 12/05/24 05:17 | 12/05/24 18:28 | 7439-93-2 | |
| Molybdenum | **1.4J** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 18:25 | 7439-98-7 | D3 |

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## ANALYTICAL RESULTS

Project: L1800977 WG2404214
Pace Project No.: 10716438

**Sample: FC-CCR-MW16-1124** **Lab ID: 10716438008** Collected: 11/14/24 12:18 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/26/24 10:20 | 12/03/24 14:51 | 7440-41-7 | |
| Boron | **9960** | ug/L | 150 | 16.0 | 1 | 11/26/24 10:20 | 12/03/24 14:51 | 7440-42-8 | |
| Calcium | **341000** | ug/L | 500 | 31.8 | 1 | 11/26/24 10:20 | 12/03/24 14:51 | 7440-70-2 | |
| Iron | **38.9J** | ug/L | 50.0 | 7.5 | 1 | 11/26/24 10:20 | 12/03/24 14:51 | 7439-89-6 | B |
| Magnesium | **1460000** | ug/L | 10000 | 578 | 20 | 11/26/24 10:20 | 12/03/24 16:21 | 7439-95-4 | |
| Potassium | **64900** | ug/L | 2500 | 108 | 1 | 11/26/24 10:20 | 12/03/24 14:51 | 7440-09-7 | |
| Sodium | **3300000** | ug/L | 20000 | 908 | 20 | 11/26/24 10:20 | 12/03/24 16:21 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.30** | ug/L | 2.5 | 0.30 | 5 | 12/05/24 05:17 | 12/05/24 18:06 | 7440-36-0 | D3 |
| Arsenic | **<0.66** | ug/L | 2.5 | 0.66 | 5 | 12/05/24 05:17 | 12/05/24 18:06 | 7440-38-2 | D3 |
| Barium | **18.8** | ug/L | 1.5 | 0.45 | 5 | 12/05/24 05:17 | 12/05/24 18:06 | 7440-39-3 | |
| Cadmium | **<0.18** | ug/L | 0.40 | 0.18 | 5 | 12/05/24 05:17 | 12/05/24 18:06 | 7440-43-9 | D3 |
| Chromium | **<2.5** | ug/L | 10.0 | 2.5 | 5 | 12/05/24 05:17 | 12/05/24 18:06 | 7440-47-3 | D3 |
| Cobalt | **9.1** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 18:06 | 7440-48-4 | |
| Lead | **0.36J** | ug/L | 2.5 | 0.32 | 5 | 12/05/24 05:17 | 12/05/24 18:06 | 7439-92-1 | D3 |
| Lithium | **1320** | ug/L | 2.5 | 1.0 | 5 | 12/05/24 05:17 | 12/05/24 18:06 | 7439-93-2 | |
| Molybdenum | **0.66J** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 18:06 | 7439-98-7 | D3 |
| Selenium | **27.8** | ug/L | 2.5 | 0.31 | 5 | 12/05/24 05:17 | 12/05/24 18:06 | 7782-49-2 | |
| Thallium | **0.46J** | ug/L | 0.50 | 0.13 | 5 | 12/05/24 05:17 | 12/05/24 18:06 | 7440-28-0 | D3 |

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# ANALYTICAL RESULTS

Project: L1800977 WG2404214
Pace Project No.: 10716438

**Sample: FC-CCR-MW17R-1124** **Lab ID: 10716438009** Collected: 11/14/24 14:48 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/26/24 10:20 | 12/03/24 14:53 | 7440-41-7 | |
| Boron | **41800** | ug/L | 3000 | 320 | 20 | 11/26/24 10:20 | 12/03/24 16:23 | 7440-42-8 | |
| Calcium | **413000** | ug/L | 500 | 31.8 | 1 | 11/26/24 10:20 | 12/03/24 14:53 | 7440-70-2 | |
| Iron | **16.2J** | ug/L | 50.0 | 7.5 | 1 | 11/26/24 10:20 | 12/03/24 14:53 | 7439-89-6 | B |
| Magnesium | **285000** | ug/L | 500 | 28.9 | 1 | 11/26/24 10:20 | 12/03/24 14:53 | 7439-95-4 | |
| Potassium | **23600** | ug/L | 2500 | 108 | 1 | 11/26/24 10:20 | 12/03/24 14:53 | 7440-09-7 | |
| Sodium | **1190000** | ug/L | 20000 | 908 | 20 | 11/26/24 10:20 | 12/03/24 16:23 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.30** | ug/L | 2.5 | 0.30 | 5 | 12/05/24 05:17 | 12/05/24 18:19 | 7440-36-0 | D3 |
| Arsenic | **<0.66** | ug/L | 2.5 | 0.66 | 5 | 12/05/24 05:17 | 12/05/24 18:19 | 7440-38-2 | D3 |
| Barium | **17.2** | ug/L | 1.5 | 0.45 | 5 | 12/05/24 05:17 | 12/05/24 18:19 | 7440-39-3 | |
| Cadmium | **1.3** | ug/L | 0.40 | 0.18 | 5 | 12/05/24 05:17 | 12/05/24 18:19 | 7440-43-9 | |
| Chromium | **<2.5** | ug/L | 10.0 | 2.5 | 5 | 12/05/24 05:17 | 12/05/24 18:19 | 7440-47-3 | D3 |
| Cobalt | **62.5** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 18:19 | 7440-48-4 | |
| Lead | **2.1J** | ug/L | 2.5 | 0.32 | 5 | 12/05/24 05:17 | 12/05/24 18:19 | 7439-92-1 | D3 |
| Lithium | **416** | ug/L | 2.5 | 1.0 | 5 | 12/05/24 05:17 | 12/05/24 18:19 | 7439-93-2 | |
| Molybdenum | **1.0J** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 18:19 | 7439-98-7 | D3 |
| Selenium | **<0.31** | ug/L | 2.5 | 0.31 | 5 | 12/05/24 05:17 | 12/05/24 18:19 | 7782-49-2 | D3 |
| Thallium | **0.26J** | ug/L | 0.50 | 0.13 | 5 | 12/05/24 05:17 | 12/05/24 18:19 | 7440-28-0 | D3 |

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## ANALYTICAL RESULTS

Project: L1800977 WG2404214
Pace Project No.: 10716438

**Sample: FC-CCR-DMX06-1024** **Lab ID: 10716438010** Collected: 11/12/24 14:50 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/26/24 10:20 | 12/03/24 14:55 | 7440-41-7 | |
| Boron | **6350** | ug/L | 150 | 16.0 | 1 | 11/26/24 10:20 | 12/03/24 14:55 | 7440-42-8 | |
| Calcium | **303000** | ug/L | 500 | 31.8 | 1 | 11/26/24 10:20 | 12/03/24 14:55 | 7440-70-2 | |
| Iron | **17.1J** | ug/L | 50.0 | 7.5 | 1 | 11/26/24 10:20 | 12/03/24 14:55 | 7439-89-6 | B |
| Magnesium | **506000** | ug/L | 500 | 28.9 | 1 | 11/26/24 10:20 | 12/03/24 14:55 | 7439-95-4 | |
| Manganese | **917** | ug/L | 5.0 | 0.50 | 1 | 11/26/24 10:20 | 12/03/24 14:55 | 7439-96-5 | |
| Potassium | **49400** | ug/L | 2500 | 108 | 1 | 11/26/24 10:20 | 12/03/24 14:55 | 7440-09-7 | |
| Sodium | **2900000** | ug/L | 20000 | 908 | 20 | 11/26/24 10:20 | 12/03/24 16:24 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.30** | ug/L | 2.5 | 0.30 | 5 | 12/05/24 05:17 | 12/05/24 16:06 | 7440-36-0 | D3 |
| Arsenic | **<0.66** | ug/L | 2.5 | 0.66 | 5 | 12/05/24 05:17 | 12/05/24 16:06 | 7440-38-2 | D3 |
| Barium | **10.2** | ug/L | 1.5 | 0.45 | 5 | 12/05/24 05:17 | 12/05/24 16:06 | 7440-39-3 | |
| Cadmium | **<0.18** | ug/L | 0.40 | 0.18 | 5 | 12/05/24 05:17 | 12/05/24 16:06 | 7440-43-9 | D3 |
| Chromium | **<2.5** | ug/L | 10.0 | 2.5 | 5 | 12/05/24 05:17 | 12/05/24 16:06 | 7440-47-3 | D3 |
| Cobalt | **0.87J** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 16:06 | 7440-48-4 | D3 |
| Lead | **<0.32** | ug/L | 2.5 | 0.32 | 5 | 12/05/24 05:17 | 12/05/24 16:06 | 7439-92-1 | D3 |
| Lithium | **843** | ug/L | 2.5 | 1.0 | 5 | 12/05/24 05:17 | 12/05/24 16:06 | 7439-93-2 | |
| Molybdenum | **3.2** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 16:06 | 7439-98-7 | |
| Selenium | **<0.31** | ug/L | 2.5 | 0.31 | 5 | 12/05/24 05:17 | 12/05/24 16:06 | 7782-49-2 | D3 |
| Thallium | **<0.13** | ug/L | 0.50 | 0.13 | 5 | 12/05/24 05:17 | 12/05/24 16:06 | 7440-28-0 | D3 |

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## ANALYTICAL RESULTS

Project: L1800977 WG2404214
Pace Project No.: 10716438

**Sample: FC-CCR-DMX04-1124** **Lab ID: 10716438011** Collected: 11/14/24 17:14 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/26/24 10:20 | 12/03/24 14:56 | 7440-41-7 | |
| Boron | **1260** | ug/L | 150 | 16.0 | 1 | 11/26/24 10:20 | 12/03/24 14:56 | 7440-42-8 | |
| Calcium | **345000** | ug/L | 500 | 31.8 | 1 | 11/26/24 10:20 | 12/03/24 14:56 | 7440-70-2 | |
| Iron | **24.7J** | ug/L | 50.0 | 7.5 | 1 | 11/26/24 10:20 | 12/03/24 14:56 | 7439-89-6 | B |
| Magnesium | **631000** | ug/L | 500 | 28.9 | 1 | 11/26/24 10:20 | 12/03/24 14:56 | 7439-95-4 | P6 |
| Manganese | **1030** | ug/L | 5.0 | 0.50 | 1 | 11/26/24 10:20 | 12/03/24 14:56 | 7439-96-5 | |
| Potassium | **38300** | ug/L | 2500 | 108 | 1 | 11/26/24 10:20 | 12/03/24 14:56 | 7440-09-7 | |
| Sodium | **1560000** | ug/L | 20000 | 908 | 20 | 11/26/24 10:20 | 12/03/24 16:26 | 7440-23-5 | P6 |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.30** | ug/L | 2.5 | 0.30 | 5 | 12/05/24 05:17 | 12/05/24 18:38 | 7440-36-0 | D3 |
| Arsenic | **<0.66** | ug/L | 2.5 | 0.66 | 5 | 12/05/24 05:17 | 12/05/24 18:38 | 7440-38-2 | D3 |
| Barium | **7.0** | ug/L | 1.5 | 0.45 | 5 | 12/05/24 05:17 | 12/05/24 18:38 | 7440-39-3 | |
| Cadmium | **<0.18** | ug/L | 0.40 | 0.18 | 5 | 12/05/24 05:17 | 12/05/24 18:38 | 7440-43-9 | D3 |
| Chromium | **<2.5** | ug/L | 10.0 | 2.5 | 5 | 12/05/24 05:17 | 12/05/24 18:38 | 7440-47-3 | D3 |
| Cobalt | **1.2J** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 18:38 | 7440-48-4 | D3 |
| Lead | **<0.32** | ug/L | 2.5 | 0.32 | 5 | 12/05/24 05:17 | 12/05/24 18:38 | 7439-92-1 | D3 |
| Lithium | **632** | ug/L | 2.5 | 1.0 | 5 | 12/05/24 05:17 | 12/05/24 18:38 | 7439-93-2 | |
| Molybdenum | **7.4** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 18:38 | 7439-98-7 | |
| Selenium | **<0.31** | ug/L | 2.5 | 0.31 | 5 | 12/05/24 05:17 | 12/05/24 18:38 | 7782-49-2 | D3 |
| Thallium | **0.15J** | ug/L | 0.50 | 0.13 | 5 | 12/05/24 05:17 | 12/05/24 18:38 | 7440-28-0 | D3 |

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## ANALYTICAL RESULTS

Project: L1800977 WG2404214
Pace Project No.: 10716438

**Sample: FC-CCR-FD09-1124** **Lab ID: 10716438012** Collected: 11/14/24 07:35 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/26/24 10:20 | 12/03/24 15:00 | 7440-41-7 | |
| Boron | **40700** | ug/L | 3000 | 320 | 20 | 11/26/24 10:20 | 12/03/24 16:29 | 7440-42-8 | |
| Calcium | **414000** | ug/L | 500 | 31.8 | 1 | 11/26/24 10:20 | 12/03/24 15:00 | 7440-70-2 | |
| Iron | **22.9J** | ug/L | 50.0 | 7.5 | 1 | 11/26/24 10:20 | 12/03/24 15:00 | 7439-89-6 | B |
| Magnesium | **292000** | ug/L | 500 | 28.9 | 1 | 11/26/24 10:20 | 12/03/24 15:00 | 7439-95-4 | |
| Manganese | **1020** | ug/L | 5.0 | 0.50 | 1 | 11/26/24 10:20 | 12/03/24 15:00 | 7439-96-5 | |
| Potassium | **24400** | ug/L | 2500 | 108 | 1 | 11/26/24 10:20 | 12/03/24 15:00 | 7440-09-7 | |
| Sodium | **1170000** | ug/L | 20000 | 908 | 20 | 11/26/24 10:20 | 12/03/24 16:29 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.30** | ug/L | 2.5 | 0.30 | 5 | 12/05/24 05:17 | 12/05/24 17:16 | 7440-36-0 | D3 |
| Arsenic | **<0.66** | ug/L | 2.5 | 0.66 | 5 | 12/05/24 05:17 | 12/05/24 17:16 | 7440-38-2 | D3 |
| Barium | **17.2** | ug/L | 1.5 | 0.45 | 5 | 12/05/24 05:17 | 12/05/24 17:16 | 7440-39-3 | |
| Cadmium | **1.2** | ug/L | 0.40 | 0.18 | 5 | 12/05/24 05:17 | 12/05/24 17:16 | 7440-43-9 | |
| Chromium | **<2.5** | ug/L | 10.0 | 2.5 | 5 | 12/05/24 05:17 | 12/05/24 17:16 | 7440-47-3 | D3 |
| Cobalt | **63.2** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 17:16 | 7440-48-4 | |
| Lead | **2.1J** | ug/L | 2.5 | 0.32 | 5 | 12/05/24 05:17 | 12/05/24 17:16 | 7439-92-1 | D3 |
| Lithium | **432** | ug/L | 2.5 | 1.0 | 5 | 12/05/24 05:17 | 12/05/24 17:16 | 7439-93-2 | |
| Molybdenum | **1.0J** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 17:16 | 7439-98-7 | D3 |
| Selenium | **<0.31** | ug/L | 2.5 | 0.31 | 5 | 12/05/24 05:17 | 12/05/24 17:16 | 7782-49-2 | D3 |
| Thallium | **0.28J** | ug/L | 0.50 | 0.13 | 5 | 12/05/24 05:17 | 12/05/24 17:16 | 7440-28-0 | D3 |

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## ANALYTICAL RESULTS

Project: L1800977 WG2404214
Pace Project No.: 10716438

**Sample: FC-CCR-EW15-1124** **Lab ID: 10716438013** Collected: 11/14/24 10:12 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Boron | **12500** | ug/L | 150 | 16.0 | 1 | 11/26/24 10:20 | 12/03/24 15:06 | 7440-42-8 | |
| Iron | **40.5J** | ug/L | 50.0 | 7.5 | 1 | 11/26/24 10:20 | 12/03/24 15:06 | 7439-89-6 | B |
| Magnesium | **472000** | ug/L | 500 | 28.9 | 1 | 11/26/24 10:20 | 12/03/24 15:06 | 7439-95-4 | |
| Manganese | **1990** | ug/L | 5.0 | 0.50 | 1 | 11/26/24 10:20 | 12/03/24 15:06 | 7439-96-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Cobalt | **2.6** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 17:47 | 7440-48-4 | |
| Molybdenum | **5.2** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 17:47 | 7439-98-7 | |

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## ANALYTICAL RESULTS

Project: L1800977 WG2404214
Pace Project No.: 10716438

**Sample: FC-CCR-DMX03-1024** **Lab ID: 10716438014** Collected: 11/12/24 13:38 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 12/05/24 05:47 | 12/06/24 14:26 | 7440-41-7 | |
| Boron | **850** | ug/L | 150 | 16.0 | 1 | 12/05/24 05:47 | 12/06/24 14:26 | 7440-42-8 | |
| Calcium | **408000** | ug/L | 500 | 31.8 | 1 | 12/05/24 05:47 | 12/06/24 14:26 | 7440-70-2 | |
| Iron | **79.9** | ug/L | 50.0 | 7.5 | 1 | 12/05/24 05:47 | 12/06/24 14:26 | 7439-89-6 | |
| Magnesium | **1750000** | ug/L | 12500 | 722 | 25 | 12/05/24 05:47 | 12/06/24 14:38 | 7439-95-4 | |
| Manganese | **210** | ug/L | 5.0 | 0.50 | 1 | 12/05/24 05:47 | 12/06/24 14:26 | 7439-96-5 | |
| Potassium | **62100** | ug/L | 2500 | 108 | 1 | 12/05/24 05:47 | 12/06/24 14:26 | 7440-09-7 | |
| Sodium | **2900000** | ug/L | 25000 | 1140 | 25 | 12/05/24 05:47 | 12/06/24 14:38 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.30** | ug/L | 2.5 | 0.30 | 5 | 12/05/24 05:17 | 12/05/24 16:00 | 7440-36-0 | D3 |
| Arsenic | **<0.66** | ug/L | 2.5 | 0.66 | 5 | 12/05/24 05:17 | 12/05/24 16:00 | 7440-38-2 | D3 |
| Barium | **14.0** | ug/L | 1.5 | 0.45 | 5 | 12/05/24 05:17 | 12/05/24 16:00 | 7440-39-3 | |
| Cadmium | **<0.18** | ug/L | 0.40 | 0.18 | 5 | 12/05/24 05:17 | 12/05/24 16:00 | 7440-43-9 | D3 |
| Chromium | **2.5J** | ug/L | 10.0 | 2.5 | 5 | 12/05/24 05:17 | 12/05/24 16:00 | 7440-47-3 | D3 |
| Cobalt | **1.4J** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 16:00 | 7440-48-4 | D3 |
| Lead | **<0.32** | ug/L | 2.5 | 0.32 | 5 | 12/05/24 05:17 | 12/05/24 16:00 | 7439-92-1 | D3 |
| Lithium | **1220** | ug/L | 2.5 | 1.0 | 5 | 12/05/24 05:17 | 12/05/24 16:00 | 7439-93-2 | |
| Molybdenum | **0.92J** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 16:00 | 7439-98-7 | D3 |
| Selenium | **4.2** | ug/L | 2.5 | 0.31 | 5 | 12/05/24 05:17 | 12/05/24 16:00 | 7782-49-2 | |
| Thallium | **0.32J** | ug/L | 0.50 | 0.13 | 5 | 12/05/24 05:17 | 12/05/24 16:00 | 7440-28-0 | D3 |

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## ANALYTICAL RESULTS

Project: L1800977 WG2404214
Pace Project No.: 10716438

**Sample: FC-CCR-MW05-1124** **Lab ID: 10716438015** Collected: 11/13/24 10:58 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/26/24 10:20 | 12/03/24 15:10 | 7440-41-7 | |
| Boron | **1340** | ug/L | 150 | 16.0 | 1 | 11/26/24 10:20 | 12/03/24 15:10 | 7440-42-8 | |
| Calcium | **368000** | ug/L | 500 | 31.8 | 1 | 11/26/24 10:20 | 12/03/24 15:10 | 7440-70-2 | |
| Iron | **23.3J** | ug/L | 50.0 | 7.5 | 1 | 11/26/24 10:20 | 12/03/24 15:10 | 7439-89-6 | B |
| Magnesium | **1860000** | ug/L | 25000 | 1440 | 50 | 11/26/24 10:20 | 12/03/24 16:38 | 7439-95-4 | |
| Manganese | **344** | ug/L | 5.0 | 0.50 | 1 | 11/26/24 10:20 | 12/03/24 15:10 | 7439-96-5 | |
| Potassium | **86100** | ug/L | 2500 | 108 | 1 | 11/26/24 10:20 | 12/03/24 15:10 | 7440-09-7 | |
| Sodium | **6160000** | ug/L | 50000 | 2270 | 50 | 11/26/24 10:20 | 12/03/24 16:38 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Cobalt | **1.8J** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 16:12 | 7440-48-4 | D3 |
| Lithium | **1970** | ug/L | 50.0 | 20.5 | 100 | 12/05/24 05:17 | 12/05/24 13:00 | 7439-93-2 | |
| Molybdenum | **1.9J** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 16:12 | 7439-98-7 | D3 |

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# QUALITY CONTROL DATA

Project: L1800977 WG2404214
Pace Project No.: 10716438

QC Batch: 981498
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716438001, 10716438002, 10716438003, 10716438004, 10716438006, 10716438007, 10716438008, 10716438009, 10716438010, 10716438011, 10716438012, 10716438013, 10716438015

METHOD BLANK: 5128249 Matrix: Water
Associated Lab Samples: 10716438001, 10716438002, 10716438003, 10716438004, 10716438006, 10716438007, 10716438008, 10716438009, 10716438010, 10716438011, 10716438012, 10716438013, 10716438015

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 5.0 | 0.44 | 12/03/24 15:48 | |
| Boron | ug/L | <16.0 | 150 | 16.0 | 12/03/24 15:48 | |
| Calcium | ug/L | <31.8 | 500 | 31.8 | 12/03/24 15:48 | |
| Iron | ug/L | 26.9J | 50.0 | 7.5 | 12/03/24 15:48 | P8 |
| Magnesium | ug/L | <28.9 | 500 | 28.9 | 12/03/24 15:48 | |
| Manganese | ug/L | <0.50 | 5.0 | 0.50 | 12/03/24 15:48 | |
| Potassium | ug/L | <108 | 2500 | 108 | 12/03/24 15:48 | |
| Sodium | ug/L | 162J | 1000 | 45.4 | 12/03/24 15:48 | |

LABORATORY CONTROL SAMPLE: 5128250

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Beryllium | ug/L | 1000 | 1040 | 104 | 85-115 | |
| Boron | ug/L | 1000 | 1070 | 107 | 85-115 | |
| Calcium | ug/L | 20000 | 19800 | 99 | 85-115 | |
| Iron | ug/L | 20000 | 20800 | 104 | 85-115 | |
| Magnesium | ug/L | 20000 | 20100 | 101 | 85-115 | |
| Manganese | ug/L | 1000 | 1060 | 106 | 85-115 | |
| Potassium | ug/L | 20000 | 20200 | 101 | 85-115 | |
| Sodium | ug/L | 20000 | 19800 | 99 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128251 5128252

| Parameter | Units | 10716438001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 1000 | 1000 | 1130 | 1100 | 113 | 110 | 70-130 | 2 | 20 | |
| Boron | ug/L | 1110 | 1000 | 1000 | 2300 | 2310 | 119 | 119 | 70-130 | 0 | 20 | |
| Calcium | ug/L | 374000 | 20000 | 20000 | 386000 | 385000 | 58 | 56 | 70-130 | 0 | 20 | P6 |
| Iron | ug/L | 31.1J | 20000 | 20000 | 19700 | 19300 | 98 | 96 | 70-130 | 2 | 20 | |
| Magnesium | ug/L | 193000 | 20000 | 20000 | 213000 | 212000 | 97 | 95 | 70-130 | 0 | 20 | |
| Manganese | ug/L | 1740 | 1000 | 1000 | 2730 | 2700 | 98 | 95 | 70-130 | 1 | 20 | |
| Potassium | ug/L | 55200 | 20000 | 20000 | 80300 | 79800 | 125 | 123 | 70-130 | 1 | 20 | |
| Sodium | ug/L | 6740000 | 20000 | 20000 | 6540000 | 6540000 | -1030 | -992 | 70-130 | 0 | 20 | P6 |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

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## QUALITY CONTROL DATA

Project: L1800977 WG2404214
Pace Project No.: 10716438

MATRIX SPIKE SAMPLE: 5128253

| Parameter | Units | 10716438011 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 1000 | 1110 | 111 | 70-130 | |
| Boron | ug/L | 1260 | 1000 | 2420 | 116 | 70-130 | |
| Calcium | ug/L | 345000 | 20000 | 369000 | 120 | 70-130 | |
| Iron | ug/L | 24.7J | 20000 | 20500 | 102 | 70-130 | |
| Magnesium | ug/L | 631000 | 20000 | 660000 | 146 | 70-130 | P6 |
| Manganese | ug/L | 1030 | 1000 | 2070 | 104 | 70-130 | |
| Potassium | ug/L | 38300 | 20000 | 61300 | 115 | 70-130 | |
| Sodium | ug/L | 1560000 | 20000 | 1670000 | 527 | 70-130 | P6 |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

## REPORT OF LABORATORY ANALYSIS

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**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## QUALITY CONTROL DATA

Project: L1800977 WG2404214
Pace Project No.: 10716438

QC Batch: 982886
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716438005, 10716438014

METHOD BLANK: 5135011 Matrix: Water
Associated Lab Samples: 10716438005, 10716438014

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 5.0 | 0.44 | 12/06/24 14:11 | |
| Boron | ug/L | <16.0 | 150 | 16.0 | 12/06/24 14:11 | |
| Calcium | ug/L | <31.8 | 500 | 31.8 | 12/06/24 14:11 | |
| Iron | ug/L | <7.5 | 50.0 | 7.5 | 12/06/24 14:11 | |
| Magnesium | ug/L | <28.9 | 500 | 28.9 | 12/06/24 14:11 | |
| Manganese | ug/L | <0.50 | 5.0 | 0.50 | 12/06/24 14:11 | |
| Potassium | ug/L | <108 | 2500 | 108 | 12/06/24 14:11 | |
| Sodium | ug/L | <45.4 | 1000 | 45.4 | 12/06/24 14:11 | |

LABORATORY CONTROL SAMPLE: 5135012

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Beryllium | ug/L | 1000 | 975 | 97 | 85-115 | |
| Boron | ug/L | 1000 | 1000 | 100 | 85-115 | |
| Calcium | ug/L | 20000 | 19600 | 98 | 85-115 | |
| Iron | ug/L | 20000 | 19600 | 98 | 85-115 | |
| Magnesium | ug/L | 20000 | 19400 | 97 | 85-115 | |
| Manganese | ug/L | 1000 | 977 | 98 | 85-115 | |
| Potassium | ug/L | 20000 | 20100 | 101 | 85-115 | |
| Sodium | ug/L | 20000 | 20000 | 100 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5135013 5135014

| Parameter | Units | 10716438005 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 1000 | 1000 | 865 | 917 | 87 | 92 | 70-130 | 6 | 20 | |
| Boron | ug/L | 7140 | 1000 | 1000 | 8270 | 8330 | 113 | 119 | 70-130 | 1 | 20 | |
| Calcium | ug/L | 411000 | 20000 | 20000 | 396000 | 422000 | -75 | 54 | 70-130 | 6 | 20 | P6 |
| Iron | ug/L | 55.3 | 20000 | 20000 | 17700 | 18500 | 88 | 92 | 70-130 | 5 | 20 | |
| Magnesium | ug/L | 597000 | 20000 | 20000 | 603000 | 605000 | 31 | 40 | 70-130 | 0 | 20 | P6 |
| Manganese | ug/L | 746 | 1000 | 1000 | 1560 | 1640 | 81 | 90 | 70-130 | 5 | 20 | |
| Potassium | ug/L | 39800 | 20000 | 20000 | 62300 | 61100 | 112 | 106 | 70-130 | 2 | 20 | |
| Sodium | ug/L | 2330000 | 20000 | 20000 | 2170000 | 2300000 | -809 | -180 | 70-130 | 6 | 20 | P6 |

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## QUALITY CONTROL DATA

Project: L1800977 WG2404214
Pace Project No.: 10716438

QC Batch: 982831
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716438001, 10716438002, 10716438003, 10716438004, 10716438005, 10716438006, 10716438007, 10716438008, 10716438009, 10716438010, 10716438011, 10716438012, 10716438013, 10716438014, 10716438015

METHOD BLANK: 5134564 Matrix: Water
Associated Lab Samples: 10716438001, 10716438002, 10716438003, 10716438004, 10716438005, 10716438006, 10716438007, 10716438008, 10716438009, 10716438010, 10716438011, 10716438012, 10716438013, 10716438014, 10716438015

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Antimony | ug/L | <0.061 | 0.50 | 0.061 | 12/05/24 12:54 | |
| Arsenic | ug/L | <0.13 | 0.50 | 0.13 | 12/05/24 12:54 | |
| Barium | ug/L | <0.090 | 0.30 | 0.090 | 12/05/24 12:54 | |
| Boron | ug/L | <2.3 | 10.0 | 2.3 | 12/05/24 12:54 | |
| Cadmium | ug/L | <0.037 | 0.080 | 0.037 | 12/05/24 12:54 | |
| Chromium | ug/L | <0.50 | 2.0 | 0.50 | 12/05/24 12:54 | |
| Cobalt | ug/L | <0.040 | 0.50 | 0.040 | 12/05/24 12:54 | |
| Lead | ug/L | <0.065 | 0.50 | 0.065 | 12/05/24 12:54 | |
| Lithium | ug/L | <0.20 | 0.50 | 0.20 | 12/05/24 12:54 | |
| Molybdenum | ug/L | <0.11 | 0.50 | 0.11 | 12/05/24 12:54 | |
| Selenium | ug/L | <0.061 | 0.50 | 0.061 | 12/05/24 12:54 | |
| Thallium | ug/L | <0.027 | 0.10 | 0.027 | 12/05/24 12:54 | |

LABORATORY CONTROL SAMPLE: 5134565

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Antimony | ug/L | 100 | 102 | 102 | 85-115 | |
| Arsenic | ug/L | 100 | 107 | 107 | 85-115 | |
| Barium | ug/L | 100 | 103 | 103 | 85-115 | |
| Boron | ug/L | 100 | 105 | 105 | 85-115 | |
| Cadmium | ug/L | 100 | 107 | 107 | 85-115 | |
| Chromium | ug/L | 100 | 110 | 110 | 85-115 | |
| Cobalt | ug/L | 100 | 109 | 109 | 85-115 | |
| Lead | ug/L | 100 | 108 | 108 | 85-115 | |
| Lithium | ug/L | 100 | 104 | 104 | 85-115 | |
| Molybdenum | ug/L | 100 | 104 | 104 | 85-115 | |
| Selenium | ug/L | 100 | 105 | 105 | 85-115 | |
| Thallium | ug/L | 100 | 109 | 109 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5134566 5134567

| Parameter | Units | 10716438012 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ug/L | <0.30 | 100 | 100 | 102 | 104 | 102 | 104 | 70-130 | 2 | 20 | |

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Minneapolis, MN 55414
(612)607-1700

## QUALITY CONTROL DATA

Project: L1800977 WG2404214
Pace Project No.: 10716438

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5134566 5134567

| Parameter | Units | 10716438012 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ug/L | <0.66 | 100 | 100 | 113 | 112 | 113 | 112 | 70-130 | 1 | 20 | |
| Barium | ug/L | 17.2 | 100 | 100 | 122 | 124 | 104 | 106 | 70-130 | 1 | 20 | |
| Boron | ug/L | 33500 | 100 | 100 | 35200 | 32400 | 1650 | -1090 | 70-130 | 8 | 20 | P6 |
| Cadmium | ug/L | 1.2 | 100 | 100 | 104 | 104 | 102 | 103 | 70-130 | 1 | 20 | |
| Chromium | ug/L | <2.5 | 100 | 100 | 112 | 113 | 111 | 112 | 70-130 | 0 | 20 | |
| Cobalt | ug/L | 63.2 | 100 | 100 | 176 | 175 | 113 | 111 | 70-130 | 1 | 20 | |
| Lead | ug/L | 2.1J | 100 | 100 | 102 | 102 | 100 | 100 | 70-130 | 0 | 20 | |
| Lithium | ug/L | 432 | 100 | 100 | 519 | 536 | 87 | 104 | 70-130 | 3 | 20 | |
| Molybdenum | ug/L | 1.0J | 100 | 100 | 106 | 105 | 105 | 104 | 70-130 | 1 | 20 | |
| Selenium | ug/L | <0.31 | 100 | 100 | 111 | 112 | 111 | 112 | 70-130 | 1 | 20 | |
| Thallium | ug/L | 0.28J | 100 | 100 | 99.4 | 100 | 99 | 100 | 70-130 | 1 | 20 | |

MATRIX SPIKE SAMPLE: 5134568

| Parameter | Units | 10716439004 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Antimony | ug/L | <0.30 | 100 | 98.8 | 99 | 70-130 | |
| Arsenic | ug/L | <0.66 | 100 | 107 | 107 | 70-130 | |
| Barium | ug/L | 12.3 | 100 | 115 | 103 | 70-130 | |
| Boron | ug/L | 9510 | 100 | 9730 | 220 | 70-130 | P6 |
| Cadmium | ug/L | <0.18 | 100 | 100 | 100 | 70-130 | |
| Chromium | ug/L | <2.5 | 100 | 109 | 109 | 70-130 | |
| Cobalt | ug/L | 113 | 100 | 224 | 111 | 70-130 | |
| Lead | ug/L | 0.55J | 100 | 96.5 | 96 | 70-130 | |
| Lithium | ug/L | 553 | 100 | 674 | 122 | 70-130 | |
| Molybdenum | ug/L | 1.7J | 100 | 102 | 100 | 70-130 | |
| Selenium | ug/L | <0.31 | 100 | 112 | 111 | 70-130 | |
| Thallium | ug/L | 0.26J | 100 | 96.4 | 96 | 70-130 | |

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

# QUALIFIERS

Project: L1800977 WG2404214
Pace Project No.: 10716438

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## ANALYTE QUALIFIERS

| | |
|---|---|
| B | Analyte was detected in the associated method blank. |
| D3 | Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference. |
| P6 | Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level. |
| P8 | Analyte was detected in the method blank. All associated samples had concentrations of at least ten times greater than the blank or were below the reporting limit. |



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Minneapolis, MN 55414
(612)607-1700

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1800977 WG2404214
Pace Project No.: 10716438

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **10716438014** | **FC-CCR-DMX03-1024** | EPA 200.7 | 982886 | EPA 200.7 | 983045 |
| **10716438010** | **FC-CCR-DMX06-1024** | EPA 200.7 | 981498 | EPA 200.7 | 981982 |
| **10716438015** | **FC-CCR-MW05-1124** | EPA 200.7 | 981498 | EPA 200.7 | 981982 |
| **10716438004** | **FC-CCR-DMX05R-1124** | EPA 200.7 | 981498 | EPA 200.7 | 981982 |
| **10716438002** | **FC-CCR-EW14-1124** | EPA 200.7 | 981498 | EPA 200.7 | 981982 |
| **10716438001** | **FC-CCR-MW24-1124** | EPA 200.7 | 981498 | EPA 200.7 | 981982 |
| **10716438003** | **FC-CCR-MW34-1124** | EPA 200.7 | 981498 | EPA 200.7 | 981982 |
| **10716438012** | **FC-CCR-FD09-1124** | EPA 200.7 | 981498 | EPA 200.7 | 981982 |
| **10716438013** | **FC-CCR-EW15-1124** | EPA 200.7 | 981498 | EPA 200.7 | 981982 |
| **10716438006** | **FC-CCR-MW11-1124** | EPA 200.7 | 981498 | EPA 200.7 | 981982 |
| **10716438008** | **FC-CCR-MW16-1124** | EPA 200.7 | 981498 | EPA 200.7 | 981982 |
| **10716438005** | **FC-CCR-MW15-1124** | EPA 200.7 | 982886 | EPA 200.7 | 983045 |
| **10716438009** | **FC-CCR-MW17R-1124** | EPA 200.7 | 981498 | EPA 200.7 | 981982 |
| **10716438007** | **FC-CCR-MW18-1124** | EPA 200.7 | 981498 | EPA 200.7 | 981982 |
| **10716438011** | **FC-CCR-DMX04-1124** | EPA 200.7 | 981498 | EPA 200.7 | 981982 |
| **10716438014** | **FC-CCR-DMX03-1024** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716438010** | **FC-CCR-DMX06-1024** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716438015** | **FC-CCR-MW05-1124** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716438004** | **FC-CCR-DMX05R-1124** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716438002** | **FC-CCR-EW14-1124** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716438001** | **FC-CCR-MW24-1124** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716438003** | **FC-CCR-MW34-1124** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716438012** | **FC-CCR-FD09-1124** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716438013** | **FC-CCR-EW15-1124** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716438006** | **FC-CCR-MW11-1124** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716438008** | **FC-CCR-MW16-1124** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716438005** | **FC-CCR-MW15-1124** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716438009** | **FC-CCR-MW17R-1124** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716438007** | **FC-CCR-MW18-1124** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716438011** | **FC-CCR-DMX04-1124** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |



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# Sub-Contract Chain of Custody

**Batch Date/Time:** 11/19/24 09:05
**Sub-Contract Lab:** PACEMN
**Address:** 1700 Elm Street Suite 200 SE
**City/State:** Minneapolis, MN 55414
**Contact:** Tong.Lee@pacelabs.com
**Owner Lab:** PACEMTJL
**Address:** 12065 Lebanon Rd.
**City/State:** Mt. Juliet, TN 37122
**Phone:** (615) 773-9756
**Fax:** (615) 758-5859

**WO:** WG2404214
**Email:** MTJLSuboutTeam@pacelabs.com
**Results Due Date:** 12/02/24
**ESC Purchase Order #:** L1800977
**Send Reports to:** James C Huckaba

Pace Analytical®
12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone:(615) 773-9756
Fax:(615) 758-5859

| Sample ID Container ID | Matrix | State | Collect Date | Description | Sample Number Lab Use Only | Sample Comments Lab Use Only | |
|---|---|---|---|---|---|---|---|
| FC-CCR-MW24-1124 | GW | NM | 11/13/24 13:37 | Metals | 1. L1800977-01 | 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-BG, MOG, COG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 01 |
| FC-CCR-EW14-1124 | GW | NM | 11/13/24 12:47 | Metals | 2. L1800977-02 | 200.7-BICP, MGICP, MNICP, FEICP 200.8-MOG, COG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 02 |
| FC-CCR-MW34-1124 | GW | NM | 11/13/24 15:03 | Metals | 3. L1800977-03 | 200.7-BICP, MGICP, MNICP, FEICP 200.8-MOG, COG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 03 |
| FC-CCR-DMX05R-1124 | GW | NM | 11/13/24 11:56 | Metals | 4. L1800977-04 | 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, CRG, PBG, MOG, SEG, TLG, COG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 04 |
| FC-CCR-MW15-1124 | GW | NM | 11/14/24 13:22 | Metals | 5. L1800977-05 | 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, CRG, PBG, MOG, SEG, TLG, COG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 05 |
| FC-CCR-MW11-1124 | GW | NM | 11/14/24 11:11 | Metals | 6. L1800977-06 | 200.7-BICP, CAICP, KICP, MGICP, NAICP 200.8- MOG, COG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 06 |
| FC-CCR-MW18-1124 | GW | NM | 11/14/24 16:01 | Metals | 7. L1800977-07 | 200.7-BICP, CAICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-COG, MOG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 07 |
| FC-CCR-MW16-1124 | GW | NM | 11/14/24 12:18 | Metals | 8. L1800977-08 | 200.7-BICP, CAICP, BEICP, LIICP, FEICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, CRG, PBG, MOG, SEG, TLG, COG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 08 |
| FC-CCR-MW17R-1124 | GW | NM | 11/14/24 14:48 | Metals | 9. L1800977-09 | 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, CRG, PBG, MOG, SEG, TLG, COG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 09 |
| FC-CCR-DMX06-1024 | GW | NM | 11/12/24 14:50 | Metals | 10. L1800977-10 | 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, CRG, PBG, MOG, SEG, TLG, COG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 10 |
| FC-CCR-DMX04-1124 | GW | NM | 11/14/24 17:14 | Metals | 11. L1800977-11 | 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, CRG, PBG, MOG, SEG, TLG, COG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 11 |
| FC-CCR-FD09-1124 | GW | NM | 11/14/24 07:35 | Metals | 12. L1800977-12 | 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, CRG, PBG, MOG, SEG, TLG, COG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 12 |
| FC-CCR-EW15-1124 | GW | NM | 11/14/24 10:12 | Metals | 13. L1800977-13 | 200.7-BICP, MGICP, MNICP, FEICP 200.8-MOG, COG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 13 |
| FC-CCR-DMX03-1024 | GW | NM | 11/12/24 13:38 | Metals | 14. L1800977-14 | 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-SBG, ASG, BAG, CDG, CRG, PBG, MOG, SEG, TLG, COG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 14 |
| FC-CCR-MW05-1124 | GW | NM | 11/13/24 10:58 | Metals | 15. L1800977-15 | 200.7-BICP, CAICP, BEICP, LIICP, FEICP, MNICP, KICP, MGICP, NAICP 200.8-MOG, COG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 15 |

*= Container used for multiple Samples and/or Analyses

**Relinquished by:** _____ **Date** 11-19-24

**Received by:** _____ **Date** 11/20/24 1005

**Relinquished by:** _____ **Date** _____

**Received by:** _____ **Date** _____

No Ice

WO#: 10716438

10716438

# ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

**CLIENT NAME:** Pace National | **PROJECT #:** **WO#: 10716438**

**PM: TKL** **Due Date: 12/06/24**

**CLIENT: PASI-TN**

**COURIER:** ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

**TRACKING NUMBER:** 425709337030 ☐ See Exceptions form ENV-FRM-MIN4-0142

**Custody Seal on Cooler/Box Present:** ☑ YES ☐ NO **Seals Intact:** ☑ YES ☐ NO **Biological Tissue Frozen:** ☐ YES ☐ NO ☑ N/A

**Packing Material:** ☐ Bubble Bags ☑ Bubble Wrap ☐ None ☐ Other **Temp Blank:** ☐ YES ☑ NO **Type of Ice:** ☐ Blue ☐ Dry ☐ Wet ☐ Melted ☑ None

**Thermometer:** ☑ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

| | |
|---|---|
| **Did Samples Originate in West Virginia:** ☐ YES ☑ NO | **Were All Container Temps taken:** ☐ YES ☐ NO ☑ N/A |
| **Correction Factor:** +0.1 **Cooler Temp Read w/Temp Blank:** _____ °C **Cooler Temp Corrected w/Temp Blank:** _____ °C | **Average Corrected Temp (no Temp Blank Only):** 18.2 °C |
| ***NOTE:*** *Temp should be above freezing to 6°C.* | ☑ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container |
| **USDA Regulated Soil:** ☑ N/A ☐ Water Sample/Other (describe): _____ | **Initials & Date of Person Examining Contents:** JMW 11/21/24 |
| Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☑ NO | Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☑ NO |
| **NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.** | |

| **LOCATION (check one):** ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA | YES | NO | N/A | COMMENT(S) |
|---|---|---|---|---|
| Chain of Custody Present and Filled Out? | ☑ | ☐ | | 1. Received two containers for |
| Chain of Custody Relinquished? | ☑ | ☐ | | 2. each sample. |
| Sampler Name and/or Signature on COC? | ☐ | ☐ | ☑ | 3. |
| Samples Arrived within Hold Time? | ☑ | ☐ | | 4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No |
| **Short Hold Time Analysis (<72 hr)?** | ☐ | ☑ | | 5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____ |
| **Rush Turn Around Time Requested?** | ☐ | ☑ | | 6. |
| Sufficient Sample Volume? | ☑ | ☐ | | 7. |
| Correct Containers Used? – Pace Containers Used? | ☑ ☑ | ☐ ☐ | ☐ | 8. |
| Containers Intact? | ☑ | ☐ | | 9. |
| Field Filtered Volume Received for Dissolved Tests? | ☐ | ☐ | ☑ | 10. Is sediment visible in the dissolved container: ☐ YES ☐ NO |
| Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other | ☑ | ☐ | | 11. **If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142 |
| All containers needing acid/base preservation have been checked? | ☑ | ☐ | ☐ | 12. Sample #: 001-015 |
| All containers needing preservation are found to be in compliance with EPA recommendation? ($HNO_3$, $H_2SO_4$, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide) | ☑ | ☐ | ☐ | 24 ☑ $HNO_3$ ☐ $H_2SO_4$ ☐ NaOH ☐ Zinc Acetate |
| Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS | ☐ | ☐ | ☑ | Positive for Residual Chlorine: ☐ YES ☐ NO |
| **NOTE:** If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs. | | | | pH Paper Lot # (Residual Chlorine / 0-6 Roll / 0-6 Strip / 0-14 Strip): 205224 |
| | | | | ☐ See Exceptions form ENV-FRM-MIN4-0142 |
| Headspace in Methyl Mercury Container? | ☐ | ☐ | ☑ | 13. |
| Extra labels present on soil VOA or WIDRO containers? | ☐ | ☐ | ☑ | 14. |
| Headspace in VOA Vials (greater than 6mm)? | ☐ | ☐ | ☑ | ☐ See Exceptions form ENV-FRM-MIN4-0140 |
| Trip Blanks Present? | ☐ | ☑ | ☐ | 15. |
| Trip Blank Custody Seals Present? | ☐ | ☐ | ☑ | Pace Trip Blank Lot # (if purchased): _____ |

**CLIENT NOTIFICATION / RESOLUTION** **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

**Project Manager Review:** _____ **Date:** 11/21/24

***NOTE:*** *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

**Labeled By:** JMW **Line:** 5

**Workorder #:** _____

| No Temp Blank | | |
|---|---|---|
| Read Temp | Corrected Temp | Average temp |
| 18.1 | 18.2 | 18.2 |
| 18.1 | 18.2 | |
| 18.1 | 18.2 | |
| 18.1 | 18.2 | |

**PM Notified of Out of Temp Cooler?** ☐ YES ☐ NO

If yes, indicate who was contacted, date and time.
If no, indicate reason why.

_____

**Multiple Cooler Project?** ☐ YES ☐ NO

## If anything is OVER 6.0°C, you MUST document containers in this section HERE

| Tracking Number | Temperature |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| Out of Temp Sample ID | Container Type | # of Containers |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

**pH Adjustment Log for Preserved Samples**

| Sample ID | Type Of Preserve | pH Upon Receipt | Date Adjusted | Time Adjusted | Amount Added (mL) | Lot # Added | pH After | In Compliance After Addition? YES | In Compliance After Addition? NO | Initials |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |

**Comments:**

_____

_____

_____

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



| **Section A** Required Client Information: | | **Section B** Required Project Information: | | **Section C** Invoice Information: | |
|---|---|---|---|---|---|
| Company: | Pace Analytical | Report To: | Pace Analytical Subout Team | Attention: | Samantha O'Shea |
| Address: | 12065 Lebanon Rd. | Copy To: | | Company Name: | |
| Mt. Juliet, TN 37122 | | | | Address: | |
| Email: | MTJLSuboutTeam@pacelabs.com | Purchase Order #: | L1800977 | Pace Quote: | |
| Phone: | (615) 773-9756 Fax: (615) 758-5859 | Project Name: | | Pace Project Manager: | Tong Lee |
| Requested Due Date: | 2-Dec | Project #: | US0023513.6155 | Pace Profile #: | 38076 |

| Regulatory Agency |
|---|
| |
| **State / Location** |
| **NM** |

| MATRIX | CODE |
|---|---|
| Drinking Water | DW |
| Water | WT |
| Waste Water | WW |
| Product | P |
| Soil/Solid | SL |
| Oil | OL |
| Wipe | WP |
| Air | AR |
| Other | OT |
| Tissue | TS |

| ITEM # | **SAMPLE ID** One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | Requested Analysis Filtered (Y/N) Y/N | Analyses Test | Metals | Metals | Metals | Metals | Metals | Metals | Metals | | | | | | Residual Chlorine (Y/N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FC-CCR-MW24-1124 | WT | | | | 13-Nov | 13:37 | | 1 | | | | | | | | 1 | | | | | | | X | | | | | | | 200.7-BICP, CAICP, BEICP, LIIC |
| 2 | FC-CCR-EW14-1124 | WT | | | | 13-Nov | 12:47 | | 1 | | | | | | | | 1 | | X | | | | | | | | | | | | 200.7-BICP, MGICP, MNICP, FE |
| 3 | FC-CCR-MW34-1124 | WT | | | | 13-Nov | 15:03 | | 1 | | | | | | | | 1 | | X | | | | | | | | | | | | 200.7-BICP, MGICP, MNICP, FE |
| 4 | FC-CCR-DMX05R-1124 | WT | | | | 13-Nov | 11:56 | | 1 | | | | | | | | 1 | | | | | | | | X | | | | | | 200.7-BICP, CAICP, BEICP, LIIC |
| 5 | FC-CCR-MW15-1124 | WT | | | | 14-Nov | 13:22 | | 1 | | | | | | | | 1 | | | | | | | | X | | | | | | 200.7-BICP, CAICP, BEICP, LIIC |
| 6 | FC-CCR-MW11-1124 | WT | | | | 14-Nov | 11:11 | | 1 | | | | | | | | 1 | | | X | | | | | | | | | | | 200.7-BICP, CAICP, KICP, MGIC |
| 7 | FC-CCR-MW18-1124 | WT | | | | 14-Nov | 16:01 | | 1 | | | | | | | | 1 | | | | X | | | | | | | | | | 200.7-BICP, CAICP, LIICP, FEIC |
| 8 | FC-CCR-MW16-1124 | WT | | | | 14-Nov | 12:18 | | 1 | | | | | | | | 1 | | | | | | | | | | | | | | 200.7-BICP, CAICP, BEICP, LIIC |
| 9 | FC-CCR-MW17R-1124 | WT | | | | 14-Nov | 14:48 | | 1 | | | | | | | | 1 | | | | | | | | X | | | | | | 200.7-BICP, CAICP, BEICP, LIIC |
| 10 | FC-CCR-DMX06-1024 | WT | | | | 12-Nov | 14:50 | | 1 | | | | | | | | 1 | | | | | | | | X | | | | | | 200.7-BICP, CAICP, BEICP, LIIC |
| 11 | FC-CCR-DMX04-1124 | WT | | | | 14-Nov | 17:14 | | 1 | | | | | | | | 1 | | | | | | | | X | | | | | | 200.7-BICP, CAICP, BEICP, LIIC |
| 12 | FC-CCR-FD09-1124 | WT | | | | 14-Nov | 7:35 | | 1 | | | | | | | | 1 | | | | | | | | X | | | | | | 200.7-BICP, CAICP, BEICP, LIIC |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | James C Huckaba | 19-Nov | 11:01 | | | | | | | |
| Pace Analytical Batch: WG2404214 | | | | | | | | | | |
| **Pace Analytical SDGs: L1800977** | | | | | | | | | | |
| **Location: Minneapolis, MN 55414** | | | | | | | | | | |

| SAMPLER NAME AND SIGNATURE | | | | | |
|---|---|---|---|---|---|
| **PRINT Name of SAMPLER:** | | | | | |
| **SIGNATURE of SAMPLER:** | **DATE Signed:** | | | | |

| TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
|---|---|---|---|
| | | | |

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



| **Section A** Required Client Information: | | **Section B** Required Project Information: | | **Section C** Invoice Information: | |
|---|---|---|---|---|---|
| Company: | Pace Analytical | Report To: | Pace Analytical Subout Team | Attention: | Samantha O'Shea |
| Address: | 12065 Lebanon Rd. | Copy To: | | Company Name: | |
| Mt. Juliet, TN 37122 | | | | Address: | |
| Email: | MTJLSuboutTeam@pacelabs.com | Purchase Order #: | L1800977 | Pace Quote: | |
| Phone: | (615) 773-9756 Fax: (615) 758-5859 | Project Name: | | Pace Project Manager: | Tong Lee |
| Requested Due Date: | 2-Dec | Project #: | US0023513.6155 | Pace Profile #: | 38076 |

| Regulatory Agency |
|---|
| |
| **State / Location** |
| **NM** |

| MATRIX | CODE |
|---|---|
| Drinking Water | DW |
| Water | WT |
| Waste Water | WW |
| Product | P |
| Soil/Solid | SL |
| Oil | OL |
| Wipe | WP |
| Air | AR |
| Other | OT |
| Tissue | TS |

| ITEM # | **SAMPLE ID** One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | Requested Analysis Filtered (Y/N) Y/N | Analyses Test | Residual Chlorine (Y/N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FC-CCR-EW15-1124 | WT | | | | 14-Nov | 10:12 | | 1 | | | | | | | | 1 | | Metals | | 200.7-BICP, MGICP, MNICP, FE |
| 2 | FC-CCR-DMX03-1024 | WT | | | | 12-Nov | 13:38 | | 1 | | | | | | | | 1 | | Metals | | 200.7-BICP, CAICP, BEICP, LIIC |
| 3 | FC-CCR-MW05-1124 | WT | | | | 13-Nov | 10:58 | | 1 | | | | | | | | 1 | | Metals | | 200.7-B, Ca, Be, Li, K, Mg, Na, M |
| 4 | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS |
|---|---|---|---|---|---|---|---|
| | James C Huckaba | 19-Nov | 11:01 | | | | |
| Pace Analytical Batch: WG2404214 | | | | | | | |
| **Pace Analytical SDGs: L1800977** | | | | | | | |
| **Location: Minneapolis, MN 55414** | | | | | | | |

**SAMPLER NAME AND SIGNATURE**

**PRINT Name of SAMPLER:**

**SIGNATURE of SAMPLER:** **DATE Signed:**

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

**Address**
1700 Elm Street Suite 200 SE
Minneapolis, MN 55414

# ANALYTICAL REPORT

December 10, 2024

Revised Report

## WSP (Formely Wood E&I)-Phoenix, AZ

| | |
|---|---|
| Sample Delivery Group: | L1801382 |
| Samples Received: | 11/19/2024 |
| Project Number: | US0023513.6155 |
| Description: | APS Four Corners-Additional |

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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## FC-CCR-MW36R-1124 L1801382-01 WW

Collected by: Hannah Dragon | Collected date/time: 11/15/24 13:53 | Received date/time: 11/19/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2404848 | 1 | 11/20/24 09:13 | 11/20/24 11:53 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2404842 | 1 | 11/20/24 08:54 | 11/20/24 08:54 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2404512 | 1 | 11/24/24 07:52 | 11/24/24 07:52 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2404512 | 10 | 11/24/24 08:04 | 11/24/24 08:04 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2404512 | 50 | 11/25/24 17:52 | 11/25/24 17:52 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2405390 | 1 | 11/20/24 21:35 | 11/20/24 21:35 | KRB | Mt. Juliet, TN |
| Metals (ICP) by Method 200.7 | WG2405767 | 1 | 11/22/24 17:35 | 11/23/24 14:36 | DJS | Mt. Juliet, TN |
| Metals (ICP) by Method 200.7 | WG2405767 | 5 | 11/22/24 17:35 | 11/23/24 17:03 | DJS | Mt. Juliet, TN |
| Metals (ICPMS) by Method 200.8 | WG2405775 | 1 | 11/22/24 16:24 | 11/23/24 12:18 | JPD | Mt. Juliet, TN |

## FC-CCR-MW38R-1124 L1801382-02 WW

Collected by: Hannah Dragon | Collected date/time: 11/16/24 08:38 | Received date/time: 11/19/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2404848 | 1 | 11/20/24 09:13 | 11/20/24 11:53 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2404842 | 1 | 11/20/24 08:58 | 11/20/24 08:58 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2404512 | 1 | 11/24/24 08:17 | 11/24/24 08:17 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2404512 | 10 | 11/24/24 08:59 | 11/24/24 08:59 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2404512 | 500 | 11/25/24 18:05 | 11/25/24 18:05 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2405318 | 1 | 11/20/24 18:20 | 11/20/24 18:20 | KRB | Mt. Juliet, TN |
| Metals (ICP) by Method 200.7 | WG2405767 | 1 | 11/22/24 17:35 | 11/23/24 14:38 | DJS | Mt. Juliet, TN |
| Metals (ICP) by Method 200.7 | WG2405767 | 5 | 11/22/24 17:35 | 11/23/24 17:05 | DJS | Mt. Juliet, TN |
| Metals (ICPMS) by Method 200.8 | WG2405775 | 2 | 11/22/24 16:24 | 11/23/24 12:21 | JPD | Mt. Juliet, TN |

## FC-CCR-MW57-1124 L1801382-03 WW

Collected by: Hannah Dragon | Collected date/time: 11/15/24 16:56 | Received date/time: 11/19/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2404848 | 1 | 11/20/24 09:13 | 11/20/24 11:53 | JAC | Mt. Juliet, TN |
| Gravimetric Analysis by Method 2540 C-2011 | WG2408608 | 1 | 11/26/24 14:57 | 11/27/24 09:11 | DLS | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2404842 | 1 | 11/20/24 09:03 | 11/20/24 09:03 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2404512 | 5 | 11/24/24 09:12 | 11/24/24 09:12 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2404512 | 50 | 11/24/24 09:25 | 11/24/24 09:25 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2404512 | 500 | 11/25/24 18:19 | 11/25/24 18:19 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2405318 | 1 | 11/20/24 18:20 | 11/20/24 18:20 | KRB | Mt. Juliet, TN |
| Metals (ICP) by Method 200.7 | WG2405767 | 1 | 11/22/24 17:35 | 11/23/24 14:39 | DJS | Mt. Juliet, TN |
| Metals (ICP) by Method 200.7 | WG2405767 | 20 | 11/22/24 17:35 | 11/23/24 17:06 | DJS | Mt. Juliet, TN |
| Metals (ICPMS) by Method 200.8 | WG2405775 | 2 | 11/22/24 16:24 | 11/23/24 12:24 | JPD | Mt. Juliet, TN |

## FC-CCR-MW56-1124 L1801382-04 WW

Collected by: Hannah Dragon | Collected date/time: 11/15/24 15:24 | Received date/time: 11/19/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2404849 | 1 | 11/20/24 08:01 | 11/20/24 11:14 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2404842 | 1 | 11/20/24 09:59 | 11/20/24 09:59 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2404909 | 1000 | 11/25/24 03:48 | 11/25/24 03:48 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2404909 | 5 | 11/25/24 21:27 | 11/25/24 21:27 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2404909 | 50 | 11/24/24 22:25 | 11/24/24 22:25 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2405318 | 1 | 11/20/24 18:20 | 11/20/24 18:20 | KRB | Mt. Juliet, TN |
| Metals (ICP) by Method 200.7 | WG2405767 | 1 | 11/22/24 17:35 | 11/23/24 14:44 | DJS | Mt. Juliet, TN |
| Metals (ICP) by Method 200.7 | WG2405767 | 10 | 11/22/24 17:35 | 11/23/24 17:08 | DJS | Mt. Juliet, TN |
| Metals (ICPMS) by Method 200.8 | WG2405775 | 2 | 11/22/24 16:24 | 11/23/24 12:27 | JPD | Mt. Juliet, TN |

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

# SAMPLE SUMMARY

## FC-CCR-EB01-1124 L1801382-05 WW

Collected by: Hannah Dragon
Collected date/time: 11/16/24 09:30
Received date/time: 11/19/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2404849 | 1 | 11/20/24 08:01 | 11/20/24 11:14 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2404842 | 1 | 11/20/24 10:03 | 11/20/24 10:03 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2404909 | 1 | 11/24/24 22:38 | 11/24/24 22:38 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2405390 | 1 | 11/20/24 21:35 | 11/20/24 21:35 | KRB | Mt. Juliet, TN |
| Mercury by Method 245.1 | WG2405193 | 1 | 11/21/24 13:36 | 11/22/24 13:54 | LAS | Mt. Juliet, TN |
| Metals (ICP) by Method 200.7 | WG2405767 | 1 | 11/22/24 17:35 | 11/23/24 14:46 | JTM | Mt. Juliet, TN |
| Metals (ICPMS) by Method 200.8 | WG2405775 | 1 | 11/22/24 16:24 | 11/23/24 12:31 | JPD | Mt. Juliet, TN |

# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

## Report Revision History

Level II Report - Version 1: 12/02/24 08:32
Level II Report - Version 2: 12/06/24 16:39

## Project Narrative

Collect time update
Report for QC qualifiers

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 6740000 | | 50000 | 1 | 11/20/2024 11:53 | WG2404848 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 222000 | | 4750 | 20000 | 1 | 11/20/2024 08:54 | WG2404842 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/20/2024 08:54 | WG2404842 |

Sample Narrative:

L1801382-01 WG2404842: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 473000 | | 5470 | 10000 | 10 | 11/24/2024 08:04 | WG2404512 |
| Fluoride | 188 | | 76.1 | 150 | 1 | 11/24/2024 07:52 | WG2404512 |
| Sulfate | 4530000 | | 31800 | 250000 | 50 | 11/25/2024 17:52 | WG2404512 |

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.67 | T8 | 1 | 11/20/2024 21:35 | WG2405390 |

Sample Narrative:

L1801382-01 WG2405390: 7.67 at 20.9C

## Metals (ICP) by Method 200.7

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Beryllium | U | | 0.354 | 2.00 | 1 | 11/23/2024 14:36 | WG2405767 |
| Boron | 52700 | | 142 | 1000 | 5 | 11/23/2024 17:03 | WG2405767 |
| Calcium | 476000 | | 87.9 | 1000 | 1 | 11/23/2024 14:36 | WG2405767 |
| Iron | 15.2 | J | 9.56 | 100 | 1 | 11/23/2024 14:36 | WG2405767 |
| Lithium | 622 | | 3.80 | 15.0 | 1 | 11/23/2024 14:36 | WG2405767 |
| Magnesium | 384000 | | 75.6 | 1000 | 1 | 11/23/2024 14:36 | WG2405767 |
| Manganese | 225 | | 0.984 | 10.0 | 1 | 11/23/2024 14:36 | WG2405767 |
| Potassium | 25500 | | 127 | 1000 | 1 | 11/23/2024 14:36 | WG2405767 |
| Sodium | 930000 | | 875 | 5000 | 5 | 11/23/2024 17:03 | WG2405767 |

## Metals (ICPMS) by Method 200.8

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Cobalt | 184 | | 0.131 | 2.00 | 1 | 11/23/2024 12:18 | WG2405775 |
| Molybdenum | 0.934 | J | 0.351 | 5.00 | 1 | 11/23/2024 12:18 | WG2405775 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 24300000 | | 400000 | 1 | 11/20/2024 11:53 | WG2404848 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 464000 | | 4750 | 20000 | 1 | 11/20/2024 08:58 | WG2404842 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/20/2024 08:58 | WG2404842 |

Sample Narrative:

L1801382-02 WG2404842: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 562000 | | 5470 | 10000 | 10 | 11/24/2024 08:59 | WG2404512 |
| Fluoride | U | | 76.1 | 150 | 1 | 11/24/2024 08:17 | WG2404512 |
| Sulfate | 16400000 | | 318000 | 2500000 | 500 | 11/25/2024 18:05 | WG2404512 |

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.54 | T8 | 1 | 11/20/2024 18:20 | WG2405318 |

Sample Narrative:

L1801382-02 WG2405318: 7.54 at 18.2C

## Metals (ICP) by Method 200.7

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Beryllium | U | | 0.354 | 2.00 | 1 | 11/23/2024 14:38 | WG2405767 |
| Boron | 5040 | | 28.5 | 200 | 1 | 11/23/2024 14:38 | WG2405767 |
| Calcium | 397000 | | 87.9 | 1000 | 1 | 11/23/2024 14:38 | WG2405767 |
| Iron | 26.6 | J | 9.56 | 100 | 1 | 11/23/2024 14:38 | WG2405767 |
| Lithium | 1260 | | 3.80 | 15.0 | 1 | 11/23/2024 14:38 | WG2405767 |
| Magnesium | 1510000 | | 378 | 5000 | 5 | 11/23/2024 17:05 | WG2405767 |
| Manganese | 12.1 | | 0.984 | 10.0 | 1 | 11/23/2024 14:38 | WG2405767 |
| Potassium | 52100 | | 127 | 1000 | 1 | 11/23/2024 14:38 | WG2405767 |
| Sodium | 3750000 | | 875 | 5000 | 5 | 11/23/2024 17:05 | WG2405767 |

## Metals (ICPMS) by Method 200.8

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Antimony | U | | 2.84 | 10.0 | 2 | 11/23/2024 12:21 | WG2405775 |
| Arsenic | 0.375 | J | 0.306 | 2.00 | 2 | 11/23/2024 12:21 | WG2405775 |
| Barium | 14.5 | | 0.738 | 10.0 | 2 | 11/23/2024 12:21 | WG2405775 |
| Cadmium | U | | 0.304 | 2.00 | 2 | 11/23/2024 12:21 | WG2405775 |
| Chromium | U | | 11.2 | 40.0 | 2 | 11/23/2024 12:21 | WG2405775 |
| Cobalt | 12.0 | | 0.262 | 4.00 | 2 | 11/23/2024 12:21 | WG2405775 |
| Lead | U | | 0.424 | 4.00 | 2 | 11/23/2024 12:21 | WG2405775 |
| Molybdenum | 3.27 | J | 0.702 | 10.0 | 2 | 11/23/2024 12:21 | WG2405775 |
| Selenium | 59.4 | | 0.668 | 4.00 | 2 | 11/23/2024 12:21 | WG2405775 |
| Thallium | U | | 0.390 | 2.00 | 2 | 11/23/2024 12:21 | WG2405775 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result ug/l | Qualifier | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|
| Dissolved Solids | 46000000 | J3 | 1000000 | 1 | 11/20/2024 11:53 | WG2404848 |
| Dissolved Solids | 51700000 | Q | 1000000 | 1 | 11/27/2024 09:11 | WG2408608 |

Sample Narrative:

L1801382-03 WG2404848: Duplicate Analysis performed due to QC failure. Results confirm; reporting in hold data

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | 1490000 | | 4750 | 20000 | 1 | 11/20/2024 09:03 | WG2404842 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/20/2024 09:03 | WG2404842 |

Sample Narrative:

L1801382-03 WG2404842: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 300.0

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Chloride | 2180000 | | 27400 | 50000 | 50 | 11/24/2024 09:25 | WG2404512 |
| Fluoride | U | | 380 | 750 | 5 | 11/24/2024 09:12 | WG2404512 |
| Sulfate | 35600000 | | 318000 | 2500000 | 500 | 11/25/2024 18:19 | WG2404512 |

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result su | Qualifier | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|
| pH | 7.54 | T8 | 1 | 11/20/2024 18:20 | WG2405318 |

Sample Narrative:

L1801382-03 WG2405318: 7.54 at 18.3C

## Metals (ICP) by Method 200.7

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Beryllium | U | | 0.354 | 2.00 | 1 | 11/23/2024 14:39 | WG2405767 |
| Boron | 2510 | | 28.5 | 200 | 1 | 11/23/2024 14:39 | WG2405767 |
| Calcium | 451000 | | 87.9 | 1000 | 1 | 11/23/2024 14:39 | WG2405767 |
| Iron | 1610 | | 9.56 | 100 | 1 | 11/23/2024 14:39 | WG2405767 |
| Lithium | 3780 | | 3.80 | 15.0 | 1 | 11/23/2024 14:39 | WG2405767 |
| Magnesium | 3770000 | | 1510 | 20000 | 20 | 11/23/2024 17:06 | WG2405767 |
| Manganese | 1090 | | 0.984 | 10.0 | 1 | 11/23/2024 14:39 | WG2405767 |
| Potassium | 139000 | | 127 | 1000 | 1 | 11/23/2024 14:39 | WG2405767 |
| Sodium | 9290000 | | 3500 | 20000 | 20 | 11/23/2024 17:06 | WG2405767 |

## Metals (ICPMS) by Method 200.8

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Antimony | 2.96 | J | 2.84 | 10.0 | 2 | 11/23/2024 12:24 | WG2405775 |
| Arsenic | 1.62 | J | 0.306 | 2.00 | 2 | 11/23/2024 12:24 | WG2405775 |
| Barium | 15.3 | | 0.738 | 10.0 | 2 | 11/23/2024 12:24 | WG2405775 |
| Cadmium | U | | 0.304 | 2.00 | 2 | 11/23/2024 12:24 | WG2405775 |
| Chromium | U | | 11.2 | 40.0 | 2 | 11/23/2024 12:24 | WG2405775 |
| Cobalt | 6.31 | | 0.262 | 4.00 | 2 | 11/23/2024 12:24 | WG2405775 |
| Lead | U | | 0.424 | 4.00 | 2 | 11/23/2024 12:24 | WG2405775 |

## Metals (ICPMS) by Method 200.8

| Analyte | Result<br>ug/l | Qualifier | MDL<br>ug/l | RDL<br>ug/l | Dilution | Analysis<br>date / time | Batch |
|---|---|---|---|---|---|---|---|
| Molybdenum | 2.08 | J | 0.702 | 10.0 | 2 | 11/23/2024 12:24 | WG2405775 |
| Selenium | U | | 0.668 | 4.00 | 2 | 11/23/2024 12:24 | WG2405775 |
| Thallium | U | | 0.390 | 2.00 | 2 | 11/23/2024 12:24 | WG2405775 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 33900000 | | 400000 | 1 | 11/20/2024 11:14 | WG2404849 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 955000 | | 4750 | 20000 | 1 | 11/20/2024 09:59 | WG2404842 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/20/2024 09:59 | WG2404842 |

**Sample Narrative:**

L1801382-04 WG2404842: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 2420000 | | 27400 | 50000 | 50 | 11/24/2024 22:25 | WG2404909 |
| Fluoride | U | | 380 | 750 | 5 | 11/25/2024 21:27 | WG2404909 |
| Sulfate | 20800000 | | 637000 | 5000000 | 1000 | 11/25/2024 03:48 | WG2404909 |

**Sample Narrative:**

L1801382-04 WG2404909: Dilution due to matrix impact on instrumentation at lower dilution

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.73 | T8 | 1 | 11/20/2024 18:20 | WG2405318 |

**Sample Narrative:**

L1801382-04 WG2405318: 7.73 at 18.4C

## Metals (ICP) by Method 200.7

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Beryllium | U | | 0.354 | 2.00 | 1 | 11/23/2024 14:44 | WG2405767 |
| Boron | 1260 | | 28.5 | 200 | 1 | 11/23/2024 14:44 | WG2405767 |
| Calcium | 433000 | | 87.9 | 1000 | 1 | 11/23/2024 14:44 | WG2405767 |
| Iron | 50.8 | J | 9.56 | 100 | 1 | 11/23/2024 14:44 | WG2405767 |
| Lithium | 1780 | | 3.80 | 15.0 | 1 | 11/23/2024 14:44 | WG2405767 |
| Magnesium | 2580000 | | 756 | 10000 | 10 | 11/23/2024 17:08 | WG2405767 |
| Manganese | 34.2 | | 0.984 | 10.0 | 1 | 11/23/2024 14:44 | WG2405767 |
| Potassium | 76700 | | 127 | 1000 | 1 | 11/23/2024 14:44 | WG2405767 |
| Sodium | 5260000 | | 1750 | 10000 | 10 | 11/23/2024 17:08 | WG2405767 |

## Metals (ICPMS) by Method 200.8

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Antimony | 2.89 | J | 2.84 | 10.0 | 2 | 11/23/2024 12:27 | WG2405775 |
| Arsenic | 0.425 | J | 0.306 | 2.00 | 2 | 11/23/2024 12:27 | WG2405775 |
| Barium | 17.8 | | 0.738 | 10.0 | 2 | 11/23/2024 12:27 | WG2405775 |
| Cadmium | U | | 0.304 | 2.00 | 2 | 11/23/2024 12:27 | WG2405775 |
| Chromium | U | | 11.2 | 40.0 | 2 | 11/23/2024 12:27 | WG2405775 |
| Cobalt | 0.506 | J | 0.262 | 4.00 | 2 | 11/23/2024 12:27 | WG2405775 |
| Lead | U | | 0.424 | 4.00 | 2 | 11/23/2024 12:27 | WG2405775 |
| Molybdenum | 3.82 | J | 0.702 | 10.0 | 2 | 11/23/2024 12:27 | WG2405775 |

## Metals (ICPMS) by Method 200.8

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Selenium | 203 | | 0.668 | 4.00 | 2 | 11/23/2024 12:27 | WG2405775 |
| Thallium | 1.15 | J | 0.390 | 2.00 | 2 | 11/23/2024 12:27 | WG2405775 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result ug/l | Qualifier | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|
| Dissolved Solids | ND | | 10000 | 1 | 11/20/2024 11:14 | WG2404849 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | U | | 4750 | 20000 | 1 | 11/20/2024 10:03 | WG2404842 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/20/2024 10:03 | WG2404842 |

Sample Narrative:

L1801382-05 WG2404842: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 300.0

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Chloride | U | | 547 | 1000 | 1 | 11/24/2024 22:38 | WG2404909 |
| Fluoride | U | | 76.1 | 150 | 1 | 11/24/2024 22:38 | WG2404909 |
| Sulfate | U | | 637 | 5000 | 1 | 11/24/2024 22:38 | WG2404909 |

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result su | Qualifier | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|
| pH | 6.44 | T8 | 1 | 11/20/2024 21:35 | WG2405390 |

Sample Narrative:

L1801382-05 WG2405390: 6.44 at 20.7C

## Mercury by Method 245.1

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Mercury | U | | 0.130 | 0.200 | 1 | 11/22/2024 13:54 | WG2405193 |

## Metals (ICP) by Method 200.7

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Beryllium | U | | 0.354 | 2.00 | 1 | 11/23/2024 14:46 | WG2405767 |
| Boron | U | | 28.5 | 200 | 1 | 11/23/2024 14:46 | WG2405767 |
| Calcium | U | | 87.9 | 1000 | 1 | 11/23/2024 14:46 | WG2405767 |
| Iron | 34.7 | J | 9.56 | 100 | 1 | 11/23/2024 14:46 | WG2405767 |
| Lithium | U | | 3.80 | 15.0 | 1 | 11/23/2024 14:46 | WG2405767 |
| Magnesium | 122 | J | 75.6 | 1000 | 1 | 11/23/2024 14:46 | WG2405767 |
| Manganese | 1.02 | J | 0.984 | 10.0 | 1 | 11/23/2024 14:46 | WG2405767 |
| Potassium | U | | 127 | 1000 | 1 | 11/23/2024 14:46 | WG2405767 |
| Sodium | 798 | J | 175 | 1000 | 1 | 11/23/2024 14:46 | WG2405767 |

## Metals (ICPMS) by Method 200.8

| Analyte | Result ug/l | Qualifier | MDL ug/l | RDL ug/l | Dilution | Analysis date / time | Batch |
|---|---|---|---|---|---|---|---|
| Antimony | U | | 1.42 | 5.00 | 1 | 11/23/2024 12:31 | WG2405775 |
| Arsenic | U | | 0.153 | 1.00 | 1 | 11/23/2024 12:31 | WG2405775 |
| Barium | U | | 0.369 | 5.00 | 1 | 11/23/2024 12:31 | WG2405775 |
| Cadmium | U | | 0.152 | 1.00 | 1 | 11/23/2024 12:31 | WG2405775 |
| Chromium | 7.24 | J | 5.60 | 20.0 | 1 | 11/23/2024 12:31 | WG2405775 |
| Cobalt | U | | 0.131 | 2.00 | 1 | 11/23/2024 12:31 | WG2405775 |

## Metals (ICPMS) by Method 200.8

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Lead | U | | 0.212 | 2.00 | 1 | 11/23/2024 12:31 | WG2405775 |
| Molybdenum | 0.884 | J | 0.351 | 5.00 | 1 | 11/23/2024 12:31 | WG2405775 |
| Selenium | U | | 0.334 | 2.00 | 1 | 11/23/2024 12:31 | WG2405775 |
| Thallium | U | | 0.195 | 1.00 | 1 | 11/23/2024 12:31 | WG2405775 |

## Method Blank (MB)

(MB) R4149699-1 11/20/24 11:53

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Dissolved Solids | U | | 10000 | 10000 |

## L1801201-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801201-01 11/20/24 11:53 • (DUP) R4149699-3 11/20/24 11:53

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Dissolved Solids | 3490000 | 3430000 | 1 | 1.73 | | 10 |

## L1801382-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1801382-03 11/20/24 11:53 • (DUP) R4149699-4 11/20/24 11:53

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Dissolved Solids | 46000000 | 52000000 | 1 | 12.2 | J3 | 10 |

Sample Narrative:

OS: Duplicate Analysis performed due to QC failure. Results confirm; reporting in hold data

## Laboratory Control Sample (LCS)

(LCS) R4149699-2 11/20/24 11:53

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | ug/l | ug/l | % | % | |
| Dissolved Solids | 8800000 | 8730000 | 99.2 | 85.0-115 | |

## Method Blank (MB)

(MB) R4149597-1 11/20/24 11:14

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Dissolved Solids | U | | 10000 | 10000 |

## L1801311-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801311-01 11/20/24 11:14 • (DUP) R4149597-3 11/20/24 11:14

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Dissolved Solids | 498000 | 524000 | 1 | 5.09 | | 10 |

## L1801575-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801575-01 11/20/24 11:14 • (DUP) R4149597-4 11/20/24 11:14

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Dissolved Solids | 4770000 | 4760000 | 1 | 0.210 | | 10 |

## Laboratory Control Sample (LCS)

(LCS) R4149597-2 11/20/24 11:14

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | ug/l | ug/l | % | % | |
| Dissolved Solids | 8800000 | 8870000 | 101 | 85.0-115 | |

## Method Blank (MB)

(MB) R4151916-1 11/27/24 09:11

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Dissolved Solids | U | | 10000 | 10000 |

## L1803398-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1803398-01 11/27/24 09:11 • (DUP) R4151916-4 11/27/24 09:11

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 53700000 | 53000000 | 1 | 1.31 | | 10 |

## Laboratory Control Sample (LCS)

(LCS) R4151916-2 11/27/24 09:11

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Dissolved Solids | 8800000 | 9010000 | 102 | 85.0-115 | |

## Method Blank (MB)

(MB) R4148556-2 11/20/24 07:13

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Alkalinity,Bicarbonate | U | | 4750 | 20000 |
| Alkalinity,Carbonate | U | | 4750 | 20000 |

Sample Narrative:

BLANK: Endpoint pH 4.5

## L1800893-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1800893-17 11/20/24 07:19 • (DUP) R4148556-3 11/20/24 07:25

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | 103000 | 101000 | 1 | 1.24 | | 20 |
| Alkalinity,Carbonate | U | U | 1 | 0.000 | | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

## L1801219-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801219-01 11/20/24 09:38 • (DUP) R4148556-4 11/20/24 09:44

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | 186000 | 196000 | 1 | 5.44 | | 20 |
| Alkalinity,Carbonate | 27900 | 18500 | 1 | 40.5 | J P1 | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

## Method Blank (MB)

(MB) R4150143-1 11/23/24 21:48

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 547 | 1000 |
| Fluoride | U | | 76.1 | 150 |
| Sulfate | U | | 637 | 5000 |

## L1800831-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800831-01 11/24/24 02:45 • (DUP) R4150143-3 11/24/24 02:58

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 20000 | 20300 | 1 | 1.30 | | 15 |
| Fluoride | 611 | 631 | 1 | 3.16 | | 15 |
| Sulfate | 15100 | 15400 | 1 | 1.95 | | 15 |

## L1801231-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801231-01 11/24/24 03:36 • (DUP) R4150143-6 11/24/24 03:49

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 7340 | 7270 | 1 | 0.865 | | 15 |
| Fluoride | 603 | 606 | 1 | 0.397 | | 15 |
| Sulfate | 8980 | 9110 | 1 | 1.46 | | 15 |

## Laboratory Control Sample (LCS)

(LCS) R4150143-2 11/23/24 22:01

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Chloride | 40000 | 39200 | 98.0 | 90.0-110 | |
| Fluoride | 8000 | 8140 | 102 | 90.0-110 | |
| Sulfate | 40000 | 39200 | 98.1 | 90.0-110 | |

## L1800831-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800831-01 11/24/24 02:45 • (MS) R4150143-4 11/24/24 03:11 • (MSD) R4150143-5 11/24/24 03:23

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 20000 | 57600 | 57900 | 94.0 | 94.5 | 1 | 90.0-110 | | | 0.358 | 15 |
| Fluoride | 8000 | 611 | 8850 | 8850 | 103 | 103 | 1 | 90.0-110 | | | 0.0960 | 15 |
| Sulfate | 40000 | 15100 | 54100 | 54100 | 97.4 | 97.4 | 1 | 90.0-110 | | | 0.0244 | 15 |

## L1801231-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1801231-01 11/24/24 03:36 • (MS) R4150143-7 11/24/24 04:02

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 7340 | 46800 | 98.6 | 1 | 90.0-110 | |
| Fluoride | 8000 | 603 | 8890 | 104 | 1 | 90.0-110 | |
| Sulfate | 40000 | 8980 | 48800 | 99.5 | 1 | 90.0-110 | |

## Method Blank (MB)

(MB) R4150299-1 11/24/24 21:58

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 547 | 1000 |
| Fluoride | U | | 76.1 | 150 |
| Sulfate | U | | 637 | 5000 |

## L1801382-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1801382-05 11/24/24 22:38 • (DUP) R4150299-3 11/25/24 05:09

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | U | U | 1 | 0.000 | | 15 |
| Fluoride | U | U | 1 | 0.000 | | 15 |
| Sulfate | U | U | 1 | 0.000 | | 15 |

## L1801458-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801458-01 11/24/24 23:32 • (DUP) R4150299-6 11/25/24 05:49

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 14000 | 13900 | 1 | 0.372 | | 15 |
| Fluoride | 133 | 190 | 1 | 35.2 | P1 | 15 |
| Sulfate | 8970 | 8740 | 1 | 2.56 | | 15 |

## Laboratory Control Sample (LCS)

(LCS) R4150299-2 11/24/24 22:12

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Chloride | 40000 | 43300 | 108 | 90.0-110 | |
| Fluoride | 8000 | 8800 | 110 | 90.0-110 | |
| Sulfate | 40000 | 43200 | 108 | 90.0-110 | |

## L1801382-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1801382-05 11/24/24 22:38 • (MS) R4150299-4 11/25/24 05:22 • (MSD) R4150299-5 11/25/24 05:36

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | U | 40300 | 40300 | 101 | 101 | 1 | 90.0-110 | | | 0.167 | 15 |
| Fluoride | 8000 | U | 8060 | 8120 | 101 | 102 | 1 | 90.0-110 | | | 0.800 | 15 |
| Sulfate | 40000 | U | 40800 | 40600 | 102 | 101 | 1 | 90.0-110 | | | 0.482 | 15 |

## L1801458-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1801458-01 11/24/24 23:32 • (MS) R4150299-7 11/25/24 06:03

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 14000 | 53000 | 97.6 | 1 | 90.0-110 | |
| Fluoride | 8000 | 133 | 8350 | 103 | 1 | 90.0-110 | |
| Sulfate | 40000 | 8970 | 48200 | 98.1 | 1 | 90.0-110 | |

## L1801010-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1801010-02 11/20/24 18:20 • (DUP) R4148622-2 11/20/24 18:20

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.88 | 7.89 | 1 | 0.127 | | 1 |

Sample Narrative:

OS: 7.88 at 18.2C

DUP: 7.89 at 18.2C

## L1801709-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1801709-03 11/20/24 18:20 • (DUP) R4148622-3 11/20/24 18:20

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 8.30 | 8.29 | 1 | 0.121 | | 1 |

Sample Narrative:

OS: 8.3 at 18.6C

DUP: 8.29 at 18.6C

## Laboratory Control Sample (LCS)

(LCS) R4148622-1 11/20/24 18:20

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | su | su | % | % | |
| pH | 10.0 | 9.97 | 99.7 | 99.0-101 | |

Sample Narrative:

LCS: 9.97 at 19.6C

## L1800938-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800938-01 11/20/24 21:35 • (DUP) R4148673-2 11/20/24 21:35

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.71 | 7.71 | 1 | 0.000 | | 1 |

Sample Narrative:

OS: 7.71 at 21.6C

DUP: 7.71 at 21.4C

## L1801924-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801924-01 11/20/24 21:35 • (DUP) R4148673-3 11/20/24 21:35

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.92 | 7.96 | 1 | 0.504 | | 1 |

Sample Narrative:

OS: 7.92 at 19.5C

DUP: 7.96 at 19.6C

## Laboratory Control Sample (LCS)

(LCS) R4148673-1 11/20/24 21:35

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | su | su | % | % | |
| pH | 10.0 | 9.99 | 99.9 | 99.0-101 | |

Sample Narrative:

LCS: 9.99 at 19.9C

## Method Blank (MB)

(MB) R4149676-1 11/22/24 12:44

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Mercury | U | | 0.130 | 0.200 |

## Laboratory Control Sample (LCS)

(LCS) R4149676-2 11/22/24 12:46

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Mercury | 3.00 | 3.17 | 106 | 85.0-115 | |

## L1800155-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800155-01 11/22/24 12:49 • (MS) R4149676-4 11/22/24 12:54 • (MSD) R4149676-5 11/22/24 12:56

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 3.00 | U | 3.20 | 3.23 | 107 | 108 | 1 | 70.0-130 | | | 0.974 | 20 |

## L1801158-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1801158-01 11/22/24 12:59 • (MS) R4149676-6 11/22/24 13:01 • (MSD) R4149676-7 11/22/24 13:09

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 3.00 | U | 3.14 | 3.06 | 105 | 102 | 1 | 70.0-130 | | | 2.68 | 20 |

## Method Blank (MB)

(MB) R4149889-1 11/23/24 14:04

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Beryllium | U | | 0.354 | 2.00 |
| Boron | U | | 28.5 | 200 |
| Calcium | U | | 87.9 | 1000 |
| Iron | U | | 9.56 | 100 |
| Lithium | U | | 3.80 | 15.0 |
| Magnesium | U | | 75.6 | 1000 |
| Manganese | U | | 0.984 | 10.0 |
| Potassium | U | | 127 | 1000 |
| Sodium | U | | 175 | 1000 |

## Laboratory Control Sample (LCS)

(LCS) R4149889-2 11/23/24 14:06

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Beryllium | 1000 | 929 | 92.9 | 85.0-115 | |
| Boron | 1000 | 918 | 91.8 | 85.0-115 | |
| Calcium | 10000 | 9500 | 95.0 | 85.0-115 | |
| Iron | 10000 | 9500 | 95.0 | 85.0-115 | |
| Lithium | 1000 | 942 | 94.2 | 85.0-115 | |
| Magnesium | 10000 | 8950 | 89.5 | 85.0-115 | |
| Manganese | 1000 | 964 | 96.4 | 85.0-115 | |
| Potassium | 10000 | 9780 | 97.8 | 85.0-115 | |
| Sodium | 10000 | 9460 | 94.6 | 85.0-115 | |

## L1801335-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1801335-01 11/23/24 14:08 • (MS) R4149889-4 11/23/24 14:11 • (MSD) R4149889-5 11/23/24 14:13

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | 1000 | U | 931 | 906 | 93.1 | 90.6 | 1 | 70.0-130 | | | 2.71 | 20 |
| Boron | 1000 | 51.6 | 975 | 948 | 92.4 | 89.7 | 1 | 70.0-130 | | | 2.80 | 20 |
| Calcium | 10000 | 20500 | 28900 | 28000 | 84.4 | 75.5 | 1 | 70.0-130 | | | 3.12 | 20 |
| Iron | 10000 | 2980 | 12400 | 12000 | 93.7 | 90.2 | 1 | 70.0-130 | | | 2.94 | 20 |
| Lithium | 1000 | 20.6 | 960 | 955 | 93.9 | 93.5 | 1 | 70.0-130 | | | 0.443 | 20 |
| Magnesium | 10000 | 12000 | 20400 | 19900 | 83.8 | 78.9 | 1 | 70.0-130 | | | 2.45 | 20 |
| Manganese | 1000 | 1260 | 2160 | 2090 | 90.7 | 83.2 | 1 | 70.0-130 | | | 3.53 | 20 |
| Potassium | 10000 | 2150 | 11700 | 11400 | 95.9 | 92.5 | 1 | 70.0-130 | | | 2.87 | 20 |
| Sodium | 10000 | 14700 | 23800 | 23400 | 90.4 | 86.3 | 1 | 70.0-130 | | | 1.76 | 20 |

## L1801340-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1801340-04 11/23/24 14:14 • (MS) R4149889-6 11/23/24 14:16 • (MSD) R4149889-7 11/23/24 14:18

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | 1000 | 0.729 | 940 | 937 | 93.9 | 93.6 | 1 | 70.0-130 | | | 0.328 | 20 |
| Boron | 1000 | 76.5 | 992 | 999 | 91.5 | 92.2 | 1 | 70.0-130 | | | 0.717 | 20 |
| Calcium | 10000 | 48100 | 60600 | 59700 | 125 | 116 | 1 | 70.0-130 | | | 1.49 | 20 |
| Iron | 10000 | 30900 | 40200 | 39900 | 93.2 | 89.6 | 1 | 70.0-130 | | | 0.904 | 20 |
| Lithium | 1000 | 11.0 | 950 | 964 | 93.9 | 95.3 | 1 | 70.0-130 | | | 1.44 | 20 |
| Magnesium | 10000 | 26400 | 35300 | 35000 | 88.6 | 85.8 | 1 | 70.0-130 | | | 0.790 | 20 |
| Manganese | 1000 | 910 | 1870 | 1850 | 96.2 | 94.3 | 1 | 70.0-130 | | | 1.04 | 20 |
| Potassium | 10000 | 2250 | 12000 | 11800 | 97.3 | 95.3 | 1 | 70.0-130 | | | 1.61 | 20 |
| Sodium | 10000 | 115000 | 126000 | 124000 | 110 | 86.7 | 1 | 70.0-130 | | | 1.88 | 20 |

## Method Blank (MB)

(MB) R4149820-1 11/23/24 05:03

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Antimony | U | | 1.42 | 5.00 |
| Arsenic | U | | 0.153 | 1.00 |
| Barium | U | | 0.369 | 5.00 |
| Cadmium | U | | 0.152 | 1.00 |
| Chromium | U | | 5.60 | 20.0 |
| Cobalt | U | | 0.131 | 2.00 |
| Lead | U | | 0.212 | 2.00 |
| Molybdenum | U | | 0.351 | 5.00 |
| Selenium | U | | 0.334 | 2.00 |
| Thallium | U | | 0.195 | 1.00 |

## Laboratory Control Sample (LCS)

(LCS) R4149820-2 11/23/24 05:06

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Antimony | 50.0 | 48.9 | 97.8 | 85.0-115 | |
| Arsenic | 50.0 | 48.5 | 97.0 | 85.0-115 | |
| Barium | 50.0 | 45.6 | 91.2 | 85.0-115 | |
| Cadmium | 50.0 | 50.3 | 101 | 85.0-115 | |
| Chromium | 50.0 | 49.5 | 99.0 | 85.0-115 | |
| Cobalt | 50.0 | 50.2 | 100 | 85.0-115 | |
| Lead | 50.0 | 47.4 | 94.8 | 85.0-115 | |
| Molybdenum | 50.0 | 48.1 | 96.2 | 85.0-115 | |
| Selenium | 50.0 | 47.8 | 95.5 | 85.0-115 | |
| Thallium | 50.0 | 47.7 | 95.4 | 85.0-115 | |

## L1801153-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1801153-01 11/23/24 05:10 • (MS) R4149820-4 11/23/24 05:17 • (MSD) R4149820-5 11/23/24 05:20

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 50.0 | U | 50.8 | 50.0 | 102 | 99.9 | 1 | 70.0-130 | | | 1.70 | 20 |
| Arsenic | 50.0 | 0.352 | 48.8 | 48.9 | 96.8 | 97.1 | 1 | 70.0-130 | | | 0.354 | 20 |
| Barium | 50.0 | 21.0 | 67.4 | 68.5 | 92.9 | 95.1 | 1 | 70.0-130 | | | 1.66 | 20 |
| Cadmium | 50.0 | U | 49.0 | 50.5 | 97.9 | 101 | 1 | 70.0-130 | | | 3.02 | 20 |
| Chromium | 50.0 | U | 50.8 | 50.8 | 102 | 102 | 1 | 70.0-130 | | | 0.0432 | 20 |
| Cobalt | 50.0 | U | 48.7 | 49.0 | 97.3 | 98.0 | 1 | 70.0-130 | | | 0.636 | 20 |
| Lead | 50.0 | 0.238 | 48.1 | 47.5 | 95.7 | 94.6 | 1 | 70.0-130 | | | 1.12 | 20 |

## L1801153-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1801153-01 11/23/24 05:10 • (MS) R4149820-4 11/23/24 05:17 • (MSD) R4149820-5 11/23/24 05:20

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Molybdenum | 50.0 | 0.758 | 50.1 | 48.9 | 98.6 | 96.2 | 1 | 70.0-130 | | | 2.43 | 20 |
| Selenium | 50.0 | 0.376 | 48.6 | 50.4 | 96.4 | 100 | 1 | 70.0-130 | | | 3.59 | 20 |
| Thallium | 50.0 | U | 48.5 | 48.2 | 96.9 | 96.3 | 1 | 70.0-130 | | | 0.612 | 20 |

## L1801565-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1801565-01 11/23/24 05:23 • (MS) R4149820-6 11/23/24 05:27 • (MSD) R4149820-7 11/23/24 05:30

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 50.0 | U | 47.8 | 48.6 | 95.5 | 97.2 | 1 | 70.0-130 | | | 1.70 | 20 |
| Arsenic | 50.0 | 0.216 | 48.3 | 48.9 | 96.1 | 97.3 | 1 | 70.0-130 | | | 1.31 | 20 |
| Barium | 50.0 | 19.3 | 64.0 | 66.8 | 89.3 | 94.9 | 1 | 70.0-130 | | | 4.26 | 20 |
| Cadmium | 50.0 | U | 51.1 | 50.7 | 102 | 101 | 1 | 70.0-130 | | | 0.827 | 20 |
| Chromium | 50.0 | U | 49.7 | 49.8 | 99.5 | 99.5 | 1 | 70.0-130 | | | 0.0630 | 20 |
| Cobalt | 50.0 | 0.347 | 50.6 | 50.4 | 101 | 100 | 1 | 70.0-130 | | | 0.515 | 20 |
| Lead | 50.0 | 0.254 | 47.6 | 47.8 | 94.8 | 95.1 | 1 | 70.0-130 | | | 0.295 | 20 |
| Molybdenum | 50.0 | U | 47.5 | 48.5 | 95.0 | 97.0 | 1 | 70.0-130 | | | 2.13 | 20 |
| Selenium | 50.0 | U | 48.3 | 47.1 | 96.5 | 94.2 | 1 | 70.0-130 | | | 2.43 | 20 |
| Thallium | 50.0 | U | 48.4 | 48.6 | 96.8 | 97.2 | 1 | 70.0-130 | | | 0.479 | 20 |

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

## Abbreviations and Definitions

| | |
|---|---|
| MDL | Method Detection Limit. |
| ND | Not detected at the Reporting Limit (or MDL where applicable). |
| RDL | Reported Detection Limit. |
| Rec. | Recovery. |
| RPD | Relative Percent Difference. |
| SDG | Sample Delivery Group. |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| Analyte | The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported. |
| Dilution | If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor. |
| Limits | These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| Qualifier | This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable. |
| Result | The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte. |
| Uncertainty (Radiochemistry) | Confidence level of 2 sigma. |
| Case Narrative (Cn) | A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report. |
| Quality Control Summary (Qc) | This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material. |
| Sample Chain of Custody (Sc) | This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis. |
| Sample Results (Sr) | This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported. |
| Sample Summary (Ss) | This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis. |

| Qualifier | Description |
|---|---|
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J3 | The associated batch QC was outside the established quality control range for precision. |
| P1 | RPD value not applicable for sample concentrations less than 5 times the reporting limit. |
| Q | Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values. |
| T8 | Sample(s) received past/too close to holding time expiration. |

# ACCREDITATIONS & LOCATIONS

## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nebraska | NE-OS-15-05 |
| Alaska | 17-026 | Nevada | TN000032021-1 |
| Arizona | AZ0612 | New Hampshire | 2975 |
| Arkansas | 88-0469 | New Jersey–NELAP | TN002 |
| California | 2932 | New Mexico [1] | TN00003 |
| Colorado | TN00003 | New York | 11742 |
| Connecticut | PH-0197 | North Carolina | Env375 |
| Florida | E87487 | North Carolina [1] | DW21704 |
| Georgia | NELAP | North Carolina [3] | 41 |
| Georgia [1] | 923 | North Dakota | R-140 |
| Idaho | TN00003 | Ohio–VAP | CL0069 |
| Illinois | 200008 | Oklahoma | 9915 |
| Indiana | C-TN-01 | Oregon | TN200002 |
| Iowa | 364 | Pennsylvania | 68-02979 |
| Kansas | E-10277 | Rhode Island | LAO000356 |
| Kentucky [1 6] | KY90010 | South Carolina | 84004002 |
| Kentucky [2] | 16 | South Dakota | n/a |
| Louisiana | AI30792 | Tennessee [1 4] | 2006 |
| Louisiana | LA018 | Texas | T104704245-20-18 |
| Maine | TN00003 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | TN000032021-11 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 110033 |
| Minnesota | 047-999-395 | Washington | C847 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 998093910 |
| Montana | CERT0086 | Wyoming | A2LA |
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC EMLAP | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | P330-15-00234 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to:
**Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT (MT) CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
**AMECTAZ-FOURCORNERS-**
ADDITIONAL

Collected by (print):
HANNAH DRAGON

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N___ Y___

***Rush?*** (Lab MUST be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed
STANDARD

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1801382

Table # K256

Acctnum: **AMECTAZ**

Template:**T261976**

Prelogin: **P1107674**

PM: **288 - Daphne Richards**

PB:

Shipped Via: **FedEX Ground**

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKCA/OH 125mlHDPE-NoPres SM2320B CO3 Alkalinity as CaCO3 | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | 4500H+B pH 250ml HDPE NoPres | HCO3 Alkalinity as CaCO3 125ml HDPE NoPres SM2320B | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW30R-1124 | | ~~GW~~ WW | | 111524 | 1353 | 5 | X | X | X | X | X | | X | X | X | X | #2 | 01 |
| FC-CCR-MW38R-1124 | | ~~WW~~ | | 111624 | 0930 | | X | X | X | X | X | | X | X | X | X | #1 | 02 |
| FC-CCR-MW57-1124 | | ~~WW~~ | | 111524 | 1650 | | X | X | X | X | X | | X | X | X | X | #1 | 03 |
| FC-CCR-MW56-1124 | | ~~WW~~ | | 111524 | 1524 | | X | X | X | X | X | | X | X | X | X | #1 | 04 |
| FC-CCR-EB01-1124 | | ~~WW~~ | | 111624 | ~~0930~~ 0930 | | X | X | X | X | X | X | X | X | X | X | #1 | 05 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, Ca, Be, Li, Fe, Mn, K, Mg, Na. } #1
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co
#2 : 200.7: B, Ca, Be, Li, Fe, Mn, K, Mg, Na
200.8: Mo, Co

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4171 6905 2514

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / (No) HCL / MeoH TBR |
|---|---|---|---|---|
| | 111924 | 1518 | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C Bottles Received: |
| | 11/18/24 | 1808 | FED EX | TLA 0.1+0=0.1 25 |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: Time: |
| | | | PNPAZ | 11/19/24 0906 |

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

# ANALYTICAL REPORT

November 25, 2024

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

## WSP (Formely Wood E&I)-Phoenix, AZ

| | |
|---|---|
| Sample Delivery Group: | L1801388 |
| Samples Received: | 11/19/2024 |
| Project Number: | US0023513.6155 |
| Description: | APS Four Corners |

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



**Pace Analytical National**
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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Cn: Case Narrative 4

Sr: Sample Results 5

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Gl: Glossary of Terms 8

Al: Accreditations & Locations 9

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## FC-CCR-BASWR-1124 L1801388-01 WW

Collected by: Hannah Dragon
Collected date/time: 11/15/24 15:12
Received date/time: 11/19/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Wet Chemistry by Method 300.0 | WG2404909 | 5 | 11/24/24 22:52 | 11/24/24 22:52 | DLH | Mt. Juliet, TN |

## FC-CCR-LOWVOLUME WASTE TANK-1124 L1801388-02 WW

Collected by: Hannah Dragon
Collected date/time: 11/15/24 15:19
Received date/time: 11/19/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Wet Chemistry by Method 300.0 | WG2404909 | 5 | 11/24/24 23:05 | 11/24/24 23:05 | DLH | Mt. Juliet, TN |

# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Fluoride | 2750 | | 380 | 750 | 5 | 11/24/2024 22:52 | WG2404909 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Fluoride | 810 | | 380 | 750 | 5 | 11/24/2024 23:05 | WG2404909 |

## Method Blank (MB)

(MB) R4150299-1 11/24/24 21:58

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Fluoride | U | | 76.1 | 150 |

## L1801382-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1801382-05 11/24/24 22:38 • (DUP) R4150299-3 11/25/24 05:09

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Fluoride | U | U | 1 | 0.000 | | 15 |

## L1801458-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801458-01 11/24/24 23:32 • (DUP) R4150299-6 11/25/24 05:49

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Fluoride | 133 | 190 | 1 | 35.2 | P1 | 15 |

## Laboratory Control Sample (LCS)

(LCS) R4150299-2 11/24/24 22:12

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Fluoride | 8000 | 8800 | 110 | 90.0-110 | |

## L1801382-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1801382-05 11/24/24 22:38 • (MS) R4150299-4 11/25/24 05:22 • (MSD) R4150299-5 11/25/24 05:36

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 8000 | U | 8060 | 8120 | 101 | 102 | 1 | 90.0-110 | | | 0.800 | 15 |

## L1801458-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1801458-01 11/24/24 23:32 • (MS) R4150299-7 11/25/24 06:03

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Fluoride | 8000 | 133 | 8350 | 103 | 1 | 90.0-110 | |

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

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## Abbreviations and Definitions

| | |
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| RPD | Relative Percent Difference. |
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| Analyte | The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported. |
| Dilution | If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor. |
| Limits | These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| Qualifier | This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable. |
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| Sample Summary (Ss) | This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis. |

| Qualifier | Description |
|---|---|
| P1 | RPD value not applicable for sample concentrations less than 5 times the reporting limit. |

# ACCREDITATIONS & LOCATIONS

## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nebraska | NE-OS-15-05 |
| Alaska | 17-026 | Nevada | TN000032021-1 |
| Arizona | AZ0612 | New Hampshire | 2975 |
| Arkansas | 88-0469 | New Jersey–NELAP | TN002 |
| California | 2932 | New Mexico [1] | TN00003 |
| Colorado | TN00003 | New York | 11742 |
| Connecticut | PH-0197 | North Carolina | Env375 |
| Florida | E87487 | North Carolina [1] | DW21704 |
| Georgia | NELAP | North Carolina [3] | 41 |
| Georgia [1] | 923 | North Dakota | R-140 |
| Idaho | TN00003 | Ohio–VAP | CL0069 |
| Illinois | 200008 | Oklahoma | 9915 |
| Indiana | C-TN-01 | Oregon | TN200002 |
| Iowa | 364 | Pennsylvania | 68-02979 |
| Kansas | E-10277 | Rhode Island | LAO000356 |
| Kentucky [1 6] | KY90010 | South Carolina | 84004002 |
| Kentucky [2] | 16 | South Dakota | n/a |
| Louisiana | AI30792 | Tennessee [1 4] | 2006 |
| Louisiana | LA018 | Texas | T104704245-20-18 |
| Maine | TN00003 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | TN000032021-11 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 110033 |
| Minnesota | 047-999-395 | Washington | C847 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 998093910 |
| Montana | CERT0086 | Wyoming | A2LA |
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC EMLAP | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | P330-15-00234 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to:
**Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT (MT) CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
**AMECTAZ-FOURCORNERS**

Collected by (print):
HANNAH DRAGON

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N___ Y___

***Rush?*** (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed: STANDARD

**Quote #**

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKCA/OH 125mlHDPE-NoPres | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE-NoPres | TDS 1L-HDPE-NoPres | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-BASWR-1124 | G | WW | | 111524 | 1512 | 1 | | | | | X | | | | | 01 |
| FC-CCR-LOWVOLUMEWASTETANK-1124 | | WW | | | 1519 | 1 | | | | | X | | | | | 02 |
| | | WW | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | |

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1481388

Table # K265

Acctnum: **AMECTAZ**

Template: **T261976**

Prelogin: **P1107674**

PM: **288 - Daphne Richards**

PB:

Shipped Via: **FedEX Ground**

* Matrix:
**SS** - Soil **AIR** - Air **F** - Filter
**GW** - Groundwater **B** - Bioassay
**WW** - WasteWater
**DW** - Drinking Water
**OT** - Other_____

**Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na.**
**200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl**

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4171 6905 2514

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / (No) HCL / MeoH TBR |
|---|---|---|---|---|
| | 111824 | 1517 | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C Bottles Received: |
| | 11/18/24 | 1800 | Fed EX | TLA 0.1+0=0.1 2 |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: Time: |
| | | | | 11/19/24 0900 PNPAZ |

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 23, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW62-1024 | 0.4 ± 0.2 | 1.5 ± 0.4 | 1.9 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/11/2024 | 11/11/2024 | 11/11/2024 |
| | 4:31 | 4:31 | 4:31 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 23, 2024 (Sample Date) 14:43 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/11/2024 | 1.9 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/11/2024 | 0.4 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/11/2024 | 1.5 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75678

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW62-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 23, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW63-1024 | 0.6 ± 0.2 | < 0.8 | 0.6 ± 0.2 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/11/2024 | 11/11/2024 | 11/11/2024 |
| | 8:33 | 8:33 | 8:33 |

11/13/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 23, 2024 (Sample Date) 16:15 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/11/2024 | 0.6 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/11/2024 | 0.6 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/11/2024 | < 0.8 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

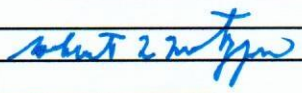
Specimen Number: RSE75679

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW63-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 23, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW64-1024 | 0.6 ± 0.2 | < 0.8 | 0.6 ± 0.2 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/11/2024 | 11/11/2024 | 11/11/2024 |
| | 12:35 | 12:35 | 12:35 |

11/13/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 23, 2024 (Sample Date) 17:10 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/11/2024 | 0.6 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/11/2024 | 0.6 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/11/2024 | < 0.8 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75680

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW64-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 23, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW65-1024 | < 0.4 | < 0.8 | < 0.8 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/11/2024 16:37 | 11/11/2024 16:37 | 11/11/2024 16:37 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 23, 2024 (Sample Date) 18:03 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/11/2024 | < 0.8 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/11/2024 | < 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/11/2024 | < 0.8 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75681

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW65-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 24, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-SW1-1024 | 0.4 ± 0.2 | < 0.8 | 0.4 ± 0.2 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/11/2024 20:39 | 11/11/2024 20:39 | 11/11/2024 20:39 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 24, 2024 (Sample Date) 13:24 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/11/2024 | 0.4 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/11/2024 | 0.4 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/11/2024 | < 0.8 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

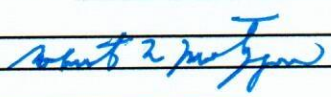
Specimen Number: RSE75682

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-SW1-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 23, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-SW2-1024 | 0.4 ± 0.2 | < 0.8 | 0.4 ± 0.2 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/12/2024 | 11/12/2024 | 11/12/2024 |
| | 0:40 | 0:40 | 0:40 |

11/13/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 23, 2024 (Sample Date) 18:10 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/12/2024 | 0.4 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/12/2024 | 0.4 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/12/2024 | < 0.8 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75683

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-SW2-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 23, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-SW3-1024 | 0.5 ± 0.2 | < 0.8 | 0.5 ± 0.2 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/12/2024 | 11/12/2024 | 11/12/2024 |
| | 4:42 | 4:42 | 4:42 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 23, 2024 (Sample Date) 15:30 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/12/2024 | 0.5 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/12/2024 | 0.5 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/12/2024 | < 0.8 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75684

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-SW3-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

## Client Information

| | |
|---|---|
| Name: | **Cameron Corley/505-860-3619**<br>**Pam Norris/505-598-8781** |
| Company | **Arizona Public Service** |
| Address | **PO Box 355, MS 4915**<br>**Fruitland, NM 87416** |
| Phone | |
| Site | **APS Four Corners Power Plant –** CWTP |

## Radiation Safety Engineering, Inc.

3245 North Washington Street, Chandler, Arizona 85225

**Analysis Request**

| Sample ID & Location (DWR#) | Collection Date | Collection Time | Media (DW* WW* Other) | Drinking Water Compliance | Gross Alpha | Gross Beta | Total Uranium | Isotopic Uranium | Ra-226 | Ra-228 | Ra-226 + Ra-228, Combined | H-3 | Gamma Spectroscopy | Sr-89/Sr-90 | Radon in Water | Radon in Air |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW02-1024 | 102324 | 1443 | GW | | | | | | X | X | X | | | | 75678 | |
| FC-CCR-MW03-1024 | " | 1615 | " | | | | | | X | X | X | | | | 75679 | |
| FC-CCR-MW04-1024 | " | 1710 | " | | | | | | X | X | X | | | | 75680 | |
| FC-CCR-MW05-1024 | " | 1403 | " | | | | | | X | X | X | | | | 75681 | |
| ~~FC-CCR-MW~~ | | | | | | | | | | | | | | | | |
| FC-CCR-SW1-1024 | 102424 | 1324 | SW | | | | | | X | X | X | | | | 75682 | |
| FC-CCR-SW2-1024 | 102324 | 1810 | " | | | | | | X | X | X | | | | 75683 | |
| FC-CCR-SW3-1024 | " | 1530 | " | | | | | | X | X | X | | | | 75684 | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| **Sample Receipt** | |
|---|---|
| Total No. of Containers | |
| Chain of Custody Seals | |
| Container Condition | |
| Lab No. | |

Invoice to:
PO#: 100622094

Instructions/Comments
**Method HPGe**

| | | | | | | |
|---|---|---|---|---|---|---|
| Relinguished By: | Company: WSP | Date/time: 10 31 24 15 30 | Received By: | | Company: RSE | Date/time: 10/31/24 3:30 |
| Relinguished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |
| Relinguished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

*u/client/forms/cofc.frm*

# ANALYTICAL REPORT

November 20, 2024

Revised Report

## WSP (Formely Wood E&I)-Phoenix, AZ

| | |
|---|---|
| Sample Delivery Group: | L1793200 |
| Samples Received: | 10/26/2024 |
| Project Number: | US0023513.6155 |
| Description: | |

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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## FC-CCR-MW62-1024 L1793200-01 GW

Collected by | Collected date/time 10/23/24 14:43 | Received date/time 10/26/24 09:30

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390377 | 1 | 10/27/24 09:38 | 10/28/24 12:05 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2390505 | 1 | 10/28/24 11:03 | 10/28/24 11:03 | ARD | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390655 | 1 | 10/28/24 10:50 | 10/28/24 10:50 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390368 | 50 | 11/01/24 04:10 | 11/01/24 04:10 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393140 | 1 | 11/13/24 00:00 | 11/13/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-SW1-1024 L1793200-02 GW

Collected by | Collected date/time 10/24/24 13:24 | Received date/time 10/26/24 09:30

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390377 | 1 | 10/27/24 09:38 | 10/28/24 12:05 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2390505 | 1 | 10/28/24 11:07 | 10/28/24 11:07 | ARD | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390655 | 1 | 10/28/24 10:50 | 10/28/24 10:50 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390371 | 1 | 11/01/24 12:52 | 11/01/24 12:52 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390371 | 10 | 11/01/24 13:09 | 11/01/24 13:09 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393140 | 1 | 11/13/24 00:00 | 11/13/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW63-1024 L1793200-03 GW

Collected by | Collected date/time 10/23/24 16:15 | Received date/time 10/26/24 09:30

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390377 | 1 | 10/27/24 09:38 | 10/28/24 12:05 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2390505 | 1 | 10/28/24 11:15 | 10/28/24 11:15 | ARD | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390655 | 1 | 10/28/24 10:50 | 10/28/24 10:50 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390371 | 1 | 11/01/24 13:27 | 11/01/24 13:27 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390371 | 10 | 11/01/24 13:44 | 11/01/24 13:44 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393140 | 1 | 11/13/24 00:00 | 11/13/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW64-1024 L1793200-04 GW

Collected by | Collected date/time 10/23/24 17:10 | Received date/time 10/26/24 09:30

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390377 | 1 | 10/27/24 09:38 | 10/28/24 12:05 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2390505 | 1 | 10/28/24 11:20 | 10/28/24 11:20 | ARD | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390655 | 1 | 10/28/24 10:50 | 10/28/24 10:50 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390371 | 1 | 11/01/24 14:02 | 11/01/24 14:02 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393140 | 1 | 11/13/24 00:00 | 11/13/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW65-1024 L1793200-05 GW

Collected by | Collected date/time 10/23/24 18:03 | Received date/time 10/26/24 09:30

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390377 | 1 | 10/27/24 09:38 | 10/28/24 12:05 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2390505 | 1 | 10/28/24 11:54 | 10/28/24 11:54 | ARD | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390655 | 1 | 10/28/24 10:50 | 10/28/24 10:50 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390371 | 1 | 11/01/24 15:11 | 11/01/24 15:11 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390371 | 10 | 11/01/24 15:29 | 11/01/24 15:29 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393140 | 1 | 11/13/24 00:00 | 11/13/24 00:00 | - | Minneapolis, MN 55414 |

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

## FC-CCR-SW2-1024 L1793200-06 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/23/24 18:10 | 10/26/24 09:30 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390367 | 1 | 10/27/24 09:30 | 10/28/24 15:36 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2390505 | 1 | 10/28/24 11:58 | 10/28/24 11:58 | ARD | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390886 | 1 | 10/29/24 07:25 | 10/29/24 07:25 | KA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390371 | 1 | 11/01/24 15:46 | 11/01/24 15:46 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390371 | 10 | 11/01/24 16:04 | 11/01/24 16:04 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393140 | 1 | 11/13/24 00:00 | 11/13/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-SW3-1024 L1793200-07 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/23/24 15:30 | 10/26/24 09:30 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390367 | 1 | 10/27/24 09:30 | 10/28/24 15:36 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2390505 | 1 | 10/28/24 12:05 | 10/28/24 12:05 | ARD | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390886 | 1 | 10/29/24 07:25 | 10/29/24 07:25 | KA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390371 | 1 | 11/01/24 16:21 | 11/01/24 16:21 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390371 | 10 | 11/01/24 17:13 | 11/01/24 17:13 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393140 | 1 | 11/13/24 00:00 | 11/13/24 00:00 | - | Minneapolis, MN 55414 |

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

## Report Revision History

Level II Report - Version 1: 11/19/24 16:21

## Project Narrative

Reissue report
L1793200 -01, -02, -03, -04, -05, -06, -07 contains subout data that is included after the chain of custody.

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 7650000 | | 100000 | 1 | 10/28/2024 12:05 | WG2390377 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 1120000 | | 4750 | 20000 | 1 | 10/28/2024 11:03 | WG2390505 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 10/28/2024 11:03 | WG2390505 |

Sample Narrative:

L1793200-01 WG2390505: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.18 | T8 | 1 | 10/28/2024 10:50 | WG2390655 |

Sample Narrative:

L1793200-01 WG2390655: 7.18 at 19.9C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 198000 | | 27400 | 50000 | 50 | 11/01/2024 04:10 | WG2390368 |
| Fluoride | 9670 | | 3800 | 7500 | 50 | 11/01/2024 04:10 | WG2390368 |
| Sulfate | 4040000 | | 31800 | 250000 | 50 | 11/01/2024 04:10 | WG2390368 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 797000 | | 13300 | 1 | 10/28/2024 12:05 | WG2390377 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 108000 | | 4750 | 20000 | 1 | 10/28/2024 11:07 | WG2390505 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 10/28/2024 11:07 | WG2390505 |

Sample Narrative:

L1793200-02 WG2390505: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 8.44 | T8 | 1 | 10/28/2024 10:50 | WG2390655 |

Sample Narrative:

L1793200-02 WG2390655: 8.44 at 19.9C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 49400 | | 547 | 1000 | 1 | 11/01/2024 12:52 | WG2390371 |
| Fluoride | 806 | | 76.1 | 150 | 1 | 11/01/2024 12:52 | WG2390371 |
| Sulfate | 419000 | | 6370 | 50000 | 10 | 11/01/2024 13:09 | WG2390371 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 2240000 | | 50000 | 1 | 10/28/2024 12:05 | WG2390377 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 227000 | | 4750 | 20000 | 1 | 10/28/2024 11:15 | WG2390505 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 10/28/2024 11:15 | WG2390505 |

Sample Narrative:

L1793200-03 WG2390505: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.58 | T8 | 1 | 10/28/2024 10:50 | WG2390655 |

Sample Narrative:

L1793200-03 WG2390655: 7.58 at 19.8C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 74300 | | 547 | 1000 | 1 | 11/01/2024 13:27 | WG2390371 |
| Fluoride | 2550 | | 76.1 | 150 | 1 | 11/01/2024 13:27 | WG2390371 |
| Sulfate | 1360000 | | 6370 | 50000 | 10 | 11/01/2024 13:44 | WG2390371 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 257000 | | 10000 | 1 | 10/28/2024 12:05 | WG2390377 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 108000 | | 4750 | 20000 | 1 | 10/28/2024 11:20 | WG2390505 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 10/28/2024 11:20 | WG2390505 |

Sample Narrative:

L1793200-04 WG2390505: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 8.02 | T8 | 1 | 10/28/2024 10:50 | WG2390655 |

Sample Narrative:

L1793200-04 WG2390655: 8.02 at 19.9C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 10900 | | 547 | 1000 | 1 | 11/01/2024 14:02 | WG2390371 |
| Fluoride | 759 | | 76.1 | 150 | 1 | 11/01/2024 14:02 | WG2390371 |
| Sulfate | 80700 | J6 | 637 | 5000 | 1 | 11/01/2024 14:02 | WG2390371 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 1610000 | | 25000 | 1 | 10/28/2024 12:05 | WG2390377 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 348000 | | 4750 | 20000 | 1 | 10/28/2024 11:54 | WG2390505 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 10/28/2024 11:54 | WG2390505 |

Sample Narrative:

L1793200-05 WG2390505: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.69 | T8 | 1 | 10/28/2024 10:50 | WG2390655 |

Sample Narrative:

L1793200-05 WG2390655: 7.69 at 19.9C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 103000 | | 547 | 1000 | 1 | 11/01/2024 15:11 | WG2390371 |
| Fluoride | 1650 | | 76.1 | 150 | 1 | 11/01/2024 15:11 | WG2390371 |
| Sulfate | 752000 | | 6370 | 50000 | 10 | 11/01/2024 15:29 | WG2390371 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 793000 | | 13300 | 1 | 10/28/2024 15:36 | WG2390367 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 109000 | | 4750 | 20000 | 1 | 10/28/2024 11:58 | WG2390505 |
| Alkalinity,Carbonate | 5500 | J | 4750 | 20000 | 1 | 10/28/2024 11:58 | WG2390505 |

Sample Narrative:

L1793200-06 WG2390505: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 8.42 | T8 | 1 | 10/29/2024 07:25 | WG2390886 |

Sample Narrative:

L1793200-06 WG2390886: 8.42 at 19.5C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 52000 | | 547 | 1000 | 1 | 11/01/2024 15:46 | WG2390371 |
| Fluoride | 1120 | | 76.1 | 150 | 1 | 11/01/2024 15:46 | WG2390371 |
| Sulfate | 439000 | | 6370 | 50000 | 10 | 11/01/2024 16:04 | WG2390371 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 784000 | | 13300 | 1 | 10/28/2024 15:36 | WG2390367 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 106000 | | 4750 | 20000 | 1 | 10/28/2024 12:05 | WG2390505 |
| Alkalinity,Carbonate | 5150 | J | 4750 | 20000 | 1 | 10/28/2024 12:05 | WG2390505 |

Sample Narrative:

L1793200-07 WG2390505: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 8.42 | T8 | 1 | 10/29/2024 07:25 | WG2390886 |

Sample Narrative:

L1793200-07 WG2390886: 8.42 at 19.6C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 49700 | | 547 | 1000 | 1 | 11/01/2024 16:21 | WG2390371 |
| Fluoride | 889 | | 76.1 | 150 | 1 | 11/01/2024 16:21 | WG2390371 |
| Sulfate | 426000 | | 6370 | 50000 | 10 | 11/01/2024 17:13 | WG2390371 |

## Method Blank (MB)

(MB) R4140472-1 10/28/24 15:36

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Dissolved Solids | U | | 10000 | 10000 |

## L1792903-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1792903-01 10/28/24 15:36 • (DUP) R4140472-3 10/28/24 15:36

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 1770000 | 1720000 | 1 | 2.87 | | 10 |

## L1793200-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1793200-07 10/28/24 15:36 • (DUP) R4140472-4 10/28/24 15:36

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 784000 | 768000 | 1 | 2.06 | | 10 |

## Laboratory Control Sample (LCS)

(LCS) R4140472-2 10/28/24 15:36

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Dissolved Solids | 8800000 | 8680000 | 98.6 | 85.0-115 | |

## Method Blank (MB)

(MB) R4139907-1 10/28/24 12:05

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Dissolved Solids | U | | 10000 | 10000 |

## L1793122-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793122-01 10/28/24 12:05 • (DUP) R4139907-3 10/28/24 12:05

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Dissolved Solids | 654000 | 662000 | 1 | 1.22 | | 10 |

## L1793200-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1793200-05 10/28/24 12:05 • (DUP) R4139907-4 10/28/24 12:05

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Dissolved Solids | 1610000 | 1580000 | 1 | 1.88 | | 10 |

## Laboratory Control Sample (LCS)

(LCS) R4139907-2 10/28/24 12:05

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | ug/l | ug/l | % | % | |
| Dissolved Solids | 8800000 | 8880000 | 101 | 85.0-115 | |

## Method Blank (MB)

(MB) R4138466-2 10/28/24 09:36

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Alkalinity,Bicarbonate | U | | 4750 | 20000 |
| Alkalinity,Carbonate | U | | 4750 | 20000 |

Sample Narrative:

BLANK: Endpoint pH 4.5

## L1791214-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1791214-03 10/28/24 10:02 • (DUP) R4138466-4 10/28/24 10:07

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | 60200 | 62300 | 1 | 3.57 | | 20 |
| Alkalinity,Carbonate | U | U | 1 | 0.000 | | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

## L1793159-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1793159-03 10/28/24 11:44 • (DUP) R4138466-6 10/28/24 11:49

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | U | U | 1 | 0.000 | | 20 |
| Alkalinity,Carbonate | U | U | 1 | 0.000 | | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

## L1791768-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1791768-03 10/28/24 10:50 • (DUP) R4138404-2 10/28/24 10:50

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.62 | 7.65 | 1 | 0.393 | | 1 |

Sample Narrative:

OS: 7.62 at 19.2C

DUP: 7.65 at 19.3C

## L1793200-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793200-01 10/28/24 10:50 • (DUP) R4138404-3 10/28/24 10:50

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.18 | 7.19 | 1 | 0.139 | | 1 |

Sample Narrative:

OS: 7.18 at 19.9C

DUP: 7.19 at 20C

## Laboratory Control Sample (LCS)

(LCS) R4138404-1 10/28/24 10:50

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | su | su | % | % | |
| pH | 10.0 | 9.97 | 99.7 | 99.0-101 | |

Sample Narrative:

LCS: 9.97 at 19.5C

## L1793219-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1793219-02 10/29/24 07:25 • (DUP) R4138794-2 10/29/24 07:25

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.71 | 7.71 | 1 | 0.000 | | 1 |

Sample Narrative:

OS: 7.71 at 19.4C

DUP: 7.71 at 19.4C

## Laboratory Control Sample (LCS)

(LCS) R4138794-1 10/29/24 07:25

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | su | su | % | % | |
| pH | 10.0 | 9.99 | 99.9 | 99.0-101 | |

Sample Narrative:

LCS: 9.99 at 19.7C

## Method Blank (MB)

(MB) R4140730-1 10/31/24 12:48

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Chloride | U | | 547 | 1000 |
| Fluoride | U | | 76.1 | 150 |
| Sulfate | U | | 637 | 5000 |

## L1793171-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793171-01 10/31/24 13:22 • (DUP) R4140730-3 10/31/24 13:40

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Chloride | 59300 | 59300 | 5 | 0.0312 | | 15 |
| Fluoride | 863 | 820 | 5 | 5.15 | | 15 |
| Sulfate | 851000 | 857000 | 5 | 0.719 | | 15 |

## L1793198-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1793198-09 10/31/24 22:57 • (DUP) R4140730-6 10/31/24 23:14

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Chloride | 1290000 | 1290000 | 50 | 0.232 | | 15 |
| Fluoride | U | U | 50 | 0.000 | | 15 |
| Sulfate | 9560000 | 9630000 | 50 | 0.719 | | 15 |

**Sample Narrative:**

OS: Dilution due to matrix impact on instrumentation at lower dilution

## Laboratory Control Sample (LCS)

(LCS) R4140730-2 10/31/24 13:05

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | ug/l | ug/l | % | % | |
| Chloride | 40000 | 40200 | 100 | 80.0-120 | |
| Fluoride | 8000 | 8200 | 103 | 80.0-120 | |
| Sulfate | 40000 | 40900 | 102 | 80.0-120 | |

## L1793171-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1793171-01 10/31/24 13:22 • (MS) R4140730-4 10/31/24 13:57

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 59300 | 87800 | 71.2 | 5 | 80.0-120 | J6 |
| Fluoride | 8000 | 863 | 8690 | 97.9 | 5 | 80.0-120 | |
| Sulfate | 40000 | 851000 | 731000 | 0.000 | 5 | 80.0-120 | V |

## L1793198-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1793198-09 10/31/24 22:57 • (MS) R4140730-7 10/31/24 23:32 • (MSD) R4140730-8 10/31/24 23:49

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 1290000 | 1080000 | 1060000 | 0.000 | 0.000 | 50 | 80.0-120 | V | V | 1.85 | 15 |
| Fluoride | 8000 | U | 9650 | 8950 | 121 | 112 | 50 | 80.0-120 | J5 | | 7.53 | 15 |
| Sulfate | 40000 | 9560000 | 7810000 | 7670000 | 0.000 | 0.000 | 50 | 80.0-120 | V | V | 1.90 | 15 |

Sample Narrative:

OS: Dilution due to matrix impact on instrumentation at lower dilution

## Method Blank (MB)

(MB) R4141416-1 11/01/24 12:17

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 547 | 1000 |
| Fluoride | U | | 76.1 | 150 |
| Sulfate | U | | 637 | 5000 |

## L1793200-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1793200-04 11/01/24 14:02 • (DUP) R4141416-3 11/01/24 14:19

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 10900 | 11100 | 1 | 1.19 | | 15 |
| Fluoride | 759 | 782 | 1 | 3.08 | | 15 |
| Sulfate | 80700 | 81700 | 1 | 1.18 | | 15 |

## L1793219-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793219-01 11/01/24 20:59 • (DUP) R4141416-6 11/01/24 21:17

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Fluoride | 225 | 431 | 1 | 62.8 | P1 | 15 |

## L1793219-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793219-01 11/01/24 22:09 • (DUP) R4141416-9 11/01/24 22:26

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 283000 | 290000 | 10 | 2.59 | | 15 |
| Sulfate | 667000 | 680000 | 10 | 1.94 | | 15 |

## Laboratory Control Sample (LCS)

(LCS) R4141416-2 11/01/24 12:35

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Chloride | 40000 | 39600 | 99.1 | 80.0-120 | |
| Fluoride | 8000 | 8260 | 103 | 80.0-120 | |
| Sulfate | 40000 | 40400 | 101 | 80.0-120 | |

## L1793200-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1793200-04 11/01/24 14:02 • (MS) R4141416-4 11/01/24 14:36 • (MSD) R4141416-5 11/01/24 14:54

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 10900 | 49300 | 49100 | 95.8 | 95.5 | 1 | 80.0-120 | | | 0.258 | 15 |
| Fluoride | 8000 | 759 | 8920 | 8920 | 102 | 102 | 1 | 80.0-120 | | | 0.00224 | 15 |
| Sulfate | 40000 | 80700 | 106000 | 106000 | 63.2 | 63.7 | 1 | 80.0-120 | J6 | J6 | 0.172 | 15 |

## L1793219-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1793219-01 11/01/24 20:59 • (MS) R4141416-7 11/01/24 21:34 • (MSD) R4141416-8 11/01/24 21:52

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 8000 | 225 | 8760 | 8710 | 107 | 106 | 1 | 80.0-120 | | | 0.521 | 15 |

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

## Abbreviations and Definitions

| | |
|---|---|
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| Rec. | Recovery. |
| RPD | Relative Percent Difference. |
| SDG | Sample Delivery Group. |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| Analyte | The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported. |
| Dilution | If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor. |
| Limits | These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| Qualifier | This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable. |
| Result | The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte. |
| Uncertainty (Radiochemistry) | Confidence level of 2 sigma. |
| Case Narrative (Cn) | A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report. |
| Quality Control Summary (Qc) | This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material. |
| Sample Chain of Custody (Sc) | This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis. |
| Sample Results (Sr) | This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported. |
| Sample Summary (Ss) | This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis. |

| Qualifier | Description |
|---|---|
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J5 | The sample matrix interfered with the ability to make any accurate determination; spike value is high. |
| J6 | The sample matrix interfered with the ability to make any accurate determination; spike value is low. |
| P1 | RPD value not applicable for sample concentrations less than 5 times the reporting limit. |
| T8 | Sample(s) received past/too close to holding time expiration. |
| V | The sample concentration is too high to evaluate accurate spike recoveries. |

# ACCREDITATIONS & LOCATIONS

## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nebraska | NE-OS-15-05 |
| Alaska | 17-026 | Nevada | TN000032021-1 |
| Arizona | AZ0612 | New Hampshire | 2975 |
| Arkansas | 88-0469 | New Jersey–NELAP | TN002 |
| California | 2932 | New Mexico [1] | TN00003 |
| Colorado | TN00003 | New York | 11742 |
| Connecticut | PH-0197 | North Carolina | Env375 |
| Florida | E87487 | North Carolina [1] | DW21704 |
| Georgia | NELAP | North Carolina [3] | 41 |
| Georgia [1] | 923 | North Dakota | R-140 |
| Idaho | TN00003 | Ohio–VAP | CL0069 |
| Illinois | 200008 | Oklahoma | 9915 |
| Indiana | C-TN-01 | Oregon | TN200002 |
| Iowa | 364 | Pennsylvania | 68-02979 |
| Kansas | E-10277 | Rhode Island | LAO000356 |
| Kentucky [1 6] | KY90010 | South Carolina | 84004002 |
| Kentucky [2] | 16 | South Dakota | n/a |
| Louisiana | AI30792 | Tennessee [1 4] | 2006 |
| Louisiana | LA018 | Texas | T104704245-20-18 |
| Maine | TN00003 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | TN000032021-11 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 110033 |
| Minnesota | 047-999-395 | Washington | C847 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 998093910 |
| Montana | CERT0086 | Wyoming | A2LA |
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC EMLAP | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | P330-15-00234 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to:
**Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT (MT) CT ET

Phone: **602-733-6110**

Client Project # US00023513.0155

Lab Project # **AMECTAZ-FOURCORNERS-CWTP**

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N____ Y____

***Rush?*** (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Date Results Needed

Quote #

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ~~ALKCA/OH 125mlHDPE-NoPres~~ 125ml HDPE NO PRES ~~$CO_3$ ALKALINITY as $CaCO_3$~~ SM2320B | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | 125ml HDPE NO PRES $HCO_3$ ALKALINITY as $CaCO_3$ SM2320B | 250ml HDPE NO PRES pH, SM-4500-H+B | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW02-1024 | | ~~GW~~ WW | | 102324 | 1443 | 5 | X | X | X | X | X | X | X | X | X | X | | -01 |
| FC-CCR-SW1-1024 | G | ~~WW~~ | | 102424 | 1324 | 1 | X | X | X | X | X | X | X | X | X | X | | -02 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
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| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 1793200

A054

Acctnum: **AMECTAZ**
Template: **T261976**
Prelogin: **P1107674**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

Remarks | Sample # (lab only)

* Matrix:
**SS** - Soil **AIR** - Air **F** - Filter
**GW** - Groundwater **B** - Bioassay
**WW** - WasteWater
**DW** - Drinking Water
**OT** - Other_____

**Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na.**
**200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co**

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # Multi

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR |
|---|---|---|---|---|
| | 102524 | 1020 | FED EX | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C Bottles Received: Multi |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: 10-25-24 Time: 9:30 |

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to:
**Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT (MT) CT ET

Phone: **602-733-6110**

Client Project # USCA23513.6155

Lab Project # **AMECTAZ-FOURCORNERS** – CWTP

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

***Rush?*** (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

**Quote #**

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKCA/OH-125mlHDPE-NoPres (CO3 ALKALINITY AS CaCO3, SM2320B) | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | 125ml HDPE - NoPres (HCO3 ALKALINITY AS CaCO3, SM2320B) | pH, SM4500-HB 250ml HDPE NoPres | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW03-1024 | | ~~GW~~ WW | | 102324 | 1615 | 5 | X | X | X | X | X | X | X | X | X | X | | -03 |
| FC-CCR-MW04-1024 | | ~~WW~~ | | | 1710 | | X | X | X | X | X | X | X | X | X | X | | -04 |
| FC-CCR-MW05-1024 | | ~~WW~~ | | | 1003 | | X | X | X | X | X | X | X | X | X | X | | -05 |
| FC-CCR-SW2-1024 | G | WW | | | 1010 | | X | X | X | X | X | X | X | X | X | X | | -06 |
| FC-CCR-SW3-1024 | G | ~~GW~~ WW | | | 1530 | | X | X | X | X | X | X | X | X | X | X | | -07 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

**Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na.**
**200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co**

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # mw14j

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| [signature] | 102524 | 1020 | FEDEX |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) |

Trip Blank Received: Yes / (No)
HCL / MeoH
TBR

Temp: °C Bottles Received: mw14j

Date: 10-26-24 Time: 9:30

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Sample Receipt Checklist

| | | |
|---|---|---|
| COC Seal Present/Intact: | NP | Y N |
| COC Signed/Accurate: | | Y N |
| Bottles arrive intact: | | Y N |
| Correct bottles used: | | Y N |
| Sufficient volume sent: | | Y N |
| If Applicable | | |
| VOA Zero Headspace: | | Y N |
| Preservation Correct/Checked: | | Y N |
| RAD Screen <0.5 mR/hr: | | Y N |

Chain of Custody Page 2 of 2

Pace
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 793200

Table #

Acctnum: **AMECTAZ**
Template: **T261976**
Prelogin: **P1107674**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

L1793200

| Fed Ex tracking # | Gun ID | Temperature |
|---|---|---|
| 4212 6467 0877 | TLA9 | 5.1+.3=5.4 |
| 4212 6467 0914 | TLA9 | .47.3=.7 |
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Foster
Name

10-26-24
Date

**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

November 20, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1793200 WG2393140-Revised Report
Pace Project No.: 10714208

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 01, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

This report was revised on November 20, 2024, to report to the Method Dectection Limit (MDL).

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation



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Minneapolis, MN 55414
(612)607-1700

## CERTIFICATIONS

Project: L1793200 WG2393140-Revised Report
Pace Project No.: 10714208

**Pace Analytical Services, LLC - Minneapolis MN**
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

## REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

## SAMPLE SUMMARY

Project: L1793200 WG2393140-Revised Report
Pace Project No.: 10714208

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **10714208001** | **FC-CCR-MW62-1024** | Water | 10/23/24 14:43 | 11/01/24 08:50 |
| **10714208002** | **FC-CCR-SW1-1024** | Water | 10/24/24 13:24 | 11/01/24 08:50 |
| **10714208003** | **FC-CCR-MW63-1024** | Water | 10/23/24 16:15 | 11/01/24 08:50 |
| **10714208004** | **FC-CCR-MW64-1024** | Water | 10/23/24 17:10 | 11/01/24 08:50 |
| **10714208005** | **FC-CCR-MW65-1024** | Water | 10/23/24 18:03 | 11/01/24 08:50 |
| **10714208006** | **FC-CCR-SW2-1024** | Water | 10/23/24 18:10 | 11/01/24 08:50 |
| **10714208007** | **FC-CCR-SW3-1024** | Water | 10/23/24 15:30 | 11/01/24 08:50 |



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## SAMPLE ANALYTE COUNT

Project: L1793200 WG2393140-Revised Report
Pace Project No.: 10714208

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **10714208001** | **FC-CCR-MW62-1024** | EPA 200.7 | SMB | 8 | PASI-M |
| | | EPA 200.8 | GAS1 | 10 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714208002** | **FC-CCR-SW1-1024** | EPA 200.7 | SMB | 8 | PASI-M |
| | | EPA 200.8 | GAS1 | 10 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714208003** | **FC-CCR-MW63-1024** | EPA 200.7 | SMB | 8 | PASI-M |
| | | EPA 200.8 | GAS1 | 10 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714208004** | **FC-CCR-MW64-1024** | EPA 200.7 | SMB | 8 | PASI-M |
| | | EPA 200.8 | GAS1 | 10 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714208005** | **FC-CCR-MW65-1024** | EPA 200.7 | SMB | 8 | PASI-M |
| | | EPA 200.8 | GAS1 | 10 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714208006** | **FC-CCR-SW2-1024** | EPA 200.7 | SMB | 8 | PASI-M |
| | | EPA 200.8 | GAS1 | 10 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714208007** | **FC-CCR-SW3-1024** | EPA 200.7 | SMB | 8 | PASI-M |
| | | EPA 200.8 | GAS1 | 10 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |

PASI-M = Pace Analytical Services - Minneapolis



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(612)607-1700

## ANALYTICAL RESULTS

Project: L1793200 WG2393140-Revised Report
Pace Project No.: 10714208

**Sample: FC-CCR-MW62-1024** **Lab ID: 10714208001** Collected: 10/23/24 14:43 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 12:59 | 7440-41-7 | |
| Boron | **2320** | ug/L | 150 | 16.0 | 1 | 11/04/24 13:20 | 11/12/24 12:59 | 7440-42-8 | M1 |
| Calcium | **476000** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 12:59 | 7440-70-2 | P6 |
| Iron | **12200** | ug/L | 50.0 | 7.5 | 1 | 11/04/24 13:20 | 11/12/24 12:59 | 7439-89-6 | |
| Magnesium | **474000** | ug/L | 500 | 28.9 | 1 | 11/04/24 13:20 | 11/12/24 12:59 | 7439-95-4 | P6 |
| Manganese | **5030** | ug/L | 25.0 | 2.5 | 5 | 11/04/24 13:20 | 11/12/24 14:38 | 7439-96-5 | P6 |
| Potassium | **12300** | ug/L | 2500 | 108 | 1 | 11/04/24 13:20 | 11/12/24 12:59 | 7440-09-7 | |
| Sodium | **780000** | ug/L | 5000 | 227 | 5 | 11/04/24 13:20 | 11/12/24 14:38 | 7440-23-5 | P6 |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Arsenic | **4.9** | ug/L | 0.50 | 0.12 | 1 | 11/04/24 13:11 | 11/07/24 17:58 | 7440-38-2 | |
| Barium | **21.3** | ug/L | 0.30 | 0.070 | 1 | 11/04/24 13:11 | 11/07/24 17:58 | 7440-39-3 | |
| Cadmium | **0.043J** | ug/L | 0.080 | 0.030 | 1 | 11/04/24 13:11 | 11/07/24 17:58 | 7440-43-9 | |
| Chromium | **<0.54** | ug/L | 2.0 | 0.54 | 1 | 11/04/24 13:11 | 11/07/24 17:58 | 7440-47-3 | |
| Cobalt | **4.2** | ug/L | 0.50 | 0.095 | 1 | 11/04/24 13:11 | 11/07/24 17:58 | 7440-48-4 | |
| Lead | **<0.18** | ug/L | 0.50 | 0.18 | 1 | 11/04/24 13:11 | 11/07/24 17:58 | 7439-92-1 | |
| Lithium | **117** | ug/L | 0.50 | 0.18 | 1 | 11/04/24 13:11 | 11/12/24 08:54 | 7439-93-2 | |
| Molybdenum | **2.9** | ug/L | 0.50 | 0.13 | 1 | 11/04/24 13:11 | 11/07/24 17:58 | 7439-98-7 | |
| Selenium | **0.72** | ug/L | 0.50 | 0.074 | 1 | 11/04/24 13:11 | 11/07/24 17:58 | 7782-49-2 | |
| Thallium | **0.038J** | ug/L | 0.10 | 0.026 | 1 | 11/04/24 13:11 | 11/07/24 17:58 | 7440-28-0 | |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 11/06/24 13:24 | 11/08/24 10:26 | 7439-97-6 | |

## REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

## ANALYTICAL RESULTS

Project: L1793200 WG2393140-Revised Report
Pace Project No.: 10714208

**Sample: FC-CCR-SW1-1024** **Lab ID: 10714208002** Collected: 10/24/24 13:24 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 13:04 | 7440-41-7 | |
| Boron | **335** | ug/L | 150 | 16.0 | 1 | 11/04/24 13:20 | 11/12/24 13:04 | 7440-42-8 | |
| Calcium | **73200** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 13:04 | 7440-70-2 | |
| Iron | **147** | ug/L | 50.0 | 7.5 | 1 | 11/04/24 13:20 | 11/12/24 13:04 | 7439-89-6 | |
| Magnesium | **29800** | ug/L | 500 | 28.9 | 1 | 11/04/24 13:20 | 11/12/24 13:04 | 7439-95-4 | |
| Manganese | **12.1** | ug/L | 5.0 | 0.50 | 1 | 11/04/24 13:20 | 11/12/24 13:04 | 7439-96-5 | |
| Potassium | **7600** | ug/L | 2500 | 108 | 1 | 11/04/24 13:20 | 11/12/24 13:04 | 7440-09-7 | |
| Sodium | **103000** | ug/L | 1000 | 45.4 | 1 | 11/04/24 13:20 | 11/12/24 13:04 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Arsenic | **1.8** | ug/L | 0.50 | 0.12 | 1 | 11/04/24 13:11 | 11/07/24 17:33 | 7440-38-2 | R1 |
| Barium | **156** | ug/L | 0.30 | 0.070 | 1 | 11/04/24 13:11 | 11/07/24 17:33 | 7440-39-3 | |
| Cadmium | **<0.030** | ug/L | 0.080 | 0.030 | 1 | 11/04/24 13:11 | 11/07/24 17:33 | 7440-43-9 | |
| Chromium | **<0.54** | ug/L | 2.0 | 0.54 | 1 | 11/04/24 13:11 | 11/07/24 17:33 | 7440-47-3 | |
| Cobalt | **0.10J** | ug/L | 0.50 | 0.095 | 1 | 11/04/24 13:11 | 11/07/24 17:33 | 7440-48-4 | |
| Lead | **0.20J** | ug/L | 0.50 | 0.18 | 1 | 11/04/24 13:11 | 11/07/24 17:33 | 7439-92-1 | |
| Lithium | **80.5** | ug/L | 0.50 | 0.18 | 1 | 11/04/24 13:11 | 11/12/24 08:58 | 7439-93-2 | |
| Molybdenum | **5.1** | ug/L | 0.50 | 0.13 | 1 | 11/04/24 13:11 | 11/07/24 17:33 | 7439-98-7 | R1 |
| Selenium | **0.50** | ug/L | 0.50 | 0.074 | 1 | 11/04/24 13:11 | 11/07/24 17:33 | 7782-49-2 | R1 |
| Thallium | **<0.026** | ug/L | 0.10 | 0.026 | 1 | 11/04/24 13:11 | 11/07/24 17:33 | 7440-28-0 | |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 11/06/24 13:24 | 11/08/24 10:41 | 7439-97-6 | |

## REPORT OF LABORATORY ANALYSIS

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(612)607-1700

## ANALYTICAL RESULTS

Project: L1793200 WG2393140-Revised Report
Pace Project No.: 10714208

**Sample: FC-CCR-MW63-1024** **Lab ID: 10714208003** Collected: 10/23/24 16:15 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 13:09 | 7440-41-7 | |
| Boron | **1140** | ug/L | 150 | 16.0 | 1 | 11/04/24 13:20 | 11/12/24 13:09 | 7440-42-8 | |
| Calcium | **284000** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 13:09 | 7440-70-2 | |
| Iron | **21.0J** | ug/L | 50.0 | 7.5 | 1 | 11/04/24 13:20 | 11/12/24 13:09 | 7439-89-6 | |
| Magnesium | **110000** | ug/L | 500 | 28.9 | 1 | 11/04/24 13:20 | 11/12/24 13:09 | 7439-95-4 | |
| Manganese | **2200** | ug/L | 5.0 | 0.50 | 1 | 11/04/24 13:20 | 11/12/24 13:09 | 7439-96-5 | |
| Potassium | **6680** | ug/L | 2500 | 108 | 1 | 11/04/24 13:20 | 11/12/24 13:09 | 7440-09-7 | |
| Sodium | **202000** | ug/L | 2000 | 90.8 | 2 | 11/04/24 13:20 | 11/12/24 14:43 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Arsenic | **0.68** | ug/L | 0.50 | 0.12 | 1 | 11/04/24 13:11 | 11/07/24 18:07 | 7440-38-2 | |
| Barium | **18.8** | ug/L | 0.30 | 0.070 | 1 | 11/04/24 13:11 | 11/07/24 18:07 | 7440-39-3 | |
| Cadmium | **<0.030** | ug/L | 0.080 | 0.030 | 1 | 11/04/24 13:11 | 11/07/24 18:07 | 7440-43-9 | |
| Chromium | **<0.54** | ug/L | 2.0 | 0.54 | 1 | 11/04/24 13:11 | 11/07/24 18:07 | 7440-47-3 | |
| Cobalt | **1.9** | ug/L | 0.50 | 0.095 | 1 | 11/04/24 13:11 | 11/07/24 18:07 | 7440-48-4 | |
| Lead | **<0.18** | ug/L | 0.50 | 0.18 | 1 | 11/04/24 13:11 | 11/07/24 18:07 | 7439-92-1 | |
| Lithium | **54.6** | ug/L | 0.50 | 0.18 | 1 | 11/04/24 13:11 | 11/12/24 09:07 | 7439-93-2 | |
| Molybdenum | **3.5** | ug/L | 0.50 | 0.13 | 1 | 11/04/24 13:11 | 11/07/24 18:07 | 7439-98-7 | |
| Selenium | **0.20J** | ug/L | 0.50 | 0.074 | 1 | 11/04/24 13:11 | 11/07/24 18:07 | 7782-49-2 | |
| Thallium | **0.062J** | ug/L | 0.10 | 0.026 | 1 | 11/04/24 13:11 | 11/07/24 18:07 | 7440-28-0 | |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 11/06/24 13:24 | 11/08/24 10:32 | 7439-97-6 | |

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## ANALYTICAL RESULTS

Project: L1793200 WG2393140-Revised Report
Pace Project No.: 10714208

**Sample: FC-CCR-MW64-1024** **Lab ID: 10714208004** Collected: 10/23/24 17:10 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 13:11 | 7440-41-7 | |
| Boron | **189** | ug/L | 150 | 16.0 | 1 | 11/04/24 13:20 | 11/12/24 13:11 | 7440-42-8 | |
| Calcium | **38500** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 13:11 | 7440-70-2 | |
| Iron | **740** | ug/L | 50.0 | 7.5 | 1 | 11/04/24 13:20 | 11/12/24 13:11 | 7439-89-6 | |
| Magnesium | **6390** | ug/L | 500 | 28.9 | 1 | 11/04/24 13:20 | 11/12/24 13:11 | 7439-95-4 | |
| Manganese | **45.7** | ug/L | 5.0 | 0.50 | 1 | 11/04/24 13:20 | 11/12/24 13:11 | 7439-96-5 | |
| Potassium | **3630** | ug/L | 2500 | 108 | 1 | 11/04/24 13:20 | 11/12/24 13:11 | 7440-09-7 | |
| Sodium | **24500** | ug/L | 1000 | 45.4 | 1 | 11/04/24 13:20 | 11/12/24 13:11 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Arsenic | **0.77** | ug/L | 0.50 | 0.12 | 1 | 11/04/24 13:11 | 11/07/24 18:15 | 7440-38-2 | |
| Barium | **97.8** | ug/L | 0.30 | 0.070 | 1 | 11/04/24 13:11 | 11/07/24 18:15 | 7440-39-3 | |
| Cadmium | **<0.030** | ug/L | 0.080 | 0.030 | 1 | 11/04/24 13:11 | 11/07/24 18:15 | 7440-43-9 | |
| Chromium | **0.88J** | ug/L | 2.0 | 0.54 | 1 | 11/04/24 13:11 | 11/07/24 18:15 | 7440-47-3 | |
| Cobalt | **0.56** | ug/L | 0.50 | 0.095 | 1 | 11/04/24 13:11 | 11/07/24 18:15 | 7440-48-4 | |
| Lead | **0.71** | ug/L | 0.50 | 0.18 | 1 | 11/04/24 13:11 | 11/07/24 18:15 | 7439-92-1 | |
| Lithium | **10.2** | ug/L | 0.50 | 0.18 | 1 | 11/04/24 13:11 | 11/12/24 09:11 | 7439-93-2 | |
| Molybdenum | **4.6** | ug/L | 0.50 | 0.13 | 1 | 11/04/24 13:11 | 11/07/24 18:15 | 7439-98-7 | |
| Selenium | **0.94** | ug/L | 0.50 | 0.074 | 1 | 11/04/24 13:11 | 11/07/24 18:15 | 7782-49-2 | |
| Thallium | **0.028J** | ug/L | 0.10 | 0.026 | 1 | 11/04/24 13:11 | 11/07/24 18:15 | 7440-28-0 | |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 11/06/24 13:24 | 11/08/24 10:33 | 7439-97-6 | |

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## ANALYTICAL RESULTS

Project: L1793200 WG2393140-Revised Report
Pace Project No.: 10714208

**Sample: FC-CCR-MW65-1024** **Lab ID: 10714208005** Collected: 10/23/24 18:03 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 13:13 | 7440-41-7 | |
| Boron | **723** | ug/L | 150 | 16.0 | 1 | 11/04/24 13:20 | 11/12/24 13:13 | 7440-42-8 | |
| Calcium | **144000** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 13:13 | 7440-70-2 | |
| Iron | **<7.5** | ug/L | 50.0 | 7.5 | 1 | 11/04/24 13:20 | 11/12/24 13:13 | 7439-89-6 | |
| Magnesium | **81800** | ug/L | 500 | 28.9 | 1 | 11/04/24 13:20 | 11/12/24 13:13 | 7439-95-4 | |
| Manganese | **1690** | ug/L | 5.0 | 0.50 | 1 | 11/04/24 13:20 | 11/12/24 13:13 | 7439-96-5 | |
| Potassium | **5300** | ug/L | 2500 | 108 | 1 | 11/04/24 13:20 | 11/12/24 13:13 | 7440-09-7 | |
| Sodium | **160000** | ug/L | 1000 | 45.4 | 1 | 11/04/24 13:20 | 11/12/24 13:13 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Arsenic | **0.32J** | ug/L | 0.50 | 0.12 | 1 | 11/04/24 13:11 | 11/07/24 18:23 | 7440-38-2 | |
| Barium | **30.4** | ug/L | 0.30 | 0.070 | 1 | 11/04/24 13:11 | 11/07/24 18:23 | 7440-39-3 | |
| Cadmium | **<0.030** | ug/L | 0.080 | 0.030 | 1 | 11/04/24 13:11 | 11/07/24 18:23 | 7440-43-9 | |
| Chromium | **<0.54** | ug/L | 2.0 | 0.54 | 1 | 11/04/24 13:11 | 11/07/24 18:23 | 7440-47-3 | |
| Cobalt | **2.8** | ug/L | 0.50 | 0.095 | 1 | 11/04/24 13:11 | 11/07/24 18:23 | 7440-48-4 | |
| Lead | **<0.18** | ug/L | 0.50 | 0.18 | 1 | 11/04/24 13:11 | 11/07/24 18:23 | 7439-92-1 | |
| Lithium | **60.8** | ug/L | 0.50 | 0.18 | 1 | 11/04/24 13:11 | 11/12/24 09:36 | 7439-93-2 | |
| Molybdenum | **7.3** | ug/L | 0.50 | 0.13 | 1 | 11/04/24 13:11 | 11/07/24 18:23 | 7439-98-7 | |
| Selenium | **0.21J** | ug/L | 0.50 | 0.074 | 1 | 11/04/24 13:11 | 11/07/24 18:23 | 7782-49-2 | |
| Thallium | **0.073J** | ug/L | 0.10 | 0.026 | 1 | 11/04/24 13:11 | 11/07/24 18:23 | 7440-28-0 | |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 11/06/24 13:24 | 11/08/24 10:38 | 7439-97-6 | |

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## ANALYTICAL RESULTS

Project: L1793200 WG2393140-Revised Report
Pace Project No.: 10714208

**Sample: FC-CCR-SW2-1024** **Lab ID: 10714208006** Collected: 10/23/24 18:10 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 13:14 | 7440-41-7 | |
| Boron | **356** | ug/L | 150 | 16.0 | 1 | 11/04/24 13:20 | 11/12/24 13:14 | 7440-42-8 | |
| Calcium | **80800** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 13:14 | 7440-70-2 | |
| Iron | **138** | ug/L | 50.0 | 7.5 | 1 | 11/04/24 13:20 | 11/12/24 13:14 | 7439-89-6 | |
| Magnesium | **33200** | ug/L | 500 | 28.9 | 1 | 11/04/24 13:20 | 11/12/24 13:14 | 7439-95-4 | |
| Manganese | **16.1** | ug/L | 5.0 | 0.50 | 1 | 11/04/24 13:20 | 11/12/24 13:14 | 7439-96-5 | |
| Potassium | **8050** | ug/L | 2500 | 108 | 1 | 11/04/24 13:20 | 11/12/24 13:14 | 7440-09-7 | |
| Sodium | **114000** | ug/L | 1000 | 45.4 | 1 | 11/04/24 13:20 | 11/12/24 13:14 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Arsenic | **1.5** | ug/L | 0.50 | 0.12 | 1 | 11/04/24 13:11 | 11/07/24 18:32 | 7440-38-2 | |
| Barium | **126** | ug/L | 0.30 | 0.070 | 1 | 11/04/24 13:11 | 11/07/24 18:32 | 7440-39-3 | |
| Cadmium | **<0.030** | ug/L | 0.080 | 0.030 | 1 | 11/04/24 13:11 | 11/07/24 18:32 | 7440-43-9 | |
| Chromium | **<0.54** | ug/L | 2.0 | 0.54 | 1 | 11/04/24 13:11 | 11/07/24 18:32 | 7440-47-3 | |
| Cobalt | **0.19J** | ug/L | 0.50 | 0.095 | 1 | 11/04/24 13:11 | 11/07/24 18:32 | 7440-48-4 | |
| Lead | **0.28J** | ug/L | 0.50 | 0.18 | 1 | 11/04/24 13:11 | 11/07/24 18:32 | 7439-92-1 | |
| Lithium | **87.0** | ug/L | 0.50 | 0.18 | 1 | 11/04/24 13:11 | 11/12/24 09:41 | 7439-93-2 | |
| Molybdenum | **6.4** | ug/L | 0.50 | 0.13 | 1 | 11/04/24 13:11 | 11/07/24 18:32 | 7439-98-7 | |
| Selenium | **0.49J** | ug/L | 0.50 | 0.074 | 1 | 11/04/24 13:11 | 11/07/24 18:32 | 7782-49-2 | |
| Thallium | **<0.026** | ug/L | 0.10 | 0.026 | 1 | 11/04/24 13:11 | 11/07/24 18:32 | 7440-28-0 | |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 11/06/24 13:24 | 11/08/24 10:39 | 7439-97-6 | |

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## ANALYTICAL RESULTS

Project: L1793200 WG2393140-Revised Report
Pace Project No.: 10714208

**Sample: FC-CCR-SW3-1024** **Lab ID: 10714208007** Collected: 10/23/24 15:30 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 13:16 | 7440-41-7 | |
| Boron | **315** | ug/L | 150 | 16.0 | 1 | 11/04/24 13:20 | 11/12/24 13:16 | 7440-42-8 | |
| Calcium | **75300** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 13:16 | 7440-70-2 | |
| Iron | **123** | ug/L | 50.0 | 7.5 | 1 | 11/04/24 13:20 | 11/12/24 13:16 | 7439-89-6 | |
| Magnesium | **30700** | ug/L | 500 | 28.9 | 1 | 11/04/24 13:20 | 11/12/24 13:16 | 7439-95-4 | |
| Manganese | **12.3** | ug/L | 5.0 | 0.50 | 1 | 11/04/24 13:20 | 11/12/24 13:16 | 7439-96-5 | |
| Potassium | **7830** | ug/L | 2500 | 108 | 1 | 11/04/24 13:20 | 11/12/24 13:16 | 7440-09-7 | |
| Sodium | **107000** | ug/L | 1000 | 45.4 | 1 | 11/04/24 13:20 | 11/12/24 13:16 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Arsenic | **1.8** | ug/L | 0.50 | 0.12 | 1 | 11/04/24 13:11 | 11/07/24 18:49 | 7440-38-2 | |
| Barium | **151** | ug/L | 0.30 | 0.070 | 1 | 11/04/24 13:11 | 11/08/24 09:52 | 7440-39-3 | |
| Cadmium | **0.069J** | ug/L | 0.080 | 0.030 | 1 | 11/04/24 13:11 | 11/07/24 18:49 | 7440-43-9 | |
| Chromium | **<0.54** | ug/L | 2.0 | 0.54 | 1 | 11/04/24 13:11 | 11/07/24 18:49 | 7440-47-3 | |
| Cobalt | **0.12J** | ug/L | 0.50 | 0.095 | 1 | 11/04/24 13:11 | 11/07/24 18:49 | 7440-48-4 | |
| Lead | **0.21J** | ug/L | 0.50 | 0.18 | 1 | 11/04/24 13:11 | 11/07/24 18:49 | 7439-92-1 | |
| Lithium | **75.6** | ug/L | 0.50 | 0.18 | 1 | 11/04/24 13:11 | 11/08/24 09:52 | 7439-93-2 | |
| Molybdenum | **4.9** | ug/L | 0.50 | 0.13 | 1 | 11/04/24 13:11 | 11/07/24 18:49 | 7439-98-7 | |
| Selenium | **0.40J** | ug/L | 0.50 | 0.074 | 1 | 11/04/24 13:11 | 11/07/24 18:49 | 7782-49-2 | |
| Thallium | **<0.026** | ug/L | 0.10 | 0.026 | 1 | 11/04/24 13:11 | 11/07/24 18:49 | 7440-28-0 | |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 11/06/24 13:24 | 11/08/24 10:30 | 7439-97-6 | |

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## QUALITY CONTROL DATA

Project: L1793200 WG2393140-Revised Report
Pace Project No.: 10714208

QC Batch: 978237 Analysis Method: EPA 245.1
QC Batch Method: EPA 245.1 Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714208001, 10714208002, 10714208003, 10714208004, 10714208005, 10714208006, 10714208007

METHOD BLANK: 5112203 Matrix: Water
Associated Lab Samples: 10714208001, 10714208002, 10714208003, 10714208004, 10714208005, 10714208006, 10714208007

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Mercury | ug/L | <0.074 | 0.20 | 0.074 | 11/08/24 10:23 | |

LABORATORY CONTROL SAMPLE: 5112204

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Mercury | ug/L | 5 | 5.2 | 104 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112205 5112206

| Parameter | Units | 10714208001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ug/L | <0.074 | 5 | 5 | 4.9 | 4.9 | 97 | 97 | 70-130 | 0 | 20 | |

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## QUALITY CONTROL DATA

Project: L1793200 WG2393140-Revised Report
Pace Project No.: 10714208

QC Batch: 977512 | Analysis Method: EPA 200.7
QC Batch Method: EPA 200.7 | Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714208001, 10714208002, 10714208003, 10714208004, 10714208005, 10714208006, 10714208007

METHOD BLANK: 5109210 Matrix: Water
Associated Lab Samples: 10714208001, 10714208002, 10714208003, 10714208004, 10714208005, 10714208006, 10714208007

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 5.0 | 0.44 | 11/12/24 12:56 | |
| Boron | ug/L | 42.1J | 150 | 16.0 | 11/12/24 12:56 | |
| Calcium | ug/L | <31.8 | 500 | 31.8 | 11/12/24 12:56 | |
| Iron | ug/L | <7.5 | 50.0 | 7.5 | 11/12/24 12:56 | |
| Magnesium | ug/L | <28.9 | 500 | 28.9 | 11/12/24 12:56 | |
| Manganese | ug/L | <0.50 | 5.0 | 0.50 | 11/12/24 12:56 | |
| Potassium | ug/L | <108 | 2500 | 108 | 11/12/24 12:56 | |
| Sodium | ug/L | 177J | 1000 | 45.4 | 11/12/24 12:56 | |

LABORATORY CONTROL SAMPLE: 5109211

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Beryllium | ug/L | 1000 | 998 | 100 | 85-115 | |
| Boron | ug/L | 1000 | 1050 | 105 | 85-115 | |
| Calcium | ug/L | 20000 | 18500 | 93 | 85-115 | |
| Iron | ug/L | 20000 | 19100 | 96 | 85-115 | |
| Magnesium | ug/L | 20000 | 19000 | 95 | 85-115 | |
| Manganese | ug/L | 1000 | 998 | 100 | 85-115 | |
| Potassium | ug/L | 20000 | 18400 | 92 | 85-115 | |
| Sodium | ug/L | 20000 | 18600 | 93 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5109212 5109213

| Parameter | Units | 10714208001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 1000 | 1000 | 1080 | 1110 | 108 | 111 | 70-130 | 3 | 20 | |
| Boron | ug/L | 2320 | 1000 | 1000 | 3600 | 3730 | 128 | 141 | 70-130 | 3 | 20 | M1 |
| Calcium | ug/L | 476000 | 20000 | 20000 | 530000 | 546000 | 270 | 351 | 70-130 | 3 | 20 | P6 |
| Iron | ug/L | 12200 | 20000 | 20000 | 32200 | 33200 | 100 | 105 | 70-130 | 3 | 20 | |
| Magnesium | ug/L | 474000 | 20000 | 20000 | 527000 | 543000 | 263 | 344 | 70-130 | 3 | 20 | P6 |
| Manganese | ug/L | 5030 | 1000 | 1000 | 6550 | 6620 | 152 | 159 | 70-130 | 1 | 20 | P6 |
| Potassium | ug/L | 12300 | 20000 | 20000 | 37100 | 38200 | 124 | 130 | 70-130 | 3 | 20 | |
| Sodium | ug/L | 780000 | 20000 | 20000 | 867000 | 877000 | 435 | 484 | 70-130 | 1 | 20 | P6 |

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## QUALITY CONTROL DATA

Project: L1793200 WG2393140-Revised Report
Pace Project No.: 10714208

QC Batch: 977517 | Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 | Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714208001, 10714208002, 10714208003, 10714208004, 10714208005, 10714208006, 10714208007

METHOD BLANK: 5109233 Matrix: Water
Associated Lab Samples: 10714208001, 10714208002, 10714208003, 10714208004, 10714208005, 10714208006, 10714208007

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Arsenic | ug/L | <0.12 | 0.50 | 0.12 | 11/07/24 17:08 | |
| Barium | ug/L | <0.070 | 0.30 | 0.070 | 11/07/24 17:08 | |
| Cadmium | ug/L | <0.030 | 0.080 | 0.030 | 11/07/24 17:08 | |
| Chromium | ug/L | <0.54 | 2.0 | 0.54 | 11/07/24 17:08 | |
| Cobalt | ug/L | <0.095 | 0.50 | 0.095 | 11/07/24 17:08 | |
| Lead | ug/L | <0.18 | 0.50 | 0.18 | 11/07/24 17:08 | |
| Lithium | ug/L | <0.18 | 0.50 | 0.18 | 11/07/24 17:08 | |
| Molybdenum | ug/L | <0.13 | 0.50 | 0.13 | 11/07/24 17:08 | |
| Selenium | ug/L | <0.074 | 0.50 | 0.074 | 11/07/24 17:08 | |
| Thallium | ug/L | <0.026 | 0.10 | 0.026 | 11/07/24 17:08 | |

LABORATORY CONTROL SAMPLE: 5109234

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Arsenic | ug/L | 100 | 103 | 103 | 85-115 | |
| Barium | ug/L | 100 | 109 | 109 | 85-115 | |
| Cadmium | ug/L | 100 | 104 | 104 | 85-115 | |
| Chromium | ug/L | 100 | 112 | 112 | 85-115 | |
| Cobalt | ug/L | 100 | 111 | 111 | 85-115 | |
| Lead | ug/L | 100 | 108 | 108 | 85-115 | |
| Lithium | ug/L | 100 | 108 | 108 | 85-115 | |
| Molybdenum | ug/L | 100 | 98.1 | 98 | 85-115 | |
| Selenium | ug/L | 100 | 105 | 105 | 85-115 | |
| Thallium | ug/L | 100 | 107 | 107 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5109235 5109236

| Parameter | Units | 10714208002 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ug/L | 1.8 | 100 | 100 | 87.1 | 128 | 85 | 126 | 70-130 | 38 | 20 | R1 |
| Barium | ug/L | 156 | 100 | 100 | 267 | 262 | 111 | 106 | 70-130 | 2 | 20 | |
| Cadmium | ug/L | <0.030 | 100 | 100 | 100 | 99.7 | 100 | 100 | 70-130 | 0 | 20 | |
| Chromium | ug/L | <0.54 | 100 | 100 | 108 | 106 | 108 | 105 | 70-130 | 2 | 20 | |
| Cobalt | ug/L | 0.10J | 100 | 100 | 108 | 107 | 108 | 107 | 70-130 | 1 | 20 | |
| Lead | ug/L | 0.20J | 100 | 100 | 108 | 107 | 107 | 107 | 70-130 | 1 | 20 | |
| Lithium | ug/L | 80.5 | 100 | 100 | 183 | 185 | 103 | 105 | 70-130 | 1 | 20 | |
| Molybdenum | ug/L | 5.1 | 100 | 100 | 87.9 | 129 | 83 | 124 | 70-130 | 38 | 20 | R1 |

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## QUALITY CONTROL DATA

Project: L1793200 WG2393140-Revised Report
Pace Project No.: 10714208

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5109235 5109236

| Parameter | Units | 10714208002 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Selenium | ug/L | 0.50 | 100 | 100 | 83.5 | 121 | 83 | 121 | 70-130 | 37 | 20 | R1 |
| Thallium | ug/L | <0.026 | 100 | 100 | 106 | 106 | 106 | 106 | 70-130 | 0 | 20 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

## REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

# QUALIFIERS

Project: L1793200 WG2393140-Revised Report
Pace Project No.: 10714208

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## ANALYTE QUALIFIERS

| | |
|---|---|
| M1 | Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery. |
| P6 | Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level. |
| R1 | RPD value was outside control limits. |



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**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1793200 WG2393140-Revised Report
Pace Project No.: 10714208

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **10714208001** | **FC-CCR-MW62-1024** | EPA 200.7 | 977512 | EPA 200.7 | 977834 |
| **10714208007** | **FC-CCR-SW3-1024** | EPA 200.7 | 977512 | EPA 200.7 | 977834 |
| **10714208003** | **FC-CCR-MW63-1024** | EPA 200.7 | 977512 | EPA 200.7 | 977834 |
| **10714208004** | **FC-CCR-MW64-1024** | EPA 200.7 | 977512 | EPA 200.7 | 977834 |
| **10714208005** | **FC-CCR-MW65-1024** | EPA 200.7 | 977512 | EPA 200.7 | 977834 |
| **10714208006** | **FC-CCR-SW2-1024** | EPA 200.7 | 977512 | EPA 200.7 | 977834 |
| **10714208002** | **FC-CCR-SW1-1024** | EPA 200.7 | 977512 | EPA 200.7 | 977834 |
| **10714208001** | **FC-CCR-MW62-1024** | EPA 200.8 | 977517 | EPA 200.8 | 977865 |
| **10714208007** | **FC-CCR-SW3-1024** | EPA 200.8 | 977517 | EPA 200.8 | 977865 |
| **10714208003** | **FC-CCR-MW63-1024** | EPA 200.8 | 977517 | EPA 200.8 | 977865 |
| **10714208004** | **FC-CCR-MW64-1024** | EPA 200.8 | 977517 | EPA 200.8 | 977865 |
| **10714208005** | **FC-CCR-MW65-1024** | EPA 200.8 | 977517 | EPA 200.8 | 977865 |
| **10714208006** | **FC-CCR-SW2-1024** | EPA 200.8 | 977517 | EPA 200.8 | 977865 |
| **10714208002** | **FC-CCR-SW1-1024** | EPA 200.8 | 977517 | EPA 200.8 | 977865 |
| **10714208001** | **FC-CCR-MW62-1024** | EPA 245.1 | 978237 | EPA 245.1 | 978388 |
| **10714208007** | **FC-CCR-SW3-1024** | EPA 245.1 | 978237 | EPA 245.1 | 978388 |
| **10714208003** | **FC-CCR-MW63-1024** | EPA 245.1 | 978237 | EPA 245.1 | 978388 |
| **10714208004** | **FC-CCR-MW64-1024** | EPA 245.1 | 978237 | EPA 245.1 | 978388 |
| **10714208005** | **FC-CCR-MW65-1024** | EPA 245.1 | 978237 | EPA 245.1 | 978388 |
| **10714208006** | **FC-CCR-SW2-1024** | EPA 245.1 | 978237 | EPA 245.1 | 978388 |
| **10714208002** | **FC-CCR-SW1-1024** | EPA 245.1 | 978237 | EPA 245.1 | 978388 |



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Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to:
Samantha O'Shea

Email To: samantha.oshea@wsp.com

Project Description:

City/State Collected: Farmington, NM

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project #
US02357360155

Lab Project #
AMECTAZ-FOURCORNERS-GWTP

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

Sample ID | Comp/Grab | Matrix * | Depth | Date | Time

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ARSENIC 125mlHDPE-NoPres COLOR 125mlHDPE-NoPres CHLORIDE 125mlHDPE-NoPres | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE-NoPres | TDS 1L-HDPE-NoPres | TOTAL ALKALINITY 125mlHDPE-NoPres | HARDNESS CALCULATION 250mlHDPE-HNO3 | $\frac{pH}{\#}$ 125mlHDPE-NoPres | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW02-1024 | | GW | | 102324 | 1443 | 5 | X | X | X | X | X | X | X | X | X | X | | -01 |
| FC-CCR-SW1-1024 | G | WW | | 102424 | 1324 | 5 | X | X | X | X | X | X | X | X | X | X | | -02 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

Pace Analytical Services, LLC
1638 Roseytown Road, Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

Pace Project No. 10714208

Sample Receipt Checklist
COC Seal Present/Intact: NP
COC Signed/Accurate: Y
Bottles arrive intact: Y
Correct bottles used: Y
Sufficient volume sent: Y
If Applicable
VOA Zero Headspace: Y
Preservation Correct/Checked: Y
RAD Screen <0.5 mR/hr: Y

WO# : 10714208

10714208

Page 10 of 20

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Biosolids
WW - WasteWater
DW - Drinking Water
OT - Other _____

Remarks: 200.7: Total B, Ca, Be, Li, Fe, Mn, K, Mg, Na.
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: UPS FedEx Courier _____

Tracking # Invoiced

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| | 102524 | 1020 | FED EX |
| Relinquished by : (Signature) | Date: 11/1/24 | Time: 8:50 | Received by: (Signature) |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) |

Trip Blank Received: Yes / No / HCL / MeOH / TSP

Temp: °C Bottles Received: mw 14

Date: 10-25-24 Time: 9:30

If preservation required by Login: Date/Time

pH: Condition: NCF / OK

Chain of Custody Page 2 of 2

Pace
ANALYTICAL SERVICES, LLC
MT JULIET, TN

Company Name/Address:
WSP (Formely Wood E&I)-Phoenix, AZ
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034
Pres Chk

Report to: Samantha O'Shea
Email To: samantha.oshea@wsp.com

Project Description:
City/State Collected: FARMINGTON, NM
Please Circle: PT MT CT ET

Phone: 602-733-6110
Client Project #: US0235736157
Lab Project #: AMECTRZ-FOURCORNERS-GW TP
Collected by (print):
Site/Facility ID #:
P.O. #:
Collected by (signature):
Immediately Packed on Ice: N Y
Rush? (Lab MUST Be Notified)
Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
Three Day
Date Results Needed:
Quote #:

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250ml HDPE-HNO3 | 200.8 Total Metals 250ml HDPE-HNO3 | ANC/CaCO3 125ml HDPE-NoPres | Chloride 250ml HDPE-NoPres | Fluoride 250ml HDPE-NoPres | HG 250ml HDPE-HNO3 | Sulfate 250ml HDPE-NoPres | TDS 1L HDPE-NoPres | Ra-226/Ra-228 1L HDPE-HNO3 | SM 4500-CO2 D 250ml HDPE-NoPres | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW13-1024 | | GW WW | | 102324 | 1015 | 5 | X | X | X | X | X | X | X | X | X | X | | -03 |
| FC-CCR-MW24-1024 | | WW | | | 1710 | | X | X | X | X | X | X | X | X | X | X | | -04 |
| FC-CCR-MW05-1024 | | WW | | | 1603 | | X | X | X | X | X | X | X | X | X | X | | -05 |
| FC-CCR-SW2-1024 | G | WW | | | 1610 | | X | X | X | X | X | X | X | X | X | X | | -06 |
| FC-CCR-SW3-1024 | G | GW WW | | | 1530 | | X | X | X | X | X | X | X | X | X | X | | -07 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

Account: AMECTAZ
Template: T261976
Prelogin: P1107674
PM: 288 - Daphne Richards
PB:
Shipped Via: FedEx Ground
Remarks | Sample # (lab only)

Lab # 179320

Page 2 of 2

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - Wastewater
DW - Drinking Water
OT - Other

Remarks: 200.7: Total B, Ca, Be, Li, Fe, Mn, K, Mg, Na.
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co
pH _____ Temp _____
Flow _____ Other _____

Samples returned via: UPS FedEx Courier
Tracking # 1Mv1 T1

Sample Receipt Checklist

| | | |
|---|---|---|
| COC Seal Present/Intact: | NP | Y |
| COC Signed/Accurate: | | Y |
| Bottles arrive intact: | | Y |
| Correct bottles used: | | Y |
| Sufficient volume sent: | | Y |
| If Applicable: VOA Zero Headspace: | | Y |
| Preservation Correct/Checked: | | Y |
| RAD Screen <0.5 mR/hr: | | Y |

Trip Blank Received: Yes / No / N/A
HCL / MeoH
TBR

Temp: 4.0°C Bottles Received:
If preservation required by Login: Date/Time

| Relinquished by: (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| | 102524 | 1020 | FedEx |
| Relinquished by: (Signature) | Date: 11/1/24 | Time: 8:50 | Received by: (Signature) |
| Relinquished by: (Signature) | Date: | Time: | Received for lab by: (Signature) |

Date: 10-25-24 Time: 0130
Hold: Condition NCF / OK

# ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

**CLIENT NAME:** Pace MTVL **PROJECT #:** **WO#: 10714208**

**PM: TKL** **Due Date: 11/15/24**

**CLIENT: PASI-TN**

**COURIER:** ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

**TRACKING NUMBER:** 4041 0492 0891 ☐ See Exceptions form ENV-FRM-MIN4-0142

4041 0492 0880, 4041 0492 0570

**Custody Seal on Cooler/Box Present:** ☑ YES ☐ NO **Seals Intact:** ☑ YES ☐ NO **Biological Tissue Frozen:** ☐ YES ☐ NO ☑ N/A

**Packing Material:** ☐ Bubble Bags ☐ Bubble Wrap ☑ None ☐ Other **Temp Blank:** ☑ YES ☐ NO **Type of Ice:** ☐ Blue ☐ Dry ☑ Wet ☐ Melted ☐ None

**Thermometer:** ☑ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

| | |
|---|---|
| **Did Samples Originate in West Virginia:** ☐ YES ☑ NO | **Were All Container Temps taken:** ☐ YES ☐ NO ☑ N/A |
| **Correction Factor:** +1 **Cooler Temp Read w/Temp Blank:** 1.5, 1.5, 1.6 °C **Cooler Temp Corrected w/Temp Blank:** 1.6, 1.9, 1.9 °C | **Average Corrected Temp (no Temp Blank Only):** _____ °C |
| ***NOTE:*** *Temp should be above freezing to 6°C.* | ☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container |
| **USDA Regulated Soil:** ☑ N/A – Water Sample/Other (describe): _____ | **Initials & Date of Person Examining Contents:** SMC 11/11/24 |
| Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO | Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO |
| **NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.** | |

| **LOCATION (check one):** ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA | YES | NO | N/A | COMMENT(S) |
|---|---|---|---|---|
| Chain of Custody Present and Filled Out? | ☑ | ☐ | | 1. |
| Chain of Custody Relinquished? | ☑ | ☐ | | 2. |
| Sampler Name and/or Signature on COC? | ☐ | ☐ | ☐ | 3. |
| Samples Arrived within Hold Time? | ☑ | ☐ | | 4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No |
| **Short Hold Time Analysis (<72 hr)?** | ☐ | ☑ | | 5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____ |
| **Rush Turn Around Time Requested?** | ☐ | ☑ | | 6. 7 day hold |
| Sufficient Sample Volume? | ☑ | ☐ | | 7. 1-7: 2 BP3N |
| Correct Containers Used? – Pace Containers Used? | ☑ ☐ | ☐ ☑ | ☐ | 8. |
| Containers Intact? | ☑ | ☐ | | 9. |
| Field Filtered Volume Received for Dissolved Tests? | ☐ | ☐ | ☑ | 10. Is sediment visible in the dissolved container: ☐ YES ☐ NO |
| Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other | ☑ | ☐ | | 11. **If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142 |
| All containers needing acid/base preservation have been checked? | ☑ | ☐ | ☐ | 12. Sample #: 1-7, 12 |
| All containers needing preservation are found to be in compliance with EPA recommendation? ($HNO_3$, $H_2SO_4$, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide) | ☑ | ☐ | ☐ | ☑ $HNO_3$ ☐ $H_2SO_4$ ☐ NaOH ☐ Zinc Acetate |
| Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS | ☐ | ☐ | ☑ | Positive for Residual Chlorine: ☐ YES ☐ NO |
| **NOTE:** If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs. | | | | **pH Paper Lot #** |
| | | | | Residual Chlorine: _____ 0-6 Roll: 205224 0-6 Strip: _____ 0-14 Strip: _____ |
| | | | | ☐ See Exceptions form ENV-FRM-MIN4-0142 |
| Headspace in Methyl Mercury Container? | ☐ | ☐ | ☑ | 13. |
| Extra labels present on soil VOA or WIDRO containers? | ☐ | ☐ | ☑ | 14. |
| Headspace in VOA Vials (greater than 6mm)? | ☐ | ☐ | ☑ | ☐ See Exceptions form ENV-FRM-MIN4-0140 |
| Trip Blanks Present? | ☐ | ☐ | ☑ | 15. |
| Trip Blank Custody Seals Present? | ☐ | ☐ | ☑ | Pace Trip Blank Lot # (if purchased): _____ |

**CLIENT NOTIFICATION / RESOLUTION** **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

**Project Manager Review:** _____ **Date:** 11/01/24

***NOTE:*** *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

**Labeled By:** SMC **Line:** 13

L1793200

| Fed Ex tracking # | Gun ID | Temperature |
|---|---|---|
| 1212 6467 0877 | TLA9 | 5.1, 3.2, 5.4 |
| 1212 6467 0914 | TLA9 | .47, 3.2, 7 |
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foster
Name

10-26-24
Date

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



| **Section A** Required Client Information: | | **Section B** Required Project Information: | | **Section C** Invoice Information: | |
|---|---|---|---|---|---|
| Company: | Pace Analytical | Report To: | Pace Analytical Subout Team | Attention: | Samantha O'Shea |
| Address: | 12065 Lebanon Rd. | Copy To: | | Company Name: | |
| Mt. Juliet, TN 37122 | | | | Address: | |
| Email: | MTJLSuboutTeam@pacelabs.com | Purchase Order #: | L1793200 | Pace Quote: | |
| Phone: (615) 773-9756 | Fax: (615) 758-5859 | Project Name: | | Pace Project Manager: | Tong Lee |
| Requested Due Date: | 8-Nov | Project #: | US0023513.6155 | Pace Profile #: | 38076 |

| Regulatory Agency |
|---|
| |
| **State / Location** |
| **NM** |

**SAMPLE ID**
**One Character per box.**
**(A-Z, 0-9 / , -)**
**Sample Ids must be unique**

| MATRIX | CODE |
|---|---|
| Drinking Water | DW |
| Water | WT |
| Waste Water | WW |
| Product | P |
| Soil/Solid | SL |
| Oil | OL |
| Wipe | WP |
| Air | AR |
| Other | OT |
| Tissue | TS |

| ITEM # | SAMPLE ID | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | Analyses Test Y/N | Analyses Test: Metals | Residual Chlorine (Y/N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FC-CCR-MW62-1024 | WT | | | | 23-Oct | 14:43 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, Li, Fe, Mn, K, |
| 2 | FC-CCR-SW1-1024 | WT | | | | 24-Oct | 13:24 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, Li, Fe, Mn, K, |
| 3 | FC-CCR-MW63-1024 | WT | | | | 23-Oct | 16:15 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, Li, Fe, Mn, K, |
| 4 | FC-CCR-MW64-1024 | WT | | | | 23-Oct | 17:10 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, Li, Fe, Mn, K, |
| 5 | FC-CCR-MW65-1024 | WT | | | | 23-Oct | 18:03 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, Li, Fe, Mn, K, |
| 6 | FC-CCR-SW2-1024 | WT | | | | 23-Oct | 18:10 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, Li, Fe, Mn, K, |
| 7 | FC-CCR-SW3-1024 | WT | | | | 23-Oct | 15:30 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, Li, Fe, Mn, K, |
| 8 | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | James C Huckaba | 31-Oct | 14:14 | | | | | | | |
| Pace Analytical Batch: WG2393140 | | | | | | | | | | |
| **Pace Analytical SDGs: L1793200** | | | | | | | | | | |
| **Location: Minneapolis, MN 55414** | | | | | | | | | | |

| SAMPLER NAME AND SIGNATURE | | TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
|---|---|---|---|---|---|
| **PRINT Name of SAMPLER:** | | | | | |
| **SIGNATURE of SAMPLER:** | **DATE Signed:** | | | | |

**Address**
1700 Elm Street Suite 200 SE
Minneapolis, MN 55414

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 25, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW75-1024 | 0.9 ± 0.2 | 1.4 ± 0.4 | 2.3 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/12/2024 16:48 | 11/12/2024 16:48 | 11/12/2024 16:48 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024 Date
Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 25, 2024 (Sample Date) 13:46 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/12/2024 | 2.3 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/12/2024 | 0.9 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/12/2024 | 1.4 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75687

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW75-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 25, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW61-1024 | 0.6 ± 0.2 | 0.8 ± 0.3 | 1.4 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/12/2024 20:50 | 11/12/2024 20:50 | 11/12/2024 20:50 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 25, 2024 (Sample Date) 15:07 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/12/2024 | 1.4 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/12/2024 | 0.6 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/12/2024 | 0.8 ± 0.3 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75688

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW61-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

## Client Information

| | |
|---|---|
| Name: | **Cameron Corley/505-860-3619**<br>**Pam Norris/505-598-8781** |
| Company | **Arizona Public Service** |
| Address | **PO Box 355, MS 4915**<br>**Fruitland, NM 87416** |
| Phone | |
| Site | **APS Four Corners Power Plant –**<br>MULTIUNIT |

## Radiation Safety Engineering, Inc.

3245 North Washington Street, Chandler, Arizona 85225

**Analysis Request**

| Sample ID & Location (DWR#) | Collection Date | Collection Time | Media (DW* WW* Other) | Drinking Water Compliance | Gross Alpha | Gross Beta | Total Uranium | Isotopic Uranium | Ra-226 | Ra-228 | Ra-226 + Ra-228, Combined | H-3 | Gamma Spectroscopy | Sr-89/Sr-90 | Radon in Water | Radon in Air |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW75-1024 | 102524 | 1346 | GW | | | | | | x | x | x | | | | 75687 | |
| FC-CCR-MW61-1024 | 1 | 1507 | 1 | | | | | | x | x | x | | | | 75688 | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | |

| **Sample Receipt** | |
|---|---|
| Total No. of Containers | |
| Chain of Custody Seals | |
| Container Condition | |
| Lab No. | |

Invoice to:
PO#: 100622094

Instructions/Comments
**Method HPGe**

| | | | | | | |
|---|---|---|---|---|---|---|
| Relinguished By: | Company: WSP | Date/time: 103124 1530 | Received By: Pat Flannery | | Company: RSE | Date/time: 10/31/24 3:30 |
| Relinguished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |
| Relinguished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

*u/client/forms/cofc.frm*

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW07-1024 | 1.1 ± 0.2 | 1.9 ± 0.4 | 3.0 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/30/2024 | 11/30/2024 | 11/30/2024 |
| | 6:39 | 6:39 | 6:39 |

Robert L. Metzger, Ph.D., C.H.P. — 12/4/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 12:32 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/30/2024 | 3.0 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/30/2024 | 1.1 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/30/2024 | 1.9 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75823

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW07-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW08-1024 | 1.2 ± 0.2 | 2.4 ± 0.4 | 3.6 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/30/2024 | 11/30/2024 | 11/30/2024 |
| | 10:41 | 10:41 | 10:41 |

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 11:35 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/30/2024 | 3.6 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/30/2024 | 1.2 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/30/2024 | 2.4 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75824

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW08-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW49A-1024 | 1.1 ± 0.2 | 1.4 ± 0.4 | 2.5 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/30/2024 14:43 | 11/30/2024 14:43 | 11/30/2024 14:43 |

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 9:09 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/30/2024 | 2.5 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/30/2024 | 1.1 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/30/2024 | 1.4 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75825

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW49A-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 22, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-DMX03-1024 | 1.5 ± 0.2 | < 0.8 | 1.5 ± 0.2 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/30/2024 18:44 | 11/30/2024 18:44 | 11/30/2024 18:44 |

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 22, 2024 (Sample Date) 13:38 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/30/2024 | 1.5 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/30/2024 | 1.5 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/30/2024 | < 0.8 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

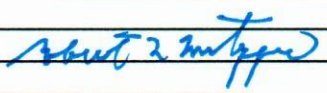
Specimen Number: RSE75826

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-DMX03-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-DMX06-1024 | 1.0 ± 0.2 | 0.8 ± 0.3 | 1.8 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/30/2024 22:46 | 11/30/2024 22:46 | 11/30/2024 22:46 |

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 14:50 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/30/2024 | 1.8 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/30/2024 | 1.0 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/30/2024 | 0.8 ± 0.3 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75827

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-DMX06-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW87-1024 | 1.1 ± 0.2 | 4.1 ± 0.5 | 5.2 ± 0.5 |

| | | | |
|---|---|---|---|
| Date of Analysis | 12/1/2024 | 12/1/2024 | 12/1/2024 |
| | 2:48 | 2:48 | 2:48 |

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 12, 2024 (Sample Date) 16:07 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 12/1/2024 | 5.2 ± 0.5 | | X |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 12/1/2024 | 1.1 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 12/1/2024 | 4.1 ± 0.5 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75828

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW87-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 13, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-DMX05R-1124 | 1.8 ± 0.2 | 5.1 ± 0.5 | 6.9 ± 0.5 |

| | | | |
|---|---|---|---|
| Date of Analysis | 12/1/2024 | 12/1/2024 | 12/1/2024 |
| | 6:50 | 6:50 | 6:50 |

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 13, 2024 (Sample Date) 11:56 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 12/1/2024 | 6.9 ± 0.5 | | X |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 12/1/2024 | 1.8 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 12/1/2024 | 5.1 ± 0.5 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75829

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-DMX05R-1124

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 14, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW16-1124 | 2.1 ± 0.2 | 3.0 ± 0.4 | 5.1 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 12/1/2024 10:52 | 12/1/2024 10:52 | 12/1/2024 10:52 |

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 14, 2024 (Sample Date) 12:18 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 12/1/2024 | 5.1 ± 0.4 | | X |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 12/1/2024 | 2.1 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 12/1/2024 | 3.0 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75830

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW16-1124

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 14, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW15-1124 | 1.0 ± 0.2 | < 0.8 | 1.0 ± 0.2 |

| | | | |
|---|---|---|---|
| Date of Analysis | 12/1/2024 14:54 | 12/1/2024 14:54 | 12/1/2024 14:54 |

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 14, 2024 (Sample Date) 13:22 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 12/1/2024 | 1.0 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 12/1/2024 | 1.0 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 12/1/2024 | < 0.8 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75831

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW15-1124

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 14, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW17R-1124 | 2.0 ± 0.2 | 1.0 ± 0.4 | 3.0 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 12/1/2024 18:56 | 12/1/2024 18:56 | 12/1/2024 18:56 |

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 14, 2024 (Sample Date) 14:48 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 12/1/2024 | 3.0 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 12/1/2024 | 2.0 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 12/1/2024 | 1.0 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75832

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW17R-1124

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 14, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-DMX04-1124 | < 0.6 | < 0.7 | < 0.7 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/26/2024 10:43 | 11/26/2024 10:43 | 11/26/2024 10:43 |

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 14, 2024 (Sample Date) 17:14 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/26/2024 | < 0.7 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/26/2024 | < 0.6 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/26/2024 | < 0.7 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75833

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-DMX04-1124

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 14, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-FD09-1124 | 1.0 ± 0.3 | 2.7 ± 0.4 | 3.7 ± 0.5 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/26/2024 14:47 | 11/26/2024 14:47 | 11/26/2024 14:47 |

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 14, 2024 (Sample Date) 7:35 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/26/2024 | 3.7 ± 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/26/2024 | 1.0 ± 0.3 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/26/2024 | 2.7 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75834

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-FD09-1124

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 16, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW38R-1124 | 0.6 ± 0.2 | 2.1 ± 0.4 | 2.7 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/26/2024 18:49 | 11/26/2024 18:49 | 11/26/2024 18:49 |

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 16, 2024 (Sample Date) 8:38 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/26/2024 | 2.7 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/26/2024 | 0.6 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/26/2024 | 2.1 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75835

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW38R-1124

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 15, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW56-1124 | < 0.5 | 3.2 ± 0.4 | 3.2 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/26/2024 | 11/26/2024 | 11/26/2024 |
| | 22:52 | 22:52 | 22:52 |

Robert L. Metzger, Ph.D., C.H.P. — 12/4/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 15, 2024 (Sample Date) 15:24 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/26/2024 | 3.2 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/26/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/26/2024 | 3.2 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75836

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW56-1124

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 15, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW57-1124 | 0.5 ± 0.2 | 2.0 ± 0.4 | 2.5 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/27/2024 2:54 | 11/27/2024 2:54 | 11/27/2024 2:54 |

12/4/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 15, 2024 (Sample Date) 16:56 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/27/2024 | 2.5 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/27/2024 | 0.5 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/27/2024 | 2.0 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75837

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW57-1124

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 16, 2024
Sample Received: November 18, 2024
Analysis Completed: December 04, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-EB01-1124 | < 0.5 | < 0.7 | < 0.7 |

| Date of Analysis | 11/27/2024 | 11/27/2024 | 11/27/2024 |
|---|---|---|---|
| | 6:55 | 6:55 | 6:55 |

Robert L. Metzger, Ph.D., C.H.P. 12/4/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

November 16, 2024 (Sample Date) 9:30 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/27/2024 | < 0.7 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/27/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/27/2024 | < 0.7 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75838

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-EB01-1124

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

| Client Information | |
|---|---|
| Name: | **Cameron Corley/505-860-3619**<br>**Pam Norris/505-598-8781** |
| Company | **Arizona Public Service** |
| Address | **PO Box 355, MS 4915**<br>**Fruitland, NM 87416** |
| Phone | |
| Site | **APS Four Corners Power Plant** |

**Radiation Safety Engineering, Inc.**
3245 North Washington Street, Chandler, Arizona 85225
**Analysis Request**

| Sample ID & Location (DWR#) | Collection Date | Collection Time | Media (DW* WW* Other) | Drinking Water Compliance | Gross Alpha | Gross Beta | Total Uranium | Isotopic Uranium | Ra-226 | Ra-228 | Ra-226 + Ra-228, Combined | H-3 | Gamma Spectroscopy | Sr-89/Sr-90 | Radon in Water | Radon in Air | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW07-1024 | 111224 | 1232 | | | | | | | √ | √ | √ | | | | | | 75823 |
| FC-CCR-MW08-1024 | 111224 | 1135 | | | | | | | √ | √ | √ | | | | | | 75824 |
| FC-CCR-MW49A-1024 | 111224 | 0909 | | | | | | | √ | √ | √ | | | | | | 75825 |
| FC-CCR-DMX03-1024 | 111224 | 1338 | | | | | | | √ | √ | √ | | | | | | 75826 |
| FC-CCR-DMX06-1024 | 111224 | 1450 | | | | | | | √ | √ | √ | | | | | | 75827 |
| FC-CCR-MW07-1024 | 111224 | 1607 | | | | | | | √ | √ | √ | | | | | | 75828 |
| FC-CCR-DMX05R-1124 | 111324 | 1150 | | | | | | | √ | √ | √ | | | | | | 75829 |
| FC-CCR-MW16-1124 | 111424 | 1218 | | | | | | | √ | √ | √ | | | | | | 75830 |
| FC-CCR-MW15-1124 | 111424 | 1322 | | | | | | | √ | √ | √ | | | | | | 75831 |
| FC-CCR-MW17R-1124 | 111424 | 1448 | | | | | | | √ | √ | √ | | | | | | 75832 |

| Sample Receipt | |
|---|---|
| Total No. of Containers | |
| Chain of Custody Seals | |
| Container Condition | |
| Lab No. | |

Invoice to:
PO#: 100622094

Instructions/Comments
**Method HPGe**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Relinguished By: | Company: WSP | Date/time: 1545 | Received By: | | Company: RSE | Date/time: 11-18-24 3:45 |
| Relinguished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |
| Relinguished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

*u/client/forms/cofc.frm*

| Client Information | |
|---|---|
| Name: | **Cameron Corley/505-860-3619**<br>**Pam Norris/505-598-8781** |
| Company | **Arizona Public Service** |
| Address | **PO Box 355, MS 4915**<br>**Fruitland, NM 87416** |
| Phone | |
| Site | **APS Four Corners Power Plant** |

**Radiation Safety Engineering, Inc.**
3245 North Washington Street, Chandler, Arizona 85225
**Analysis Request**

| Sample ID & Location (DWR#) | Collection Date | Collection Time | Media (DW* WW* Other) | Drinking Water Compliance | Gross Alpha | Gross Beta | Total Uranium | Isotopic Uranium | Ra-226 | Ra-228 | Ra-226 + Ra-228, Combined | H-3 | Gamma Spectroscopy | Sr-89/Sr-90 | Radon in Water | Radon in Air | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-DMX04-1124 | 111424 | 1714 | GW | | | | | | ✓ | ✓ | ✓ | | | | | 75833 | |
| FC-CCR-FD09-1124 | 111424 | 0735 | | | | | | | ✓ | ✓ | ✓ | | | | | 75834 | |
| FC-CCR-MW30R-1124 | 111624 | 0838 | | | | | | | ✓ | ✓ | ✓ | | | | | 75835 | |
| FC-CCR-MW56-1124 | 111524 | 1524 | | | | | | | ✓ | ✓ | ✓ | | | | | 75836 | |
| FC-CCR-MW57-1124 | 111524 | 1656 | | | | | | | ✓ | ✓ | ✓ | | | | | 75837 | |
| FC-CCR-EB01-1124 | 111624 | 0930 | | | | | | | ✓ | ✓ | ✓ | | | | | 75838 | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| Sample Receipt | |
|---|---|
| Total No. of Containers | |
| Chain of Custody Seals | |
| Container Condition | |
| Lab No. | |

Invoice to:
PO#: 100622094

Instructions/Comments
**Method HPGe**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Relinquished By: | Company: WSP | Date/time: 1545 | Received By: | | Company: RSE | Date/time: 11-18-24 3:45 |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

*u/client/forms/cofc.frm*

# ANALYTICAL REPORT

November 20, 2024

Revised Report

## WSP (Formely Wood E&I)-Phoenix, AZ

| | |
|---|---|
| Sample Delivery Group: | L1794401 |
| Samples Received: | 10/31/2024 |
| Project Number: | US0023513.6155 |
| Description: | |

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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## FC-CCR-MW61-1024 L1794401-01 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/25/24 15:07 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2393491 | 1 | 11/01/24 10:26 | 11/01/24 10:26 | ARD | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393608 | 50 | 11/04/24 18:25 | 11/04/24 18:25 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2393403 | 1 | 11/01/24 10:00 | 11/01/24 10:00 | BRT | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393764 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW75-1024 L1794401-02 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/25/24 13:46 | 10/31/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2393323 | 1 | 10/31/24 17:44 | 11/01/24 10:52 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2393491 | 1 | 11/01/24 10:33 | 11/01/24 10:33 | ARD | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2393608 | 50 | 11/04/24 19:00 | 11/04/24 19:00 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2401598 | 5 | 11/14/24 16:38 | 11/14/24 16:38 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2393403 | 1 | 11/01/24 10:00 | 11/01/24 10:00 | BRT | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393764 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

## Report Revision History

Level II Report - Version 1: 11/19/24 16:25

## Project Narrative

Reissue report
L1794401 -01, -02 contains subout data that is included after the chain of custody.

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 6110000 | | 100000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 74800 | | 4750 | 20000 | 1 | 11/01/2024 10:26 | WG2393491 |
| Alkalinity,Carbonate | 35300 | | 4750 | 20000 | 1 | 11/01/2024 10:26 | WG2393491 |

Sample Narrative:

L1794401-01 WG2393491: Endpoint pH 4.5 headspace

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 354000 | | 27400 | 50000 | 50 | 11/04/2024 18:25 | WG2393608 |
| Fluoride | 4470 | B J | 3800 | 7500 | 50 | 11/04/2024 18:25 | WG2393608 |
| Sulfate | 3660000 | | 31800 | 250000 | 50 | 11/04/2024 18:25 | WG2393608 |

Sample Narrative:

L1794401-01 WG2393608: Dilution due to matrix impact on instrumentation at lower dilution

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 8.43 | T8 | 1 | 11/01/2024 10:00 | WG2393403 |

Sample Narrative:

L1794401-01 WG2393403: 8.43 at 19.5C

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 7200000 | | 100000 | 1 | 11/01/2024 10:52 | WG2393323 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 110000 | | 4750 | 20000 | 1 | 11/01/2024 10:33 | WG2393491 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/01/2024 10:33 | WG2393491 |

Sample Narrative:

L1794401-02 WG2393491: Endpoint pH 4.5 headspace

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 309000 | | 27400 | 50000 | 50 | 11/04/2024 19:00 | WG2393608 |
| Fluoride | 967 | | 380 | 750 | 5 | 11/14/2024 16:38 | WG2401598 |
| Sulfate | 4420000 | | 31800 | 250000 | 50 | 11/04/2024 19:00 | WG2393608 |

Sample Narrative:

L1794401-02 WG2393608: Dilution due to matrix impact on instrumentation at lower dilution

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 8.23 | T8 | 1 | 11/01/2024 10:00 | WG2393403 |

Sample Narrative:

L1794401-02 WG2393403: 8.23 at 19.6C

## Method Blank (MB)

(MB) R4141782-1 11/01/24 10:52

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Dissolved Solids | U | | 10000 | 10000 |

## L1793319-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793319-01 11/01/24 10:52 • (DUP) R4141782-3 11/01/24 10:52

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Dissolved Solids | 11000 | 13000 | 1 | 16.7 | P1 | 10 |

## L1794416-20 Original Sample (OS) • Duplicate (DUP)

(OS) L1794416-20 11/01/24 10:52 • (DUP) R4141782-4 11/01/24 10:52

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Dissolved Solids | 36100000 | 36100000 | 1 | 0.000 | | 10 |

## Laboratory Control Sample (LCS)

(LCS) R4141782-2 11/01/24 10:52

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | ug/l | ug/l | % | % | |
| Dissolved Solids | 8800000 | 8750000 | 99.4 | 85.0-115 | |

## Method Blank (MB)

(MB) R4140795-2 11/01/24 09:46

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Alkalinity,Bicarbonate | U | | 4750 | 20000 |
| Alkalinity,Carbonate | U | | 4750 | 20000 |

Sample Narrative:

BLANK: Endpoint pH 4.5

## L1794257-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1794257-01 11/01/24 09:57 • (DUP) R4140795-3 11/01/24 10:03

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | 162000 | 162000 | 1 | 0.0100 | | 20 |
| Alkalinity,Carbonate | U | U | 1 | 0.000 | | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

## L1792873-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1792873-01 11/01/24 12:06 • (DUP) R4140795-4 11/01/24 12:12

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | 901000 | 890000 | 1 | 1.16 | | 20 |
| Alkalinity,Carbonate | U | U | 1 | 0.000 | | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

## Method Blank (MB)

(MB) R4142368-1 11/04/24 12:02

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 547 | 1000 |
| Fluoride | 79.1 | J | 76.1 | 150 |
| Sulfate | U | | 637 | 5000 |

## L1794053-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1794053-08 11/04/24 12:37 • (DUP) R4142368-3 11/04/24 12:54

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | U | U | 1 | 0.000 | | 15 |
| Fluoride | U | U | 1 | 0.000 | | 15 |
| Sulfate | U | U | 1 | 0.000 | | 15 |

## L1794416-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1794416-21 11/04/24 20:27 • (DUP) R4142368-5 11/04/24 20:44

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 602000 | 595000 | 50 | 1.10 | | 15 |
| Fluoride | U | U | 50 | 0.000 | | 15 |
| Sulfate | 5520000 | 5460000 | 50 | 1.08 | | 15 |

**Sample Narrative:**

OS: Dilution due to matrix impact on instrumentation at lower dilution

## Laboratory Control Sample (LCS)

(LCS) R4142368-2 11/04/24 12:20

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Chloride | 40000 | 40700 | 102 | 90.0-110 | |
| Fluoride | 8000 | 8230 | 103 | 90.0-110 | |
| Sulfate | 40000 | 41200 | 103 | 90.0-110 | |

## L1794053-08 Original Sample (OS) • Matrix Spike (MS)

(OS) L1794053-08 11/04/24 12:37 • (MS) R4142368-4 11/04/24 13:12

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Chloride | 40000 | U | 41400 | 104 | 1 | 90.0-110 | |
| Fluoride | 8000 | U | 8410 | 105 | 1 | 90.0-110 | |
| Sulfate | 40000 | U | 42100 | 105 | 1 | 90.0-110 | |

## L1794416-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794416-21 11/04/24 20:27 • (MS) R4142368-6 11/04/24 21:02 • (MSD) R4142368-7 11/04/24 21:19

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 602000 | 527000 | 526000 | 0.000 | 0.000 | 50 | 90.0-110 | V | V | 0.0918 | 15 |
| Fluoride | 8000 | U | 9350 | 8280 | 117 | 104 | 50 | 90.0-110 | J5 | | 12.1 | 15 |
| Sulfate | 40000 | 5520000 | 4510000 | 4550000 | 0.000 | 0.000 | 50 | 90.0-110 | V | V | 1.02 | 15 |

Sample Narrative:

OS: Dilution due to matrix impact on instrumentation at lower dilution

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

## Method Blank (MB)

(MB) R4146364-1 11/14/24 14:36

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Fluoride | U | | 76.1 | 150 |

## L1794416-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1794416-21 11/14/24 16:55 • (DUP) R4146364-3 11/14/24 17:12

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Fluoride | 403 | 469 | 5 | 15.1 | J P1 | 15 |

## L1794416-22 Original Sample (OS) • Duplicate (DUP)

(OS) L1794416-22 11/14/24 18:05 • (DUP) R4146364-6 11/14/24 18:22

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Fluoride | 800 | 748 | 5 | 6.73 | J | 15 |

## Laboratory Control Sample (LCS)

(LCS) R4146364-2 11/14/24 14:53

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Fluoride | 8000 | 8180 | 102 | 90.0-110 | |

## L1794416-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794416-21 11/14/24 16:55 • (MS) R4146364-4 11/14/24 17:30 • (MSD) R4146364-5 11/14/24 17:47

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 8000 | 403 | 8010 | 8000 | 95.1 | 94.9 | 5 | 90.0-110 | | | 0.220 | 15 |

## L1794416-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794416-22 11/14/24 18:05 • (MS) R4146364-7 11/14/24 18:39 • (MSD) R4146364-8 11/14/24 18:57

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 8000 | 800 | 8790 | 9010 | 99.9 | 103 | 5 | 90.0-110 | | | 2.41 | 15 |

## L1794416-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1794416-23 11/14/24 19:14 • (MS) R4146364-9 11/14/24 19:32 • (MSD) R4146364-10 11/14/24 19:49

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 8000 | 472 | 8330 | 8260 | 98.3 | 97.3 | 5 | 90.0-110 | | | 0.922 | 15 |

## L1793876-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793876-01 11/01/24 10:00 • (DUP) R4140699-2 11/01/24 10:00

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.75 | 7.74 | 1 | 0.129 | | 1 |

Sample Narrative:

OS: 7.75 at 18.6C

DUP: 7.74 at 18.8C

## L1794416-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1794416-23 11/01/24 10:00 • (DUP) R4140699-3 11/01/24 10:00

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.38 | 7.45 | 1 | 0.944 | | 1 |

Sample Narrative:

OS: 7.38 at 19.8C

DUP: 7.45 at 19.9C

## Laboratory Control Sample (LCS)

(LCS) R4140699-1 11/01/24 10:00

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | su | su | % | % | |
| pH | 10.0 | 10.0 | 100 | 99.0-101 | |

Sample Narrative:

LCS: 10 at 19.8C

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

## Abbreviations and Definitions

| | |
|---|---|
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| Rec. | Recovery. |
| RPD | Relative Percent Difference. |
| SDG | Sample Delivery Group. |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| Analyte | The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported. |
| Dilution | If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor. |
| Limits | These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| Qualifier | This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable. |
| Result | The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte. |
| Uncertainty (Radiochemistry) | Confidence level of 2 sigma. |
| Case Narrative (Cn) | A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report. |
| Quality Control Summary (Qc) | This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material. |
| Sample Chain of Custody (Sc) | This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis. |
| Sample Results (Sr) | This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported. |
| Sample Summary (Ss) | This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis. |

| Qualifier | Description |
|---|---|
| B | The same analyte is found in the associated blank. |
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J5 | The sample matrix interfered with the ability to make any accurate determination; spike value is high. |
| P1 | RPD value not applicable for sample concentrations less than 5 times the reporting limit. |
| T8 | Sample(s) received past/too close to holding time expiration. |
| V | The sample concentration is too high to evaluate accurate spike recoveries. |

# ACCREDITATIONS & LOCATIONS

## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nebraska | NE-OS-15-05 |
| Alaska | 17-026 | Nevada | TN000032021-1 |
| Arizona | AZ0612 | New Hampshire | 2975 |
| Arkansas | 88-0469 | New Jersey–NELAP | TN002 |
| California | 2932 | New Mexico [1] | TN00003 |
| Colorado | TN00003 | New York | 11742 |
| Connecticut | PH-0197 | North Carolina | Env375 |
| Florida | E87487 | North Carolina [1] | DW21704 |
| Georgia | NELAP | North Carolina [3] | 41 |
| Georgia [1] | 923 | North Dakota | R-140 |
| Idaho | TN00003 | Ohio–VAP | CL0069 |
| Illinois | 200008 | Oklahoma | 9915 |
| Indiana | C-TN-01 | Oregon | TN200002 |
| Iowa | 364 | Pennsylvania | 68-02979 |
| Kansas | E-10277 | Rhode Island | LAO000356 |
| Kentucky [1 6] | KY90010 | South Carolina | 84004002 |
| Kentucky [2] | 16 | South Dakota | n/a |
| Louisiana | AI30792 | Tennessee [1 4] | 2006 |
| Louisiana | LA018 | Texas | T104704245-20-18 |
| Maine | TN00003 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | TN000032021-11 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 110033 |
| Minnesota | 047-999-395 | Washington | C847 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 998093910 |
| Montana | CERT0086 | Wyoming | A2LA |
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC EMLAP | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | P330-15-00234 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to:
**Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT (MT) CT ET

Phone: **602-733-6110**

Client Project # VSR023513.6155

Lab Project # **AMECTAZ-FOURCORNERS - MULTIUNIT**

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N____ Y____

***Rush?*** (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ~~ALKCAOH~~ 125mlHDPE-NoPres $CO_3$ Alkalinity as $CaCO_3$ SM2320B | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | pH, 4500 HB, 250ml HDPE NO pres | 125ml HDPE NO pres $HCO_3$ Alkalinity as $CaCO_3$ SM2320B | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW01-1024 | | WW | | 102524 | 1507 | X | X | X | X | X | X | X | X | X | X | | -01 |
| ~~FC-CCR-MW6~~ | | WW | | | | | | | | | | | | | | | |
| FC-CCR-MW75-1024 | | WW | | 102524 | 1346 | X | X | X | X | X | X | X | X | X | X | | -02 |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |

Chain of Custody Page 1 of 1

Pace PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1794401
**H182**

Acctnum: **AMECTAZ**
Template: **T261976**
Prelogin: **P1107674**
PM: **288 - Daphne Richards**
PB:
Shipped Via: **FedEX Ground**

* Matrix:
**SS** - Soil **AIR** - Air **F** - Filter
**GW** - Groundwater **B** - Bioassay
**WW** - WasteWater
**DW** - Drinking Water
**OT** - Other_____

**Remarks:200.7: Total B, Ca,Be,Li, ~~Fe, Mn,~~ K, Mg, Na.**
**200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co**

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4102 9171 4979

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR | |
|---|---|---|---|---|---|
| | 103024 | 1622 | | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: 5.3/0.3 °C Bottles Received: 10 | If preservation required by Login: Date/Time |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: 10.31.24 Time: 0900 | Hold: Condition: NCF / OK |

**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

November 20, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1794401 WG2393764-Revised Report
Pace Project No.: 10714603

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 05, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

This report was revised on November 20, 2024, to report to the Method Dectection Limit (MDL).

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation



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**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## CERTIFICATIONS

Project: L1794401 WG2393764-Revised Report
Pace Project No.: 10714603

**Pace Analytical Services, LLC - Minneapolis MN**
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

## REPORT OF LABORATORY ANALYSIS

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**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## SAMPLE SUMMARY

Project: L1794401 WG2393764-Revised Report
Pace Project No.: 10714603

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **10714603001** | **FC-CCR-MW61-1024** | Water | 10/25/24 15:07 | 11/05/24 09:50 |
| **10714603002** | **FC-CCR-MW75-1024** | Water | 10/25/24 13:46 | 11/05/24 09:50 |

## REPORT OF LABORATORY ANALYSIS

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**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## SAMPLE ANALYTE COUNT

Project: L1794401 WG2393764-Revised Report
Pace Project No.: 10714603

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **10714603001** | **FC-CCR-MW61-1024** | EPA 200.7 | IP | 6 | PASI-M |
| | | EPA 200.8 | DJM | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714603002** | **FC-CCR-MW75-1024** | EPA 200.7 | IP | 6 | PASI-M |
| | | EPA 200.8 | DJM | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |

PASI-M = Pace Analytical Services - Minneapolis



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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## ANALYTICAL RESULTS

Project: L1794401 WG2393764-Revised Report
Pace Project No.: 10714603

**Sample: FC-CCR-MW61-1024** **Lab ID: 10714603001** Collected: 10/25/24 15:07 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **0.55J** | ug/L | 5.0 | 0.44 | 1 | 11/07/24 05:33 | 11/10/24 11:52 | 7440-41-7 | |
| Boron | **44700** | ug/L | 1500 | 160 | 10 | 11/07/24 05:33 | 11/10/24 12:52 | 7440-42-8 | |
| Calcium | **438000** | ug/L | 500 | 31.8 | 1 | 11/07/24 05:33 | 11/10/24 11:52 | 7440-70-2 | |
| Magnesium | **157000** | ug/L | 500 | 28.9 | 1 | 11/07/24 05:33 | 11/10/24 11:52 | 7439-95-4 | |
| Potassium | **25600** | ug/L | 2500 | 108 | 1 | 11/07/24 05:33 | 11/10/24 11:52 | 7440-09-7 | |
| Sodium | **1200000** | ug/L | 10000 | 454 | 10 | 11/07/24 05:33 | 11/10/24 12:52 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 0.44 | 5 | 11/06/24 12:05 | 11/07/24 15:46 | 7440-36-0 | D3 |
| Arsenic | **<0.61** | ug/L | 2.5 | 0.61 | 5 | 11/06/24 12:05 | 11/07/24 15:46 | 7440-38-2 | D3 |
| Barium | **18.6** | ug/L | 1.5 | 0.35 | 5 | 11/06/24 12:05 | 11/07/24 15:46 | 7440-39-3 | |
| Cadmium | **1.1** | ug/L | 0.40 | 0.15 | 5 | 11/06/24 12:05 | 11/07/24 15:46 | 7440-43-9 | |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/06/24 12:05 | 11/07/24 15:46 | 7440-47-3 | D3 |
| Cobalt | **31.8** | ug/L | 2.5 | 0.48 | 5 | 11/06/24 12:05 | 11/07/24 15:46 | 7440-48-4 | |
| Lead | **1.1J** | ug/L | 2.5 | 0.90 | 5 | 11/06/24 12:05 | 11/07/24 15:46 | 7439-92-1 | D3 |
| Lithium | **481** | ug/L | 2.5 | 0.92 | 5 | 11/06/24 12:05 | 11/07/24 15:46 | 7439-93-2 | P6 |
| Molybdenum | **106** | ug/L | 2.5 | 0.63 | 5 | 11/06/24 12:05 | 11/07/24 15:46 | 7439-98-7 | |
| Selenium | **1.1J** | ug/L | 2.5 | 0.37 | 5 | 11/06/24 12:05 | 11/07/24 15:46 | 7782-49-2 | D3 |
| Thallium | **0.30J** | ug/L | 0.50 | 0.13 | 5 | 11/06/24 12:05 | 11/07/24 15:46 | 7440-28-0 | D3 |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 11/06/24 12:25 | 11/08/24 09:57 | 7439-97-6 | |

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(612)607-1700

## ANALYTICAL RESULTS

Project: L1794401 WG2393764-Revised Report
Pace Project No.: 10714603

**Sample: FC-CCR-MW75-1024** **Lab ID: 10714603002** Collected: 10/25/24 13:46 Received: 11/05/24 09:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **1.7J** | ug/L | 5.0 | 0.44 | 1 | 11/07/24 05:33 | 11/10/24 11:54 | 7440-41-7 | |
| Boron | **26200** | ug/L | 1500 | 160 | 10 | 11/07/24 05:33 | 11/10/24 12:54 | 7440-42-8 | |
| Calcium | **388000** | ug/L | 500 | 31.8 | 1 | 11/07/24 05:33 | 11/10/24 11:54 | 7440-70-2 | |
| Magnesium | **248000** | ug/L | 500 | 28.9 | 1 | 11/07/24 05:33 | 11/10/24 11:54 | 7439-95-4 | |
| Potassium | **28500** | ug/L | 2500 | 108 | 1 | 11/07/24 05:33 | 11/10/24 11:54 | 7440-09-7 | |
| Sodium | **1490000** | ug/L | 10000 | 454 | 10 | 11/07/24 05:33 | 11/10/24 12:54 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 0.44 | 5 | 11/06/24 12:05 | 11/07/24 16:17 | 7440-36-0 | D3 |
| Arsenic | **<0.61** | ug/L | 2.5 | 0.61 | 5 | 11/06/24 12:05 | 11/07/24 16:17 | 7440-38-2 | D3 |
| Barium | **18.6** | ug/L | 1.5 | 0.35 | 5 | 11/06/24 12:05 | 11/07/24 16:17 | 7440-39-3 | |
| Cadmium | **1.8** | ug/L | 0.40 | 0.15 | 5 | 11/06/24 12:05 | 11/07/24 16:17 | 7440-43-9 | |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/06/24 12:05 | 11/07/24 16:17 | 7440-47-3 | D3 |
| Cobalt | **65.4** | ug/L | 2.5 | 0.48 | 5 | 11/06/24 12:05 | 11/07/24 16:17 | 7440-48-4 | |
| Lead | **3.4** | ug/L | 2.5 | 0.90 | 5 | 11/06/24 12:05 | 11/07/24 16:17 | 7439-92-1 | |
| Lithium | **426** | ug/L | 2.5 | 0.92 | 5 | 11/06/24 12:05 | 11/07/24 16:17 | 7439-93-2 | |
| Molybdenum | **159** | ug/L | 2.5 | 0.63 | 5 | 11/06/24 12:05 | 11/07/24 16:17 | 7439-98-7 | |
| Selenium | **2.8** | ug/L | 2.5 | 0.37 | 5 | 11/06/24 12:05 | 11/07/24 16:17 | 7782-49-2 | |
| Thallium | **0.23J** | ug/L | 0.50 | 0.13 | 5 | 11/06/24 12:05 | 11/07/24 16:17 | 7440-28-0 | D3 |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 11/06/24 12:25 | 11/08/24 10:01 | 7439-97-6 | |

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## QUALITY CONTROL DATA

Project: L1794401 WG2393764-Revised Report
Pace Project No.: 10714603

QC Batch: 978223
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714603001, 10714603002

METHOD BLANK: 5112161 Matrix: Water
Associated Lab Samples: 10714603001, 10714603002

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Mercury | ug/L | <0.074 | 0.20 | 0.074 | 11/08/24 09:54 | |

LABORATORY CONTROL SAMPLE: 5112162

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Mercury | ug/L | 5 | 5.0 | 99 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112163 5112164

| Parameter | Units | 10714603001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ug/L | <0.074 | 5 | 5 | 4.8 | 4.8 | 96 | 95 | 70-130 | 1 | 20 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

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## QUALITY CONTROL DATA

Project: L1794401 WG2393764-Revised Report
Pace Project No.: 10714603

QC Batch: 978205
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714603001, 10714603002

METHOD BLANK: 5112090 Matrix: Water
Associated Lab Samples: 10714603001, 10714603002

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 5.0 | 0.44 | 11/10/24 15:21 | |
| Boron | ug/L | 64.2J | 150 | 16.0 | 11/10/24 15:21 | |
| Calcium | ug/L | 43.7J | 500 | 31.8 | 11/10/24 15:21 | |
| Magnesium | ug/L | 127J | 500 | 28.9 | 11/10/24 15:21 | |
| Potassium | ug/L | <108 | 2500 | 108 | 11/10/24 15:21 | |
| Sodium | ug/L | 147J | 1000 | 45.4 | 11/10/24 15:21 | |

LABORATORY CONTROL SAMPLE: 5112091

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Beryllium | ug/L | 1000 | 1010 | 101 | 85-115 | |
| Boron | ug/L | 1000 | 1010 | 101 | 85-115 | |
| Calcium | ug/L | 20000 | 19000 | 95 | 85-115 | |
| Magnesium | ug/L | 20000 | 19600 | 98 | 85-115 | |
| Potassium | ug/L | 20000 | 20100 | 100 | 85-115 | |
| Sodium | ug/L | 20000 | 20100 | 101 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112092 5112093

| Parameter | Units | 10714605021 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 1000 | 1000 | 1100 | 1100 | 110 | 110 | 70-130 | 0 | 20 | |
| Boron | ug/L | 60300 | 1000 | 1000 | 61600 | 65300 | 135 | 497 | 70-130 | 6 | 20 | P6 |
| Calcium | ug/L | 395000 | 20000 | 20000 | 412000 | 425000 | 87 | 153 | 70-130 | 3 | 20 | P6 |
| Magnesium | ug/L | 650000 | 20000 | 20000 | 672000 | 693000 | 112 | 217 | 70-130 | 3 | 20 | P6 |
| Potassium | ug/L | 30700 | 20000 | 20000 | 56000 | 57000 | 127 | 132 | 70-130 | 2 | 20 | P6 |
| Sodium | ug/L | 1290000 | 20000 | 20000 | 1370000 | 1410000 | 386 | 602 | 70-130 | 3 | 20 | P6 |

MATRIX SPIKE SAMPLE: 5112094

| Parameter | Units | 10714605030 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Beryllium | ug/L | <2.2 | 1000 | 1020 | 102 | 70-130 | |
| Boron | ug/L | 2570 | 1000 | 3320 | 76 | 70-130 | |
| Calcium | ug/L | 411000 | 20000 | 420000 | 47 | 70-130 | P6 |
| Magnesium | ug/L | 2240000 | 20000 | 2210000 | -144 | 70-130 | P6 |
| Potassium | ug/L | 92900 | 20000 | 116000 | 117 | 70-130 | |

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## QUALITY CONTROL DATA

Project: L1794401 WG2393764-Revised Report
Pace Project No.: 10714603

MATRIX SPIKE SAMPLE: 5112094

| Parameter | Units | 10714605030 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Sodium | ug/L | 8140000 | 20000 | 7570000 | -2850 | 70-130 | P6 |

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## QUALITY CONTROL DATA

Project: L1794401 WG2393764-Revised Report
Pace Project No.: 10714603

QC Batch: 978179
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714603001, 10714603002

METHOD BLANK: 5112007 Matrix: Water
Associated Lab Samples: 10714603001, 10714603002

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Antimony | ug/L | <0.087 | 0.50 | 0.087 | 11/07/24 15:40 | |
| Arsenic | ug/L | <0.12 | 0.50 | 0.12 | 11/07/24 15:40 | |
| Barium | ug/L | <0.070 | 0.30 | 0.070 | 11/07/24 15:40 | |
| Cadmium | ug/L | <0.030 | 0.080 | 0.030 | 11/07/24 15:40 | |
| Chromium | ug/L | <0.54 | 2.0 | 0.54 | 11/07/24 15:40 | |
| Cobalt | ug/L | <0.095 | 0.50 | 0.095 | 11/07/24 15:40 | |
| Lead | ug/L | <0.18 | 0.50 | 0.18 | 11/07/24 15:40 | |
| Lithium | ug/L | <0.18 | 0.50 | 0.18 | 11/07/24 15:40 | |
| Molybdenum | ug/L | <0.13 | 0.50 | 0.13 | 11/07/24 15:40 | |
| Selenium | ug/L | <0.074 | 0.50 | 0.074 | 11/07/24 15:40 | |
| Thallium | ug/L | <0.026 | 0.10 | 0.026 | 11/07/24 15:40 | |

LABORATORY CONTROL SAMPLE: 5112008

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Antimony | ug/L | 100 | 98.5 | 98 | 85-115 | |
| Arsenic | ug/L | 100 | 104 | 104 | 85-115 | |
| Barium | ug/L | 100 | 103 | 103 | 85-115 | |
| Cadmium | ug/L | 100 | 101 | 101 | 85-115 | |
| Chromium | ug/L | 100 | 107 | 107 | 85-115 | |
| Cobalt | ug/L | 100 | 109 | 109 | 85-115 | |
| Lead | ug/L | 100 | 106 | 106 | 85-115 | |
| Lithium | ug/L | 100 | 107 | 107 | 85-115 | |
| Molybdenum | ug/L | 100 | 100 | 100 | 85-115 | |
| Selenium | ug/L | 100 | 104 | 104 | 85-115 | |
| Thallium | ug/L | 100 | 106 | 106 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112009 5112010

| Parameter | Units | 10714603001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ug/L | <0.44 | 100 | 100 | 103 | 99.6 | 103 | 99 | 70-130 | 3 | 20 | |
| Arsenic | ug/L | <0.61 | 100 | 100 | 110 | 107 | 110 | 106 | 70-130 | 3 | 20 | |
| Barium | ug/L | 18.6 | 100 | 100 | 122 | 118 | 103 | 99 | 70-130 | 4 | 20 | |
| Cadmium | ug/L | 1.1 | 100 | 100 | 101 | 97.9 | 100 | 97 | 70-130 | 4 | 20 | |
| Chromium | ug/L | <2.7 | 100 | 100 | 110 | 107 | 108 | 105 | 70-130 | 3 | 20 | |
| Cobalt | ug/L | 31.8 | 100 | 100 | 139 | 135 | 107 | 103 | 70-130 | 3 | 20 | |

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## QUALITY CONTROL DATA

Project: L1794401 WG2393764-Revised Report
Pace Project No.: 10714603

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112009 5112010

| Parameter | Units | 10714603001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lead | ug/L | 1.1J | 100 | 100 | 107 | 102 | 106 | 101 | 70-130 | 4 | 20 | |
| Lithium | ug/L | 481 | 100 | 100 | 561 | 534 | 80 | 53 | 70-130 | 5 | 20 | P6 |
| Molybdenum | ug/L | 106 | 100 | 100 | 204 | 199 | 99 | 93 | 70-130 | 3 | 20 | |
| Selenium | ug/L | 1.1J | 100 | 100 | 112 | 107 | 111 | 106 | 70-130 | 5 | 20 | |
| Thallium | ug/L | 0.30J | 100 | 100 | 109 | 104 | 109 | 103 | 70-130 | 5 | 20 | |

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# QUALIFIERS

Project: L1794401 WG2393764-Revised Report
Pace Project No.: 10714603

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## ANALYTE QUALIFIERS

| | |
|---|---|
| D3 | Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference. |
| P6 | Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level. |



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1794401 WG2393764-Revised Report
Pace Project No.: 10714603

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **10714603002** | **FC-CCR-MW75-1024** | EPA 200.7 | 978205 | EPA 200.7 | 978498 |
| **10714603001** | **FC-CCR-MW61-1024** | EPA 200.7 | 978205 | EPA 200.7 | 978498 |
| **10714603002** | **FC-CCR-MW75-1024** | EPA 200.8 | 978179 | EPA 200.8 | 978463 |
| **10714603001** | **FC-CCR-MW61-1024** | EPA 200.8 | 978179 | EPA 200.8 | 978463 |
| **10714603002** | **FC-CCR-MW75-1024** | EPA 245.1 | 978223 | EPA 245.1 | 978390 |
| **10714603001** | **FC-CCR-MW61-1024** | EPA 245.1 | 978223 | EPA 245.1 | 978390 |



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# Sub-Contract Chain of Custody

**Batch Date/Time:** 11/01/24 14:00
**Sub-Contract Lab:** PACEMN
**Address:** 1700 Elm Street Suite 200 SE
**City/State:** Minneapolis, MN 55414
**Contact:** tong.lee@pacelabs.com
**Owner Lab:** PACEMTJL
**Address:** 12065 Lebanon Rd.
**City/State:** Mt. Juliet, TN 37122
**Phone:** (615) 773-9756
**Fax:** (615) 758-5859

**WO:** WG2393764
**Email:** MTJLSuboutTeam@pacelabs.com
**Results Due Date:** 11/11/24
**ESC Purchase Order #:** L1794401
**Send Reports to:** James C Huckaba

Pace Analytical®

12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone:(615) 773-9756
Fax:(615) 758-5859

| Sample ID<br>Container ID | Matrix | State | Collect Date | Description | Sample Number<br>Lab Use Only | Sample Comments<br>Lab Use Only |
|---|---|---|---|---|---|---|
| **FC-CCR-MW61-1024**<br>250mlHDPE-HNO3 - 49864894<br>250mlHDPE-HNO3 - 49864896 | WW | NM | 10/25/24 15:07 | Metals | 1. L1794401-01 | 200.7 B, Ca, Be, Li, K, Mg, Na, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, TL, Co and Hg, MATRIXGAZ EDD and MDLRDL<br>001 |
| **FC-CCR-MW75-1024**<br>250mlHDPE-HNO3 - 49864898<br>250mlHDPE-HNO3 - 49864900 | WW | NM | 10/25/24 13:46 | Metals | 2. L1794401-02 | 200.7 B, Ca, Be, Li, K, Mg, Na, 200.8 Sb, As, Ba, Cd, Cr, Pb, Mo, Se, TL, Co and Hg, MATRIXGAZ EDD and MDLRDL<br>002 |

*= Container used for multiple Samples and/or Analyses

**Relinquished by:** _____ **Date** 11-1-24

**Received by:** Pace **Date** 11-5-24 9:50

**Relinquished by:** _____ **Date** _____

**Received by:** _____ **Date** _____

**NO ICE**

WO#: 10714603

10714603

# ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

**CLIENT NAME:** Pace MTJL **PROJECT #:** **WO#: 10714603**

**PM: TKL** **Due Date: 11/11/24**

**CLIENT: PASI-TN**

**COURIER:** ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

**TRACKING NUMBER:** 421264758537 ☐ See Exceptions form ENV-FRM-MIN4-0142

**Custody Seal on Cooler/Box Present:** ☑ YES ☐ NO **Seals Intact:** ☑ YES ☐ NO **Biological Tissue Frozen:** ☐ YES ☐ NO ☑ N/A

**Packing Material:** ☐ Bubble Bags ☑ Bubble Wrap ☐ None ☐ Other **Temp Blank:** ☐ YES ☑ NO **Type of Ice:** ☐ Blue ☐ Dry ☐ Wet ☐ Melted ☑ None

**Thermometer:** ☑ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

| | |
|---|---|
| **Did Samples Originate in West Virginia:** ☐ YES ☑ NO | **Were All Container Temps taken:** ☐ YES ☐ NO ☑ N/A |
| **Correction Factor:** +0.1 **Cooler Temp Read w/Temp Blank:** _____ °C **Cooler Temp Corrected w/Temp Blank:** _____ °C | **Average Corrected Temp (no Temp Blank Only):** 16.0 °C |
| ***NOTE:*** *Temp should be above freezing to 6°C.* | ☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container |
| **USDA Regulated Soil:** ☑ N/A ☐ (Water Sample/Other (describe): _____ | **Initials & Date of Person Examining Contents:** EC 11-5-24 |
| Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO | Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO |
| **NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.** | |

| **LOCATION (check one):** ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA | YES | NO | N/A | COMMENT(S) |
|---|---|---|---|---|
| Chain of Custody Present and Filled Out? | ☑ | ☐ | | 1. |
| Chain of Custody Relinquished? | ☑ | ☐ | | 2. |
| Sampler Name and/or Signature on COC? | ☐ | ☑ | ☐ | 3. |
| Samples Arrived within Hold Time? | ☑ | ☐ | | 4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No |
| **Short Hold Time Analysis (<72 hr)?** | ☐ | ☑ | | 5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____ |
| **Rush Turn Around Time Requested?** | ☑ | ☐ | | 6. 11-11-24 |
| Sufficient Sample Volume? | ☑ | ☐ | | 7. |
| Correct Containers Used? | ☑ | ☐ | ☐ | 8. |
| – Pace Containers Used? | ☑ | ☐ | | |
| Containers Intact? | ☑ | ☐ | | 9. |
| Field Filtered Volume Received for Dissolved Tests? | ☐ | ☑ | ☐ | 10. Is sediment visible in the dissolved container: ☐ YES ☐ NO |
| Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other | ☑ | ☐ | | **11. If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142 |
| All containers needing acid/base preservation have been checked? | ☑ | ☐ | ☐ | 12. Sample #: 001-002 2/2 |
| All containers needing preservation are found to be in compliance with EPA recommendation? ($HNO_3$, $H_2SO_4$, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide) | ☑ | ☐ | ☐ | ☑ $HNO_3$ ☐ $H_2SO_4$ ☐ NaOH ☐ Zinc Acetate |
| Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS | ☐ | ☐ | ☑ | Positive for Residual Chlorine: ☐ YES ☐ NO |
| **NOTE:** If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs. | | | | **pH Paper Lot #** |
| | | | | Residual Chlorine: 0-6 Roll: 205224; 0-6 Strip: ; 0-14 Strip: |
| | | | | ☐ See Exceptions form ENV-FRM-MIN4-0142 |
| Headspace in Methyl Mercury Container? | ☐ | ☐ | ☑ | 13. |
| Extra labels present on soil VOA or WIDRO containers? | ☐ | ☐ | ☑ | 14. |
| Headspace in VOA Vials (greater than 6mm)? | ☐ | ☐ | ☑ | ☐ See Exceptions form ENV-FRM-MIN4-0140 |
| Trip Blanks Present? | ☐ | ☐ | ☑ | 15. |
| Trip Blank Custody Seals Present? | ☐ | ☐ | ☑ | Pace Trip Blank Lot # (if purchased): _____ |

**CLIENT NOTIFICATION / RESOLUTION** **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

**Project Manager Review:** _____ **Date:** 11/06/24

***NOTE:*** *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

**Labeled By:** EC **Line:** 2

**Workorder #:** _____

| No Temp Blank | | |
|---|---|---|
| Read Temp | Corrected Temp | Average temp |
| 18.0 | 18.1 | 18.0 |
| 17.8 | 17.9 | |
| 18.0 | 18.1 | |
| 17.8 | 17.9 | |

**PM Notified of Out of Temp Cooler?** ☐ YES ☐ NO

If yes, indicate who was contacted, date and time.
If no, indicate reason why.

_____

**Multiple Cooler Project?** ☐ YES ☐ NO

**If anything is OVER 6.0°C, you MUST document containers in this section HERE**

| Tracking Number | Temperature |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| Out of Temp Sample ID | Container Type | # of Containers |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| pH Adjustment Log for Preserved Samples | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Type Of Preserve | pH Upon Receipt | Date Adjusted | Time Adjusted | Amount Added (mL) | Lot # Added | pH After | In Compliance After Addition? | | Initials |
| | | | | | | | | YES | NO | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |

**Comments:**

_____

_____

_____

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



| **Section A** Required Client Information: | | **Section B** Required Project Information: | | **Section C** Invoice Information: | |
|---|---|---|---|---|---|
| Company: | Pace Analytical | Report To: | Pace Analytical Subout Team | Attention: | Samantha O'Shea |
| Address: | 12065 Lebanon Rd. | Copy To: | | Company Name: | |
| Mt. Juliet, TN 37122 | | | | Address: | |
| Email: | MTJLSuboutTeam@pacelabs.com | Purchase Order #: | L1794401 | Pace Quote: | |
| Phone: (615) 773-9756 | Fax: (615) 758-5859 | Project Name: | | Pace Project Manager: | Tong Lee |
| Requested Due Date: | 11-Nov | Project #: | US0023513.6155 | Pace Profile #: | 38076 |

| Regulatory Agency |
|---|
| |
| **State / Location** |
| **NM** |

| MATRIX | CODE |
|---|---|
| Drinking Water | DW |
| Water | WT |
| Waste Water | WW |
| Product | P |
| Soil/Solid | SL |
| Oil | OL |
| Wipe | WP |
| Air | AR |
| Other | OT |
| Tissue | TS |

**SAMPLE ID**
**One Character per box.**
**(A-Z, 0-9 / , -)**
**Sample Ids must be unique**

| ITEM # | SAMPLE ID | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | Analyses Test Y/N | Analyses Test: Metals | Residual Chlorine (Y/N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FC-CCR-MW61-1024 | WT | | | | 25-Oct | 15:07 | | 2 | | | 2 | | | | | | | X | | 200.7 B, Ca, Be, Li, K, Mg, Na, 2 |
| 2 | FC-CCR-MW75-1024 | WT | | | | 25-Oct | 13:46 | | 2 | | | 2 | | | | | | | X | | 200.7 B, Ca, Be, Li, K, Mg, Na, 2 |
| 3 | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS |
|---|---|---|---|---|---|---|---|
| | James C Huckaba | 1-Nov | 14:18 | | | | |
| Pace Analytical Batch: WG2393764 | | | | | | | |
| **Pace Analytical SDGs: L1794401** | | | | | | | |
| **Location: Minneapolis, MN 55414** | | | | | | | |

| SAMPLER NAME AND SIGNATURE | | TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
|---|---|---|---|---|---|
| **PRINT Name of SAMPLER:** | | | | | |
| **SIGNATURE of SAMPLER:** | **DATE Signed:** | | | | |

**Address**
1700 Elm Street Suite 200 SE
Minneapolis, MN 55414

# ANALYTICAL REPORT

December 10, 2024



## WSP (Formely Wood E&I)-Phoenix, AZ

| | |
|---|---|
| Sample Delivery Group: | L1800973 |
| Samples Received: | 11/16/2024 |
| Project Number: | US0023513.6155 |
| Description: | |

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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## FC-CCR-MW87-1024 L1800973-01 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/12/24 16:07 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403648 | 1 | 11/18/24 15:07 | 11/19/24 09:47 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2403979 | 1 | 11/19/24 11:20 | 11/19/24 11:20 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2403212 | 100 | 11/23/24 07:13 | 11/23/24 07:13 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2403212 | 1000 | 11/25/24 13:19 | 11/25/24 13:19 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2403212 | 5 | 11/23/24 07:00 | 11/23/24 07:00 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2404576 | 1 | 11/19/24 21:30 | 11/19/24 21:30 | KRB | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404199 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW08-1024 L1800973-02 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/12/24 11:35 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403648 | 1 | 11/18/24 15:07 | 11/19/24 09:47 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 2320 B-2011 | WG2404160 | 1 | 11/19/24 11:08 | 11/19/24 11:08 | ARD | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2403212 | 10 | 11/23/24 07:26 | 11/23/24 07:26 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2403212 | 100 | 11/23/24 07:39 | 11/23/24 07:39 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2403212 | 5 | 11/23/24 09:08 | 11/23/24 09:08 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2404576 | 1 | 11/19/24 21:30 | 11/19/24 21:30 | KRB | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404199 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW07-1024 L1800973-03 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/12/24 12:32 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403648 | 1 | 11/18/24 15:07 | 11/19/24 09:47 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2403212 | 100 | 11/23/24 08:30 | 11/23/24 08:30 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2403212 | 5 | 11/23/24 09:21 | 11/23/24 09:21 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2404576 | 1 | 11/19/24 21:30 | 11/19/24 21:30 | KRB | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404199 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW52-1024 L1800973-04 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/12/24 10:43 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Subcontracted Analyses | WG2404199 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW49A-1024 L1800973-05 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 11/12/24 09:09 | 11/16/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2403648 | 1 | 11/18/24 15:07 | 11/19/24 09:47 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2403212 | 100 | 11/23/24 08:55 | 11/23/24 08:55 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2403212 | 5 | 11/23/24 09:34 | 11/23/24 09:34 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2404576 | 1 | 11/19/24 21:30 | 11/19/24 21:30 | KRB | Mt. Juliet, TN |
| Subcontracted Analyses | WG2404199 | 1 | 12/09/24 00:00 | 12/09/24 00:00 | - | Minneapolis, MN 55414 |

# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

## Project Narrative

L1800973 -01, -02, -03, -04, -05 contains subout data that is included after the chain of custody.

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 66100000 | | 1000000 | 1 | 11/19/2024 09:47 | WG2403648 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 1560000 | | 4750 | 20000 | 1 | 11/19/2024 11:20 | WG2403979 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/19/2024 11:20 | WG2403979 |

**Sample Narrative:**

L1800973-01 WG2403979: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 3710000 | | 54700 | 100000 | 100 | 11/23/2024 07:13 | WG2403212 |
| Fluoride | U | | 380 | 750 | 5 | 11/23/2024 07:00 | WG2403212 |
| Sulfate | 45100000 | | 637000 | 5000000 | 1000 | 11/25/2024 13:19 | WG2403212 |

**Sample Narrative:**

L1800973-01 WG2403212: Dilution due to matrix impact on instrumentation at lower dilution

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.69 | T8 | 1 | 11/19/2024 21:30 | WG2404576 |

**Sample Narrative:**

L1800973-01 WG2404576: 7.69 at 18.9C

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 17200000 | | 200000 | 1 | 11/19/2024 09:47 | WG2403648 |

## Wet Chemistry by Method 2320 B-2011

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Alkalinity,Bicarbonate | 516000 | | 4750 | 20000 | 1 | 11/19/2024 11:08 | WG2404160 |
| Alkalinity,Carbonate | U | | 4750 | 20000 | 1 | 11/19/2024 11:08 | WG2404160 |

**Sample Narrative:**

L1800973-02 WG2404160: Endpoint pH 4.5 Headspace

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1120000 | | 5470 | 10000 | 10 | 11/23/2024 07:26 | WG2403212 |
| Fluoride | 512 | J | 380 | 750 | 5 | 11/23/2024 09:08 | WG2403212 |
| Sulfate | 9570000 | | 63700 | 500000 | 100 | 11/23/2024 07:39 | WG2403212 |

**Sample Narrative:**

L1800973-02 WG2403212: Dilution due to matrix impact on instrumentation at lower dilution

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.74 | T8 | 1 | 11/19/2024 21:30 | WG2404576 |

**Sample Narrative:**

L1800973-02 WG2404576: 7.74 at 18.9C

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 9580000 | | 100000 | 1 | 11/19/2024 09:47 | WG2403648 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 581000 | | 2740 | 5000 | 5 | 11/23/2024 09:21 | WG2403212 |
| Fluoride | 394 | J | 380 | 750 | 5 | 11/23/2024 09:21 | WG2403212 |
| Sulfate | 5190000 | | 63700 | 500000 | 100 | 11/23/2024 08:30 | WG2403212 |

Sample Narrative:

L1800973-03 WG2403212: Dilution due to matrix impact on instrumentation at lower dilution

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.67 | T8 | 1 | 11/19/2024 21:30 | WG2404576 |

Sample Narrative:

L1800973-03 WG2404576: 7.67 at 19.1C

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 20200000 | | 200000 | 1 | 11/19/2024 09:47 | WG2403648 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 490000 | | 2740 | 5000 | 5 | 11/23/2024 09:34 | WG2403212 |
| Fluoride | 495 | J | 380 | 750 | 5 | 11/23/2024 09:34 | WG2403212 |
| Sulfate | 13200000 | | 63700 | 500000 | 100 | 11/23/2024 08:55 | WG2403212 |

Sample Narrative:

L1800973-05 WG2403212: Dilution due to matrix impact on instrumentation at lower dilution

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.74 | T8 | 1 | 11/19/2024 21:30 | WG2404576 |

Sample Narrative:

L1800973-05 WG2404576: 7.74 at 19.3C

## Method Blank (MB)

(MB) R4149227-1 11/19/24 09:47

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Dissolved Solids | U | | 10000 | 10000 |

## L1800290-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800290-02 11/19/24 09:47 • (DUP) R4149227-3 11/19/24 09:47

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 3730000 | 2460000 | 1 | 41.2 | J3 | 10 |

## L1800977-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1800977-14 11/19/24 09:47 • (DUP) R4149227-4 11/19/24 09:47

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 21600000 | 21500000 | 1 | 0.464 | | 10 |

## Laboratory Control Sample (LCS)

(LCS) R4149227-2 11/19/24 09:47

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Dissolved Solids | 8800000 | 8700000 | 98.9 | 85.0-115 | |

## Method Blank (MB)

(MB) R4148104-2 11/19/24 09:08

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Alkalinity,Bicarbonate | U | | 4750 | 20000 |
| Alkalinity,Carbonate | U | | 4750 | 20000 |

Sample Narrative:

BLANK: Endpoint pH 4.5

## L1800064-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800064-01 11/19/24 09:24 • (DUP) R4148104-4 11/19/24 09:31

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Alkalinity,Bicarbonate | 159000 | 165000 | 1 | 3.72 | | 20 |
| Alkalinity,Carbonate | 29100 | 22700 | 1 | 24.9 | P1 | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

## L1800973-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800973-01 11/19/24 11:20 • (DUP) R4148104-6 11/19/24 11:24

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Alkalinity,Bicarbonate | 1560000 | 1580000 | 1 | 1.65 | | 20 |
| Alkalinity,Carbonate | U | U | 1 | 0.000 | | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

## Method Blank (MB)

(MB) R4147883-2 11/19/24 09:08

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Alkalinity,Bicarbonate | U | | 4750 | 20000 |
| Alkalinity,Carbonate | U | | 4750 | 20000 |

Sample Narrative:

BLANK: Endpoint pH 4.5

## L1799027-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799027-01 11/19/24 09:29 • (DUP) R4147883-3 11/19/24 09:34

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | 109000 | 110000 | 1 | 0.963 | | 20 |
| Alkalinity,Carbonate | U | U | 1 | 0.000 | | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

## L1800977-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800977-04 11/19/24 11:29 • (DUP) R4147883-4 11/19/24 11:34

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Alkalinity,Bicarbonate | 500000 | 510000 | 1 | 2.00 | | 20 |
| Alkalinity,Carbonate | U | U | 1 | 0.000 | | 20 |

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

## Method Blank (MB)

(MB) R4150022-1 11/22/24 23:07

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 547 | 1000 |
| Fluoride | U | | 76.1 | 150 |
| Sulfate | U | | 637 | 5000 |

## L1800910-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800910-01 11/23/24 04:40 • (DUP) R4150022-3 11/23/24 04:52

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 70600 | 70200 | 1 | 0.504 | | 15 |
| Fluoride | 453 | 609 | 1 | 29.3 | P1 | 15 |

## L1800910-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1800910-02 11/23/24 05:31 • (DUP) R4150022-6 11/23/24 05:44

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 59300 | 59300 | 1 | 0.0208 | | 15 |
| Fluoride | 227 | 271 | 1 | 17.7 | P1 | 15 |

## Laboratory Control Sample (LCS)

(LCS) R4150022-2 11/22/24 23:20

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Chloride | 40000 | 37800 | 94.6 | 90.0-110 | |
| Fluoride | 8000 | 7430 | 92.9 | 90.0-110 | |
| Sulfate | 40000 | 38100 | 95.4 | 90.0-110 | |

## L1800910-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1800910-01 11/23/24 04:40 • (MS) R4150022-4 11/23/24 05:05 • (MSD) R4150022-5 11/23/24 05:18

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 70600 | 94400 | 95700 | 59.7 | 62.8 | 1 | 90.0-110 | J6 | J6 | 1.32 | 15 |
| Fluoride | 8000 | 453 | 7220 | 7400 | 84.6 | 86.8 | 1 | 90.0-110 | J6 | J6 | 2.45 | 15 |

## L1800910-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1800910-02 11/23/24 05:31 • (MS) R4150022-7 11/23/24 05:56

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 59300 | 86800 | 68.9 | 1 | 90.0-110 | J6 |
| Fluoride | 8000 | 227 | 7560 | 91.7 | 1 | 90.0-110 | |

## L1800805-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1800805-01 11/19/24 21:30 • (DUP) R4148074-2 11/19/24 21:30

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.89 | 7.89 | 1 | 0.000 | | 1 |

Sample Narrative:

OS: 7.89 at 19.1C

DUP: 7.89 at 19.1C

## L1801310-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801310-01 11/19/24 21:30 • (DUP) R4148074-3 11/19/24 21:30

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.28 | 7.27 | 1 | 0.137 | | 1 |

Sample Narrative:

OS: 7.28 at 19.2C

DUP: 7.27 at 19.4C

## Laboratory Control Sample (LCS)

(LCS) R4148074-1 11/19/24 21:30

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | su | su | % | % | |
| pH | 10.0 | 10.0 | 100 | 99.0-101 | |

Sample Narrative:

LCS: 10.01 at 19.9C

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

## Abbreviations and Definitions

| | |
|---|---|
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| Rec. | Recovery. |
| RPD | Relative Percent Difference. |
| SDG | Sample Delivery Group. |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| Analyte | The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported. |
| Dilution | If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor. |
| Limits | These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| Qualifier | This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable. |
| Result | The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte. |
| Uncertainty (Radiochemistry) | Confidence level of 2 sigma. |
| Case Narrative (Cn) | A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report. |
| Quality Control Summary (Qc) | This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material. |
| Sample Chain of Custody (Sc) | This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis. |
| Sample Results (Sr) | This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported. |
| Sample Summary (Ss) | This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis. |

| Qualifier | Description |
|---|---|
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J3 | The associated batch QC was outside the established quality control range for precision. |
| J6 | The sample matrix interfered with the ability to make any accurate determination; spike value is low. |
| P1 | RPD value not applicable for sample concentrations less than 5 times the reporting limit. |
| T8 | Sample(s) received past/too close to holding time expiration. |

# ACCREDITATIONS & LOCATIONS

## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nebraska | NE-OS-15-05 |
| Alaska | 17-026 | Nevada | TN000032021-1 |
| Arizona | AZ0612 | New Hampshire | 2975 |
| Arkansas | 88-0469 | New Jersey–NELAP | TN002 |
| California | 2932 | New Mexico [1] | TN00003 |
| Colorado | TN00003 | New York | 11742 |
| Connecticut | PH-0197 | North Carolina | Env375 |
| Florida | E87487 | North Carolina [1] | DW21704 |
| Georgia | NELAP | North Carolina [3] | 41 |
| Georgia [1] | 923 | North Dakota | R-140 |
| Idaho | TN00003 | Ohio–VAP | CL0069 |
| Illinois | 200008 | Oklahoma | 9915 |
| Indiana | C-TN-01 | Oregon | TN200002 |
| Iowa | 364 | Pennsylvania | 68-02979 |
| Kansas | E-10277 | Rhode Island | LA000356 |
| Kentucky [1 6] | KY90010 | South Carolina | 84004002 |
| Kentucky [2] | 16 | South Dakota | n/a |
| Louisiana | AI30792 | Tennessee [1 4] | 2006 |
| Louisiana | LA018 | Texas | T104704245-20-18 |
| Maine | TN00003 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | TN000032021-11 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 110033 |
| Minnesota | 047-999-395 | Washington | C847 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 998093910 |
| Montana | CERT0086 | Wyoming | A2LA |
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC EMLAP | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | P330-15-00234 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to:
**Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT (MT) CT ET

Phone: **602-733-6110**

Client Project # US88823513, 6155

Lab Project # **AMECTAZ-FOURCORNERS-MULTIUNIT**

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N____ Y____

**Rush?** (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Date Results Needed

**Quote #**

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 180693
B249

Acctnum: **AMECTAZ**
Template: **T261976**
Prelogin: **P1107674**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKA/OH 125mlHDPE-NoPres SM23208 CO3 Alkalinity as CaCO3 | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | 250mL HDPE NoPres pH, 4500 HB | 125mL HDPE NoPres SM23203 HCO3 Alkalinity as CaCO3 | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW07-1024 | | ~~GW~~ WW | | 111224 | 1607 | 5 | X | X | X | X | X | X | X | X | X | X | | -01 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
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| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

**Remarks:200.7: Total B, Ca,Be,Li, Fe, Mn, K, Mg, Na.**
**200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co**

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR |
|---|---|---|---|---|
| | 111524 | 1015 | FEDEX | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C Bottles Received: 22 |
| | | | | If preservation required by Login: Date/Time |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: Time: |
| | | | Alexa Mitchell | 11/6/24 0900 |

Hold: Condition: NCF / OK

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to:
**Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT (MT) CT ET

Phone: **602-733-6110**

Client Project # VS002351 3.6155

Lab Project # **AMECTAZ-FOURCORNERS-MULTIUNIT**

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ____ Y ____

**Rush?** (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALK/TOH 125mlHDPE-NoPres SM2320B Calc. Alkalinity as CaCO3 | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | pH, 4500 HB 250ml NoPres SM2320B Alkalinity as CaCO3 | 125ml NoPres HCO3 Alkalinity as CaCO3 | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW08-1024 | | ~~GW~~ WW | | 111224 | 1135 | 5 | X | X | X | X | X | X | X | X | X | X | #3 | -07 |
| FC-CCR-MW07-1024 | | ~~WW~~ | | 111224 | 1232 | 5 | X | X | X | X | X | X | X | X | X | X | #1 | -03 |
| FC-CCR-MW52-1024 | | ~~WW~~ | | 111224 | 1043 | 2 | X | X | | | | | | | | | #2 | -04 |
| ~~FC-CCR-49~~ | | WW | | | | | | | | | | | | | | | | |
| FC-CCR-MW49A-1024 | | ~~GW~~ WW | | 111224 | 0909 | 5 | X | X | X | X | X | X | X | X | X | X | #1 | -05 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, Ca, Be, Li, ~~Fe, Mn, K, Mg, Na.~~ } #1
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co
#2: 200.7, TOTAL B
200.8, TOTAL Co, Mo

#3: 200.7; B, Ca, Be, Li, Mg, K, Na
200.8; Sb As Ba Cd Cr, Pb, Mo, Se, Tl, Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| [signature] | 111524 | 1021 | Fedex |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) |
| | | | alicia Mitchell |

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received: 22

Date: 11/14/24 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: Y __N

Chain of Custody Page 2 of 2

Pace
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 180973

Table #

Acctnum: **AMECTAZ**
Template: **T261976**
Prelogin: **P1107674**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

L1800973

| Fed Ex tracking # | Gun ID | Temperature |
|---|---|---|
| 4102 9171 9477 | | 2.5 to=2.5 |
| 4102 9171 8816 | | 3.4 to=3.4 |
| 4102 9171 9466 | | 1.1 to=1.1 |
| 4102 9171 8871 | | 5.5 to=5.5 |
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| | | |

Alexa Mitchell
Name

11/16/24
Date

**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

December 08, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1800973 WG2404199
Pace Project No.: 10716439

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 20, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation



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without the written consent of Pace Analytical Services, LLC.

**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

# CERTIFICATIONS

Project: L1800973 WG2404199
Pace Project No.: 10716439

**Pace Analytical Services, LLC - Minneapolis MN**
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

## REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## SAMPLE SUMMARY

Project: L1800973 WG2404199
Pace Project No.: 10716439

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **10716439001** | **FC-CCR-MW87-1024** | Water | 11/12/24 16:07 | 11/20/24 10:05 |
| **10716439002** | **FC-CCR-MW08-1024** | Water | 11/12/24 11:35 | 11/20/24 10:05 |
| **10716439003** | **FC-CCR-MW07-1024** | Water | 11/12/24 12:32 | 11/20/24 10:05 |
| **10716439004** | **FC-CCR-MW52-1024** | Water | 11/12/24 10:43 | 11/20/24 10:05 |
| **10716439005** | **FC-CCR-MW49A-1024** | Water | 11/12/24 09:09 | 11/20/24 10:05 |

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## SAMPLE ANALYTE COUNT

Project: L1800973 WG2404199
Pace Project No.: 10716439

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **10716439001** | **FC-CCR-MW87-1024** | EPA 200.7 | IP | 8 | PASI-M |
| | | EPA 200.8 | IMB | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10716439002** | **FC-CCR-MW08-1024** | EPA 200.7 | IP | 8 | PASI-M |
| | | EPA 200.8 | IMB | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10716439003** | **FC-CCR-MW07-1024** | EPA 200.7 | IP | 3 | PASI-M |
| | | EPA 200.8 | IMB | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10716439004** | **FC-CCR-MW52-1024** | EPA 200.7 | IP | 1 | PASI-M |
| | | EPA 200.8 | IMB | 2 | PASI-M |
| **10716439005** | **FC-CCR-MW49A-1024** | EPA 200.7 | IP | 3 | PASI-M |
| | | EPA 200.8 | IMB | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |

PASI-M = Pace Analytical Services - Minneapolis



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## ANALYTICAL RESULTS

Project: L1800973 WG2404199
Pace Project No.: 10716439

**Sample: FC-CCR-MW87-1024** **Lab ID: 10716439001** Collected: 11/12/24 16:07 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<2.2** | ug/L | 25.0 | 2.2 | 5 | 11/26/24 10:20 | 12/03/24 15:53 | 7440-41-7 | D3 |
| Boron | **1830** | ug/L | 750 | 80.0 | 5 | 11/26/24 10:20 | 12/03/24 15:53 | 7440-42-8 | |
| Calcium | **390000** | ug/L | 2500 | 159 | 5 | 11/26/24 10:20 | 12/03/24 15:53 | 7440-70-2 | |
| Iron | **161J** | ug/L | 250 | 37.3 | 5 | 11/26/24 10:20 | 12/03/24 15:53 | 7439-89-6 | B,D3 |
| Magnesium | **3600000** | ug/L | 2500 | 144 | 5 | 11/26/24 10:20 | 12/03/24 15:53 | 7439-95-4 | |
| Manganese | **868** | ug/L | 25.0 | 2.5 | 5 | 11/26/24 10:20 | 12/03/24 15:53 | 7439-96-5 | |
| Potassium | **144000** | ug/L | 12500 | 540 | 5 | 11/26/24 10:20 | 12/03/24 15:53 | 7440-09-7 | |
| Sodium | **13200000** | ug/L | 100000 | 4540 | 100 | 11/26/24 10:20 | 12/03/24 16:58 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **1.6J** | ug/L | 2.5 | 0.30 | 5 | 12/05/24 05:17 | 12/05/24 19:23 | 7440-36-0 | D3 |
| Arsenic | **1.6J** | ug/L | 2.5 | 0.66 | 5 | 12/05/24 05:17 | 12/05/24 19:23 | 7440-38-2 | D3 |
| Barium | **8.3** | ug/L | 1.5 | 0.45 | 5 | 12/05/24 05:17 | 12/05/24 19:23 | 7440-39-3 | |
| Cadmium | **<0.18** | ug/L | 0.40 | 0.18 | 5 | 12/05/24 05:17 | 12/05/24 19:23 | 7440-43-9 | D3 |
| Chromium | **<2.5** | ug/L | 10.0 | 2.5 | 5 | 12/05/24 05:17 | 12/05/24 19:23 | 7440-47-3 | D3 |
| Cobalt | **8.7** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 19:23 | 7440-48-4 | |
| Lead | **<0.32** | ug/L | 2.5 | 0.32 | 5 | 12/05/24 05:17 | 12/05/24 19:23 | 7439-92-1 | D3 |
| Lithium | **2890** | ug/L | 50.0 | 20.5 | 100 | 12/05/24 05:17 | 12/05/24 19:26 | 7439-93-2 | |
| Molybdenum | **37.9** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 19:23 | 7439-98-7 | |
| Selenium | **33.5** | ug/L | 2.5 | 0.31 | 5 | 12/05/24 05:17 | 12/05/24 19:23 | 7782-49-2 | |
| Thallium | **0.18J** | ug/L | 0.50 | 0.13 | 5 | 12/05/24 05:17 | 12/05/24 19:23 | 7440-28-0 | D3 |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 11/26/24 11:05 | 11/27/24 10:36 | 7439-97-6 | |

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## ANALYTICAL RESULTS

Project: L1800973 WG2404199
Pace Project No.: 10716439

**Sample: FC-CCR-MW08-1024** **Lab ID: 10716439002** Collected: 11/12/24 11:35 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **0.45J** | ug/L | 5.0 | 0.44 | 1 | 11/26/24 10:20 | 12/03/24 15:13 | 7440-41-7 | |
| Boron | **17000** | ug/L | 150 | 16.0 | 1 | 11/26/24 10:20 | 12/03/24 15:13 | 7440-42-8 | |
| Calcium | **358000** | ug/L | 500 | 31.8 | 1 | 11/26/24 10:20 | 12/03/24 15:13 | 7440-70-2 | |
| Iron | **30.4J** | ug/L | 50.0 | 7.5 | 1 | 11/26/24 10:20 | 12/03/24 15:13 | 7439-89-6 | B |
| Magnesium | **880000** | ug/L | 500 | 28.9 | 1 | 11/26/24 10:20 | 12/03/24 15:13 | 7439-95-4 | |
| Manganese | **469** | ug/L | 5.0 | 0.50 | 1 | 11/26/24 10:20 | 12/03/24 15:13 | 7439-96-5 | |
| Potassium | **46300** | ug/L | 2500 | 108 | 1 | 11/26/24 10:20 | 12/03/24 15:13 | 7440-09-7 | |
| Sodium | **2970000** | ug/L | 20000 | 908 | 20 | 11/26/24 10:20 | 12/03/24 16:41 | 7440-23-5 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.30** | ug/L | 2.5 | 0.30 | 5 | 12/05/24 05:17 | 12/05/24 19:10 | 7440-36-0 | D3 |
| Arsenic | **<0.66** | ug/L | 2.5 | 0.66 | 5 | 12/05/24 05:17 | 12/05/24 19:10 | 7440-38-2 | D3 |
| Barium | **9.5** | ug/L | 1.5 | 0.45 | 5 | 12/05/24 05:17 | 12/05/24 19:10 | 7440-39-3 | |
| Cadmium | **<0.18** | ug/L | 0.40 | 0.18 | 5 | 12/05/24 05:17 | 12/05/24 19:10 | 7440-43-9 | D3 |
| Chromium | **<2.5** | ug/L | 10.0 | 2.5 | 5 | 12/05/24 05:17 | 12/05/24 19:10 | 7440-47-3 | D3 |
| Cobalt | **1.7J** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 19:10 | 7440-48-4 | D3 |
| Lead | **<0.32** | ug/L | 2.5 | 0.32 | 5 | 12/05/24 05:17 | 12/05/24 19:10 | 7439-92-1 | D3 |
| Lithium | **1200** | ug/L | 2.5 | 1.0 | 5 | 12/05/24 05:17 | 12/05/24 19:10 | 7439-93-2 | |
| Molybdenum | **13.1** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 19:10 | 7439-98-7 | |
| Selenium | **<0.31** | ug/L | 2.5 | 0.31 | 5 | 12/05/24 05:17 | 12/05/24 19:10 | 7782-49-2 | D3 |
| Thallium | **<0.13** | ug/L | 0.50 | 0.13 | 5 | 12/05/24 05:17 | 12/05/24 19:10 | 7440-28-0 | D3 |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 11/26/24 11:05 | 11/27/24 10:37 | 7439-97-6 | |

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## ANALYTICAL RESULTS

Project: L1800973 WG2404199
Pace Project No.: 10716439

**Sample: FC-CCR-MW07-1024** **Lab ID: 10716439003** Collected: 11/12/24 12:32 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/26/24 10:20 | 12/03/24 15:15 | 7440-41-7 | |
| Boron | **9050** | ug/L | 150 | 16.0 | 1 | 11/26/24 10:20 | 12/03/24 15:15 | 7440-42-8 | |
| Calcium | **337000** | ug/L | 500 | 31.8 | 1 | 11/26/24 10:20 | 12/03/24 15:15 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.30** | ug/L | 2.5 | 0.30 | 5 | 12/05/24 05:17 | 12/05/24 19:16 | 7440-36-0 | D3 |
| Arsenic | **<0.66** | ug/L | 2.5 | 0.66 | 5 | 12/05/24 05:17 | 12/05/24 19:16 | 7440-38-2 | D3 |
| Barium | **13.8** | ug/L | 1.5 | 0.45 | 5 | 12/05/24 05:17 | 12/05/24 19:16 | 7440-39-3 | |
| Cadmium | **<0.18** | ug/L | 0.40 | 0.18 | 5 | 12/05/24 05:17 | 12/05/24 19:16 | 7440-43-9 | D3 |
| Chromium | **<2.5** | ug/L | 10.0 | 2.5 | 5 | 12/05/24 05:17 | 12/05/24 19:16 | 7440-47-3 | D3 |
| Cobalt | **0.48J** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 19:16 | 7440-48-4 | D3 |
| Lead | **0.38J** | ug/L | 2.5 | 0.32 | 5 | 12/05/24 05:17 | 12/05/24 19:16 | 7439-92-1 | D3 |
| Lithium | **928** | ug/L | 2.5 | 1.0 | 5 | 12/05/24 05:17 | 12/05/24 19:16 | 7439-93-2 | |
| Molybdenum | **3.3** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 19:16 | 7439-98-7 | |
| Selenium | **7.9** | ug/L | 2.5 | 0.31 | 5 | 12/05/24 05:17 | 12/05/24 19:16 | 7782-49-2 | |
| Thallium | **<0.13** | ug/L | 0.50 | 0.13 | 5 | 12/05/24 05:17 | 12/05/24 19:16 | 7440-28-0 | D3 |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 11/26/24 11:05 | 11/27/24 10:39 | 7439-97-6 | |

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## ANALYTICAL RESULTS

Project: L1800973 WG2404199
Pace Project No.: 10716439

**Sample: FC-CCR-MW52-1024** **Lab ID: 10716439004** Collected: 11/12/24 10:43 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Boron | **11500** | ug/L | 150 | 16.0 | 1 | 11/26/24 10:20 | 12/03/24 15:16 | 7440-42-8 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Cobalt | **113** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 18:51 | 7440-48-4 | |
| Molybdenum | **1.7J** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 18:51 | 7439-98-7 | D3 |

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## ANALYTICAL RESULTS

Project: L1800973 WG2404199
Pace Project No.: 10716439

**Sample: FC-CCR-MW49A-1024** **Lab ID: 10716439005** Collected: 11/12/24 09:09 Received: 11/20/24 10:05 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/26/24 10:20 | 12/03/24 15:18 | 7440-41-7 | |
| Boron | **5410** | ug/L | 150 | 16.0 | 1 | 11/26/24 10:20 | 12/03/24 15:18 | 7440-42-8 | |
| Calcium | **318000** | ug/L | 500 | 31.8 | 1 | 11/26/24 10:20 | 12/03/24 15:18 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.30** | ug/L | 2.5 | 0.30 | 5 | 12/05/24 05:17 | 12/05/24 18:44 | 7440-36-0 | D3 |
| Arsenic | **<0.66** | ug/L | 2.5 | 0.66 | 5 | 12/05/24 05:17 | 12/05/24 18:44 | 7440-38-2 | D3 |
| Barium | **21.6** | ug/L | 1.5 | 0.45 | 5 | 12/05/24 05:17 | 12/05/24 18:44 | 7440-39-3 | |
| Cadmium | **0.24J** | ug/L | 0.40 | 0.18 | 5 | 12/05/24 05:17 | 12/05/24 18:44 | 7440-43-9 | D3 |
| Chromium | **<2.5** | ug/L | 10.0 | 2.5 | 5 | 12/05/24 05:17 | 12/05/24 18:44 | 7440-47-3 | D3 |
| Cobalt | **1.8J** | ug/L | 2.5 | 0.20 | 5 | 12/05/24 05:17 | 12/05/24 18:44 | 7440-48-4 | D3 |
| Lead | **<0.32** | ug/L | 2.5 | 0.32 | 5 | 12/05/24 05:17 | 12/05/24 18:44 | 7439-92-1 | D3 |
| Lithium | **932** | ug/L | 2.5 | 1.0 | 5 | 12/05/24 05:17 | 12/05/24 18:44 | 7439-93-2 | |
| Molybdenum | **27.7** | ug/L | 2.5 | 0.57 | 5 | 12/05/24 05:17 | 12/05/24 18:44 | 7439-98-7 | |
| Selenium | **0.43J** | ug/L | 2.5 | 0.31 | 5 | 12/05/24 05:17 | 12/05/24 18:44 | 7782-49-2 | D3 |
| Thallium | **1.4** | ug/L | 0.50 | 0.13 | 5 | 12/05/24 05:17 | 12/05/24 18:44 | 7440-28-0 | |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 11/26/24 11:05 | 11/27/24 10:43 | 7439-97-6 | |

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## QUALITY CONTROL DATA

Project: L1800973 WG2404199
Pace Project No.: 10716439

QC Batch: 981525
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716439001, 10716439002, 10716439003, 10716439005

METHOD BLANK: 5128392 Matrix: Water
Associated Lab Samples: 10716439001, 10716439002, 10716439003, 10716439005

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Mercury | ug/L | <0.074 | 0.20 | 0.074 | 11/27/24 10:33 | |

LABORATORY CONTROL SAMPLE: 5128393

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Mercury | ug/L | 5 | 5.3 | 106 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128394 5128395

| Parameter | Units | 10716439003 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ug/L | <0.074 | 5 | 5 | 5.0 | 5.0 | 101 | 99 | 70-130 | 2 | 20 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

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## QUALITY CONTROL DATA

Project: L1800973 WG2404199
Pace Project No.: 10716439

QC Batch: 981498
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716439001, 10716439002, 10716439003, 10716439004, 10716439005

METHOD BLANK: 5128249 Matrix: Water
Associated Lab Samples: 10716439001, 10716439002, 10716439003, 10716439004, 10716439005

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 5.0 | 0.44 | 12/03/24 15:48 | |
| Boron | ug/L | <16.0 | 150 | 16.0 | 12/03/24 15:48 | |
| Calcium | ug/L | <31.8 | 500 | 31.8 | 12/03/24 15:48 | |
| Iron | ug/L | 26.9J | 50.0 | 7.5 | 12/03/24 15:48 | P8 |
| Magnesium | ug/L | <28.9 | 500 | 28.9 | 12/03/24 15:48 | |
| Manganese | ug/L | <0.50 | 5.0 | 0.50 | 12/03/24 15:48 | |
| Potassium | ug/L | <108 | 2500 | 108 | 12/03/24 15:48 | |
| Sodium | ug/L | 162J | 1000 | 45.4 | 12/03/24 15:48 | |

LABORATORY CONTROL SAMPLE: 5128250

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Beryllium | ug/L | 1000 | 1040 | 104 | 85-115 | |
| Boron | ug/L | 1000 | 1070 | 107 | 85-115 | |
| Calcium | ug/L | 20000 | 19800 | 99 | 85-115 | |
| Iron | ug/L | 20000 | 20800 | 104 | 85-115 | |
| Magnesium | ug/L | 20000 | 20100 | 101 | 85-115 | |
| Manganese | ug/L | 1000 | 1060 | 106 | 85-115 | |
| Potassium | ug/L | 20000 | 20200 | 101 | 85-115 | |
| Sodium | ug/L | 20000 | 19800 | 99 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5128251 5128252

| Parameter | Units | 10716438001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 1000 | 1000 | 1130 | 1100 | 113 | 110 | 70-130 | 2 | 20 | |
| Boron | ug/L | 1110 | 1000 | 1000 | 2300 | 2310 | 119 | 119 | 70-130 | 0 | 20 | |
| Calcium | ug/L | 374000 | 20000 | 20000 | 386000 | 385000 | 58 | 56 | 70-130 | 0 | 20 | P6 |
| Iron | ug/L | 31.1J | 20000 | 20000 | 19700 | 19300 | 98 | 96 | 70-130 | 2 | 20 | |
| Magnesium | ug/L | 193000 | 20000 | 20000 | 213000 | 212000 | 97 | 95 | 70-130 | 0 | 20 | |
| Manganese | ug/L | 1740 | 1000 | 1000 | 2730 | 2700 | 98 | 95 | 70-130 | 1 | 20 | |
| Potassium | ug/L | 55200 | 20000 | 20000 | 80300 | 79800 | 125 | 123 | 70-130 | 1 | 20 | |
| Sodium | ug/L | 6740000 | 20000 | 20000 | 6540000 | 6540000 | -1030 | -992 | 70-130 | 0 | 20 | P6 |

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## QUALITY CONTROL DATA

Project: L1800973 WG2404199
Pace Project No.: 10716439

MATRIX SPIKE SAMPLE: 5128253

| Parameter | Units | 10716438011 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 1000 | 1110 | 111 | 70-130 | |
| Boron | ug/L | 1260 | 1000 | 2420 | 116 | 70-130 | |
| Calcium | ug/L | 345000 | 20000 | 369000 | 120 | 70-130 | |
| Iron | ug/L | 24.7J | 20000 | 20500 | 102 | 70-130 | |
| Magnesium | ug/L | 631000 | 20000 | 660000 | 146 | 70-130 | P6 |
| Manganese | ug/L | 1030 | 1000 | 2070 | 104 | 70-130 | |
| Potassium | ug/L | 38300 | 20000 | 61300 | 115 | 70-130 | |
| Sodium | ug/L | 1560000 | 20000 | 1670000 | 527 | 70-130 | P6 |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

## REPORT OF LABORATORY ANALYSIS

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**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

# QUALITY CONTROL DATA

Project: L1800973 WG2404199
Pace Project No.: 10716439

QC Batch: 982831
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10716439001, 10716439002, 10716439003, 10716439004, 10716439005

METHOD BLANK: 5134564 Matrix: Water
Associated Lab Samples: 10716439001, 10716439002, 10716439003, 10716439004, 10716439005

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Antimony | ug/L | <0.061 | 0.50 | 0.061 | 12/05/24 12:54 | |
| Arsenic | ug/L | <0.13 | 0.50 | 0.13 | 12/05/24 12:54 | |
| Barium | ug/L | <0.090 | 0.30 | 0.090 | 12/05/24 12:54 | |
| Cadmium | ug/L | <0.037 | 0.080 | 0.037 | 12/05/24 12:54 | |
| Chromium | ug/L | <0.50 | 2.0 | 0.50 | 12/05/24 12:54 | |
| Cobalt | ug/L | <0.040 | 0.50 | 0.040 | 12/05/24 12:54 | |
| Lead | ug/L | <0.065 | 0.50 | 0.065 | 12/05/24 12:54 | |
| Lithium | ug/L | <0.20 | 0.50 | 0.20 | 12/05/24 12:54 | |
| Molybdenum | ug/L | <0.11 | 0.50 | 0.11 | 12/05/24 12:54 | |
| Selenium | ug/L | <0.061 | 0.50 | 0.061 | 12/05/24 12:54 | |
| Thallium | ug/L | <0.027 | 0.10 | 0.027 | 12/05/24 12:54 | |

LABORATORY CONTROL SAMPLE: 5134565

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Antimony | ug/L | 100 | 102 | 102 | 85-115 | |
| Arsenic | ug/L | 100 | 107 | 107 | 85-115 | |
| Barium | ug/L | 100 | 103 | 103 | 85-115 | |
| Cadmium | ug/L | 100 | 107 | 107 | 85-115 | |
| Chromium | ug/L | 100 | 110 | 110 | 85-115 | |
| Cobalt | ug/L | 100 | 109 | 109 | 85-115 | |
| Lead | ug/L | 100 | 108 | 108 | 85-115 | |
| Lithium | ug/L | 100 | 104 | 104 | 85-115 | |
| Molybdenum | ug/L | 100 | 104 | 104 | 85-115 | |
| Selenium | ug/L | 100 | 105 | 105 | 85-115 | |
| Thallium | ug/L | 100 | 109 | 109 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5134566 5134567

| Parameter | Units | 10716438012 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ug/L | <0.30 | 100 | 100 | 102 | 104 | 102 | 104 | 70-130 | 2 | 20 | |
| Arsenic | ug/L | <0.66 | 100 | 100 | 113 | 112 | 113 | 112 | 70-130 | 1 | 20 | |
| Barium | ug/L | 17.2 | 100 | 100 | 122 | 124 | 104 | 106 | 70-130 | 1 | 20 | |
| Cadmium | ug/L | 1.2 | 100 | 100 | 104 | 104 | 102 | 103 | 70-130 | 1 | 20 | |
| Chromium | ug/L | <2.5 | 100 | 100 | 112 | 113 | 111 | 112 | 70-130 | 0 | 20 | |
| Cobalt | ug/L | 63.2 | 100 | 100 | 176 | 175 | 113 | 111 | 70-130 | 1 | 20 | |

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## QUALITY CONTROL DATA

Project: L1800973 WG2404199
Pace Project No.: 10716439

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5134566 5134567

| Parameter | Units | 10716438012 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lead | ug/L | 2.1J | 100 | 100 | 102 | 102 | 100 | 100 | 70-130 | 0 | 20 | |
| Lithium | ug/L | 432 | 100 | 100 | 519 | 536 | 87 | 104 | 70-130 | 3 | 20 | |
| Molybdenum | ug/L | 1.0J | 100 | 100 | 106 | 105 | 105 | 104 | 70-130 | 1 | 20 | |
| Selenium | ug/L | <0.31 | 100 | 100 | 111 | 112 | 111 | 112 | 70-130 | 1 | 20 | |
| Thallium | ug/L | 0.28J | 100 | 100 | 99.4 | 100 | 99 | 100 | 70-130 | 1 | 20 | |

MATRIX SPIKE SAMPLE: 5134568

| Parameter | Units | 10716439004 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Antimony | ug/L | <0.30 | 100 | 98.8 | 99 | 70-130 | |
| Arsenic | ug/L | <0.66 | 100 | 107 | 107 | 70-130 | |
| Barium | ug/L | 12.3 | 100 | 115 | 103 | 70-130 | |
| Cadmium | ug/L | <0.18 | 100 | 100 | 100 | 70-130 | |
| Chromium | ug/L | <2.5 | 100 | 109 | 109 | 70-130 | |
| Cobalt | ug/L | 113 | 100 | 224 | 111 | 70-130 | |
| Lead | ug/L | 0.55J | 100 | 96.5 | 96 | 70-130 | |
| Lithium | ug/L | 553 | 100 | 674 | 122 | 70-130 | |
| Molybdenum | ug/L | 1.7J | 100 | 102 | 100 | 70-130 | |
| Selenium | ug/L | <0.31 | 100 | 112 | 111 | 70-130 | |
| Thallium | ug/L | 0.26J | 100 | 96.4 | 96 | 70-130 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

# QUALIFIERS

Project: L1800973 WG2404199
Pace Project No.: 10716439

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## ANALYTE QUALIFIERS

| | |
|---|---|
| B | Analyte was detected in the associated method blank. |
| D3 | Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference. |
| P6 | Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level. |
| P8 | Analyte was detected in the method blank. All associated samples had concentrations of at least ten times greater than the blank or were below the reporting limit. |



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1800973 WG2404199
Pace Project No.: 10716439

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **10716439005** | **FC-CCR-MW49A-1024** | EPA 200.7 | 981498 | EPA 200.7 | 981982 |
| **10716439004** | **FC-CCR-MW52-1024** | EPA 200.7 | 981498 | EPA 200.7 | 981982 |
| **10716439002** | **FC-CCR-MW08-1024** | EPA 200.7 | 981498 | EPA 200.7 | 981982 |
| **10716439003** | **FC-CCR-MW07-1024** | EPA 200.7 | 981498 | EPA 200.7 | 981982 |
| **10716439001** | **FC-CCR-MW87-1024** | EPA 200.7 | 981498 | EPA 200.7 | 981982 |
| **10716439005** | **FC-CCR-MW49A-1024** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716439004** | **FC-CCR-MW52-1024** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716439002** | **FC-CCR-MW08-1024** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716439003** | **FC-CCR-MW07-1024** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716439001** | **FC-CCR-MW87-1024** | EPA 200.8 | 982831 | EPA 200.8 | 983063 |
| **10716439005** | **FC-CCR-MW49A-1024** | EPA 245.1 | 981525 | EPA 245.1 | 981960 |
| **10716439002** | **FC-CCR-MW08-1024** | EPA 245.1 | 981525 | EPA 245.1 | 981960 |
| **10716439003** | **FC-CCR-MW07-1024** | EPA 245.1 | 981525 | EPA 245.1 | 981960 |
| **10716439001** | **FC-CCR-MW87-1024** | EPA 245.1 | 981525 | EPA 245.1 | 981960 |



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# Sub-Contract Chain of Custody

**Batch Date/Time:** 11/19/24 08:52
**Sub-Contract Lab:** PACEMN
**Address:** 1700 Elm Street Suite 200 SE
**City/State:** Minneapolis, MN 55414
**Contact:** Tong.Lee@pacelabs.com
**Owner Lab:** PACEMTJL
**Address:** 12065 Lebanon Rd.
**City/State:** Mt. Juliet, TN 37122
**Phone:** (615) 773-9756
**Fax:** (615) 758-5859

**WO:** WG2404199
**Email:** MTJLSuboutTeam@pacelabs.com
**Results Due Date:** 12/02/24
**ESC Purchase Order #:** L1800973
**Send Reports to:** James C Huckaba

Pace Analytical®

12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone:(615) 773-9756
Fax:(615) 758-5859

| Sample ID Container ID | Matrix | State | Collect Date | Description | Sample Number Lab Use Only | Sample Comments Lab Use Only | |
|---|---|---|---|---|---|---|---|
| FC-CCR-MW87-1024 | WW | NM | 11/12/24 16:07 | Metals | 1. L1800973-01 | Hg, 200.7-BICP, CAICP, BEICP, LIICP,FEICP, MNICP, KICP, MGICP, NAICP, 200.8-SBG, ASG, BAG, CDG, CRG, PBG, MOG, SEG, TLG, COG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 01 |
| FC-CCR-MW08-1024 | WW | NM | 11/12/24 11:35 | Metals | 2. L1800973-02 | Hg, 200.7-BICP, CAICP, BEICP, LIICP, MGICP, KICP, NAICP, 200.8-SBG, ASG, BAG, CDG, CRG, PBG, MOG, SEG, TLG, COG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 02 |
| FC-CCR-MW07-1024 | WW | NM | 11/12/24 12:32 | Metals | 3. L1800973-03 | Hg, 200.7-BICP, CAICP, BEICP, LIICP, 200.8-SBG, ASG, BAG, CDG, CRG, PBG, MOG, SEG, TLG, COG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 03 |
| FC-CCR-MW52-1024 | WW | NM | 11/12/24 10:43 | Metals | 4. L1800973-04 | Hg, 200.7-BICP, 200.8-COG, MOG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 04 |
| FC-CCR-MW49A-1024 | WW | NM | 11/12/24 09:09 | Metals | 5. L1800973-05 | Hg, 200.7-BICP, CAICP, BEICP, LIICP, 200.8-SBG, ASG, BAG, CDG, CRG, PBG, MOG, SEG, TLG, COG, APSPALVTAZ_LOCUS EDD, and report to the MDL. | 05 |

*= Container used for multiple Samples and/or Analyses

Relinquished by: _____ Date 11-19-24

Received by: _____ Date 11/20/24 1005

Relinquished by: _____ Date _____

Received by: _____ Date _____

NO ICE

WO# : 10716439

10716439

# ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

**CLIENT NAME:** Pace Nashville **PROJECT #:** WO#: 10716439

PM: TKL Due Date: 12/06/24

CLIENT: PASI-TN

**COURIER:** ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

**TRACKING NUMBER:** 475709337030 ☐ See Exceptions form ENV-FRM-MIN4-0142

**Custody Seal on Cooler/Box Present:** ☑ YES ☐ NO **Seals Intact:** ☑ YES ☐ NO **Biological Tissue Frozen:** ☐ YES ☐ NO ☑ N/A

**Packing Material:** ☐ Bubble Bags ☑ Bubble Wrap ☐ None ☐ Other **Temp Blank:** ☐ YES ☑ NO **Type of Ice:** ☐ Blue ☐ Dry ☐ Wet ☐ Melted ☑ None

**Thermometer:** ☑ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

| | |
|---|---|
| **Did Samples Originate in West Virginia:** ☐ YES ☑ NO | **Were All Container Temps taken:** ☐ YES ☐ NO ☑ N/A |
| **Correction Factor:** +0.1 **Cooler Temp Read w/Temp Blank:** _____ °C **Cooler Temp Corrected w/Temp Blank:** _____ °C | **Average Corrected Temp (no Temp Blank Only):** 18.2 °C |
| ***NOTE:*** *Temp should be above freezing to 6°C.* | ☑ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container |
| **USDA Regulated Soil:** ☑ N/A ☐ Water Sample/Other (describe): _____ | **Initials & Date of Person Examining Contents:** JMW 11/21/24 |
| Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☑ NO | Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☑ NO |
| **NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.** | |

| **LOCATION (check one):** ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA | YES | NO | N/A | COMMENT(S) |
|---|---|---|---|---|
| Chain of Custody Present and Filled Out? | ☑ | ☐ | | 1. Each Sample have two |
| Chain of Custody Relinquished? | ☑ | ☐ | | 2. containers |
| Sampler Name and/or Signature on COC? | ☐ | ☐ | ☑ | 3. |
| Samples Arrived within Hold Time? | ☑ | ☐ | | 4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No |
| **Short Hold Time Analysis (<72 hr)?** | ☐ | ☑ | | 5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____ |
| **Rush Turn Around Time Requested?** | ☐ | ☑ | | 6. |
| Sufficient Sample Volume? | ☑ | ☐ | | 7. |
| Correct Containers Used? | ☑ | ☐ | ☐ | 8. |
| – Pace Containers Used? | ☑ | ☐ | | |
| Containers Intact? | ☑ | ☐ | | 9. |
| Field Filtered Volume Received for Dissolved Tests? | ☐ | ☐ | ☑ | 10. Is sediment visible in the dissolved container: ☐ YES ☐ NO |
| Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other | ☑ | ☐ | | 11. **If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142 |
| All containers needing acid/base preservation have been checked? All containers needing preservation are found to be in compliance with EPA recommendation? ($HNO_3$, $H_2SO_4$, < 2 pH, NaOH >9 Sulfide, NaOH > 10 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS **NOTE:** If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs. | ☑ ☑ ☐ | ☐ ☑ ☐ | ☐ ☐ ☑ | 12. Sample #: 001-005 2/2 JMW 11/21/24 ☑ $HNO_3$ ☐ $H_2SO_4$ ☐ NaOH ☐ Zinc Acetate Positive for Residual Chlorine: ☐ YES ☐ NO **pH Paper Lot #** (Residual Chlorine / 0-6 Roll: 205224 / 0-6 Strip: 234722 / 0-14 Strip) ☑ See Exceptions form ENV-FRM-MIN4-0142 |
| Headspace in Methyl Mercury Container? | ☐ | ☐ | ☑ | 13. |
| Extra labels present on soil VOA or WIDRO containers? | ☐ | ☐ | ☑ | 14. |
| Headspace in VOA Vials (greater than 6mm)? | ☐ | ☐ | ☑ | ☐ See Exceptions form ENV-FRM-MIN4-0140 |
| Trip Blanks Present? | ☐ | ☑ | ☐ | 15. |
| Trip Blank Custody Seals Present? | ☐ | ☐ | ☑ | Pace Trip Blank Lot # (if purchased): _____ |

**CLIENT NOTIFICATION / RESOLUTION** **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

**Project Manager Review:** _____ **Date:** 11/21/24

***NOTE:*** *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

**Labeled By:** JMW **Line:** 5

Workorder #: _____

| No Temp Blank | | |
|---|---|---|
| Read Temp | Corrected Temp | Average temp |
| 18.1 | 18.2 | 18.2 |
| 18.1 | 18.2 | |
| 18.1 | 18.2 | |
| 18.1 | 18.2 | |

PM Notified of Out of Temp Cooler? ☐ YES ☐ NO

If yes, indicate who was contacted, date and time.
If no, indicate reason why.

Multiple Cooler Project? ☐ YES ☐ NO

**If anything is OVER 6.0°C, you MUST document containers in this section HERE**

| Tracking Number | Temperature |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| Out of Temp Sample ID | Container Type | # of Containers |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

pH Adjustment Log for Preserved Samples

| Sample ID | Type Of Preserve | pH Upon Receipt | Date Adjusted | Time Adjusted | Amount Added (mL) | Lot # Added | pH After | In Compliance After Addition? YES | In Compliance After Addition? NO | Initials |
|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW87-1024 | HNO3 | 3.0 | 11/21/24 | 1006 | 1 | 24011564 | 1.5 | ☒ | ☐ | JMW |
| | | | | | | 26 | | ☐ | ☐ | |
| FC-CCR-MW87-1024 | HNO3 | 3.0 | 11/21/24 | 1007 | 1 | 24011564 | 1.5 | ☒ | ☐ | JMW |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |

**Comments:**

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



| **Section A** Required Client Information: | | **Section B** Required Project Information: | | **Section C** Invoice Information: | |
|---|---|---|---|---|---|
| Company: | Pace Analytical | Report To: | Pace Analytical Subout Team | Attention: | Samantha O'Shea |
| Address: | 12065 Lebanon Rd. | Copy To: | | Company Name: | |
| Mt. Juliet, TN 37122 | | | | Address: | |
| Email: | MTJLSuboutTeam@pacelabs.com | Purchase Order #: | L1800973 | Pace Quote: | |
| Phone: | (615) 773-9756 Fax: (615) 758-5859 | Project Name: | | Pace Project Manager: | Tong Lee |
| Requested Due Date: | 2-Dec | Project #: | US0023513.6155 | Pace Profile #: | 38076 |

| Regulatory Agency |
|---|
| |
| **State / Location** |
| **NM** |

| MATRIX | CODE |
|---|---|
| Drinking Water | DW |
| Water | WT |
| Waste Water | WW |
| Product | P |
| Soil/Solid | SL |
| Oil | OL |
| Wipe | WP |
| Air | AR |
| Other | OT |
| Tissue | TS |

| ITEM # | **SAMPLE ID** One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | Y/N | Analyses Test: Metals | Metals | Metals | Metals | | | | | | | | | Residual Chlorine (Y/N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | Requested Analysis Filtered (Y/N) | | | | | | | | | | | | | |
| 1 | FC-CCR-MW87-1024 | WT | | | | 12-Nov | 16:07 | | 1 | | | | | | | | 1 | | | | | X | | | | | | | | | Hg, 200.7-BICP, CAICP, BEICP, |
| 2 | FC-CCR-MW08-1024 | WT | | | | 12-Nov | 11:35 | | 1 | | | | | | | | 1 | | | | X | | | | | | | | | Hg, 200.7-BICP, CAICP, BEICP, |
| 3 | FC-CCR-MW07-1024 | WT | | | | 12-Nov | 12:32 | | 1 | | | | | | | | 1 | | | X | | | | | | | | | | Hg, 200.7-BICP, CAICP, BEICP, |
| 4 | FC-CCR-MW52-1024 | WT | | | | 12-Nov | 10:43 | | 1 | | | | | | | | 1 | | X | | | | | | | | | | | 200.7-BICP, 200.8-COG, MOG, |
| 5 | FC-CCR-MW49A-1024 | WT | | | | 12-Nov | 9:09 | | 1 | | | | | | | | 1 | | | X | | | | | | | | | | Hg, 200.7-BICP, CAICP, BEICP, |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS |
|---|---|---|---|---|---|---|---|
| | James C Huckaba | 19-Nov | 10:57 | | | | |
| Pace Analytical Batch: WG2404199 | | | | | | | |
| **Pace Analytical SDGs: L1800973** | | | | | | | |
| **Location: Minneapolis, MN 55414** | | | | | | | |

| **SAMPLER NAME AND SIGNATURE** | | | TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
|---|---|---|---|---|---|---|
| **PRINT Name of SAMPLER:** | | | | | | |
| **SIGNATURE of SAMPLER:** | **DATE Signed:** | | | | | |

**Address**
1700 Elm Street Suite 200 SE
Minneapolis, MN 55414

# ANALYTICAL REPORT

November 26, 2024



## WSP (Formely Wood E&I)-Phoenix, AZ

| | |
|---|---|
| Sample Delivery Group: | L1801396 |
| Samples Received: | 11/19/2024 |
| Project Number: | US0023513.6155 |
| Description: | APS Four Corners-Multi Unit |

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By: Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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# SAMPLE SUMMARY

## FC-CCR-MW43-1124 L1801396-01 WW

Collected by: Hannah Dragon
Collected date/time: 11/15/24 12:24
Received date/time: 11/19/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2405385 | 1 | 11/20/24 16:48 | 11/21/24 11:22 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2404909 | 100 | 11/24/24 23:19 | 11/24/24 23:19 | DLH | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2404909 | 5 | 11/25/24 21:40 | 11/25/24 21:40 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2406368 | 1 | 11/22/24 15:30 | 11/22/24 15:30 | KRB | Mt. Juliet, TN |
| Mercury by Method 245.1 | WG2405196 | 1 | 11/22/24 19:50 | 11/25/24 15:04 | AKB | Mt. Juliet, TN |
| Metals (ICP) by Method 200.7 | WG2405767 | 1 | 11/22/24 17:35 | 11/23/24 14:48 | JTM | Mt. Juliet, TN |
| Metals (ICPMS) by Method 200.8 | WG2405775 | 1 | 11/22/24 16:24 | 11/23/24 12:34 | JPD | Mt. Juliet, TN |

## FC-CCR-MW50A-1124 L1801396-02 WW

Collected by: Hannah Dragon
Collected date/time: 11/15/24 16:41
Received date/time: 11/19/24 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Metals (ICPMS) by Method 200.8 | WG2405775 | 1 | 11/22/24 16:24 | 11/23/24 06:39 | JPD | Mt. Juliet, TN |

# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 11400000 | | 200000 | 1 | 11/21/2024 11:22 | WG2405385 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 840000 | | 54700 | 100000 | 100 | 11/24/2024 23:19 | WG2404909 |
| Fluoride | U | | 380 | 750 | 5 | 11/25/2024 21:40 | WG2404909 |
| Sulfate | 6920000 | | 63700 | 500000 | 100 | 11/24/2024 23:19 | WG2404909 |

Sample Narrative:

L1801396-01 WG2404909: Dilution due to matrix impact on instrumentation at lower dilution

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.96 | T8 | 1 | 11/22/2024 15:30 | WG2406368 |

Sample Narrative:

L1801396-01 WG2406368: 7.96 at 19.7C

## Mercury by Method 245.1

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Mercury | U | | 0.130 | 0.200 | 1 | 11/25/2024 15:04 | WG2405196 |

## Metals (ICP) by Method 200.7

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Beryllium | U | | 0.354 | 2.00 | 1 | 11/23/2024 14:48 | WG2405767 |
| Boron | 1040 | | 28.5 | 200 | 1 | 11/23/2024 14:48 | WG2405767 |
| Calcium | 461000 | | 87.9 | 1000 | 1 | 11/23/2024 14:48 | WG2405767 |
| Lithium | 324 | | 3.80 | 15.0 | 1 | 11/23/2024 14:48 | WG2405767 |

## Metals (ICPMS) by Method 200.8

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Antimony | 1.90 | J | 1.42 | 5.00 | 1 | 11/23/2024 12:34 | WG2405775 |
| Arsenic | 0.377 | J | 0.153 | 1.00 | 1 | 11/23/2024 12:34 | WG2405775 |
| Barium | 18.1 | | 0.369 | 5.00 | 1 | 11/23/2024 12:34 | WG2405775 |
| Cadmium | 2.55 | | 0.152 | 1.00 | 1 | 11/23/2024 12:34 | WG2405775 |
| Chromium | U | | 5.60 | 20.0 | 1 | 11/23/2024 12:34 | WG2405775 |
| Cobalt | 0.600 | J | 0.131 | 2.00 | 1 | 11/23/2024 12:34 | WG2405775 |
| Lead | 0.443 | J | 0.212 | 2.00 | 1 | 11/23/2024 12:34 | WG2405775 |
| Molybdenum | 7.44 | | 0.351 | 5.00 | 1 | 11/23/2024 12:34 | WG2405775 |
| Selenium | 3.09 | | 0.334 | 2.00 | 1 | 11/23/2024 12:34 | WG2405775 |
| Thallium | U | | 0.195 | 1.00 | 1 | 11/23/2024 12:34 | WG2405775 |

## Metals (ICPMS) by Method 200.8

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Cobalt | 3.79 | | 0.131 | 2.00 | 1 | 11/23/2024 06:39 | WG2405775 |
| Molybdenum | 11.8 | | 0.351 | 5.00 | 1 | 11/23/2024 06:39 | WG2405775 |

## Method Blank (MB)

(MB) R4150020-1 11/21/24 11:22

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Dissolved Solids | U | | 10000 | 10000 |

## L1801396-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801396-01 11/21/24 11:22 • (DUP) R4150020-3 11/21/24 11:22

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 11400000 | 11300000 | 1 | 0.884 | | 10 |

## L1801676-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801676-01 11/21/24 11:22 • (DUP) R4150020-4 11/21/24 11:22

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 1290000 | 1290000 | 1 | 0.155 | | 10 |

## Laboratory Control Sample (LCS)

(LCS) R4150020-2 11/21/24 11:22

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Dissolved Solids | 8800000 | 8700000 | 98.9 | 85.0-115 | |

## Method Blank (MB)

(MB) R4150299-1 11/24/24 21:58

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 547 | 1000 |
| Fluoride | U | | 76.1 | 150 |
| Sulfate | U | | 637 | 5000 |

## L1801382-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1801382-05 11/24/24 22:38 • (DUP) R4150299-3 11/25/24 05:09

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | U | U | 1 | 0.000 | | 15 |
| Fluoride | U | U | 1 | 0.000 | | 15 |
| Sulfate | U | U | 1 | 0.000 | | 15 |

## L1801458-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801458-01 11/24/24 23:32 • (DUP) R4150299-6 11/25/24 05:49

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 14000 | 13900 | 1 | 0.372 | | 15 |
| Fluoride | 133 | 190 | 1 | 35.2 | P1 | 15 |
| Sulfate | 8970 | 8740 | 1 | 2.56 | | 15 |

## Laboratory Control Sample (LCS)

(LCS) R4150299-2 11/24/24 22:12

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Chloride | 40000 | 43300 | 108 | 90.0-110 | |
| Fluoride | 8000 | 8800 | 110 | 90.0-110 | |
| Sulfate | 40000 | 43200 | 108 | 90.0-110 | |

## L1801382-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1801382-05 11/24/24 22:38 • (MS) R4150299-4 11/25/24 05:22 • (MSD) R4150299-5 11/25/24 05:36

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | U | 40300 | 40300 | 101 | 101 | 1 | 90.0-110 | | | 0.167 | 15 |
| Fluoride | 8000 | U | 8060 | 8120 | 101 | 102 | 1 | 90.0-110 | | | 0.800 | 15 |
| Sulfate | 40000 | U | 40800 | 40600 | 102 | 101 | 1 | 90.0-110 | | | 0.482 | 15 |

## L1801458-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1801458-01 11/24/24 23:32 • (MS) R4150299-7 11/25/24 06:03

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 14000 | 53000 | 97.6 | 1 | 90.0-110 | |
| Fluoride | 8000 | 133 | 8350 | 103 | 1 | 90.0-110 | |
| Sulfate | 40000 | 8970 | 48200 | 98.1 | 1 | 90.0-110 | |

## L1801396-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1801396-01 11/22/24 15:30 • (DUP) R4149697-2 11/22/24 15:30

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.96 | 7.96 | 1 | 0.000 | | 1 |

Sample Narrative:

OS: 7.96 at 19.7C

DUP: 7.96 at 19.7C

## L1802497-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1802497-01 11/22/24 15:30 • (DUP) R4149697-3 11/22/24 15:30

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.37 | 7.36 | 1 | 0.136 | | 1 |

Sample Narrative:

OS: 7.37 at 18.9C

DUP: 7.36 at 19C

## Laboratory Control Sample (LCS)

(LCS) R4149697-1 11/22/24 15:30

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | su | su | % | % | |
| pH | 10.0 | 9.99 | 99.9 | 99.0-101 | |

Sample Narrative:

LCS: 9.99 at 19.9C

## Method Blank (MB)

(MB) R4150398-1 11/25/24 14:12

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Mercury | U | | 0.130 | 0.200 |

## Laboratory Control Sample (LCS)

(LCS) R4150398-2 11/25/24 14:15

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | ug/l | ug/l | % | % | |
| Mercury | 3.00 | 3.08 | 103 | 85.0-115 | |

## L1798954-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1798954-01 11/25/24 14:23 • (MS) R4150398-4 11/25/24 14:28 • (MSD) R4150398-5 11/25/24 14:30

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Mercury | 3.00 | U | 3.16 | 3.15 | 105 | 105 | 1 | 70.0-130 | | | 0.418 | 20 |

## L1801468-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1801468-01 11/25/24 14:33 • (MS) R4150398-6 11/25/24 14:36 • (MSD) R4150398-7 11/25/24 14:38

| Analyte | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/l | ug/l | ug/l | ug/l | % | % | | % | | | % | % |
| Mercury | 3.00 | U | 3.08 | 3.12 | 103 | 104 | 1 | 70.0-130 | | | 1.33 | 20 |

## Method Blank (MB)

(MB) R4149889-1 11/23/24 14:04

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Beryllium | U | | 0.354 | 2.00 |
| Boron | U | | 28.5 | 200 |
| Calcium | U | | 87.9 | 1000 |
| Lithium | U | | 3.80 | 15.0 |

## Laboratory Control Sample (LCS)

(LCS) R4149889-2 11/23/24 14:06

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Beryllium | 1000 | 929 | 92.9 | 85.0-115 | |
| Boron | 1000 | 918 | 91.8 | 85.0-115 | |
| Calcium | 10000 | 9500 | 95.0 | 85.0-115 | |
| Lithium | 1000 | 942 | 94.2 | 85.0-115 | |

## L1801335-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1801335-01 11/23/24 14:08 • (MS) R4149889-4 11/23/24 14:11 • (MSD) R4149889-5 11/23/24 14:13

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | 1000 | U | 931 | 906 | 93.1 | 90.6 | 1 | 70.0-130 | | | 2.71 | 20 |
| Boron | 1000 | 51.6 | 975 | 948 | 92.4 | 89.7 | 1 | 70.0-130 | | | 2.80 | 20 |
| Calcium | 10000 | 20500 | 28900 | 28000 | 84.4 | 75.5 | 1 | 70.0-130 | | | 3.12 | 20 |
| Lithium | 1000 | 20.6 | 960 | 955 | 93.9 | 93.5 | 1 | 70.0-130 | | | 0.443 | 20 |

## L1801340-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1801340-04 11/23/24 14:14 • (MS) R4149889-6 11/23/24 14:16 • (MSD) R4149889-7 11/23/24 14:18

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | 1000 | 0.729 | 940 | 937 | 93.9 | 93.6 | 1 | 70.0-130 | | | 0.328 | 20 |
| Boron | 1000 | 76.5 | 992 | 999 | 91.5 | 92.2 | 1 | 70.0-130 | | | 0.717 | 20 |
| Calcium | 10000 | 48100 | 60600 | 59700 | 125 | 116 | 1 | 70.0-130 | | | 1.49 | 20 |
| Lithium | 1000 | 11.0 | 950 | 964 | 93.9 | 95.3 | 1 | 70.0-130 | | | 1.44 | 20 |

## Method Blank (MB)

(MB) R4149820-1 11/23/24 05:03

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Antimony | U | | 1.42 | 5.00 |
| Arsenic | U | | 0.153 | 1.00 |
| Barium | U | | 0.369 | 5.00 |
| Cadmium | U | | 0.152 | 1.00 |
| Chromium | U | | 5.60 | 20.0 |
| Cobalt | U | | 0.131 | 2.00 |
| Lead | U | | 0.212 | 2.00 |
| Molybdenum | U | | 0.351 | 5.00 |
| Selenium | U | | 0.334 | 2.00 |
| Thallium | U | | 0.195 | 1.00 |

## Laboratory Control Sample (LCS)

(LCS) R4149820-2 11/23/24 05:06

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Antimony | 50.0 | 48.9 | 97.8 | 85.0-115 | |
| Arsenic | 50.0 | 48.5 | 97.0 | 85.0-115 | |
| Barium | 50.0 | 45.6 | 91.2 | 85.0-115 | |
| Cadmium | 50.0 | 50.3 | 101 | 85.0-115 | |
| Chromium | 50.0 | 49.5 | 99.0 | 85.0-115 | |
| Cobalt | 50.0 | 50.2 | 100 | 85.0-115 | |
| Lead | 50.0 | 47.4 | 94.8 | 85.0-115 | |
| Molybdenum | 50.0 | 48.1 | 96.2 | 85.0-115 | |
| Selenium | 50.0 | 47.8 | 95.5 | 85.0-115 | |
| Thallium | 50.0 | 47.7 | 95.4 | 85.0-115 | |

## L1801153-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1801153-01 11/23/24 05:10 • (MS) R4149820-4 11/23/24 05:17 • (MSD) R4149820-5 11/23/24 05:20

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 50.0 | U | 50.8 | 50.0 | 102 | 99.9 | 1 | 70.0-130 | | | 1.70 | 20 |
| Arsenic | 50.0 | 0.352 | 48.8 | 48.9 | 96.8 | 97.1 | 1 | 70.0-130 | | | 0.354 | 20 |
| Barium | 50.0 | 21.0 | 67.4 | 68.5 | 92.9 | 95.1 | 1 | 70.0-130 | | | 1.66 | 20 |
| Cadmium | 50.0 | U | 49.0 | 50.5 | 97.9 | 101 | 1 | 70.0-130 | | | 3.02 | 20 |
| Chromium | 50.0 | U | 50.8 | 50.8 | 102 | 102 | 1 | 70.0-130 | | | 0.0432 | 20 |
| Cobalt | 50.0 | U | 48.7 | 49.0 | 97.3 | 98.0 | 1 | 70.0-130 | | | 0.636 | 20 |
| Lead | 50.0 | 0.238 | 48.1 | 47.5 | 95.7 | 94.6 | 1 | 70.0-130 | | | 1.12 | 20 |

## L1801153-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1801153-01 11/23/24 05:10 • (MS) R4149820-4 11/23/24 05:17 • (MSD) R4149820-5 11/23/24 05:20

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Molybdenum | 50.0 | 0.758 | 50.1 | 48.9 | 98.6 | 96.2 | 1 | 70.0-130 | | | 2.43 | 20 |
| Selenium | 50.0 | 0.376 | 48.6 | 50.4 | 96.4 | 100 | 1 | 70.0-130 | | | 3.59 | 20 |
| Thallium | 50.0 | U | 48.5 | 48.2 | 96.9 | 96.3 | 1 | 70.0-130 | | | 0.612 | 20 |

## L1801565-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1801565-01 11/23/24 05:23 • (MS) R4149820-6 11/23/24 05:27 • (MSD) R4149820-7 11/23/24 05:30

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 50.0 | U | 47.8 | 48.6 | 95.5 | 97.2 | 1 | 70.0-130 | | | 1.70 | 20 |
| Arsenic | 50.0 | 0.216 | 48.3 | 48.9 | 96.1 | 97.3 | 1 | 70.0-130 | | | 1.31 | 20 |
| Barium | 50.0 | 19.3 | 64.0 | 66.8 | 89.3 | 94.9 | 1 | 70.0-130 | | | 4.26 | 20 |
| Cadmium | 50.0 | U | 51.1 | 50.7 | 102 | 101 | 1 | 70.0-130 | | | 0.827 | 20 |
| Chromium | 50.0 | U | 49.7 | 49.8 | 99.5 | 99.5 | 1 | 70.0-130 | | | 0.0630 | 20 |
| Cobalt | 50.0 | 0.347 | 50.6 | 50.4 | 101 | 100 | 1 | 70.0-130 | | | 0.515 | 20 |
| Lead | 50.0 | 0.254 | 47.6 | 47.8 | 94.8 | 95.1 | 1 | 70.0-130 | | | 0.295 | 20 |
| Molybdenum | 50.0 | U | 47.5 | 48.5 | 95.0 | 97.0 | 1 | 70.0-130 | | | 2.13 | 20 |
| Selenium | 50.0 | U | 48.3 | 47.1 | 96.5 | 94.2 | 1 | 70.0-130 | | | 2.43 | 20 |
| Thallium | 50.0 | U | 48.4 | 48.6 | 96.8 | 97.2 | 1 | 70.0-130 | | | 0.479 | 20 |

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

## Abbreviations and Definitions

| | |
|---|---|
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| Rec. | Recovery. |
| RPD | Relative Percent Difference. |
| SDG | Sample Delivery Group. |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| Analyte | The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported. |
| Dilution | If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor. |
| Limits | These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| Qualifier | This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable. |
| Result | The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte. |
| Uncertainty (Radiochemistry) | Confidence level of 2 sigma. |
| Case Narrative (Cn) | A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report. |
| Quality Control Summary (Qc) | This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material. |
| Sample Chain of Custody (Sc) | This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis. |
| Sample Results (Sr) | This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported. |
| Sample Summary (Ss) | This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis. |

| Qualifier | Description |
|---|---|
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| P1 | RPD value not applicable for sample concentrations less than 5 times the reporting limit. |
| T8 | Sample(s) received past/too close to holding time expiration. |

# ACCREDITATIONS & LOCATIONS

## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nebraska | NE-OS-15-05 |
| Alaska | 17-026 | Nevada | TN000032021-1 |
| Arizona | AZ0612 | New Hampshire | 2975 |
| Arkansas | 88-0469 | New Jersey–NELAP | TN002 |
| California | 2932 | New Mexico [1] | TN00003 |
| Colorado | TN00003 | New York | 11742 |
| Connecticut | PH-0197 | North Carolina | Env375 |
| Florida | E87487 | North Carolina [1] | DW21704 |
| Georgia | NELAP | North Carolina [3] | 41 |
| Georgia [1] | 923 | North Dakota | R-140 |
| Idaho | TN00003 | Ohio–VAP | CL0069 |
| Illinois | 200008 | Oklahoma | 9915 |
| Indiana | C-TN-01 | Oregon | TN200002 |
| Iowa | 364 | Pennsylvania | 68-02979 |
| Kansas | E-10277 | Rhode Island | LAO000356 |
| Kentucky [1 6] | KY90010 | South Carolina | 84004002 |
| Kentucky [2] | 16 | South Dakota | n/a |
| Louisiana | AI30792 | Tennessee [1 4] | 2006 |
| Louisiana | LA018 | Texas | T104704245-20-18 |
| Maine | TN00003 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | TN000032021-11 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 110033 |
| Minnesota | 047-999-395 | Washington | C847 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 998093910 |
| Montana | CERT0086 | Wyoming | A2LA |
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC EMLAP | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | P330-15-00234 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to: **Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT (MT) CT ET

Phone: **602-733-6110**

Client Project #

Lab Project #
**AMECTAZ-FOURCORNERS-**
MULTI UNIT

Collected by (print): HANNAH DRAGON

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N____ Y____

***Rush?*** (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Quote #

Date Results Needed: STANDARD

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKCA/OH 125mlHDPE-NoPres | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW43-1124 | G | ~~GW~~ WW | | 111524 | 1224 | 3 | X | X | | X | X | | X | | #1 | 01 |
| FC-CCR-MW50A-1124 | 1 | ~~WW~~ WW | | 111524 | 1641 | 1 | | X | | | | | | | #2 | 02 |
| | | WW | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | |

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1801396

Table # K254

Acctnum: **AMECTAZ**

Template: **T261976**

Prelogin: **P1107674**

PM: **288 - Daphne Richards**

PB:

Shipped Via: **FedEX Ground**

* Matrix:
**SS** - Soil **AIR** - Air **F** - Filter
**GW** - Groundwater **B** - Bioassay
**WW** - WasteWater
**DW** - Drinking Water
**OT** - Other_____

**Remarks:200.7: Total B, Ca,Be,Li, ~~Fe, Mn, K, Mg, Na~~.** } #1
**200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co**
#2: COULD NOT FILL WHOLE BOTTLE. IF YOU CAN TEST: 200.8 Co, Mo

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4171 6905 2514

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / (No) HCL / MeoH TBR | |
|---|---|---|---|---|---|
| | 111824 | 1517 | | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C Bottles Received: | If preservation required by Login: Date/Time |
| | 11/18/24 | 1800 | Fed EX | TLA90.1+0=0.1 4 | |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: Time: | Hold: Condition: NCF / OK |
| | | | | 11/19/24 0900 | |

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 18, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW67-1024 | 1.1 ± 0.2 | 2.1 ± 0.4 | 3.2 ± 0.4 |
| Date of Analysis | 11/7/2024 15:52 | 11/7/2024 15:52 | 11/7/2024 15:52 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 18, 2024 (Sample Date) 8:10 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/7/2024 | 3.2 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/7/2024 | 1.1 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/7/2024 | 2.1 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75657

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW67-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 18, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW68-1024 | 0.6 ± 0.2 | < 0.8 | 0.6 ± 0.2 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/7/2024 19:53 | 11/7/2024 19:53 | 11/7/2024 19:53 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 18, 2024 (Sample Date) 9:34 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/7/2024 | 0.6 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/7/2024 | 0.6 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/7/2024 | < 0.8 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75658

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW68-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 20, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW69-1024 | 0.8 ± 0.2 | 1.3 ± 0.4 | 2.1 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/7/2024 | 11/7/2024 | 11/7/2024 |
| | 23:55 | 23:55 | 23:55 |

11/13/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 20, 2024 (Sample Date) 10:55 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/7/2024 | 2.1 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/7/2024 | 0.8 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/7/2024 | 1.3 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

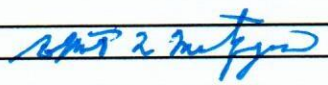
Specimen Number: RSE75659

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW69-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 20, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-CM01-1024 | 0.6 ± 0.2 | 0.8 ± 0.3 | 1.4 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/8/2024 | 11/8/2024 | 11/8/2024 |
| | 3:57 | 3:57 | 3:57 |

Robert L. Metzger, Ph.D., C.H.P. — 11/13/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 20, 2024 (Sample Date) 11:33 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/8/2024 | 1.4 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/8/2024 | 0.6 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/8/2024 | 0.8 ± 0.3 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75660

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-CM01-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 20, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-CM02-1024 | 0.6 ± 0.2 | 1.0 ± 0.4 | 1.6 ± 0.4 |
| Date of Analysis | 11/8/2024 7:59 | 11/8/2024 7:59 | 11/8/2024 7:59 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 20, 2024 (Sample Date) 11:39 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/8/2024 | 1.6 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/8/2024 | 0.6 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/8/2024 | 1.0 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75661

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-CM02-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST.• CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 20, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW83-1024 | < 0.5 | < 0.8 | < 0.8 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/8/2024 12:01 | 11/8/2024 12:01 | 11/8/2024 12:01 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____

PWS Name: _____

October 20, 2024 (Sample Date) 12:45 (Sample Time) (24 hour clock)

Owner/Contact Person _____

Owner/Contact Fax Number _____

Owner/Contact Phone Number _____

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/8/2024 | < 0.8 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/8/2024 | < 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/8/2024 | < 0.8 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75662

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW83-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 20, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW85-1024 | 1.0 ± 0.2 | < 0.8 | 1.0 ± 0.2 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/8/2024 16:03 | 11/8/2024 16:03 | 11/8/2024 16:03 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 20, 2024 (Sample Date) 13:45 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/8/2024 | 1.0 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/8/2024 | 1.0 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/8/2024 | < 0.8 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75663

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW85-1024

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 24, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW84-1024 | 1.5 ± 0.2 | 2.2 ± 0.4 | 3.7 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/8/2024 20:05 | 11/8/2024 20:05 | 11/8/2024 20:05 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 24, 2024 (Sample Date) 17:22 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/8/2024 | 3.7 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/8/2024 | 1.5 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/8/2024 | 2.2 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

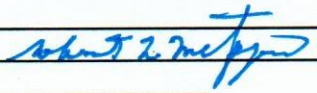
Specimen Number: RSE75664

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW84-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 21, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-URS08-1024 | 1.0 ± 0.2 | 3.6 ± 0.5 | 4.6 ± 0.5 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/9/2024 | 11/9/2024 | 11/9/2024 |
| | 0:06 | 0:06 | 0:06 |

11/13/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 21, 2024 (Sample Date) 14:03 (Sample Time) (24 hour clock)

Owner/Contact Person: _____

Owner/Contact Fax Number: _____

Owner/Contact Phone Number: _____

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/9/2024 | 4.6 ± 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/9/2024 | 1.0 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/9/2024 | 3.6 ± 0.5 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75665

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-URS08-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 21, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-URS07-1024 | 1.3 ± 0.2 | < 0.8 | 1.3 ± 0.2 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/9/2024 | 11/9/2024 | 11/9/2024 |
| | 4:08 | 4:08 | 4:08 |

Robert L. Metzger, Ph.D., C.H.P. — 11/13/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 21, 2024 (Sample Date) 12:37 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring Date Q1 collected: _____

☐ Quarterly Date Q2 collected: _____

☐ Composite of four quarterly samples Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/9/2024 | 1.3 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/9/2024 | 1.3 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/9/2024 | < 0.8 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75666

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-URS07-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 21, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-URS05-1024 | 1.0 ± 0.2 | 1.8 ± 0.4 | 2.8 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/9/2024 | 11/9/2024 | 11/9/2024 |
| | 8:10 | 8:10 | 8:10 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 21, 2024 (Sample Date) 15:41 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/9/2024 | 2.8 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/9/2024 | 1.0 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/9/2024 | 1.8 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

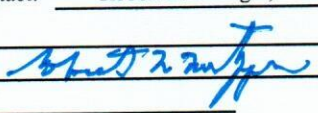
Specimen Number: RSE75667

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-URS05-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 21, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-URS06-1024 | 2.7 ± 0.5 | < 0.8 | 2.7 ± 0.5 |
| Date of Analysis | 11/9/2024 12:12 | 11/9/2024 12:12 | 11/9/2024 12:12 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 21, 2024 (Sample Date) 16:44 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/9/2024 | 2.7 ± 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/9/2024 | 2.7 ± 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/9/2024 | < 0.8 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75668

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-URS06-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 23, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW70-1024 | < 0.4 | 1.1 ± 0.4 | 1.1 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/9/2024 16:14 | 11/9/2024 16:14 | 11/9/2024 16:14 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 23, 2024 (Sample Date) 11:20 (Sample Time) (24 hour clock)

Owner/Contact Person: _____

Owner/Contact Fax Number: _____

Owner/Contact Phone Number: _____

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/9/2024 | 1.1 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/9/2024 | < 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/9/2024 | 1.1 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75669

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW70-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 24, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW71-1024 | < 0.4 | 1.7 ± 0.4 | 1.7 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/9/2024 | 11/9/2024 | 11/9/2024 |
| | 20:16 | 20:16 | 20:16 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 24, 2024 (Sample Date) 10:42 (Sample Time) (24 hour clock) _____ Owner/Contact Person

_____ Owner/Contact Fax Number _____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/9/2024 | 1.7 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/9/2024 | < 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/9/2024 | 1.7 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75670

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW71-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 24, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW72-1024 | 0.8 ± 0.2 | 1.3 ± 0.4 | 2.1 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/10/2024 | 11/10/2024 | 11/10/2024 |
| | 0:18 | 0:18 | 0:18 |

11/13/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 24, 2024 (Sample Date) 11:55 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/10/2024 | 2.1 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/10/2024 | 0.8 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/10/2024 | 1.3 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75671

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW72-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 24, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW73-1024 | 0.7 ± 0.2 | 3.7 ± 0.5 | 4.4 ± 0.5 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/10/2024 | 11/10/2024 | 11/10/2024 |
| | 4:19 | 4:19 | 4:19 |

11/13/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 24, 2024 (Sample Date) 12:53 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/10/2024 | 4.4 ± 0.5 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/10/2024 | 0.7 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/10/2024 | 3.7 ± 0.5 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75672

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW73-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 23, 2024
Sample Received: October 24, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW86-1024 | 0.6 ± 0.2 | 1.4 ± 0.4 | 2.0 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/10/2024 | 11/10/2024 | 11/10/2024 |
| | 8:21 | 8:21 | 8:21 |

Robert L. Metzger, Ph.D., C.H.P. — 11/13/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 23, 2024 (Sample Date) 13:45 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/10/2024 | 2.0 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/10/2024 | 0.6 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/10/2024 | 1.4 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75673

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW86-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**
3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com
(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 23, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-MW66-1024 | 1.2 ± 0.2 | 1.8 ± 0.4 | 3.0 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/10/2024 | 11/10/2024 | 11/10/2024 |
| | 12:23 | 12:23 | 12:23 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 23, 2024 (Sample Date) 12:24 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/10/2024 | 3.0 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/10/2024 | 1.2 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/10/2024 | 1.8 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75674

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-MW66-1024

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 21, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-FD01-1024 | 1.9 ± 0.2 | 2.8 ± 0.4 | 4.7 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/10/2024 16:25 | 11/10/2024 16:25 | 11/10/2024 16:25 |

11/13/2024

Robert L. Metzger, Ph.D., C.H.P. Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

**Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report**

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 21, 2024 (Sample Date) 15:55 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring

☐ Quarterly

☐ Composite of four quarterly samples

Date Q1 collected: _____

Date Q2 collected: _____

Date Q3 collected: _____

Date Q4 collected: _____

*****RADIOCHEMICAL ANALYSIS*****

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/10/2024 | 4.7 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/10/2024 | 1.9 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/10/2024 | 2.8 ± 0.4 | | |

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75675

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-FD01-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121
Website: www.radsafe.com

(480) 897-9459
FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 21, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-FD02-1024 | 0.8 ± 0.2 | 1.6 ± 0.4 | 2.4 ± 0.4 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/10/2024 20:27 | 11/10/2024 20:27 | 11/10/2024 20:27 |

Robert L. Metzger, Ph.D., C.H.P. — 11/13/2024 Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 21, 2024 (Sample Date) 16:55 (Sample Time) (24 hour clock) _____ (Owner/Contact Person)

_____ (Owner/Contact Fax Number) _____ (Owner/Contact Phone Number)

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/10/2024 | 2.4 ± 0.4 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/10/2024 | 0.8 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/10/2024 | 1.6 ± 0.4 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE75676

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-FD02-1024

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

**Radiation Safety Engineering, Inc.**

3245 N. WASHINGTON ST. • CHANDLER, ARIZONA 85225-1121 (480) 897-9459
Website: www.radsafe.com FAX (480) 892-5446

# Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: October 23, 2024
Sample Received: October 31, 2024
Analysis Completed: November 13, 2024

| Sample ID | Radium 226 Activity Method GammaRay HPGE (pCi/L) | Radium 228 Activity Method GammaRay HPGE (pCi/L) | Total Radium (pCi/L) |
|---|---|---|---|
| FC-CCR-FD03-1024 | 1.1 ± 0.2 | < 0.8 | 1.1 ± 0.2 |

| | | | |
|---|---|---|---|
| Date of Analysis | 11/11/2024 | 11/11/2024 | 11/11/2024 |
| | 0:29 | 0:29 | 0:29 |

Robert L. Metzger, Ph.D., C.H.P. 11/13/2024
Date

Laboratory License Number AZ0462

Arizona Department of Environmental Quality

# Drinking Water Radionuclides-Adjusted Gross Alpha, Radium 226 & 228, Uranium Analysis Report

***Samples To Be Taken At Entry Point Into Distribution System (EPDS) Only***

PWS ID#: AZ04 _____ PWS Name: _____

October 23, 2024 (Sample Date) 13:13 (Sample Time) (24 hour clock)

_____ Owner/Contact Person

_____ Owner/Contact Fax Number

_____ Owner/Contact Phone Number

Sample Collection Point

☐ EPDS # _____

**Compliance Sample Type:**

☐ Reduced Monitoring — Date Q1 collected: _____

☐ Quarterly — Date Q2 collected: _____

☐ Composite of four quarterly samples — Date Q3 collected: _____

Date Q4 collected: _____

## ***RADIOCHEMICAL ANALYSIS***

>>>To be filled out by laboratory personnel<<<

*****Combined Uranium must be reported in micrograms per liter*****

| Analysis Method | MCL | Reporting Limit | Contaminant Name | Cont. Code | Analyses Run Date | Result | | Exceed MCL |
|---|---|---|---|---|---|---|---|---|
| Calculated | 15 pCi/L | | Adjusted Gross Alpha | 4000 | | | | |
| EPA 00-02 | | 3 pCi/L | Gross Alpha | 4002 | | | | |
| 7500 - Rn | | | Radon | 4004 | | | | |
| ASTM D6239 | 30 µg/L | 1 µg/L | Combined Uranium | 4006 | | | µg/L | |
| | | | Uranium 234 | 4007 | | | | |
| | | | Uranium 235 | 4008 | | | | |
| | | | Uranium 238 | 4009 | | | | |
| | 5 pCi/L | 1 pCi/L | Combined Radium (226,228) | 4010 | 11/11/2024 | 1.1 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 226 | 4020 | 11/11/2024 | 1.1 ± 0.2 | | |
| GammaRay HPGE | | 1 pCi/L | Radium 228 | 4030 | 11/11/2024 | < 0.8 | | |

## ***LABORATORY INFORMATION***

>>>To be filled out by laboratory personnel<<<

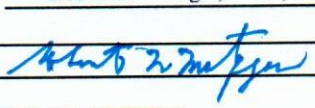
Specimen Number: RSE75677

Lab ID Number: AZ0462

Lab Name: Radiation Safety Engineering, Inc.

Printed Name and Phone Number of Laboratory Contact: Robert L. Metzger, Ph.D., C.H.P.

Comments: FC-CCR-FD03-1024

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

| Client Information | |
|---|---|
| Name: | Cameron Corley/505-860-3619<br>Pam Norris/505-598-8781 |
| Company | Arizona Public Service |
| Address | PO Box 355, MS 4915<br>Fruitland, NM 87416 |
| Phone | |
| Site | APS Four Corners Power Plant – URS |

**Radiation Safety Engineering, Inc.**
3245 North Washington Street, Chandler, Arizona 85225
**Analysis Request**

| Sample ID & Location (DWR#) | Collection Date | Collection Time | Media (DW* WW* Other) | Drinking Water Compliance | Gross Alpha | Gross Beta | Total Uranium | Isotopic Uranium | Ra-226 | Ra-228 | Ra-226 + Ra-228, Combined | H-3 | Gamma Spectroscopy | Sr-89/Sr-90 | Radon in Water | Radon in Air |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW67-1024 | 10/18/24 | 0810 | GW | | | | | | X | X | X | | | | 75 | 657 |
| FC-CCR-MW68-1024 | " | 0934 | " | | | | | | X | X | X | | | | 75 | 658 |
| FC-CCR-MW69-1024 | 10/20/24 | 1055 | " | | | | | | X | X | X | | | | 75 | 659 |
| FC-CCR-CM01-1024 | " | 1133 | " | | | | | | X | X | X | | | | 75 | 660 |
| FC-CCR-CM02-1024 | " | 1139 | " | | | | | | X | X | X | | | | 75 | 661 |
| FC-CCR-MW03-1024 | " | 1245 | " | | | | | | X | X | X | | | | 75 | 662 |
| FC-CCR-MW05-1024 | " | 1345 | " | | | | | | X | X | X | | | | 75 | 663 |
| FC-CCR-MW04-1024 | 102424 | 1722 | " | | | | | | X | X | X | | | | 75 | 664 |
| FC-CCR-URS08-1024 | 102124 | 1403 | " | | | | | | X | X | X | | | | 75 | 665 |
| FC-CCR-URS07-1024 | 102124 | 1237 | " | | | | | | X | X | X | | | | 75 | 666 |

| Sample Receipt | |
|---|---|
| Total No. of Containers | |
| Chain of Custody Seals | |
| Container Condition | |
| Lab No. | |

Invoice to:
PO#: 100622094

Instructions/Comments
**Method HPGe**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Relinquished By: | Company: WSP | Date/time: 10/31/24 15:30 | Received By: | | Company: RSE | Date/time: 10/31/24 3:30 |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

*u/client/forms/cofc.frm*

| Client Information | |
|---|---|
| Name: | Cameron Corley/505-860-3619<br>Pam Norris/505-598-8781 |
| Company | Arizona Public Service |
| Address | PO Box 355, MS 4915<br>Fruitland, NM 87416 |
| Phone | |
| Site | APS Four Corners Power Plant – URS |

**Radiation Safety Engineering, Inc.**
3245 North Washington Street, Chandler, Arizona 85225
**Analysis Request**

| Sample ID & Location (DWR#) | Collection Date | Collection Time | Media (DW* WW* Other) | Drinking Water Compliance | Gross Alpha | Gross Beta | Total Uranium | Isotopic Uranium | Ra-226 | Ra-228 | Ra-226 + Ra-228, Combined | H-3 | Gamma Spectroscopy | Sr-89/Sr-90 | Radon in Water | Radon in Air |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-URS05-1024 | 102124 | 1541 | | | | | | | X | X | X | | | | 75667 | |
| FC-CCR-URS06-1024 | 102124 | 1644 | | | | | | | X | X | X | | | | 75668 | |
| FC-CCR-MW70-1024 | 102324 | 1120 | | | | | | | X | X | X | | | | 75669 | |
| FC-CCR-MW71-1024 | 102424 | 1042 | | | | | | | X | X | X | | | | 75670 | |
| FC-CCR-MW72-1024 | " | 1155 | | | | | | | X | X | X | | | | 75671 | |
| FC-CCR-MW73-1024 | " | 1253 | | | | | | | X | X | X | | | | 75672 | |
| FC-CCR-MW80-1024 | 102324 | 1345 | | | | | | | X | X | X | | | | 75673 | |
| FC-CCR-MW60-1024 | " | 1224 | | | | | | | X | X | X | | | | 75674 | |
| FC-CCR-FD01-1024 | 102124 | 1555 | | | | | | | X | X | X | | | | 75675 | |
| FC-CCR-FD02-1024 | " | 1655 | | | | | | | X | X | X | | | | 75676 | |

| Sample Receipt | |
|---|---|
| Total No. of Containers | |
| Chain of Custody Seals | |
| Container Condition | |
| Lab No. | |

Invoice to:
PO#: 100622094

Instructions/Comments
**Method HPGe**

| | | | | | | |
|---|---|---|---|---|---|---|
| Relinquished By: HBr | Company: WSP | Date/time: 10/31/24 1530 | Received By: Pat Flanny | | Company: RSE | Date/time: 10/31/24 3:30 |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

*u/client/forms/cofc.frm*

| Client Information | |
|---|---|
| Name: | **Cameron Corley/505-860-3619**<br>**Pam Norris/505-598-8781** |
| Company | **Arizona Public Service** |
| Address | **PO Box 355, MS 4915**<br>**Fruitland, NM 87416** |
| Phone | |
| Site | **APS Four Corners Power Plant –** VRS |

**Radiation Safety Engineering, Inc.**
3245 North Washington Street, Chandler, Arizona 85225
**Analysis Request**

| Sample ID & Location (DWR#) | Collection Date | Collection Time | Media (DW* WW* Other) | Drinking Water Compliance | Gross Alpha | Gross Beta | Total Uranium | Isotopic Uranium | Ra-226 | Ra-228 | Ra-226 + Ra-228, Combined | H-3 | Gamma Spectroscopy | Sr-89/Sr-90 | Radon in Water | Radon in Air |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-FD03-1024 | 102324 | 1313 | GW | | | | | | X | X | X | | | | 75677 | |
| | | | | | | | | | | | | | | | | |
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| Sample Receipt | |
|---|---|
| Total No. of Containers | |
| Chain of Custody Seals | |
| Container Condition | |
| Lab No. | |

Invoice to:
PO#: 100622094

Instructions/Comments
**Method HPGe**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Relinquished By: HKR | Company: WSP | Date/time: 10/31/24 15:30 | Received By: Pat Flannery | | Company: RSE | Date/time: 10/31/24 3:30 |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |
| Relinquished By: | Company: | Date/time: | Received By: | | Company: | Date/time: |

* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

*u/client/forms/cofc.frm*

# ANALYTICAL REPORT

November 20, 2024

Revised Report

## WSP (Formely Wood E&I)-Phoenix, AZ

| | |
|---|---|
| Sample Delivery Group: | L1791416 |
| Samples Received: | 10/22/2024 |
| Project Number: | US0023513.6155 |
| Description: | |

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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## FC-CCR-MW67-1024 L1791416-01 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/18/24 08:10 | 10/22/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2387276 | 1 | 10/22/24 16:06 | 10/22/24 19:42 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2387160 | 10 | 10/23/24 02:23 | 10/23/24 02:23 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2387160 | 100 | 10/23/24 04:23 | 10/23/24 04:23 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2387619 | 1 | 10/23/24 16:50 | 10/23/24 16:50 | KRB | Mt. Juliet, TN |
| Mercury by Method 245.1 | WG2387475 | 1 | 10/26/24 11:58 | 10/27/24 19:51 | SDG | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393097 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW68-1024 L1791416-02 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/18/24 09:34 | 10/22/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2387276 | 1 | 10/22/24 16:06 | 10/22/24 19:42 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2387160 | 10 | 10/23/24 02:36 | 10/23/24 02:36 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2387160 | 100 | 10/23/24 04:37 | 10/23/24 04:37 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2387619 | 1 | 10/23/24 16:50 | 10/23/24 16:50 | KRB | Mt. Juliet, TN |
| Mercury by Method 245.1 | WG2387475 | 1 | 10/26/24 11:58 | 10/27/24 20:10 | SDG | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393097 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW69-1024 L1791416-03 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/20/24 10:55 | 10/22/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2387276 | 1 | 10/22/24 16:06 | 10/22/24 19:42 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2387160 | 10 | 10/23/24 02:49 | 10/23/24 02:49 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2387160 | 100 | 10/23/24 04:50 | 10/23/24 04:50 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2387619 | 1 | 10/23/24 16:50 | 10/23/24 16:50 | KRB | Mt. Juliet, TN |
| Mercury by Method 245.1 | WG2387475 | 1 | 10/26/24 11:58 | 10/27/24 20:13 | SDG | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393097 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW83-1024 L1791416-04 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/20/24 12:45 | 10/22/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2387276 | 1 | 10/22/24 16:06 | 10/22/24 19:42 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2387160 | 10 | 10/23/24 03:03 | 10/23/24 03:03 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2387160 | 100 | 10/23/24 05:04 | 10/23/24 05:04 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2387619 | 1 | 10/23/24 16:50 | 10/23/24 16:50 | KRB | Mt. Juliet, TN |
| Mercury by Method 245.1 | WG2387475 | 1 | 10/26/24 11:58 | 10/27/24 20:15 | SDG | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393097 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW85-1024 L1791416-05 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/20/24 13:45 | 10/22/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2387276 | 1 | 10/22/24 16:06 | 10/22/24 19:42 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2387160 | 10 | 10/23/24 03:16 | 10/23/24 03:16 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2387160 | 100 | 10/23/24 05:17 | 10/23/24 05:17 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2387619 | 1 | 10/23/24 16:50 | 10/23/24 16:50 | KRB | Mt. Juliet, TN |
| Mercury by Method 245.1 | WG2387475 | 1 | 10/26/24 11:58 | 10/27/24 20:18 | SDG | Mt. Juliet, TN |

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

## FC-CCR-MW85-1024 L1791416-05 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/20/24 13:45 | 10/22/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Subcontracted Analyses | WG2393097 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-CM01-1024 L1791416-06 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/20/24 11:33 | 10/22/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2387276 | 1 | 10/22/24 16:06 | 10/22/24 19:42 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2387160 | 10 | 10/23/24 03:30 | 10/23/24 03:30 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2387160 | 100 | 10/23/24 05:30 | 10/23/24 05:30 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2387619 | 1 | 10/23/24 16:50 | 10/23/24 16:50 | KRB | Mt. Juliet, TN |
| Mercury by Method 245.1 | WG2387475 | 1 | 10/26/24 11:58 | 10/27/24 20:20 | SDG | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393097 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-CM02-1024 L1791416-07 WW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/20/24 11:39 | 10/22/24 09:00 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2387276 | 1 | 10/22/24 16:06 | 10/22/24 19:42 | MMF | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2387196 | 1 | 10/23/24 11:53 | 10/23/24 11:53 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2388868 | 10 | 10/25/24 07:28 | 10/25/24 07:28 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 300.0 | WG2388868 | 100 | 10/25/24 07:45 | 10/25/24 07:45 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 4500H+ B-2011 | WG2387619 | 1 | 10/23/24 16:50 | 10/23/24 16:50 | KRB | Mt. Juliet, TN |
| Mercury by Method 245.1 | WG2387475 | 1 | 10/26/24 11:58 | 10/27/24 20:23 | SDG | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393097 | 1 | 11/12/24 00:00 | 11/12/24 00:00 | - | Minneapolis, MN 55414 |

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

## Report Revision History

Level II Report - Version 1: 11/19/24 16:27

## Project Narrative

Reissued report
L1791416 -01, -02, -03, -04, -05, -06, -07 contains subout data that is included after the chain of custody.

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 19700000 | | 200000 | 1 | 10/22/2024 19:42 | WG2387276 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1710000 | | 5470 | 10000 | 10 | 10/23/2024 02:23 | WG2387160 |
| Fluoride | 8270 | | 761 | 1500 | 10 | 10/23/2024 02:23 | WG2387160 |
| Sulfate | 10800000 | | 63700 | 500000 | 100 | 10/23/2024 04:23 | WG2387160 |

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.17 | T8 | 1 | 10/23/2024 16:50 | WG2387619 |

Sample Narrative:

L1791416-01 WG2387619: 7.17 at 19.7C

## Mercury by Method 245.1

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Mercury | U | J6 O1 | 0.130 | 0.200 | 1 | 10/27/2024 19:51 | WG2387475 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 20500000 | | 200000 | 1 | 10/22/2024 19:42 | WG2387276 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1580000 | | 5470 | 10000 | 10 | 10/23/2024 02:36 | WG2387160 |
| Fluoride | 12500 | | 761 | 1500 | 10 | 10/23/2024 02:36 | WG2387160 |
| Sulfate | 14000000 | | 63700 | 500000 | 100 | 10/23/2024 04:37 | WG2387160 |

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.34 | T8 | 1 | 10/23/2024 16:50 | WG2387619 |

Sample Narrative:

L1791416-02 WG2387619: 7.34 at 19.4C

## Mercury by Method 245.1

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Mercury | U | | 0.130 | 0.200 | 1 | 10/27/2024 20:10 | WG2387475 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 6710000 | | 100000 | 1 | 10/22/2024 19:42 | WG2387276 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 827000 | | 5470 | 10000 | 10 | 10/23/2024 02:49 | WG2387160 |
| Fluoride | 2790 | | 761 | 1500 | 10 | 10/23/2024 02:49 | WG2387160 |
| Sulfate | 3650000 | | 63700 | 500000 | 100 | 10/23/2024 04:50 | WG2387160 |

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.37 | T8 | 1 | 10/23/2024 16:50 | WG2387619 |

Sample Narrative:

L1791416-03 WG2387619: 7.37 at 19.6C

## Mercury by Method 245.1

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Mercury | U | | 0.130 | 0.200 | 1 | 10/27/2024 20:13 | WG2387475 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 5700000 | | 100000 | 1 | 10/22/2024 19:42 | WG2387276 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 117000 | | 5470 | 10000 | 10 | 10/23/2024 03:03 | WG2387160 |
| Fluoride | 1580 | | 761 | 1500 | 10 | 10/23/2024 03:03 | WG2387160 |
| Sulfate | 2840000 | | 63700 | 500000 | 100 | 10/23/2024 05:04 | WG2387160 |

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.43 | T8 | 1 | 10/23/2024 16:50 | WG2387619 |

Sample Narrative:

L1791416-04 WG2387619: 7.43 at 19.6C

## Mercury by Method 245.1

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Mercury | U | | 0.130 | 0.200 | 1 | 10/27/2024 20:15 | WG2387475 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 9300000 | | 200000 | 1 | 10/22/2024 19:42 | WG2387276 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 651000 | | 5470 | 10000 | 10 | 10/23/2024 03:16 | WG2387160 |
| Fluoride | 988 | J | 761 | 1500 | 10 | 10/23/2024 03:16 | WG2387160 |
| Sulfate | 4830000 | | 63700 | 500000 | 100 | 10/23/2024 05:17 | WG2387160 |

Sample Narrative:

L1791416-05 WG2387160: Dilution due to matrix impact on instrumentation at lower dilution

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.23 | T8 | 1 | 10/23/2024 16:50 | WG2387619 |

Sample Narrative:

L1791416-05 WG2387619: 7.23 at 19.4C

## Mercury by Method 245.1

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Mercury | U | | 0.130 | 0.200 | 1 | 10/27/2024 20:18 | WG2387475 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 15500000 | | 200000 | 1 | 10/22/2024 19:42 | WG2387276 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1320000 | | 5470 | 10000 | 10 | 10/23/2024 03:30 | WG2387160 |
| Fluoride | 1740 | | 761 | 1500 | 10 | 10/23/2024 03:30 | WG2387160 |
| Sulfate | 7400000 | | 63700 | 500000 | 100 | 10/23/2024 05:30 | WG2387160 |

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.10 | T8 | 1 | 10/23/2024 16:50 | WG2387619 |

Sample Narrative:

L1791416-06 WG2387619: 7.1 at 19.3C

## Mercury by Method 245.1

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Mercury | U | | 0.130 | 0.200 | 1 | 10/27/2024 20:20 | WG2387475 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 12700000 | | 200000 | 1 | 10/22/2024 19:42 | WG2387276 |

## Wet Chemistry by Method 300.0

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1180000 | | 5470 | 10000 | 10 | 10/25/2024 07:28 | WG2388868 |
| Fluoride | 2240 | J6 | 76.1 | 150 | 1 | 10/23/2024 11:53 | WG2387196 |
| Sulfate | 9510000 | | 63700 | 500000 | 100 | 10/25/2024 07:45 | WG2388868 |

## Wet Chemistry by Method 4500H+ B-2011

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.12 | T8 | 1 | 10/23/2024 16:50 | WG2387619 |

Sample Narrative:

L1791416-07 WG2387619: 7.12 at 19.4C

## Mercury by Method 245.1

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Mercury | U | | 0.130 | 0.200 | 1 | 10/27/2024 20:23 | WG2387475 |

# QUALITY CONTROL SUMMARY

L1791416-01,02,03,04,05,06,07

## Method Blank (MB)

(MB) R4137297-1 10/22/24 19:42

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Dissolved Solids | U | | 10000 | 10000 |

## L1791381-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1791381-01 10/22/24 19:42 • (DUP) R4137297-3 10/22/24 19:42

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 412000 | 410000 | 1 | 0.487 | | 10 |

## L1791416-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1791416-07 10/22/24 19:42 • (DUP) R4137297-4 10/22/24 19:42

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 12700000 | 12900000 | 1 | 1.57 | | 10 |

## Laboratory Control Sample (LCS)

(LCS) R4137297-2 10/22/24 19:42

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Dissolved Solids | 8800000 | 8320000 | 94.5 | 85.0-115 | |

## Method Blank (MB)

(MB) R4136234-1 10/22/24 22:21

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 547 | 1000 |
| Fluoride | U | | 76.1 | 150 |
| Sulfate | U | | 637 | 5000 |

## L1791356-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1791356-06 10/22/24 23:55 • (DUP) R4136234-3 10/23/24 05:44

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 21700 | U | 10 | 200 | P1 | 15 |
| Fluoride | 2650 | U | 10 | 200 | P1 | 15 |
| Sulfate | 231000 | 226000 | 10 | 2.41 | | 15 |

## L1791356-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1791356-01 10/22/24 22:48 • (DUP) R4136234-6 10/23/24 06:24

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 1920 | 1930 | 1 | 0.904 | | 15 |
| Fluoride | 374 | 319 | 1 | 15.9 | P1 | 15 |
| Sulfate | 24200 | 26200 | 1 | 8.08 | | 15 |

## Laboratory Control Sample (LCS)

(LCS) R4136234-2 10/22/24 22:34

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Chloride | 40000 | 39100 | 97.9 | 90.0-110 | |
| Fluoride | 8000 | 8160 | 102 | 90.0-110 | |
| Sulfate | 40000 | 38700 | 96.8 | 90.0-110 | |

## L1791356-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1791356-06 10/22/24 23:55 • (MS) R4136234-4 10/23/24 05:57 • (MSD) R4136234-5 10/23/24 06:11

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 21700 | 43400 | 41100 | 54.3 | 48.6 | 10 | 90.0-110 | J6 | J6 | 5.37 | 15 |
| Fluoride | 8000 | 2650 | 7590 | 8250 | 61.7 | 70.0 | 10 | 90.0-110 | J6 | J6 | 8.35 | 15 |
| Sulfate | 40000 | 231000 | 231000 | 225000 | 0.745 | 0.000 | 10 | 90.0-110 | V | V | 2.83 | 15 |

## L1791356-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1791356-01 10/22/24 22:48 • (MS) R4136234-7 10/23/24 06:37

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 1920 | 41500 | 99.1 | 1 | 90.0-110 | |
| Fluoride | 8000 | 374 | 8380 | 100 | 1 | 90.0-110 | |
| Sulfate | 40000 | 24200 | 60600 | 91.0 | 1 | 90.0-110 | |

## Method Blank (MB)

(MB) R4137033-1 10/23/24 10:59

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Fluoride | U | | 76.1 | 150 |

## L1791416-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1791416-07 10/23/24 11:53 • (DUP) R4137033-3 10/23/24 15:15

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Fluoride | 2240 | 2230 | 1 | 0.609 | | 15 |

## Laboratory Control Sample (LCS)

(LCS) R4137033-2 10/23/24 11:13

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Fluoride | 8000 | 7260 | 90.7 | 90.0-110 | |

## L1791416-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1791416-07 10/23/24 11:53 • (MS) R4137033-5 10/23/24 15:42 • (MSD) R4137033-6 10/23/24 15:55

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 8000 | 2240 | 6320 | 6180 | 51.0 | 49.2 | 1 | 90.0-110 | J6 | J6 | 2.25 | 15 |

## Method Blank (MB)

(MB) R4137649-1 10/25/24 05:47

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 547 | 1000 |
| Sulfate | U | | 637 | 5000 |

## L1790683-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1790683-03 10/25/24 06:21 • (DUP) R4137649-3 10/25/24 06:38

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 11500 | 11400 | 1 | 0.424 | | 15 |
| Sulfate | 31600 | 31500 | 1 | 0.504 | | 15 |

## Laboratory Control Sample (LCS)

(LCS) R4137649-2 10/25/24 06:04

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Chloride | 40000 | 40000 | 100 | 90.0-110 | |
| Sulfate | 40000 | 41300 | 103 | 90.0-110 | |

## L1790683-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1790683-03 10/25/24 06:21 • (MS) R4137649-4 10/25/24 06:55 • (MSD) R4137649-5 10/25/24 07:11

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 11500 | 49100 | 49100 | 94.1 | 94.0 | 1 | 90.0-110 | | | 0.101 | 15 |
| Sulfate | 40000 | 31600 | 66000 | 65800 | 86.0 | 85.5 | 1 | 90.0-110 | J6 | J6 | 0.327 | 15 |

## L1791319-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1791319-01 10/23/24 16:50 • (DUP) R4136715-2 10/23/24 16:50

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.08 | 7.07 | 1 | 0.141 | | 1 |

Sample Narrative:

OS: 7.08 at 19.9C

DUP: 7.07 at 19.8C

## L1791494-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1791494-08 10/23/24 16:50 • (DUP) R4136715-3 10/23/24 16:50

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 8.11 | 8.11 | 1 | 0.000 | | 1 |

Sample Narrative:

OS: 8.11 at 19.7C

DUP: 8.11 at 19.7C

## Laboratory Control Sample (LCS)

(LCS) R4136715-1 10/23/24 16:50

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | su | su | % | % | |
| pH | 10.0 | 10.0 | 100 | 99.0-101 | |

Sample Narrative:

LCS: 10.01 at 20.5C

## Method Blank (MB)

(MB) R4138220-1 10/27/24 19:36

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Mercury | U | | 0.130 | 0.200 |

## Laboratory Control Sample (LCS)

(LCS) R4138220-2 10/27/24 19:38

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Mercury | 3.00 | 2.92 | 97.3 | 85.0-115 | |

## L1789288-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1789288-01 10/27/24 19:41 • (MS) R4138220-4 10/27/24 19:45 • (MSD) R4138220-5 10/27/24 19:48

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 3.00 | U | 2.88 | 2.95 | 96.1 | 98.4 | 1 | 70.0-130 | | | 2.44 | 20 |

## L1791416-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1791416-01 10/27/24 19:51 • (MS) R4138220-6 10/27/24 19:53 • (MSD) R4138220-7 10/27/24 20:00

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 3.00 | U | 1.40 | 1.42 | 46.6 | 47.4 | 1 | 70.0-130 | J6 | J6 | 1.83 | 20 |

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

## Abbreviations and Definitions

| | |
|---|---|
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| Rec. | Recovery. |
| RPD | Relative Percent Difference. |
| SDG | Sample Delivery Group. |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| Analyte | The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported. |
| Dilution | If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor. |
| Limits | These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| Qualifier | This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable. |
| Result | The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte. |
| Uncertainty (Radiochemistry) | Confidence level of 2 sigma. |
| Case Narrative (Cn) | A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report. |
| Quality Control Summary (Qc) | This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material. |
| Sample Chain of Custody (Sc) | This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis. |
| Sample Results (Sr) | This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported. |
| Sample Summary (Ss) | This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis. |

| Qualifier | Description |
|---|---|
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J6 | The sample matrix interfered with the ability to make any accurate determination; spike value is low. |
| O1 | The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference. |
| P1 | RPD value not applicable for sample concentrations less than 5 times the reporting limit. |
| T8 | Sample(s) received past/too close to holding time expiration. |
| V | The sample concentration is too high to evaluate accurate spike recoveries. |

# ACCREDITATIONS & LOCATIONS

## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nebraska | NE-OS-15-05 |
| Alaska | 17-026 | Nevada | TN000032021-1 |
| Arizona | AZ0612 | New Hampshire | 2975 |
| Arkansas | 88-0469 | New Jersey–NELAP | TN002 |
| California | 2932 | New Mexico [1] | TN00003 |
| Colorado | TN00003 | New York | 11742 |
| Connecticut | PH-0197 | North Carolina | Env375 |
| Florida | E87487 | North Carolina [1] | DW21704 |
| Georgia | NELAP | North Carolina [3] | 41 |
| Georgia [1] | 923 | North Dakota | R-140 |
| Idaho | TN00003 | Ohio–VAP | CL0069 |
| Illinois | 200008 | Oklahoma | 9915 |
| Indiana | C-TN-01 | Oregon | TN200002 |
| Iowa | 364 | Pennsylvania | 68-02979 |
| Kansas | E-10277 | Rhode Island | LAO000356 |
| Kentucky [1 6] | KY90010 | South Carolina | 84004002 |
| Kentucky [2] | 16 | South Dakota | n/a |
| Louisiana | AI30792 | Tennessee [1 4] | 2006 |
| Louisiana | LA018 | Texas | T104704245-20-18 |
| Maine | TN00003 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | TN000032021-11 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 110033 |
| Minnesota | 047-999-395 | Washington | C847 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 998093910 |
| Montana | CERT0086 | Wyoming | A2LA |
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC EMLAP | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | P330-15-00234 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**
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Phoenix, AZ 85034

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Phoenix, AZ 85034

Pres Chk

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project # US0023513.6155

Lab Project # AMECTAZ-FOURCORNERS-URS

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ____ Y ____

*Rush?* (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L17 91416
F086

Acctnum: AMECTAZ
Template: T261976
Prelogin: P1107674
PM: 288 - Daphne Richards
PB:
Shipped Via: FedEX Ground

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 <2 | 200.8 Total Metals 250mlHDPE-HNO3 <2 | ALKCA/OH 125mlHDPE-NoPres | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | | | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW67-1024 | | GW ~~WW~~ | | 10/18/24 | 0810 | 4 | X | X | | X | X | X | X | X | | | | -01 |
| FC-CCR-MW68-1024 | | ~~WW~~ | | | 0934 | | X | X | | X | X | X | X | X | | | | 02 |
| FC-CCR-MW69-1024 | | ~~WW~~ | | 10/20/24 | 1055 | | X | X | | X | X | X | X | X | | | | 03 |
| FC-CCR-MW83-1024 | | ~~WW~~ | | | 1245 | | X | X | | X | X | X | X | X | | | | 04 |
| FC-CCR-MW85-1024 | | ~~WW~~ | | | 1345 | | X | X | | X | X | X | X | X | | | | 05 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, Ca, Be, Li, ~~Fe, Mn, K, Mg, Na.~~
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

PH – 10BDH0941
TRC – 4072A72

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: X Y __N
RAD Screen <0.5 mR/hr: X Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR | |
|---|---|---|---|---|---|
| [signature] | 10/20/24 | 0845 | FED EX | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: 1.7+0.3=2.0 °C Bottles Received: 28 CG 10/22/24 | If preservation required by Login: Date/Time |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) Christopher L. Gallin | Date: 10/22/24 Time: 0900 | Hold: Condition: NCF / OK |

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to: **Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT (MT) CT ET

Phone: **602-733-6110**

Client Project # US00235513.0155

Lab Project # **AMECTAZ-FOURCORNERS-URS**

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N____ Y____

***Rush?*** (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKCA/OH 125mlHDPE-NoPres | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | | | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-CM01-1024 | G | ~~GW~~ WW | | 10/20/24 | 1133 | 4 | X | X | | X | X | X | X | X | | | | -06 |
| FC-CCR-CM02-1024 | " | ~~WW~~ | | " | 1139 | " | X | X | | X | X | X | X | X | | | | 07 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
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| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

Chain of Custody Page 2 of 2

Pace
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**

12065 Lebanon Rd Mount Juliet, TN 37122
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SDG # L1791416

Table #

Acctnum: **AMECTAZ**
Template: **T261976**
Prelogin: **P1107674**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
**SS** - Soil **AIR** - Air **F** - Filter
**GW** - Groundwater **B** - Bioassay
**WW** - WasteWater
**DW** - Drinking Water
**OT** - Other_____

Remarks: 200.7: Total B, Ca, Be, Li, ~~Fe, Mn, K, Mg, Na.~~
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: X Y __N
RAD Screen <0.5 mR/hr: X Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR |
|---|---|---|---|---|
| [signature] | 10/20/24 0830 | 0845 | FEDEX | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C Bottles Received: 1.7+0.3=2.0 28 |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) Christopher Gallin | Date: 10/21/24 Time: 0900 |

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

L1791416

| Fed Ex tracking # | Gun ID | Temperature |
|---|---|---|
| 410297114247 | | 7.7+0.3= 8.0 |
| 4155 | | 1.7+0.3= 2.0 |
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| | | |

Name

Date

## NCF - L1791416 AMECTAZ - JWW 10/22

R5

**Time estimate:** oh **Time spent:** oh

**Members**

V Jeremy Watkins (responsible) DR Daphne Richards

- [ ] Parameter(s) past holding time
- [x] Temperature not in range
- [ ] Improper container type
- [ ] pH not in range
- [ ] Insufficient sample volume
- [ ] Sample is biphasic
- [ ] Vials received with headspace
- [ ] Broken container
- [ ] Sufficient sample remains
- [ ] If broken container: Insufficient packing material around container
- [ ] If broken container: Insufficient packing material inside cooler
- [ ] If broken container: Improper handling by carrier:_____
- [ ] If broken container: Sample was frozen
- [ ] If broken container: Container lid not intact
- [ ] Client informed by Call
- [ ] Client informed by Email
- [ ] Client informed by Voicemail
- [ ] Date/Time:_____
- [ ] PM initials:_____
- [ ] Client Contact:_____

**Comments**

*Jeremy Watkins* *22 October 2024 3:11 PM*

FC-CCR-CM01 and CM02 recieved out of Temp. 8.0 Deg C. Ice Melted

*Daphne Richards* *24 October 2024 9:54 AM*

Proceed with analysis

**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

November 20, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1791416 WG2393097-Revised Report
Pace Project No.: 10714668

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 06, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

This report was revised on November 20, 2024, to report to the Method Dectection Limit (MDL).

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation



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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

# CERTIFICATIONS

Project: L1791416 WG2393097-Revised Report
Pace Project No.: 10714668

**Pace Analytical Services, LLC - Minneapolis MN**
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

## REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414
(612)607-1700

## SAMPLE SUMMARY

Project: L1791416 WG2393097-Revised Report
Pace Project No.: 10714668

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **10714668001** | **FC-CCR-MW67-1024** | Water | 10/18/24 08:10 | 11/06/24 09:20 |
| **10714668002** | **FC-CCR-MW68-1024** | Water | 10/18/24 09:34 | 11/06/24 09:20 |
| **10714668003** | **FC-CCR-MW69-1024** | Water | 10/20/24 10:55 | 11/06/24 09:20 |
| **10714668004** | **FC-CCR-MW83-1024** | Water | 10/20/24 12:45 | 11/06/24 09:20 |
| **10714668005** | **FC-CCR-MW85-1024** | Water | 10/20/24 13:45 | 11/06/24 09:20 |
| **10714668006** | **FC-CCR-CM01-1024** | Water | 10/20/24 11:33 | 11/06/24 09:20 |
| **10714668007** | **FC-CCR-CM02-1024** | Water | 10/20/24 11:39 | 11/06/24 09:20 |



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Minneapolis, MN 55414
(612)607-1700

## SAMPLE ANALYTE COUNT

Project: L1791416 WG2393097-Revised Report
Pace Project No.: 10714668

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **10714668001** | **FC-CCR-MW67-1024** | EPA 200.7 | IP | 4 | PASI-M |
| | | EPA 200.8 | GAS1 | 9 | PASI-M |
| **10714668002** | **FC-CCR-MW68-1024** | EPA 200.7 | IP | 4 | PASI-M |
| | | EPA 200.8 | GAS1 | 9 | PASI-M |
| **10714668003** | **FC-CCR-MW69-1024** | EPA 200.7 | IP | 4 | PASI-M |
| | | EPA 200.8 | GAS1 | 9 | PASI-M |
| **10714668004** | **FC-CCR-MW83-1024** | EPA 200.7 | IP | 4 | PASI-M |
| | | EPA 200.8 | GAS1 | 9 | PASI-M |
| **10714668005** | **FC-CCR-MW85-1024** | EPA 200.7 | IP | 4 | PASI-M |
| | | EPA 200.8 | GAS1 | 9 | PASI-M |
| **10714668006** | **FC-CCR-CM01-1024** | EPA 200.7 | IP | 4 | PASI-M |
| | | EPA 200.8 | GAS1 | 9 | PASI-M |
| **10714668007** | **FC-CCR-CM02-1024** | EPA 200.7 | IP | 4 | PASI-M |
| | | EPA 200.8 | GAS1 | 9 | PASI-M |

PASI-M = Pace Analytical Services - Minneapolis



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## ANALYTICAL RESULTS

Project: L1791416 WG2393097-Revised Report
Pace Project No.: 10714668

**Sample: FC-CCR-MW67-1024** **Lab ID: 10714668001** Collected: 10/18/24 08:10 Received: 11/06/24 09:20 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<4.0** | ug/L | 20.0 | 4.0 | 1 | 11/07/24 09:33 | 11/10/24 14:28 | 7440-36-0 | |
| Beryllium | **0.95J** | ug/L | 5.0 | 0.44 | 1 | 11/07/24 09:33 | 11/10/24 14:28 | 7440-41-7 | |
| Boron | **166000** | ug/L | 1500 | 160 | 10 | 11/07/24 09:33 | 11/10/24 14:56 | 7440-42-8 | P6 |
| Calcium | **417000** | ug/L | 500 | 31.8 | 1 | 11/07/24 09:33 | 11/10/24 14:28 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Arsenic | **1.2J** | ug/L | 2.5 | 0.61 | 5 | 11/11/24 11:15 | 11/12/24 11:30 | 7440-38-2 | D3 |
| Barium | **11.3** | ug/L | 1.5 | 0.35 | 5 | 11/11/24 11:15 | 11/12/24 11:30 | 7440-39-3 | |
| Cadmium | **0.17J** | ug/L | 0.40 | 0.15 | 5 | 11/11/24 11:15 | 11/12/24 11:30 | 7440-43-9 | D3 |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/11/24 11:15 | 11/12/24 11:30 | 7440-47-3 | D3 |
| Cobalt | **9.0** | ug/L | 2.5 | 0.48 | 5 | 11/11/24 11:15 | 11/12/24 13:16 | 7440-48-4 | |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/11/24 11:15 | 11/12/24 11:30 | 7439-92-1 | D3 |
| Lithium | **303** | ug/L | 2.5 | 0.92 | 5 | 11/11/24 11:15 | 11/12/24 11:30 | 7439-93-2 | |
| Molybdenum | **28.1** | ug/L | 2.5 | 0.63 | 5 | 11/11/24 11:15 | 11/12/24 11:30 | 7439-98-7 | |
| Thallium | **1.1** | ug/L | 0.50 | 0.13 | 5 | 11/11/24 11:15 | 11/12/24 11:30 | 7440-28-0 | |

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: L1791416 WG2393097-Revised Report
Pace Project No.: 10714668

**Sample: FC-CCR-MW68-1024** **Lab ID: 10714668002** Collected: 10/18/24 09:34 Received: 11/06/24 09:20 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<4.0** | ug/L | 20.0 | 4.0 | 1 | 11/07/24 09:33 | 11/10/24 14:46 | 7440-36-0 | |
| Beryllium | **0.50J** | ug/L | 5.0 | 0.44 | 1 | 11/07/24 09:33 | 11/10/24 14:46 | 7440-41-7 | |
| Boron | **188000** | ug/L | 3000 | 320 | 20 | 11/07/24 09:33 | 11/10/24 15:01 | 7440-42-8 | |
| Calcium | **422000** | ug/L | 500 | 31.8 | 1 | 11/07/24 09:33 | 11/10/24 14:46 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Arsenic | **3.9** | ug/L | 2.5 | 0.61 | 5 | 11/11/24 11:15 | 11/12/24 11:39 | 7440-38-2 | |
| Barium | **245** | ug/L | 1.5 | 0.35 | 5 | 11/11/24 11:15 | 11/12/24 11:39 | 7440-39-3 | |
| Cadmium | **<0.15** | ug/L | 0.40 | 0.15 | 5 | 11/11/24 11:15 | 11/12/24 11:39 | 7440-43-9 | D3 |
| Chromium | **7.7J** | ug/L | 10.0 | 2.7 | 5 | 11/11/24 11:15 | 11/12/24 11:39 | 7440-47-3 | D3 |
| Cobalt | **21.2** | ug/L | 2.5 | 0.48 | 5 | 11/11/24 11:15 | 11/12/24 13:08 | 7440-48-4 | |
| Lead | **5.3** | ug/L | 2.5 | 0.90 | 5 | 11/11/24 11:15 | 11/12/24 11:39 | 7439-92-1 | |
| Lithium | **335** | ug/L | 2.5 | 0.92 | 5 | 11/11/24 11:15 | 11/12/24 11:39 | 7439-93-2 | |
| Molybdenum | **7.1** | ug/L | 2.5 | 0.63 | 5 | 11/11/24 11:15 | 11/12/24 11:39 | 7439-98-7 | |
| Thallium | **1.6** | ug/L | 0.50 | 0.13 | 5 | 11/11/24 11:15 | 11/12/24 11:39 | 7440-28-0 | |

## REPORT OF LABORATORY ANALYSIS

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1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## ANALYTICAL RESULTS

Project: L1791416 WG2393097-Revised Report
Pace Project No.: 10714668

**Sample: FC-CCR-MW69-1024** **Lab ID: 10714668003** Collected: 10/20/24 10:55 Received: 11/06/24 09:20 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<4.0** | ug/L | 20.0 | 4.0 | 1 | 11/07/24 09:33 | 11/10/24 14:48 | 7440-36-0 | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/07/24 09:33 | 11/10/24 14:48 | 7440-41-7 | |
| Boron | **37500** | ug/L | 750 | 80.0 | 5 | 11/07/24 09:33 | 11/10/24 15:12 | 7440-42-8 | |
| Calcium | **498000** | ug/L | 500 | 31.8 | 1 | 11/07/24 09:33 | 11/10/24 14:48 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis | | | | | | | | |
| Arsenic | **1.4J** | ug/L | 2.5 | 0.61 | 5 | 11/11/24 11:15 | 11/12/24 11:47 | 7440-38-2 | D3 |
| Barium | **5.2** | ug/L | 1.5 | 0.35 | 5 | 11/11/24 11:15 | 11/12/24 11:47 | 7440-39-3 | |
| Cadmium | **<0.15** | ug/L | 0.40 | 0.15 | 5 | 11/11/24 11:15 | 11/12/24 11:47 | 7440-43-9 | D3 |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/11/24 11:15 | 11/12/24 11:47 | 7440-47-3 | D3 |
| Cobalt | **2.0J** | ug/L | 2.5 | 0.48 | 5 | 11/11/24 11:15 | 11/12/24 11:47 | 7440-48-4 | D3 |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/11/24 11:15 | 11/12/24 11:47 | 7439-92-1 | D3 |
| Lithium | **152** | ug/L | 2.5 | 0.92 | 5 | 11/11/24 11:15 | 11/12/24 11:47 | 7439-93-2 | |
| Molybdenum | **4.1** | ug/L | 2.5 | 0.63 | 5 | 11/11/24 11:15 | 11/12/24 11:47 | 7439-98-7 | |
| Thallium | **0.28J** | ug/L | 0.50 | 0.13 | 5 | 11/11/24 11:15 | 11/12/24 11:47 | 7440-28-0 | D3 |

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Minneapolis, MN 55414
(612)607-1700

## ANALYTICAL RESULTS

Project: L1791416 WG2393097-Revised Report
Pace Project No.: 10714668

**Sample: FC-CCR-MW83-1024** **Lab ID: 10714668004** Collected: 10/20/24 12:45 Received: 11/06/24 09:20 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<4.0** | ug/L | 20.0 | 4.0 | 1 | 11/07/24 09:33 | 11/10/24 14:50 | 7440-36-0 | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/07/24 09:33 | 11/10/24 14:50 | 7440-41-7 | |
| Boron | **3090** | ug/L | 150 | 16.0 | 1 | 11/07/24 09:33 | 11/10/24 14:50 | 7440-42-8 | |
| Calcium | **412000** | ug/L | 500 | 31.8 | 1 | 11/07/24 09:33 | 11/10/24 14:50 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis | | | | | | | | |
| Arsenic | **<0.61** | ug/L | 2.5 | 0.61 | 5 | 11/11/24 11:15 | 11/12/24 10:27 | 7440-38-2 | D3 |
| Barium | **9.4** | ug/L | 1.5 | 0.35 | 5 | 11/11/24 11:15 | 11/12/24 10:27 | 7440-39-3 | |
| Cadmium | **0.46** | ug/L | 0.40 | 0.15 | 5 | 11/11/24 11:15 | 11/12/24 10:27 | 7440-43-9 | |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/11/24 11:15 | 11/12/24 10:27 | 7440-47-3 | D3 |
| Cobalt | **2.1J** | ug/L | 2.5 | 0.48 | 5 | 11/11/24 11:15 | 11/12/24 10:27 | 7440-48-4 | D3 |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/11/24 11:15 | 11/12/24 10:27 | 7439-92-1 | D3 |
| Lithium | **156** | ug/L | 2.5 | 0.92 | 5 | 11/11/24 11:15 | 11/12/24 10:27 | 7439-93-2 | |
| Molybdenum | **7.4** | ug/L | 2.5 | 0.63 | 5 | 11/11/24 11:15 | 11/12/24 10:27 | 7439-98-7 | |
| Thallium | **0.43J** | ug/L | 0.50 | 0.13 | 5 | 11/11/24 11:15 | 11/12/24 10:27 | 7440-28-0 | D3 |

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## ANALYTICAL RESULTS

Project: L1791416 WG2393097-Revised Report
Pace Project No.: 10714668

**Sample: FC-CCR-MW85-1024** **Lab ID: 10714668005** Collected: 10/20/24 13:45 Received: 11/06/24 09:20 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<4.0** | ug/L | 20.0 | 4.0 | 1 | 11/07/24 09:33 | 11/10/24 14:51 | 7440-36-0 | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/07/24 09:33 | 11/10/24 14:51 | 7440-41-7 | |
| Boron | **67100** | ug/L | 750 | 80.0 | 5 | 11/07/24 09:33 | 11/10/24 15:13 | 7440-42-8 | |
| Calcium | **453000** | ug/L | 500 | 31.8 | 1 | 11/07/24 09:33 | 11/10/24 14:51 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Minneapolis | | | | | | | | |
| Arsenic | **1.5J** | ug/L | 2.5 | 0.61 | 5 | 11/11/24 11:15 | 11/12/24 11:22 | 7440-38-2 | D3 |
| Barium | **14.1** | ug/L | 1.5 | 0.35 | 5 | 11/11/24 11:15 | 11/12/24 11:22 | 7440-39-3 | |
| Cadmium | **0.68** | ug/L | 0.40 | 0.15 | 5 | 11/11/24 11:15 | 11/12/24 11:22 | 7440-43-9 | |
| Chromium | **8.3J** | ug/L | 10.0 | 2.7 | 5 | 11/11/24 11:15 | 11/12/24 11:22 | 7440-47-3 | D3 |
| Cobalt | **<0.48** | ug/L | 2.5 | 0.48 | 5 | 11/11/24 11:15 | 11/12/24 11:22 | 7440-48-4 | D3 |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/11/24 11:15 | 11/12/24 11:22 | 7439-92-1 | D3 |
| Lithium | **317** | ug/L | 2.5 | 0.92 | 5 | 11/11/24 11:15 | 11/12/24 11:22 | 7439-93-2 | |
| Molybdenum | **4.7** | ug/L | 2.5 | 0.63 | 5 | 11/11/24 11:15 | 11/12/24 11:22 | 7439-98-7 | |
| Thallium | **0.48J** | ug/L | 0.50 | 0.13 | 5 | 11/11/24 11:15 | 11/12/24 11:22 | 7440-28-0 | D3 |

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(612)607-1700

## ANALYTICAL RESULTS

Project: L1791416 WG2393097-Revised Report
Pace Project No.: 10714668

**Sample: FC-CCR-CM01-1024** **Lab ID: 10714668006** Collected: 10/20/24 11:33 Received: 11/06/24 09:20 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<4.0** | ug/L | 20.0 | 4.0 | 1 | 11/07/24 09:33 | 11/10/24 14:53 | 7440-36-0 | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/07/24 09:33 | 11/10/24 14:53 | 7440-41-7 | |
| Boron | **99400** | ug/L | 1500 | 160 | 10 | 11/07/24 09:33 | 11/10/24 15:16 | 7440-42-8 | |
| Calcium | **429000** | ug/L | 500 | 31.8 | 1 | 11/07/24 09:33 | 11/10/24 14:53 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Arsenic | **0.90J** | ug/L | 2.5 | 0.61 | 5 | 11/11/24 11:15 | 11/12/24 10:53 | 7440-38-2 | D3 |
| Barium | **13.7** | ug/L | 1.5 | 0.35 | 5 | 11/11/24 11:15 | 11/12/24 10:53 | 7440-39-3 | |
| Cadmium | **<0.15** | ug/L | 0.40 | 0.15 | 5 | 11/11/24 11:15 | 11/12/24 10:53 | 7440-43-9 | D3 |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/11/24 11:15 | 11/12/24 10:53 | 7440-47-3 | D3 |
| Cobalt | **8.4** | ug/L | 2.5 | 0.48 | 5 | 11/11/24 11:15 | 11/12/24 13:45 | 7440-48-4 | |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/11/24 11:15 | 11/12/24 10:53 | 7439-92-1 | D3 |
| Lithium | **315** | ug/L | 2.5 | 0.92 | 5 | 11/11/24 11:15 | 11/12/24 10:53 | 7439-93-2 | |
| Molybdenum | **4.2** | ug/L | 2.5 | 0.63 | 5 | 11/11/24 11:15 | 11/12/24 10:53 | 7439-98-7 | |
| Thallium | **0.82** | ug/L | 0.50 | 0.13 | 5 | 11/11/24 11:15 | 11/12/24 10:53 | 7440-28-0 | |

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## ANALYTICAL RESULTS

Project: L1791416 WG2393097-Revised Report
Pace Project No.: 10714668

**Sample: FC-CCR-CM02-1024** **Lab ID: 10714668007** Collected: 10/20/24 11:39 Received: 11/06/24 09:20 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<4.0** | ug/L | 20.0 | 4.0 | 1 | 11/07/24 09:33 | 11/10/24 14:54 | 7440-36-0 | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/07/24 09:33 | 11/10/24 14:54 | 7440-41-7 | |
| Boron | **100000** | ug/L | 1500 | 160 | 10 | 11/07/24 09:33 | 11/10/24 15:18 | 7440-42-8 | |
| Calcium | **429000** | ug/L | 500 | 31.8 | 1 | 11/07/24 09:33 | 11/10/24 14:54 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Arsenic | **1.0J** | ug/L | 2.5 | 0.61 | 5 | 11/11/24 11:15 | 11/12/24 11:56 | 7440-38-2 | D3 |
| Barium | **14.5** | ug/L | 1.5 | 0.35 | 5 | 11/11/24 11:15 | 11/12/24 11:56 | 7440-39-3 | |
| Cadmium | **0.19J** | ug/L | 0.40 | 0.15 | 5 | 11/11/24 11:15 | 11/12/24 11:56 | 7440-43-9 | D3 |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/11/24 11:15 | 11/12/24 11:56 | 7440-47-3 | D3 |
| Cobalt | **7.8** | ug/L | 2.5 | 0.48 | 5 | 11/11/24 11:15 | 11/12/24 13:12 | 7440-48-4 | |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/11/24 11:15 | 11/12/24 11:56 | 7439-92-1 | D3 |
| Lithium | **285** | ug/L | 2.5 | 0.92 | 5 | 11/11/24 11:15 | 11/12/24 11:56 | 7439-93-2 | |
| Molybdenum | **3.1** | ug/L | 2.5 | 0.63 | 5 | 11/11/24 11:15 | 11/12/24 11:56 | 7439-98-7 | |
| Thallium | **1.1** | ug/L | 0.50 | 0.13 | 5 | 11/11/24 11:15 | 11/12/24 11:56 | 7440-28-0 | |

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# QUALITY CONTROL DATA

Project: L1791416 WG2393097-Revised Report
Pace Project No.: 10714668

QC Batch: 978337
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714668001, 10714668002, 10714668003, 10714668004, 10714668005, 10714668006, 10714668007

METHOD BLANK: 5112800 Matrix: Water
Associated Lab Samples: 10714668001, 10714668002, 10714668003, 10714668004, 10714668005, 10714668006, 10714668007

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Antimony | ug/L | <4.0 | 20.0 | 4.0 | 11/10/24 14:25 | |
| Beryllium | ug/L | <0.44 | 5.0 | 0.44 | 11/10/24 14:25 | |
| Boron | ug/L | <16.0 | 150 | 16.0 | 11/10/24 14:25 | |
| Calcium | ug/L | 44.2J | 500 | 31.8 | 11/10/24 14:25 | |

LABORATORY CONTROL SAMPLE: 5112801

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Antimony | ug/L | 1000 | 997 | 100 | 85-115 | |
| Beryllium | ug/L | 1000 | 1040 | 104 | 85-115 | |
| Boron | ug/L | 1000 | 1050 | 105 | 85-115 | |
| Calcium | ug/L | 20000 | 19700 | 99 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5112802 5112803

| Parameter | Units | 10714668001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ug/L | <4.0 | 1000 | 1000 | 1110 | 1090 | 111 | 109 | 70-130 | 2 | 20 | |
| Beryllium | ug/L | 0.95J | 1000 | 1000 | 1160 | 1150 | 116 | 115 | 70-130 | 1 | 20 | |
| Boron | ug/L | 166000 | 1000 | 1000 | 161000 | 150000 | -530 | -1640 | 70-130 | 7 | 20 | P6 |
| Calcium | ug/L | 417000 | 20000 | 20000 | 442000 | 442000 | 125 | 126 | 70-130 | 0 | 20 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

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## QUALITY CONTROL DATA

Project: L1791416 WG2393097-Revised Report
Pace Project No.: 10714668

QC Batch: 978992
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714668001, 10714668002, 10714668003, 10714668004, 10714668005, 10714668006, 10714668007

METHOD BLANK: 5115788 Matrix: Water
Associated Lab Samples: 10714668001, 10714668002, 10714668003, 10714668004, 10714668005, 10714668006, 10714668007

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Arsenic | ug/L | <0.12 | 0.50 | 0.12 | 11/12/24 09:15 | |
| Barium | ug/L | <0.070 | 0.30 | 0.070 | 11/12/24 09:15 | |
| Cadmium | ug/L | <0.030 | 0.080 | 0.030 | 11/12/24 09:15 | |
| Chromium | ug/L | <0.54 | 2.0 | 0.54 | 11/12/24 09:15 | |
| Cobalt | ug/L | <0.095 | 0.50 | 0.095 | 11/12/24 09:15 | |
| Lead | ug/L | <0.18 | 0.50 | 0.18 | 11/12/24 09:15 | |
| Lithium | ug/L | 0.19J | 0.50 | 0.18 | 11/12/24 09:15 | |
| Molybdenum | ug/L | <0.13 | 0.50 | 0.13 | 11/12/24 09:15 | |
| Thallium | ug/L | <0.026 | 0.10 | 0.026 | 11/12/24 09:15 | |

LABORATORY CONTROL SAMPLE: 5115789

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Arsenic | ug/L | 100 | 100 | 100 | 85-115 | |
| Barium | ug/L | 100 | 99.3 | 99 | 85-115 | |
| Cadmium | ug/L | 100 | 96.8 | 97 | 85-115 | |
| Chromium | ug/L | 100 | 105 | 105 | 85-115 | |
| Cobalt | ug/L | 100 | 106 | 106 | 85-115 | |
| Lead | ug/L | 100 | 101 | 101 | 85-115 | |
| Lithium | ug/L | 100 | 99.2 | 99 | 85-115 | |
| Molybdenum | ug/L | 100 | 95.6 | 96 | 85-115 | |
| Thallium | ug/L | 100 | 99.1 | 99 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5115790 5115791

| Parameter | Units | 10714668006 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | ug/L | 0.90J | 100 | 100 | 106 | 105 | 105 | 104 | 70-130 | 1 | 20 | |
| Barium | ug/L | 13.7 | 100 | 100 | 115 | 113 | 101 | 100 | 70-130 | 1 | 20 | |
| Cadmium | ug/L | <0.15 | 100 | 100 | 93.5 | 91.8 | 93 | 92 | 70-130 | 2 | 20 | |
| Chromium | ug/L | <2.7 | 100 | 100 | 107 | 105 | 106 | 104 | 70-130 | 2 | 20 | |
| Cobalt | ug/L | 8.4 | 100 | 100 | 107 | 108 | 98 | 99 | 70-130 | 1 | 20 | |
| Lead | ug/L | <0.90 | 100 | 100 | 99.5 | 99.1 | 99 | 99 | 70-130 | 0 | 20 | |
| Lithium | ug/L | 315 | 100 | 100 | 422 | 416 | 107 | 101 | 70-130 | 2 | 20 | |
| Molybdenum | ug/L | 4.2 | 100 | 100 | 105 | 102 | 101 | 98 | 70-130 | 2 | 20 | |
| Thallium | ug/L | 0.82 | 100 | 100 | 101 | 100 | 101 | 99 | 70-130 | 1 | 20 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

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# QUALIFIERS

Project: L1791416 WG2393097-Revised Report
Pace Project No.: 10714668

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## ANALYTE QUALIFIERS

| | |
|---|---|
| D3 | Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference. |
| P6 | Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level. |



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1791416 WG2393097-Revised Report
Pace Project No.: 10714668

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **10714668001** | **FC-CCR-MW67-1024** | EPA 200.7 | 978337 | EPA 200.7 | 978562 |
| **10714668002** | **FC-CCR-MW68-1024** | EPA 200.7 | 978337 | EPA 200.7 | 978562 |
| **10714668003** | **FC-CCR-MW69-1024** | EPA 200.7 | 978337 | EPA 200.7 | 978562 |
| **10714668006** | **FC-CCR-CM01-1024** | EPA 200.7 | 978337 | EPA 200.7 | 978562 |
| **10714668007** | **FC-CCR-CM02-1024** | EPA 200.7 | 978337 | EPA 200.7 | 978562 |
| **10714668004** | **FC-CCR-MW83-1024** | EPA 200.7 | 978337 | EPA 200.7 | 978562 |
| **10714668005** | **FC-CCR-MW85-1024** | EPA 200.7 | 978337 | EPA 200.7 | 978562 |
| **10714668001** | **FC-CCR-MW67-1024** | EPA 200.8 | 978992 | EPA 200.8 | 979145 |
| **10714668002** | **FC-CCR-MW68-1024** | EPA 200.8 | 978992 | EPA 200.8 | 979145 |
| **10714668003** | **FC-CCR-MW69-1024** | EPA 200.8 | 978992 | EPA 200.8 | 979145 |
| **10714668006** | **FC-CCR-CM01-1024** | EPA 200.8 | 978992 | EPA 200.8 | 979145 |
| **10714668007** | **FC-CCR-CM02-1024** | EPA 200.8 | 978992 | EPA 200.8 | 979145 |
| **10714668004** | **FC-CCR-MW83-1024** | EPA 200.8 | 978992 | EPA 200.8 | 979145 |
| **10714668005** | **FC-CCR-MW85-1024** | EPA 200.8 | 978992 | EPA 200.8 | 979145 |



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WO#: 10714668

10714668

# Sub-Contract Chain of Custody

Pace Analytical

**Batch Date/Time:** 10/31/24 13:39
**Sub-Contract Lab:** PACEMN
**Address:** 1700 Elm Street Suite 200 SE
**City/State:** Minneapolis, MN 55414
**Contact:** tong.lee@pacelabs.com
**Owner Lab:** PACEMTJL
**Address:** 12065 Lebanon Rd.
**City/State:** Mt. Juliet, TN 37122
**Phone:** (615) 773-9756
**Fax:** (615) 758-5859

**WO:** WG2393097
**Email:** MTJLSuboutTeam@pacelabs.com
**Results Due Date:** 11/08/24
**ESC Purchase Order #:** L1791416
**Send Reports to:** James C Huckaba

12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone:(615) 773-9756
Fax:(615) 758-5859

| Sample ID Container ID | Matrix | State | Collect Date | Description | Sample Number Lab Use Only | Sample Comments Lab Use Only | |
|---|---|---|---|---|---|---|---|
| FC-CCR-MW67-1024 | WW | NM | 10/18/24 08:10 | Metals | 1. L1791416-01 | 200.7 - B, CA, BE, LI, Sb 200-8-AS, BA, CD, CR, PB, MO, SE, TL, CO | 01 |
| FC-CCR-MW68-1024 | WW | NM | 10/18/24 09:34 | Metals | 2. L1791416-02 | 200.7 - B, CA, BE, LI, Sb. 200-8-AS, BA, CD, CR, PB, MO, SE, TL, CO | 02 |
| FC-CCR-MW69-1024 | WW | NM | 10/20/24 10:55 | Metals | 3. L1791416-03 | 200.7 - B, CA, BE, LI, Sb 200-8-AS, BA, CD, CR, PB, MO, SE, TL, CO | 03 |
| FC-CCR-MW83-1024 | WW | NM | 10/20/24 12:45 | Metals | 4. L1791416-04 | 200.7 - B, CA, BE, LI, Sb 200-8-AS, BA, CD, CR, PB, MO, SE, TL, CO | 04 |
| FC-CCR-MW85-1024 | WW | NM | 10/20/24 13:45 | Metals | 5. L1791416-05 | 200.7 - B, CA, BE, LI, Sb 200-8-AS, BA, CD, CR, PB, MO, SE, TL, CO | 05 |
| FC-CCR-CM01-1024 | WW | NM | 10/20/24 11:33 | Metals | 6. L1791416-06 | 200.7 - B, CA, BE, LI, Sb 200-8-AS, BA, CD, CR, PB, MO, SE, TL, CO | 06 |
| FC-CCR-CM02-1024 | WW | NM | 10/20/24 11:39 | Metals | 7. L1791416-07 | 200.7 - B, CA, BE, LI, Sb 200-8-AS, BA, CD, CR, PB, MO, SE, TL, CO | 07 |

*= Container used for multiple Samples and/or Analyses

**Relinquished by:** _____ **Date** 10-31-24

**Received by:** Pace **Date** 11-6-24 9:20

**Relinquished by:** _____ **Date** _____

**Received by:** _____ **Date** _____

**NO ICE**

# ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

**CLIENT NAME:** Pace MTJL **PROJECT #:**

**WO#: 10714668**
**PM: TKL Due Date: 11/20/24**
**CLIENT: PASI-TN**

**COURIER:** ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

**TRACKING NUMBER:** 421264763455 ☐ See Exceptions form ENV-FRM-MIN4-0142

**Custody Seal on Cooler/Box Present:** ☑ YES ☐ NO **Seals Intact:** ☑ YES ☐ NO **Biological Tissue Frozen:** ☐ YES ☐ NO ☑ N/A

**Packing Material:** ☐ Bubble Bags ☑ Bubble Wrap ☐ None ☐ Other **Temp Blank:** ☐ YES ☑ NO **Type of Ice:** ☐ Blue ☐ Dry ☐ Wet ☐ Melted ☑ None

**Thermometer:** ☑ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

| | |
|---|---|
| **Did Samples Originate in West Virginia:** ☐ YES ☑ NO | **Were All Container Temps taken:** ☐ YES ☐ NO ☑ N/A |
| **Correction Factor:** +0.1 **Cooler Temp Read w/Temp Blank:** ____ °C **Cooler Temp Corrected w/Temp Blank:** ____ °C | **Average Corrected Temp (no Temp Blank Only):** 18.2 °C |
| ***NOTE:*** *Temp should be above freezing to 6°C.* | ☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container |
| **USDA Regulated Soil:** ☑ N/A (Water) Sample/Other (describe): ____ | **Initials & Date of Person Examining Contents:** EC 11-6-24 |
| Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO | Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO |
| **NOTE:** If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork. | |

| **LOCATION (check one):** ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA | YES | NO | N/A | COMMENT(S) |
|---|---|---|---|---|
| Chain of Custody Present and Filled Out? | ☑ | ☐ | | 1. |
| Chain of Custody Relinquished? | ☑ | ☐ | | 2. |
| Sampler Name and/or Signature on COC? | ☐ | ☑ | ☐ | 3. |
| Samples Arrived within Hold Time? | ☑ | ☐ | | 4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No |
| **Short Hold Time Analysis (<72 hr)?** | ☐ | ☑ | | 5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: ____ |
| **Rush Turn Around Time Requested?** | ☑ | ☐ | | 6. 11-8-24 |
| Sufficient Sample Volume? | ☑ | ☐ | | 7. |
| Correct Containers Used? – Pace Containers Used? | ☑ ☑ | ☐ ☐ | ☐ | 8. |
| Containers Intact? | ☑ | ☐ | | 9. |
| Field Filtered Volume Received for Dissolved Tests? | ☐ | ☐ | ☑ | 10. Is sediment visible in the dissolved container: ☐ YES ☐ NO |
| Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other | ☑ | ☐ | | 11. **If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142 |
| All containers needing acid/base preservation have been checked? | ☑ | ☐ | ☐ | 12. Sample #: 001-007 |
| All containers needing preservation are found to be in compliance with EPA recommendation? ($HNO_3$, $H_2SO_4$, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide) | ☑ | ☐ | ☐ | 2/2 ☑ $HNO_3$ ☐ $H_2SO_4$ ☐ NaOH ☐ Zinc Acetate |
| Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS | ☐ | ☐ | ☑ | Positive for Residual Chlorine: ☐ YES ☐ NO |
| **NOTE:** If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs. | | | | **pH Paper Lot #** |

| Residual Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip |
|---|---|---|---|
| | 205224 | | |

☐ See Exceptions form ENV-FRM-MIN4-0142

| | | | | |
|---|---|---|---|---|
| Headspace in Methyl Mercury Container? | ☐ | ☐ | ☑ | 13. |
| Extra labels present on soil VOA or WIDRO containers? | ☐ | ☐ | ☑ | 14. |
| Headspace in VOA Vials (greater than 6mm)? | ☐ | ☐ | ☑ | ☐ See Exceptions form ENV-FRM-MIN4-0140 |
| Trip Blanks Present? | ☐ | ☐ | ☑ | 15. |
| Trip Blank Custody Seals Present? | ☐ | ☐ | ☑ | Pace Trip Blank Lot # (if purchased): ____ |

**CLIENT NOTIFICATION / RESOLUTION** **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: ____ Date & Time: ____

Comments / Resolution: ____

**Project Manager Review:** [signature] **Date:** 11/06/24

***NOTE:*** *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

**Labeled By:** CC **Line:** 3

**Workorder #:** _____

| No Temp Blank | | |
|---|---|---|
| Read Temp | Corrected Temp | Average temp |
| 17.9 | 18.0 | 18.2 |
| 17.7 | 17.8 | |
| 18.3 | 18.4 | |
| 18.3 | 18.4 | |

| PM Notified of Out of Temp Cooler? ☐ YES ☐ NO |
|---|
| If yes, indicate who was contacted, date and time.<br>If no, indicate reason why. |
| Multiple Cooler Project? ☐ YES ☐ NO |

## If anything is OVER 6.0°C, you MUST document containers in this section HERE

| Tracking Number | Temperature |
|---|---|
| | |
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| Out of Temp Sample ID | Container Type | # of Containers |
|---|---|---|
| | | |
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| | | |

| pH Adjustment Log for Preserved Samples | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Type Of Preserve | pH Upon Receipt | Date Adjusted | Time Adjusted | Amount Added (mL) | Lot # Added | pH After | In Compliance After Addition? YES | In Compliance After Addition? NO | Initials |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |
| | | | | | | | | ☐ | ☐ | |

**Comments:**

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project # US0023513.6155

Lab Project # AMECTAZ-FOURCORNERS-URS

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ____ Y ____

Rush? (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L17 9146

F086

Acctnum: AMECTAZ
Template: T261976
Prelogin: P1107674
PM: 288 - Daphne Richards
PB:
Shipped Via: FedEX Ground

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 <2 | 200.8 Total Metals 250mlHDPE-HNO3 <2 | ALKCA/OH 125mlHDPE-NoPres | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE-NoPres | TDS 1L-HDPE-NoPres | | | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW67-1024 | | GW ~~WW~~ | | 10/18/24 | 0810 | 4 | X | X | | X | X | X | X | X | | | | -01 |
| FC-CCR-MW68-1024 | | ~~WW~~ | | | 0934 | | X | X | | X | X | X | X | X | | | | 02 |
| FC-CCR-MW69-1024 | | ~~WW~~ | | 10/20/24 | 1055 | | X | X | | X | X | X | X | X | | | | 03 |
| FC-CCR-MW83-1024 | | ~~WW~~ | | | 1245 | | X | X | | X | X | X | X | X | | | | 04 |
| FC-CCR-MW85-1024 | | ~~WW~~ | | | 1345 | | X | X | | X | X | X | X | X | | | | 05 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, Ca, Be, Li, ~~Fe, Mn, K, Mg, Na.~~
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

PH - 10BDH0941
TRC - 4072A72

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
OA Zero Headspace: __Y __N
Preservation Correct/Checked: X Y __N
RAD Screen <0.5 mR/hr: X Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes No HCL / MeoH TBR | |
|---|---|---|---|---|---|
| [signature] | 10/20/24 | 0845 | FED EX | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: 1.7+0.3=2.0 °C Bottles Received: 10/22/24 | If preservation required by Login: Date/Time |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) Christopher B. Gallier | Date: 10/22/24 Time: 0900 | Hold: Condition: NCF OK |

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project # US0023513.0155

Lab Project # AMECTAZ-FOURCORNERS-URS

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ____ Y ____

*Rush?* (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L 179414

Table #

Acctnum: AMECTAZ
Template: T261976
Prelogin: P1107674
PM: 288 - Daphne Richards
PB:
Shipped Via: FedEX Ground

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKCA/OH 125mlHDPE-NoPres | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE-NoPres | TDS 1L-HDPE-NoPres | | | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-CM01-1024 | G | GW ~~WW~~ | | 10/20/24 | 1133 | 4 | X | X | | X | X | X | X | X | | | | 06 |
| FC-CCR-CM02-1024 | ↓ | ↓ ~~WW~~ | | ↓ | 1139 | ↓ | X | X | | X | X | X | X | X | | | | 07 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, Ca, Be, Li, ~~Fe, Mn, K, Mg, Na~~
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: UPS FedEx Courier

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP X N
COC Signed/Accurate: X N
Bottles arrive intact: X N
Correct bottles used: X N
Sufficient volume sent: X N
If Applicable
VOA Zero Headspace: N
Preservation Correct/Checked: X N
RAD Screen <0.5 mR/hr: X N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeOH TBR |
|---|---|---|---|---|
| [signature] | 10/20/24 | 0845 | FEDEX | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: 17.0 °C Bottles Received: 28 |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) Christopher J. Gallier | Date: 10/22/24 Time: 0900 |

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

L1791416

| Fed Ex tracking # | Gun ID | Temperature |
|---|---|---|
| 410297114247 | | 7.7+0.3= 8.0 |
| 4155 | | 1.7+0.3= 2.0 |
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| | | |

Name

Date

## NCF - L1791416 AMECTAZ - JWW 10/22

R5

**Time estimate:** oh **Time spent:** oh

**Members**

JW Jeremy Watkins (responsible) DR Daphne Richards

- [ ] Parameter(s) past holding time
- [x] Temperature not in range
- [ ] Improper container type
- [ ] pH not in range
- [ ] Insufficient sample volume
- [ ] Sample is biphasic
- [ ] Vials received with headspace
- [ ] Broken container
- [ ] Sufficient sample remains
- [ ] If broken container: Insufficient packing material around container
- [ ] If broken container: Insufficient packing material inside cooler
- [ ] If broken container: Improper handling by carrier:_____
- [ ] If broken container: Sample was frozen
- [ ] If broken container: Container lid not intact
- [ ] Client informed by Call
- [ ] Client informed by Email
- [ ] Client informed by Voicemail
- [ ] Date/Time:_____
- [ ] PM initials:_____
- [ ] Client Contact:_____

**Comments**

*Jeremy Watkins* *22 October 2024 3:11 PM*

FC-CCR-CM01 and CM02 recieved out of Temp. 8.0 Deg C. Ice Melted

*Daphne Richards* *24 October 2024 9:54 AM*

Proceed with analysis

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



| **Section A** Required Client Information: | | **Section B** Required Project Information: | | **Section C** Invoice Information: | |
|---|---|---|---|---|---|
| Company: | Pace Analytical | Report To: | Pace Analytical Subout Team | Attention: | Samantha O'Shea |
| Address: | 12065 Lebanon Rd. | Copy To: | | Company Name: | |
| Mt. Juliet, TN 37122 | | | | Address: | |
| Email: | MTJLSuboutTeam@pacelabs.com | Purchase Order #: | L1791416 | Pace Quote: | |
| Phone: | (615) 773-9756 Fax: (615) 758-5859 | Project Name: | | Pace Project Manager: | Tong Lee |
| Requested Due Date: | 8-Nov | Project #: | US0023513.6155 | Pace Profile #: | 38076 |

| Regulatory Agency |
|---|
| |
| **State / Location** |
| **NM** |

| MATRIX | CODE |
|---|---|
| Drinking Water | DW |
| Water | WT |
| Waste Water | WW |
| Product | P |
| Soil/Solid | SL |
| Oil | OL |
| Wipe | WP |
| Air | AR |
| Other | OT |
| Tissue | TS |

| ITEM # | **SAMPLE ID** One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | Analyses Test Y/N | Analyses Test: Metals | Residual Chlorine (Y/N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FC-CCR-MW67-1024 | WT | | | | 18-Oct | 8:10 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI, Sb 200-8- |
| 2 | FC-CCR-MW68-1024 | WT | | | | 18-Oct | 9:34 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI, Sb. 200-8- |
| 3 | FC-CCR-MW69-1024 | WT | | | | 20-Oct | 10:55 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI, Sb 200-8- |
| 4 | FC-CCR-MW83-1024 | WT | | | | 20-Oct | 12:45 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI, Sb 200-8- |
| 5 | FC-CCR-MW85-1024 | WT | | | | 20-Oct | 13:45 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI, Sb 200-8- |
| 6 | FC-CCR-CM01-1024 | WT | | | | 20-Oct | 11:33 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI, Sb 200-8- |
| 7 | FC-CCR-CM02-1024 | WT | | | | 20-Oct | 11:39 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI, Sb 200-8- |
| 8 | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS |
|---|---|---|---|---|---|---|---|
| | James C Huckaba | 31-Oct | 13:57 | | | | |
| Pace Analytical Batch: WG2393097 | | | | | | | |
| **Pace Analytical SDGs: L1791416** | | | | | | | |
| **Location: Minneapolis, MN 55414** | | | | | | | |

| **SAMPLER NAME AND SIGNATURE** | | TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
|---|---|---|---|---|---|
| **PRINT Name of SAMPLER:** | | | | | |
| **SIGNATURE of SAMPLER:** | **DATE Signed:** | | | | |

**Address**
1700 Elm Street Suite 200 SE
Minneapolis, MN 55414

# ANALYTICAL REPORT

December 13, 2024

Revised Report

## WSP (Formely Wood E&I)-Phoenix, AZ

| | |
|---|---|
| Sample Delivery Group: | L1793198 |
| Samples Received: | 10/26/2024 |
| Project Number: | US0023513.6155 |
| Description: | |

Report To: Samantha O'Shea
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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## FC-CCR-MW86-1024 L1793198-01 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/23/24 13:45 | 10/26/24 09:30 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390377 | 1 | 10/27/24 09:38 | 10/28/24 12:05 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390248 | 1 | 10/28/24 10:10 | 10/28/24 10:10 | BRT | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390368 | 50 | 10/31/24 17:44 | 10/31/24 17:44 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2402567 | 5 | 11/16/24 13:19 | 11/16/24 13:19 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393123 | 1 | 11/15/24 00:00 | 11/15/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW66-1024 L1793198-02 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/23/24 12:24 | 10/26/24 09:30 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390377 | 1 | 10/27/24 09:38 | 10/28/24 12:05 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390655 | 1 | 10/28/24 10:50 | 10/28/24 10:50 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390368 | 50 | 10/31/24 18:18 | 10/31/24 18:18 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390368 | 500 | 10/31/24 18:36 | 10/31/24 18:36 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393123 | 1 | 11/15/24 00:00 | 11/15/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-FD03-1024 L1793198-03 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/23/24 13:13 | 10/26/24 09:30 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390377 | 1 | 10/27/24 09:38 | 10/28/24 12:05 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390655 | 1 | 10/28/24 10:50 | 10/28/24 10:50 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390368 | 50 | 10/31/24 18:53 | 10/31/24 18:53 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393123 | 1 | 11/15/24 00:00 | 11/15/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW70-1024 L1793198-04 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/23/24 11:20 | 10/26/24 09:30 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390377 | 1 | 10/27/24 09:38 | 10/28/24 12:05 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390655 | 1 | 10/28/24 10:50 | 10/28/24 10:50 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390368 | 50 | 10/31/24 19:28 | 10/31/24 19:28 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2402567 | 5 | 11/16/24 13:33 | 11/16/24 13:33 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393123 | 1 | 11/15/24 00:00 | 11/15/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-URS07-1024 L1793198-05 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/21/24 12:37 | 10/26/24 09:30 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390377 | 1 | 10/27/24 09:38 | 10/28/24 12:05 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390655 | 1 | 10/28/24 10:50 | 10/28/24 10:50 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390368 | 50 | 10/31/24 20:03 | 10/31/24 20:03 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393123 | 1 | 11/15/24 00:00 | 11/15/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-URS05-1024 L1793198-06 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/21/24 15:41 | 10/26/24 09:30 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390377 | 1 | 10/27/24 09:38 | 10/28/24 12:05 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390655 | 1 | 10/28/24 10:50 | 10/28/24 10:50 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390368 | 50 | 10/31/24 21:13 | 10/31/24 21:13 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393123 | 1 | 11/15/24 00:00 | 11/15/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-FD01-1024 L1793198-07 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/21/24 15:55 | 10/26/24 09:30 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390377 | 1 | 10/27/24 09:38 | 10/28/24 12:05 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390655 | 1 | 10/28/24 10:50 | 10/28/24 10:50 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390368 | 50 | 10/31/24 21:47 | 10/31/24 21:47 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393123 | 1 | 11/15/24 00:00 | 11/15/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-FD02-1024 L1793198-08 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/21/24 16:55 | 10/26/24 09:30 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390367 | 1 | 10/27/24 09:30 | 10/28/24 15:36 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390655 | 1 | 10/28/24 10:50 | 10/28/24 10:50 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390368 | 50 | 10/31/24 22:22 | 10/31/24 22:22 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2402567 | 5 | 11/16/24 13:46 | 11/16/24 13:46 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393123 | 1 | 11/15/24 00:00 | 11/15/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-URS06-1024 L1793198-09 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/21/24 16:44 | 10/26/24 09:30 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390367 | 1 | 10/27/24 09:30 | 10/28/24 15:36 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390248 | 1 | 10/28/24 10:10 | 10/28/24 10:10 | BRT | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390368 | 50 | 10/31/24 22:57 | 10/31/24 22:57 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2402567 | 5 | 11/16/24 14:00 | 11/16/24 14:00 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393123 | 1 | 11/15/24 00:00 | 11/15/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-URS08-1024 L1793198-10 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/21/24 14:03 | 10/26/24 09:30 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2389835 | 1 | 10/27/24 09:45 | 10/27/24 12:02 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390248 | 1 | 10/28/24 10:10 | 10/28/24 10:10 | BRT | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390368 | 50 | 11/01/24 00:41 | 11/01/24 00:41 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393123 | 1 | 11/15/24 00:00 | 11/15/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW84-1024 L1793198-11 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/24/24 17:22 | 10/26/24 09:30 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2389835 | 1 | 10/27/24 09:45 | 10/27/24 12:02 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390655 | 1 | 10/28/24 10:50 | 10/28/24 10:50 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390368 | 50 | 11/01/24 01:51 | 11/01/24 01:51 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2402567 | 5 | 11/16/24 14:13 | 11/16/24 14:13 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393123 | 1 | 11/15/24 00:00 | 11/15/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW71-1024 L1793198-12 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/24/24 10:42 | 10/26/24 09:30 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390377 | 1 | 10/27/24 09:38 | 10/28/24 12:05 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390655 | 1 | 10/28/24 10:50 | 10/28/24 10:50 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390368 | 50 | 11/01/24 02:26 | 11/01/24 02:26 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390368 | 500 | 11/01/24 02:43 | 11/01/24 02:43 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2402567 | 5 | 11/16/24 14:27 | 11/16/24 14:27 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393123 | 1 | 11/15/24 00:00 | 11/15/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW72-1024 L1793198-13 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/24/24 11:55 | 10/26/24 09:30 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390377 | 1 | 10/27/24 09:38 | 10/28/24 12:05 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390655 | 1 | 10/28/24 10:50 | 10/28/24 10:50 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390368 | 50 | 11/01/24 03:01 | 11/01/24 03:01 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2402567 | 5 | 11/16/24 14:40 | 11/16/24 14:40 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393123 | 1 | 11/15/24 00:00 | 11/15/24 00:00 | - | Minneapolis, MN 55414 |

## FC-CCR-MW73-1024 L1793198-14 GW

| Collected by | Collected date/time | Received date/time |
|---|---|---|
| | 10/24/24 12:53 | 10/26/24 09:30 |

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|---|---|---|---|---|---|
| Gravimetric Analysis by Method 2540 C-2011 | WG2390377 | 1 | 10/27/24 09:38 | 10/28/24 12:05 | JAC | Mt. Juliet, TN |
| Wet Chemistry by Method 9040C | WG2390655 | 1 | 10/28/24 10:50 | 10/28/24 10:50 | BJM | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2390368 | 50 | 11/01/24 03:36 | 11/01/24 03:36 | ZSA | Mt. Juliet, TN |
| Wet Chemistry by Method 9056A | WG2402567 | 5 | 11/16/24 14:54 | 11/16/24 14:54 | ZSA | Mt. Juliet, TN |
| Subcontracted Analyses | WG2393123 | 1 | 11/15/24 00:00 | 11/15/24 00:00 | - | Minneapolis, MN 55414 |

# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Daphne Richards
Project Manager

## Report Revision History

Level II Report - Version 1: 11/21/24 16:46

## Project Narrative

MDL

L1793198 -01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14 contains subout data that is included after the chain of custody.

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 14100000 | | 200000 | 1 | 10/28/2024 12:05 | WG2390377 |

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.28 | T8 | 1 | 10/28/2024 10:10 | WG2390248 |

Sample Narrative:

L1793198-01 WG2390248: 7.28 at 19.8C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1120000 | | 27400 | 50000 | 50 | 10/31/2024 17:44 | WG2390368 |
| Fluoride | 816 | | 380 | 750 | 5 | 11/16/2024 13:19 | WG2402567 |
| Sulfate | 7490000 | | 31800 | 250000 | 50 | 10/31/2024 17:44 | WG2390368 |

Sample Narrative:

L1793198-01 WG2402567: Dilution due to matrix impact on instrumentation at lower dilution

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 18000000 | | 200000 | 1 | 10/28/2024 12:05 | WG2390377 |

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.30 | T8 | 1 | 10/28/2024 10:50 | WG2390655 |

Sample Narrative:

L1793198-02 WG2390655: 7.3 at 20C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1460000 | | 27400 | 50000 | 50 | 10/31/2024 18:18 | WG2390368 |
| Fluoride | 18200 | | 3800 | 7500 | 50 | 10/31/2024 18:18 | WG2390368 |
| Sulfate | 9980000 | | 318000 | 2500000 | 500 | 10/31/2024 18:36 | WG2390368 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 14400000 | | 200000 | 1 | 10/28/2024 12:05 | WG2390377 |

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.29 | T8 | 1 | 10/28/2024 10:50 | WG2390655 |

Sample Narrative:

L1793198-03 WG2390655: 7.29 at 20.2C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1190000 | | 27400 | 50000 | 50 | 10/31/2024 18:53 | WG2390368 |
| Fluoride | 4740 | J | 3800 | 7500 | 50 | 10/31/2024 18:53 | WG2390368 |
| Sulfate | 7910000 | | 31800 | 250000 | 50 | 10/31/2024 18:53 | WG2390368 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 10900000 | | 200000 | 1 | 10/28/2024 12:05 | WG2390377 |

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.11 | T8 | 1 | 10/28/2024 10:50 | WG2390655 |

Sample Narrative:

L1793198-04 WG2390655: 7.11 at 20.2C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1100000 | | 27400 | 50000 | 50 | 10/31/2024 19:28 | WG2390368 |
| Fluoride | 735 | J | 380 | 750 | 5 | 11/16/2024 13:33 | WG2402567 |
| Sulfate | 5180000 | | 31800 | 250000 | 50 | 10/31/2024 19:28 | WG2390368 |

Sample Narrative:

L1793198-04 WG2390368, WG2402567: Dilution due to matrix impact on instrumentation at lower dilution

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 13800000 | | 200000 | 1 | 10/28/2024 12:05 | WG2390377 |

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.39 | T8 | 1 | 10/28/2024 10:50 | WG2390655 |

Sample Narrative:

L1793198-05 WG2390655: 7.39 at 19.7C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1000000 | | 27400 | 50000 | 50 | 10/31/2024 20:03 | WG2390368 |
| Fluoride | 4490 | J | 3800 | 7500 | 50 | 10/31/2024 20:03 | WG2390368 |
| Sulfate | 7740000 | | 31800 | 250000 | 50 | 10/31/2024 20:03 | WG2390368 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 16900000 | | 200000 | 1 | 10/28/2024 12:05 | WG2390377 |

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.26 | T8 | 1 | 10/28/2024 10:50 | WG2390655 |

Sample Narrative:

L1793198-06 WG2390655: 7.26 at 19.7C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1350000 | | 27400 | 50000 | 50 | 10/31/2024 21:13 | WG2390368 |
| Fluoride | 8690 | | 3800 | 7500 | 50 | 10/31/2024 21:13 | WG2390368 |
| Sulfate | 9750000 | | 31800 | 250000 | 50 | 10/31/2024 21:13 | WG2390368 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 17200000 | | 200000 | 1 | 10/28/2024 12:05 | WG2390377 |

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.33 | T8 | 1 | 10/28/2024 10:50 | WG2390655 |

Sample Narrative:

L1793198-07 WG2390655: 7.33 at 19.7C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1360000 | | 27400 | 50000 | 50 | 10/31/2024 21:47 | WG2390368 |
| Fluoride | 8450 | | 3800 | 7500 | 50 | 10/31/2024 21:47 | WG2390368 |
| Sulfate | 9790000 | | 31800 | 250000 | 50 | 10/31/2024 21:47 | WG2390368 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 16400000 | | 200000 | 1 | 10/28/2024 15:36 | WG2390367 |

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.12 | T8 | 1 | 10/28/2024 10:50 | WG2390655 |

Sample Narrative:

L1793198-08 WG2390655: 7.12 at 19.7C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1260000 | | 27400 | 50000 | 50 | 10/31/2024 22:22 | WG2390368 |
| Fluoride | 532 | J | 380 | 750 | 5 | 11/16/2024 13:46 | WG2402567 |
| Sulfate | 9500000 | | 31800 | 250000 | 50 | 10/31/2024 22:22 | WG2390368 |

Sample Narrative:

L1793198-08 WG2390368, WG2402567: Dilution due to matrix impact on instrumentation at lower dilution

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 16400000 | | 200000 | 1 | 10/28/2024 15:36 | WG2390367 |

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.04 | T8 | 1 | 10/28/2024 10:10 | WG2390248 |

Sample Narrative:

L1793198-09 WG2390248: 7.04 at 19.8C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1290000 | V | 27400 | 50000 | 50 | 10/31/2024 22:57 | WG2390368 |
| Fluoride | 515 | J | 380 | 750 | 5 | 11/16/2024 14:00 | WG2402567 |
| Sulfate | 9560000 | V | 31800 | 250000 | 50 | 10/31/2024 22:57 | WG2390368 |

Sample Narrative:

L1793198-09 WG2390368, WG2402567: Dilution due to matrix impact on instrumentation at lower dilution

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 15200000 | | 200000 | 1 | 10/27/2024 12:02 | WG2389835 |

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.29 | T8 | 1 | 10/28/2024 10:10 | WG2390248 |

Sample Narrative:

L1793198-10 WG2390248: 7.29 at 19.6C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 1190000 | | 27400 | 50000 | 50 | 11/01/2024 00:41 | WG2390368 |
| Fluoride | 12000 | | 3800 | 7500 | 50 | 11/01/2024 00:41 | WG2390368 |
| Sulfate | 8810000 | | 31800 | 250000 | 50 | 11/01/2024 00:41 | WG2390368 |

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 15500000 | | 200000 | 1 | 10/27/2024 12:02 | WG2389835 |

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.18 | T8 | 1 | 10/28/2024 10:50 | WG2390655 |

Sample Narrative:

L1793198-11 WG2390655: 7.18 at 19.8C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 863000 | | 27400 | 50000 | 50 | 11/01/2024 01:51 | WG2390368 |
| Fluoride | U | | 380 | 750 | 5 | 11/16/2024 14:13 | WG2402567 |
| Sulfate | 8430000 | | 31800 | 250000 | 50 | 11/01/2024 01:51 | WG2390368 |

Sample Narrative:

L1793198-11 WG2390368, WG2402567: Dilution due to matrix impact on instrumentation at lower dilution

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 18000000 | | 200000 | 1 | 10/28/2024 12:05 | WG2390377 |

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.24 | T8 | 1 | 10/28/2024 10:50 | WG2390655 |

Sample Narrative:

L1793198-12 WG2390655: 7.24 at 19.8C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 611000 | | 27400 | 50000 | 50 | 11/01/2024 02:26 | WG2390368 |
| Fluoride | U | | 380 | 750 | 5 | 11/16/2024 14:27 | WG2402567 |
| Sulfate | 10100000 | | 318000 | 2500000 | 500 | 11/01/2024 02:43 | WG2390368 |

Sample Narrative:

L1793198-12 WG2390368, WG2402567: Dilution due to matrix impact on instrumentation at lower dilution

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 15100000 | | 200000 | 1 | 10/28/2024 12:05 | WG2390377 |

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.30 | T8 | 1 | 10/28/2024 10:50 | WG2390655 |

Sample Narrative:

L1793198-13 WG2390655: 7.3 at 19.9C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 415000 | | 27400 | 50000 | 50 | 11/01/2024 03:01 | WG2390368 |
| Fluoride | U | | 380 | 750 | 5 | 11/16/2024 14:40 | WG2402567 |
| Sulfate | 9080000 | | 31800 | 250000 | 50 | 11/01/2024 03:01 | WG2390368 |

Sample Narrative:

L1793198-13 WG2390368, WG2402567: Dilution due to matrix impact on instrumentation at lower dilution

## Gravimetric Analysis by Method 2540 C-2011

| Analyte | Result | Qualifier | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|
| | ug/l | | ug/l | | date / time | |
| Dissolved Solids | 12600000 | | 200000 | 1 | 10/28/2024 12:05 | WG2390377 |

## Wet Chemistry by Method 9040C

| Analyte | Result | Qualifier | Dilution | Analysis | Batch |
|---|---|---|---|---|---|
| | su | | | date / time | |
| pH | 7.03 | T8 | 1 | 10/28/2024 10:50 | WG2390655 |

Sample Narrative:

L1793198-14 WG2390655: 7.03 at 19.8C

## Wet Chemistry by Method 9056A

| Analyte | Result | Qualifier | MDL | RDL | Dilution | Analysis | Batch |
|---|---|---|---|---|---|---|---|
| | ug/l | | ug/l | ug/l | | date / time | |
| Chloride | 620000 | | 27400 | 50000 | 50 | 11/01/2024 03:36 | WG2390368 |
| Fluoride | U | | 380 | 750 | 5 | 11/16/2024 14:54 | WG2402567 |
| Sulfate | 6750000 | | 31800 | 250000 | 50 | 11/01/2024 03:36 | WG2390368 |

Sample Narrative:

L1793198-14 WG2390368, WG2402567: Dilution due to matrix impact on instrumentation at lower dilution

## Method Blank (MB)

(MB) R4139900-1 10/27/24 12:02

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Dissolved Solids | U | | 10000 | 10000 |

## L1792592-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1792592-01 10/27/24 12:02 • (DUP) R4139900-3 10/27/24 12:02

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 334000 | 349000 | 1 | 4.39 | | 10 |

## L1793198-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1793198-11 10/27/24 12:02 • (DUP) R4139900-4 10/27/24 12:02

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 15500000 | 15400000 | 1 | 0.906 | | 10 |

## Laboratory Control Sample (LCS)

(LCS) R4139900-2 10/27/24 12:02

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Dissolved Solids | 8800000 | 8800000 | 100 | 85.0-115 | |

## Method Blank (MB)

(MB) R4140472-1 10/28/24 15:36

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Dissolved Solids | U | | 10000 | 10000 |

## L1792903-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1792903-01 10/28/24 15:36 • (DUP) R4140472-3 10/28/24 15:36

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 1770000 | 1720000 | 1 | 2.87 | | 10 |

## L1793200-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1793200-07 10/28/24 15:36 • (DUP) R4140472-4 10/28/24 15:36

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Dissolved Solids | 784000 | 768000 | 1 | 2.06 | | 10 |

## Laboratory Control Sample (LCS)

(LCS) R4140472-2 10/28/24 15:36

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Dissolved Solids | 8800000 | 8680000 | 98.6 | 85.0-115 | |

## Method Blank (MB)

(MB) R4139907-1 10/28/24 12:05

| Analyte | MB Result | MB Qualifier | MB MDL | MB RDL |
|---|---|---|---|---|
| | ug/l | | ug/l | ug/l |
| Dissolved Solids | U | | 10000 | 10000 |

## L1793122-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793122-01 10/28/24 12:05 • (DUP) R4139907-3 10/28/24 12:05

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Dissolved Solids | 654000 | 662000 | 1 | 1.22 | | 10 |

## L1793200-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1793200-05 10/28/24 12:05 • (DUP) R4139907-4 10/28/24 12:05

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | ug/l | ug/l | | % | | % |
| Dissolved Solids | 1610000 | 1580000 | 1 | 1.88 | | 10 |

## Laboratory Control Sample (LCS)

(LCS) R4139907-2 10/28/24 12:05

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | ug/l | ug/l | % | % | |
| Dissolved Solids | 8800000 | 8880000 | 101 | 85.0-115 | |

## L1792413-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1792413-02 10/28/24 10:10 • (DUP) R4138397-2 10/28/24 10:10

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.63 | 7.67 | 1 | 0.523 | | 1 |

Sample Narrative:

OS: 7.63 at 19.4C

DUP: 7.67 at 19.5C

## L1793198-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1793198-09 10/28/24 10:10 • (DUP) R4138397-3 10/28/24 10:10

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.04 | 7.09 | 1 | 0.708 | | 1 |

Sample Narrative:

OS: 7.04 at 19.8C

DUP: 7.09 at 19.9C

## Laboratory Control Sample (LCS)

(LCS) R4138397-1 10/28/24 10:10

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | su | su | % | % | |
| pH | 10.0 | 9.97 | 99.7 | 99.0-101 | |

Sample Narrative:

LCS: 9.97 at 19.3C

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

## L1791768-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1791768-03 10/28/24 10:50 • (DUP) R4138404-2 10/28/24 10:50

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.62 | 7.65 | 1 | 0.393 | | 1 |

Sample Narrative:

OS: 7.62 at 19.2C

DUP: 7.65 at 19.3C

## L1793200-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793200-01 10/28/24 10:50 • (DUP) R4138404-3 10/28/24 10:50

| Analyte | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---|---|---|---|---|---|---|
| | su | su | | % | | % |
| pH | 7.18 | 7.19 | 1 | 0.139 | | 1 |

Sample Narrative:

OS: 7.18 at 19.9C

DUP: 7.19 at 20C

## Laboratory Control Sample (LCS)

(LCS) R4138404-1 10/28/24 10:50

| Analyte | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---|---|---|---|---|---|
| | su | su | % | % | |
| pH | 10.0 | 9.97 | 99.7 | 99.0-101 | |

Sample Narrative:

LCS: 9.97 at 19.5C

## Method Blank (MB)

(MB) R4140730-1 10/31/24 12:48

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Chloride | U | | 547 | 1000 |
| Fluoride | U | | 76.1 | 150 |
| Sulfate | U | | 637 | 5000 |

## L1793171-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793171-01 10/31/24 13:22 • (DUP) R4140730-3 10/31/24 13:40

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 59300 | 59300 | 5 | 0.0312 | | 15 |
| Fluoride | 863 | 820 | 5 | 5.15 | | 15 |
| Sulfate | 851000 | 857000 | 5 | 0.719 | | 15 |

## L1793198-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1793198-09 10/31/24 22:57 • (DUP) R4140730-6 10/31/24 23:14

| Analyte | Original Result ug/l | DUP Result ug/l | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|---|---|---|---|---|---|---|
| Chloride | 1290000 | 1290000 | 50 | 0.232 | | 15 |
| Fluoride | U | U | 50 | 0.000 | | 15 |
| Sulfate | 9560000 | 9630000 | 50 | 0.719 | | 15 |

**Sample Narrative:**

OS: Dilution due to matrix impact on instrumentation at lower dilution

## Laboratory Control Sample (LCS)

(LCS) R4140730-2 10/31/24 13:05

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Chloride | 40000 | 40200 | 100 | 80.0-120 | |
| Fluoride | 8000 | 8200 | 103 | 80.0-120 | |
| Sulfate | 40000 | 40900 | 102 | 80.0-120 | |

## L1793171-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1793171-01 10/31/24 13:22 • (MS) R4140730-4 10/31/24 13:57

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MS Rec. % | Dilution | Rec. Limits % | MS Qualifier |
|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 59300 | 87800 | 71.2 | 5 | 80.0-120 | J6 |
| Fluoride | 8000 | 863 | 8690 | 97.9 | 5 | 80.0-120 | |
| Sulfate | 40000 | 851000 | 731000 | 0.000 | 5 | 80.0-120 | V |

## L1793198-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1793198-09 10/31/24 22:57 • (MS) R4140730-7 10/31/24 23:32 • (MSD) R4140730-8 10/31/24 23:49

| Analyte | Spike Amount ug/l | Original Result ug/l | MS Result ug/l | MSD Result ug/l | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 40000 | 1290000 | 1080000 | 1060000 | 0.000 | 0.000 | 50 | 80.0-120 | V | V | 1.85 | 15 |
| Fluoride | 8000 | U | 9650 | 8950 | 121 | 112 | 50 | 80.0-120 | J5 | | 7.53 | 15 |
| Sulfate | 40000 | 9560000 | 7810000 | 7670000 | 0.000 | 0.000 | 50 | 80.0-120 | V | V | 1.90 | 15 |

Sample Narrative:

OS: Dilution due to matrix impact on instrumentation at lower dilution

## Method Blank (MB)

(MB) R4146999-1 11/16/24 12:52

| Analyte | MB Result ug/l | MB Qualifier | MB MDL ug/l | MB RDL ug/l |
|---|---|---|---|---|
| Fluoride | U | | 76.1 | 150 |

## Laboratory Control Sample (LCS)

(LCS) R4146999-2 11/16/24 13:06

| Analyte | Spike Amount ug/l | LCS Result ug/l | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|---|---|---|---|---|---|
| Fluoride | 8000 | 7990 | 99.9 | 80.0-120 | |

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

## Abbreviations and Definitions

| | |
|---|---|
| MDL | Method Detection Limit. |
| RDL | Reported Detection Limit. |
| Rec. | Recovery. |
| RPD | Relative Percent Difference. |
| SDG | Sample Delivery Group. |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| Analyte | The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported. |
| Dilution | If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor. |
| Limits | These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| Qualifier | This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable. |
| Result | The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte. |
| Uncertainty (Radiochemistry) | Confidence level of 2 sigma. |
| Case Narrative (Cn) | A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report. |
| Quality Control Summary (Qc) | This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material. |
| Sample Chain of Custody (Sc) | This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis. |
| Sample Results (Sr) | This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported. |
| Sample Summary (Ss) | This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis. |

| Qualifier | Description |
|---|---|
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J5 | The sample matrix interfered with the ability to make any accurate determination; spike value is high. |
| J6 | The sample matrix interfered with the ability to make any accurate determination; spike value is low. |
| T8 | Sample(s) received past/too close to holding time expiration. |
| V | The sample concentration is too high to evaluate accurate spike recoveries. |

# ACCREDITATIONS & LOCATIONS

## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

| | | | |
|---|---|---|---|
| Alabama | 40660 | Nebraska | NE-OS-15-05 |
| Alaska | 17-026 | Nevada | TN000032021-1 |
| Arizona | AZ0612 | New Hampshire | 2975 |
| Arkansas | 88-0469 | New Jersey–NELAP | TN002 |
| California | 2932 | New Mexico [1] | TN00003 |
| Colorado | TN00003 | New York | 11742 |
| Connecticut | PH-0197 | North Carolina | Env375 |
| Florida | E87487 | North Carolina [1] | DW21704 |
| Georgia | NELAP | North Carolina [3] | 41 |
| Georgia [1] | 923 | North Dakota | R-140 |
| Idaho | TN00003 | Ohio–VAP | CL0069 |
| Illinois | 200008 | Oklahoma | 9915 |
| Indiana | C-TN-01 | Oregon | TN200002 |
| Iowa | 364 | Pennsylvania | 68-02979 |
| Kansas | E-10277 | Rhode Island | LAO000356 |
| Kentucky [1 6] | KY90010 | South Carolina | 84004002 |
| Kentucky [2] | 16 | South Dakota | n/a |
| Louisiana | AI30792 | Tennessee [1 4] | 2006 |
| Louisiana | LA018 | Texas | T104704245-20-18 |
| Maine | TN00003 | Texas [5] | LAB0152 |
| Maryland | 324 | Utah | TN000032021-11 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 110033 |
| Minnesota | 047-999-395 | Washington | C847 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 998093910 |
| Montana | CERT0086 | Wyoming | A2LA |
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP,LLC EMLAP | 100789 |
| A2LA – ISO 17025 [5] | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | P330-15-00234 |
| EPA–Crypto | TN00003 | | |

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to: **Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT MT CT ET

Phone: **602-733-6110**

Client Project # US823513.0155

Lab Project # **AMECTAZ-FOURCORNERS-URS**

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately
Packed on Ice N____ Y____

***Rush?*** (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Quote #

Date Results Needed

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKCA/OH 125mlHDPE-NoPres | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | pH SM4500-HB, 250ml HDPE NoPres | | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW06-1024 | | ~~WW~~ GW | | 102324 | 1345 | 4 | X | X | | X | X | X | X | X | X | | | -01 |
| FC-CCR-MW66-1024 | | ~~WW~~ | | " | 1224 | " | X | X | | X | X | X | X | X | X | | | -02 |
| FC-CCR-FD03-1024 | | ~~WW~~ | | " | 1313 | " | X | X | | X | X | X | X | X | X | | | -03 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | ~~WW~~ | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

Analysis / Container / Preservative

Chain of Custody Page 1 of 4

Pace
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 179398

A055

Acctnum: **AMECTAZ**
Template: **T261976**
Prelogin: **P1107674**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
**SS** - Soil **AIR** - Air **F** - Filter
**GW** - Groundwater **B** - Bioassay
**WW** - WasteWater
**DW** - Drinking Water
**OT** - Other_____

**Remarks:200.7: Total B, Ca,Be,Li, ~~Fe, Mn, K, Mg, Na.~~**
**200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co**

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # multi

Sample Receipt Checklist

| | | |
|---|---|---|
| COC Seal Present/Intact: | NP | Y / N |
| COC Signed/Accurate: | | Y / N |
| Bottles arrive intact: | | Y / N |
| Correct bottles used: | | Y / N |
| Sufficient volume sent: | | Y / N |
| **If Applicable** | | |
| VOA Zero Headspace: | | Y / N |
| Preservation Correct/Checked: | | Y / N |
| RAD Screen <0.5 mR/hr: | | Y / N |

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR | If preservation required by Login: Date/Time |
|---|---|---|---|---|---|
| [signature] | 102524 | 1020 | FedEx | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C Bottles Received: multi | |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) [signature] | Date: 10-26-24 Time: 9:30 | Hold: / Condition: NCF / OK |

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to:
**Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT (MT) CT ET

Phone: **602-733-6110**

Client Project # US80235B.0155

Lab Project # **AMECTAZ-FOURCORNERS - URS**

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N____ Y____

***Rush?*** (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Quote #

Date Results Needed

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKCA/OH 125mlHDPE-NoPres | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | pH SM4500-HB, 250ml HDPE NoPres | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW18-1024 | GW | ~~WW~~ | | 102324 | 1120 | 4 | X | X | | X | X | X | X | X | X | | -04 |
| FC-CCR-URS07-1024 | | ~~WW~~ | | 102124 | 1237 | | X | X | | X | X | X | X | X | X | | -05 |
| FC-CCR-URS05-1024 | | ~~WW~~ | | | 1541 | | X | X | | X | X | X | X | X | X | | -06 |
| FC-CCR-FD01-1024 | | ~~WW~~ | | | 1555 | | X | X | | X | X | X | X | X | X | | -07 |
| FC-CCR-FD02-1024 | | ~~WW~~ | | | 1655 | | X | X | | X | X | X | X | X | X | | -08 |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |

Analysis / Container / Preservative

Chain of Custody Page 2 of 4

Pace
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 179198

Table #

Acctnum: **AMECTAZ**
Template: **T261976**
Prelogin: **P1107674**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
**SS** - Soil **AIR** - Air **F** - Filter
**GW** - Groundwater **B** - Bioassay
**WW** - WasteWater
**DW** - Drinking Water
**OT** - Other_____

**Remarks:200.7: Total B, Ca,Be,Li, ~~Fe, Mn, K, Mg, Na.~~**
**200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co**

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # multi

Sample Receipt Checklist

| | | |
|---|---|---|
| COC Seal Present/Intact: | NP | Y / N |
| COC Signed/Accurate: | | Y / N |
| Bottles arrive intact: | | Y / N |
| Correct bottles used: | | Y / N |
| Sufficient volume sent: | | Y / N |
| If Applicable | | |
| VOA Zero Headspace: | | Y / N |
| Preservation Correct/Checked: | | Y / N |
| RAD Screen <0.5 mR/hr: | | Y / N |

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR | |
|---|---|---|---|---|---|
| [signature] | 102524 | 1020 | FEDEX | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C Bottles Received: multi | If preservation required by Login: Date/Time |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: 10-26-24 Time: 9:36 | Hold: / Condition: NCF / OK |

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to:
**Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT (MT) CT ET

Phone: **602-733-6110**

Client Project # VS00023513.6155

Lab Project # **AMECTAZ-FOURCORNERS-URS**

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N___ Y___

***Rush?*** (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKCA/OH 125mlHDPE-NoPres | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | pH SM 4500-HB, 250ml HDPE-NO PRES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-URS06-1024 | | GW WW | | 102124 | 1044 | 4 | X | X | | X | X | X | X | X | X | | | -09 |
| FC-CCR-URS06-1024-MS | | WW | | | 1044 | 4 | X | X | | X | X | X | X | X | X | | | -10 |
| FC-CCR-URS06-1024-SD | | WW | | | 1044 | 4 | X | X | | X | X | X | X | X | X | | | -11 |
| FC-CCR-URS08-1024 | | WW | | | 1403 | 4 | X | X | | X | X | X | X | X | X | | | -12 |
| FC-CCR-MW04-1024 | | WW | | 102424 | 1722 | 4 | X | X | | X | X | X | X | X | X | | | -13 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

Analysis / Container / Preservative

Chain of Custody Page 3 of 4

Pace
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 1793198

Table #

Acctnum: **AMECTAZ**
Template: **T261976**
Prelogin: **P1107674**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

Remarks | Sample # (lab only)

10/26/24

* Matrix:
**SS** - Soil **AIR** - Air **F** - Filter
**GW** - Groundwater **B** - Bioassay
**WW** - WasteWater
**DW** - Drinking Water
**OT** - Other_____

**Remarks:200.7: Total B, Ca,Be,Li, ~~Fe, Mn, K, Mg, Na.~~**
**200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co**

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # mv17i

Sample Receipt Checklist

| | | |
|---|---|---|
| COC Seal Present/Intact: | NP | Y N |
| COC Signed/Accurate: | | Y N |
| Bottles arrive intact: | | Y N |
| Correct bottles used: | | Y N |
| Sufficient volume sent: | | Y N |
| If Applicable | | |
| VOA Zero Headspace: | | Y N |
| Preservation Correct/Checked: | | Y N |
| RAD Screen <0.5 mR/hr: | | Y N |

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR | |
|---|---|---|---|---|---|
| | 102524 | 1020 | FED EX | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C Bottles Received: mv17i | If preservation required by Login: Date/Time |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: 10-26-24 Time: 9:30 | Hold: Condition: NCF / OK |

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Billing Information:
**Accounts Payable**
**4600 East Washington Street, Ste 600**
**Phoenix, AZ 85034**

Pres Chk

Report to:
**Samantha O'Shea**

Email To: **samantha.oshea@wsp.com**

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT (MT) CT ET

Phone: **602-733-6110**

Client Project # VS00 23513.0155

Lab Project # **AMECTAZ-FOURCORNERS** — URS

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N____ Y___

***Rush?*** (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKCA/OH 125mlHDPE-NoPres | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE NoPres | TDS 1L-HDPE-NoPres | pH, 4500-H+B 250ml HDPE No Pres | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW71-1024 | | ~~GW~~ WW | | 102424 | 1042 | 4 | X | X | | X | X | X | X | X | X | | -14/12 |
| FC-CCR-MW72-1024 | | ~~WW~~ | | | 1155 | | X | X | | X | X | X | X | X | X | | -15/13 |
| FC-CCR-MW73-1024 | | ~~WW~~ | | | 1253 | | X | X | | X | X | X | X | X | X | | -16/14 |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |

Analysis / Container / Preservative

Chain of Custody Page 4 of 4

Pace
PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**

12065 Lebanon Rd Mount Juliet, TN 37122
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SDG # 1793198

Table #

Acctnum: **AMECTAZ**
Template: **T261976**
Prelogin: **P1107674**
PM: **288 - Daphne Richards**
PB:

Shipped Via: **FedEX Ground**

10/26/24

* Matrix:
**SS** - Soil **AIR** - Air **F** - Filter
**GW** - Groundwater **B** - Bioassay
**WW** - WasteWater
**DW** - Drinking Water
**OT** - Other_____

**Remarks:200.7: Total B, Ca,Be,Li, ~~Fe, Mn, K, Mg, Na.~~**
**200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co**

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # multi

Sample Receipt Checklist
COC Seal Present/Intact: __NP X N
COC Signed/Accurate: X N
Bottles arrive intact: X N
Correct bottles used: X N
Sufficient volume sent: X N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: X N
RAD Screen <0.5 mR/hr: __Y __N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeoH TBR | |
|---|---|---|---|---|---|
| | 102524 | 1020 | FEDEX | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: multi °C Bottles Received: | If preservation required by Login: Date/Time |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: 10-26-24 Time: 9:30 | Hold: / Condition: NCF / OK |

L1793198

| Fed Ex tracking # | Gun ID | Temperature |
|---|---|---|
| 4242 6467 8877 | TLA9 | 5.1+.3=5.4 |
| 4242 6467 0888 | TLA9 | 1.0+.3=1.3 |
| 4242 6467 8899 | TLA9 | 1.9+.3=2.2 |
| 4242 6467 0903 | TLA9 | 3.0+.3=3.3 |
| | | |
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| | | |

[redacted]
Name

10-26-24
Date

**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

December 12, 2024

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on November 01, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

This report was revised on November 22, 2024, to report to the Method Dectection Limit (MDL).

This report was further revised on December 12, 2024, to add method 245.1 to all Pace samples.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation



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**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

# CERTIFICATIONS

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

**Pace Analytical Services, LLC - Minneapolis MN**
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

## REPORT OF LABORATORY ANALYSIS

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**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## SAMPLE SUMMARY

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **10714223001** | **FC-CCR-MW86-1024** | Water | 10/23/24 13:45 | 11/01/24 08:50 |
| **10714223002** | **FC-CCR-MW66-1024** | Water | 10/23/24 12:24 | 11/01/24 08:50 |
| **10714223003** | **FC-CCR-FD03-1024** | Water | 10/23/24 13:13 | 11/01/24 08:50 |
| **10714223004** | **FC-CCR-MW70-1024** | Water | 10/23/24 11:20 | 11/01/24 08:50 |
| **10714223005** | **FC-CCR-URS07-1024** | Water | 10/21/24 12:37 | 11/01/24 08:50 |
| **10714223006** | **FC-CCR-URS05-1024** | Water | 10/21/24 15:41 | 11/01/24 08:50 |
| **10714223007** | **FC-CCR-FD01-1024** | Water | 10/21/24 15:55 | 11/01/24 08:50 |
| **10714223008** | **FC-CCR-FD02-1024** | Water | 10/21/24 16:55 | 11/01/24 08:50 |
| **10714223009** | **FC-CCR-URS06-1024** | Water | 10/21/24 16:44 | 11/01/24 08:50 |
| **10714223010** | **FC-CCR-URS08-1024** | Water | 10/21/24 14:03 | 11/01/24 08:50 |
| **10714223011** | **FC-CCR-MW84-1024** | Water | 10/24/24 17:22 | 11/01/24 08:50 |
| **10714223012** | **FC-CCR-MW71-1024** | Water | 10/24/24 10:42 | 11/01/24 08:50 |
| **10714223013** | **FC-CCR-MW72-1024** | Water | 10/24/24 11:55 | 11/01/24 08:50 |
| **10714223014** | **FC-CCR-MW73-1024** | Water | 10/24/24 12:53 | 11/01/24 08:50 |



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**Pace Analytical Services, LLC**
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

## SAMPLE ANALYTE COUNT

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **10714223001** | **FC-CCR-MW86-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714223002** | **FC-CCR-MW66-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714223003** | **FC-CCR-FD03-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714223004** | **FC-CCR-MW70-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714223005** | **FC-CCR-URS07-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714223006** | **FC-CCR-URS05-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714223007** | **FC-CCR-FD01-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714223008** | **FC-CCR-FD02-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714223009** | **FC-CCR-URS06-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714223010** | **FC-CCR-URS08-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714223011** | **FC-CCR-MW84-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714223012** | **FC-CCR-MW71-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714223013** | **FC-CCR-MW72-1024** | EPA 200.7 | SMB | 3 | PASI-M |



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## SAMPLE ANALYTE COUNT

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| | | EPA 200.8 | GAS1 | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |
| **10714223014** | **FC-CCR-MW73-1024** | EPA 200.7 | SMB | 3 | PASI-M |
| | | EPA 200.8 | GAS1 | 11 | PASI-M |
| | | EPA 245.1 | LMW | 1 | PASI-M |

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## ANALYTICAL RESULTS

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

**Sample: FC-CCR-MW86-1024** **Lab ID: 10714223001** Collected: 10/23/24 13:45 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 12:16 | 7440-41-7 | |
| Boron | **97500** | ug/L | 1500 | 160 | 10 | 11/04/24 13:20 | 11/12/24 14:07 | 7440-42-8 | P6 |
| Calcium | **426000** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 12:16 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 0.44 | 5 | 11/04/24 13:11 | 11/06/24 20:05 | 7440-36-0 | D3 |
| Arsenic | **0.91J** | ug/L | 2.5 | 0.61 | 5 | 11/04/24 13:11 | 11/06/24 20:05 | 7440-38-2 | D3 |
| Barium | **12.7** | ug/L | 1.5 | 0.35 | 5 | 11/04/24 13:11 | 11/06/24 20:05 | 7440-39-3 | |
| Cadmium | **<0.15** | ug/L | 0.40 | 0.15 | 5 | 11/04/24 13:11 | 11/06/24 20:05 | 7440-43-9 | D3 |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/04/24 13:11 | 11/06/24 20:05 | 7440-47-3 | D3 |
| Cobalt | **5.1** | ug/L | 2.5 | 0.48 | 5 | 11/04/24 13:11 | 11/07/24 14:24 | 7440-48-4 | |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/04/24 13:11 | 11/06/24 20:05 | 7439-92-1 | D3 |
| Lithium | **278** | ug/L | 2.5 | 0.92 | 5 | 11/04/24 13:11 | 11/06/24 20:05 | 7439-93-2 | |
| Molybdenum | **1.5J** | ug/L | 2.5 | 0.63 | 5 | 11/04/24 13:11 | 11/06/24 20:05 | 7439-98-7 | D3 |
| Selenium | **2.1J** | ug/L | 2.5 | 0.37 | 5 | 11/04/24 13:11 | 11/06/24 20:05 | 7782-49-2 | D3 |
| Thallium | **0.77** | ug/L | 0.50 | 0.13 | 5 | 11/04/24 13:11 | 11/07/24 14:24 | 7440-28-0 | |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 12/09/24 05:48 | 12/09/24 11:20 | 7439-97-6 | H3 |

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## ANALYTICAL RESULTS

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

**Sample: FC-CCR-MW66-1024** **Lab ID: 10714223002** Collected: 10/23/24 12:24 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 12:19 | 7440-41-7 | |
| Boron | **142000** | ug/L | 1500 | 160 | 10 | 11/04/24 13:20 | 11/12/24 14:10 | 7440-42-8 | |
| Calcium | **437000** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 12:19 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 0.44 | 5 | 11/04/24 13:11 | 11/06/24 20:13 | 7440-36-0 | D3 |
| Arsenic | **0.97J** | ug/L | 2.5 | 0.61 | 5 | 11/04/24 13:11 | 11/06/24 20:13 | 7440-38-2 | D3 |
| Barium | **16.8** | ug/L | 1.5 | 0.35 | 5 | 11/04/24 13:11 | 11/06/24 20:13 | 7440-39-3 | |
| Cadmium | **<0.15** | ug/L | 0.40 | 0.15 | 5 | 11/04/24 13:11 | 11/06/24 20:13 | 7440-43-9 | D3 |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/04/24 13:11 | 11/06/24 20:13 | 7440-47-3 | D3 |
| Cobalt | **9.8** | ug/L | 2.5 | 0.48 | 5 | 11/04/24 13:11 | 11/07/24 14:37 | 7440-48-4 | |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/04/24 13:11 | 11/06/24 20:13 | 7439-92-1 | D3 |
| Lithium | **265** | ug/L | 2.5 | 0.92 | 5 | 11/04/24 13:11 | 11/06/24 20:13 | 7439-93-2 | |
| Molybdenum | **14.8** | ug/L | 2.5 | 0.63 | 5 | 11/04/24 13:11 | 11/06/24 20:13 | 7439-98-7 | |
| Selenium | **1.2J** | ug/L | 2.5 | 0.37 | 5 | 11/04/24 13:11 | 11/06/24 20:13 | 7782-49-2 | D3 |
| Thallium | **1.1** | ug/L | 0.50 | 0.13 | 5 | 11/04/24 13:11 | 11/07/24 14:37 | 7440-28-0 | |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 12/09/24 05:48 | 12/09/24 11:23 | 7439-97-6 | H3 |

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## ANALYTICAL RESULTS

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

**Sample: FC-CCR-FD03-1024** **Lab ID: 10714223003** Collected: 10/23/24 13:13 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 12:21 | 7440-41-7 | |
| Boron | **111000** | ug/L | 1500 | 160 | 10 | 11/04/24 13:20 | 11/12/24 14:15 | 7440-42-8 | |
| Calcium | **427000** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 12:21 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 0.44 | 5 | 11/04/24 13:11 | 11/06/24 20:30 | 7440-36-0 | D3 |
| Arsenic | **0.96J** | ug/L | 2.5 | 0.61 | 5 | 11/04/24 13:11 | 11/06/24 20:30 | 7440-38-2 | D3 |
| Barium | **12.5** | ug/L | 1.5 | 0.35 | 5 | 11/04/24 13:11 | 11/06/24 20:30 | 7440-39-3 | |
| Cadmium | **0.21J** | ug/L | 0.40 | 0.15 | 5 | 11/04/24 13:11 | 11/06/24 20:30 | 7440-43-9 | D3 |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/04/24 13:11 | 11/06/24 20:30 | 7440-47-3 | D3 |
| Cobalt | **5.2** | ug/L | 2.5 | 0.48 | 5 | 11/04/24 13:11 | 11/07/24 15:10 | 7440-48-4 | |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/04/24 13:11 | 11/06/24 20:30 | 7439-92-1 | D3 |
| Lithium | **275** | ug/L | 2.5 | 0.92 | 5 | 11/04/24 13:11 | 11/06/24 20:30 | 7439-93-2 | |
| Molybdenum | **1.6J** | ug/L | 2.5 | 0.63 | 5 | 11/04/24 13:11 | 11/06/24 20:30 | 7439-98-7 | D3 |
| Selenium | **1.9J** | ug/L | 2.5 | 0.37 | 5 | 11/04/24 13:11 | 11/06/24 20:30 | 7782-49-2 | D3 |
| Thallium | **0.87** | ug/L | 0.50 | 0.13 | 5 | 11/04/24 13:11 | 11/07/24 15:10 | 7440-28-0 | |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 12/09/24 05:48 | 12/09/24 11:24 | 7439-97-6 | H3 |

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## ANALYTICAL RESULTS

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

**Sample: FC-CCR-MW70-1024** **Lab ID: 10714223004** Collected: 10/23/24 11:20 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 12:28 | 7440-41-7 | |
| Boron | **85400** | ug/L | 1500 | 160 | 10 | 11/04/24 13:20 | 11/12/24 14:17 | 7440-42-8 | |
| Calcium | **470000** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 12:28 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 0.44 | 5 | 11/04/24 13:11 | 11/06/24 20:39 | 7440-36-0 | D3 |
| Arsenic | **0.74J** | ug/L | 2.5 | 0.61 | 5 | 11/04/24 13:11 | 11/06/24 20:39 | 7440-38-2 | D3 |
| Barium | **9.4** | ug/L | 1.5 | 0.35 | 5 | 11/04/24 13:11 | 11/06/24 20:39 | 7440-39-3 | |
| Cadmium | **<0.15** | ug/L | 0.40 | 0.15 | 5 | 11/04/24 13:11 | 11/06/24 20:39 | 7440-43-9 | D3 |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/04/24 13:11 | 11/06/24 20:39 | 7440-47-3 | D3 |
| Cobalt | **0.95J** | ug/L | 2.5 | 0.48 | 5 | 11/04/24 13:11 | 11/07/24 15:23 | 7440-48-4 | D3 |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/04/24 13:11 | 11/06/24 20:39 | 7439-92-1 | D3 |
| Lithium | **295** | ug/L | 2.5 | 0.92 | 5 | 11/04/24 13:11 | 11/06/24 20:39 | 7439-93-2 | |
| Molybdenum | **3.2** | ug/L | 2.5 | 0.63 | 5 | 11/04/24 13:11 | 11/06/24 20:39 | 7439-98-7 | |
| Selenium | **149** | ug/L | 2.5 | 0.37 | 5 | 11/04/24 13:11 | 11/07/24 15:23 | 7782-49-2 | |
| Thallium | **0.26J** | ug/L | 0.50 | 0.13 | 5 | 11/04/24 13:11 | 11/06/24 20:39 | 7440-28-0 | D3 |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 12/09/24 05:48 | 12/09/24 11:26 | 7439-97-6 | H3 |

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## ANALYTICAL RESULTS

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

**Sample: FC-CCR-URS07-1024** **Lab ID: 10714223005** Collected: 10/21/24 12:37 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 12:29 | 7440-41-7 | |
| Boron | **108000** | ug/L | 1500 | 160 | 10 | 11/04/24 13:20 | 11/12/24 14:19 | 7440-42-8 | |
| Calcium | **423000** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 12:29 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 0.44 | 5 | 11/04/24 13:11 | 11/06/24 20:55 | 7440-36-0 | D3 |
| Arsenic | **1.3J** | ug/L | 2.5 | 0.61 | 5 | 11/04/24 13:11 | 11/06/24 20:55 | 7440-38-2 | D3 |
| Barium | **15.2** | ug/L | 1.5 | 0.35 | 5 | 11/04/24 13:11 | 11/06/24 20:55 | 7440-39-3 | |
| Cadmium | **<0.15** | ug/L | 0.40 | 0.15 | 5 | 11/04/24 13:11 | 11/06/24 20:55 | 7440-43-9 | D3 |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/04/24 13:11 | 11/06/24 20:55 | 7440-47-3 | D3 |
| Cobalt | **3.1** | ug/L | 2.5 | 0.48 | 5 | 11/04/24 13:11 | 11/07/24 15:35 | 7440-48-4 | |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/04/24 13:11 | 11/06/24 20:55 | 7439-92-1 | D3 |
| Lithium | **189** | ug/L | 2.5 | 0.92 | 5 | 11/04/24 13:11 | 11/06/24 20:55 | 7439-93-2 | |
| Molybdenum | **11.2** | ug/L | 2.5 | 0.63 | 5 | 11/04/24 13:11 | 11/06/24 20:55 | 7439-98-7 | |
| Selenium | **2.3J** | ug/L | 2.5 | 0.37 | 5 | 11/04/24 13:11 | 11/06/24 20:55 | 7782-49-2 | D3 |
| Thallium | **0.25J** | ug/L | 0.50 | 0.13 | 5 | 11/04/24 13:11 | 11/06/24 20:55 | 7440-28-0 | D3 |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 12/09/24 05:48 | 12/09/24 11:27 | 7439-97-6 | H3 |

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## ANALYTICAL RESULTS

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

**Sample: FC-CCR-URS05-1024** **Lab ID: 10714223006** Collected: 10/21/24 15:41 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 12:31 | 7440-41-7 | |
| Boron | **126000** | ug/L | 1500 | 160 | 10 | 11/04/24 13:20 | 11/12/24 14:20 | 7440-42-8 | |
| Calcium | **398000** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 12:31 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 0.44 | 5 | 11/04/24 13:11 | 11/06/24 21:04 | 7440-36-0 | D3 |
| Arsenic | **0.95J** | ug/L | 2.5 | 0.61 | 5 | 11/04/24 13:11 | 11/06/24 21:04 | 7440-38-2 | D3 |
| Barium | **16.9** | ug/L | 1.5 | 0.35 | 5 | 11/04/24 13:11 | 11/06/24 21:04 | 7440-39-3 | |
| Cadmium | **<0.15** | ug/L | 0.40 | 0.15 | 5 | 11/04/24 13:11 | 11/06/24 21:04 | 7440-43-9 | D3 |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/04/24 13:11 | 11/06/24 21:04 | 7440-47-3 | D3 |
| Cobalt | **11.7** | ug/L | 2.5 | 0.48 | 5 | 11/04/24 13:11 | 11/07/24 15:56 | 7440-48-4 | |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/04/24 13:11 | 11/06/24 21:04 | 7439-92-1 | D3 |
| Lithium | **243** | ug/L | 2.5 | 0.92 | 5 | 11/04/24 13:11 | 11/06/24 21:04 | 7439-93-2 | |
| Molybdenum | **12.6** | ug/L | 2.5 | 0.63 | 5 | 11/04/24 13:11 | 11/06/24 21:04 | 7439-98-7 | |
| Selenium | **1.3J** | ug/L | 2.5 | 0.37 | 5 | 11/04/24 13:11 | 11/06/24 21:04 | 7782-49-2 | D3 |
| Thallium | **1.5** | ug/L | 0.50 | 0.13 | 5 | 11/04/24 13:11 | 11/07/24 15:56 | 7440-28-0 | |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 12/09/24 05:48 | 12/09/24 11:29 | 7439-97-6 | H3 |

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## ANALYTICAL RESULTS

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

**Sample: FC-CCR-FD01-1024** **Lab ID: 10714223007** Collected: 10/21/24 15:55 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 12:33 | 7440-41-7 | |
| Boron | **125000** | ug/L | 1500 | 160 | 10 | 11/04/24 13:20 | 11/12/24 14:22 | 7440-42-8 | |
| Calcium | **395000** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 12:33 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 0.44 | 5 | 11/04/24 13:11 | 11/06/24 21:12 | 7440-36-0 | D3 |
| Arsenic | **0.97J** | ug/L | 2.5 | 0.61 | 5 | 11/04/24 13:11 | 11/06/24 21:12 | 7440-38-2 | D3 |
| Barium | **15.9** | ug/L | 1.5 | 0.35 | 5 | 11/04/24 13:11 | 11/06/24 21:12 | 7440-39-3 | |
| Cadmium | **<0.15** | ug/L | 0.40 | 0.15 | 5 | 11/04/24 13:11 | 11/06/24 21:12 | 7440-43-9 | D3 |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/04/24 13:11 | 11/06/24 21:12 | 7440-47-3 | D3 |
| Cobalt | **11.7** | ug/L | 2.5 | 0.48 | 5 | 11/04/24 13:11 | 11/07/24 16:09 | 7440-48-4 | |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/04/24 13:11 | 11/06/24 21:12 | 7439-92-1 | D3 |
| Lithium | **235** | ug/L | 2.5 | 0.92 | 5 | 11/04/24 13:11 | 11/06/24 21:12 | 7439-93-2 | |
| Molybdenum | **12.2** | ug/L | 2.5 | 0.63 | 5 | 11/04/24 13:11 | 11/06/24 21:12 | 7439-98-7 | |
| Selenium | **1.3J** | ug/L | 2.5 | 0.37 | 5 | 11/04/24 13:11 | 11/06/24 21:12 | 7782-49-2 | D3 |
| Thallium | **1.5** | ug/L | 0.50 | 0.13 | 5 | 11/04/24 13:11 | 11/07/24 16:09 | 7440-28-0 | |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1 | | | | | | | | |
| | Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 12/09/24 05:48 | 12/09/24 11:30 | 7439-97-6 | H3 |

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## ANALYTICAL RESULTS

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

**Sample: FC-CCR-FD02-1024** **Lab ID: 10714223008** Collected: 10/21/24 16:55 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 12:34 | 7440-41-7 | |
| Boron | **95000** | ug/L | 1500 | 160 | 10 | 11/04/24 13:20 | 11/12/24 14:24 | 7440-42-8 | |
| Calcium | **401000** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 12:34 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 0.44 | 5 | 11/04/24 13:11 | 11/06/24 21:20 | 7440-36-0 | D3 |
| Arsenic | **0.78J** | ug/L | 2.5 | 0.61 | 5 | 11/04/24 13:11 | 11/06/24 21:20 | 7440-38-2 | D3 |
| Barium | **12.3** | ug/L | 1.5 | 0.35 | 5 | 11/04/24 13:11 | 11/06/24 21:20 | 7440-39-3 | |
| Cadmium | **0.40J** | ug/L | 0.40 | 0.15 | 5 | 11/04/24 13:11 | 11/06/24 21:20 | 7440-43-9 | D3 |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/04/24 13:11 | 11/06/24 21:20 | 7440-47-3 | D3 |
| Cobalt | **8.5** | ug/L | 2.5 | 0.48 | 5 | 11/04/24 13:11 | 11/07/24 16:22 | 7440-48-4 | |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/04/24 13:11 | 11/06/24 21:20 | 7439-92-1 | D3 |
| Lithium | **299** | ug/L | 2.5 | 0.92 | 5 | 11/04/24 13:11 | 11/06/24 21:20 | 7439-93-2 | |
| Molybdenum | **0.77J** | ug/L | 2.5 | 0.63 | 5 | 11/04/24 13:11 | 11/06/24 21:20 | 7439-98-7 | D3 |
| Selenium | **1.9J** | ug/L | 2.5 | 0.37 | 5 | 11/04/24 13:11 | 11/06/24 21:20 | 7782-49-2 | D3 |
| Thallium | **0.96** | ug/L | 0.50 | 0.13 | 5 | 11/04/24 13:11 | 11/07/24 16:22 | 7440-28-0 | |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 12/09/24 05:48 | 12/09/24 11:34 | 7439-97-6 | H3 |

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## ANALYTICAL RESULTS

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

**Sample: FC-CCR-URS06-1024** **Lab ID: 10714223009** Collected: 10/21/24 16:44 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 12:36 | 7440-41-7 | |
| Boron | **99400** | ug/L | 1500 | 160 | 10 | 11/04/24 13:20 | 11/12/24 14:25 | 7440-42-8 | P6 |
| Calcium | **413000** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 12:36 | 7440-70-2 | P6 |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 0.44 | 5 | 11/04/24 13:11 | 11/06/24 13:07 | 7440-36-0 | D3 |
| Arsenic | **0.83J** | ug/L | 2.5 | 0.61 | 5 | 11/04/24 13:11 | 11/06/24 13:07 | 7440-38-2 | D3 |
| Barium | **13.1** | ug/L | 1.5 | 0.35 | 5 | 11/04/24 13:11 | 11/06/24 13:07 | 7440-39-3 | |
| Cadmium | **0.46** | ug/L | 0.40 | 0.15 | 5 | 11/04/24 13:11 | 11/06/24 13:07 | 7440-43-9 | |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/04/24 13:11 | 11/06/24 13:07 | 7440-47-3 | D3 |
| Cobalt | **9.7** | ug/L | 2.5 | 0.48 | 5 | 11/04/24 13:11 | 11/06/24 13:07 | 7440-48-4 | |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/04/24 13:11 | 11/06/24 13:07 | 7439-92-1 | D3 |
| Lithium | **321** | ug/L | 2.5 | 0.92 | 5 | 11/04/24 13:11 | 11/06/24 13:07 | 7439-93-2 | |
| Molybdenum | **1.1J** | ug/L | 2.5 | 0.63 | 5 | 11/04/24 13:11 | 11/06/24 13:07 | 7439-98-7 | D3 |
| Selenium | **2.5J** | ug/L | 2.5 | 0.37 | 5 | 11/04/24 13:11 | 11/06/24 13:07 | 7782-49-2 | D3 |
| Thallium | **1.0** | ug/L | 0.50 | 0.13 | 5 | 11/04/24 13:11 | 11/06/24 13:07 | 7440-28-0 | |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 12/09/24 05:48 | 12/09/24 11:36 | 7439-97-6 | H3 |

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## ANALYTICAL RESULTS

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

**Sample: FC-CCR-URS08-1024** **Lab ID: 10714223010** Collected: 10/21/24 14:03 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 12:41 | 7440-41-7 | |
| Boron | **107000** | ug/L | 1500 | 160 | 10 | 11/04/24 13:20 | 11/12/24 14:30 | 7440-42-8 | |
| Calcium | **373000** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 12:41 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 0.44 | 5 | 11/04/24 13:11 | 11/06/24 21:29 | 7440-36-0 | D3 |
| Arsenic | **1.4J** | ug/L | 2.5 | 0.61 | 5 | 11/04/24 13:11 | 11/06/24 21:29 | 7440-38-2 | D3 |
| Barium | **16.1** | ug/L | 1.5 | 0.35 | 5 | 11/04/24 13:11 | 11/06/24 21:29 | 7440-39-3 | |
| Cadmium | **<0.15** | ug/L | 0.40 | 0.15 | 5 | 11/04/24 13:11 | 11/06/24 21:29 | 7440-43-9 | D3 |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/04/24 13:11 | 11/06/24 21:29 | 7440-47-3 | D3 |
| Cobalt | **5.8** | ug/L | 2.5 | 0.48 | 5 | 11/04/24 13:11 | 11/07/24 16:43 | 7440-48-4 | |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/04/24 13:11 | 11/06/24 21:29 | 7439-92-1 | D3 |
| Lithium | **196** | ug/L | 2.5 | 0.92 | 5 | 11/04/24 13:11 | 11/06/24 21:29 | 7439-93-2 | |
| Molybdenum | **15.2** | ug/L | 2.5 | 0.63 | 5 | 11/04/24 13:11 | 11/06/24 21:29 | 7439-98-7 | |
| Selenium | **0.89J** | ug/L | 2.5 | 0.37 | 5 | 11/04/24 13:11 | 11/06/24 21:29 | 7782-49-2 | D3 |
| Thallium | **0.46J** | ug/L | 0.50 | 0.13 | 5 | 11/04/24 13:11 | 11/06/24 21:29 | 7440-28-0 | D3 |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 12/09/24 05:48 | 12/09/24 11:40 | 7439-97-6 | H3 |

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## ANALYTICAL RESULTS

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

**Sample: FC-CCR-MW84-1024** **Lab ID: 10714223011** Collected: 10/24/24 17:22 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 12:43 | 7440-41-7 | |
| Boron | **62300** | ug/L | 750 | 80.0 | 5 | 11/04/24 13:20 | 11/12/24 14:35 | 7440-42-8 | |
| Calcium | **436000** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 12:43 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 0.44 | 5 | 11/04/24 13:11 | 11/06/24 11:37 | 7440-36-0 | D3 |
| Arsenic | **0.70J** | ug/L | 2.5 | 0.61 | 5 | 11/04/24 13:11 | 11/06/24 11:37 | 7440-38-2 | D3 |
| Barium | **15.8** | ug/L | 1.5 | 0.35 | 5 | 11/04/24 13:11 | 11/06/24 11:37 | 7440-39-3 | |
| Cadmium | **0.16J** | ug/L | 0.40 | 0.15 | 5 | 11/04/24 13:11 | 11/06/24 11:37 | 7440-43-9 | D3 |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/04/24 13:11 | 11/06/24 11:37 | 7440-47-3 | D3 |
| Cobalt | **7.5** | ug/L | 2.5 | 0.48 | 5 | 11/04/24 13:11 | 11/06/24 11:37 | 7440-48-4 | |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/04/24 13:11 | 11/06/24 11:37 | 7439-92-1 | D3 |
| Lithium | **204** | ug/L | 2.5 | 0.92 | 5 | 11/04/24 13:11 | 11/06/24 11:37 | 7439-93-2 | |
| Molybdenum | **1.4J** | ug/L | 2.5 | 0.63 | 5 | 11/04/24 13:11 | 11/06/24 11:37 | 7439-98-7 | D3 |
| Selenium | **81.8** | ug/L | 2.5 | 0.37 | 5 | 11/04/24 13:11 | 11/06/24 11:37 | 7782-49-2 | |
| Thallium | **0.44J** | ug/L | 0.50 | 0.13 | 5 | 11/04/24 13:11 | 11/06/24 11:37 | 7440-28-0 | D3 |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 12/09/24 05:48 | 12/09/24 11:42 | 7439-97-6 | H3 |

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## ANALYTICAL RESULTS

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

**Sample: FC-CCR-MW71-1024** **Lab ID: 10714223012** Collected: 10/24/24 10:42 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 12:49 | 7440-41-7 | |
| Boron | **652** | ug/L | 150 | 16.0 | 1 | 11/04/24 13:20 | 11/12/24 12:49 | 7440-42-8 | |
| Calcium | **427000** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 12:49 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 0.44 | 5 | 11/04/24 13:11 | 11/06/24 11:45 | 7440-36-0 | D3 |
| Arsenic | **0.64J** | ug/L | 2.5 | 0.61 | 5 | 11/04/24 13:11 | 11/06/24 11:45 | 7440-38-2 | D3 |
| Barium | **10.0** | ug/L | 1.5 | 0.35 | 5 | 11/04/24 13:11 | 11/06/24 11:45 | 7440-39-3 | |
| Cadmium | **<0.15** | ug/L | 0.40 | 0.15 | 5 | 11/04/24 13:11 | 11/06/24 11:45 | 7440-43-9 | D3 |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/04/24 13:11 | 11/06/24 11:45 | 7440-47-3 | D3 |
| Cobalt | **<0.48** | ug/L | 2.5 | 0.48 | 5 | 11/04/24 13:11 | 11/06/24 11:45 | 7440-48-4 | D3 |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/04/24 13:11 | 11/06/24 11:45 | 7439-92-1 | D3 |
| Lithium | **300** | ug/L | 2.5 | 0.92 | 5 | 11/04/24 13:11 | 11/06/24 11:45 | 7439-93-2 | |
| Molybdenum | **<0.63** | ug/L | 2.5 | 0.63 | 5 | 11/04/24 13:11 | 11/06/24 11:45 | 7439-98-7 | D3 |
| Selenium | **259** | ug/L | 2.5 | 0.37 | 5 | 11/04/24 13:11 | 11/06/24 11:45 | 7782-49-2 | |
| Thallium | **0.44J** | ug/L | 0.50 | 0.13 | 5 | 11/04/24 13:11 | 11/06/24 11:45 | 7440-28-0 | D3 |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 12/09/24 05:48 | 12/09/24 11:43 | 7439-97-6 | H3 |

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## ANALYTICAL RESULTS

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

**Sample: FC-CCR-MW72-1024** **Lab ID: 10714223013** Collected: 10/24/24 11:55 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 12:51 | 7440-41-7 | |
| Boron | **291** | ug/L | 150 | 16.0 | 1 | 11/04/24 13:20 | 11/12/24 12:51 | 7440-42-8 | |
| Calcium | **419000** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 12:51 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 0.44 | 5 | 11/04/24 13:11 | 11/06/24 10:33 | 7440-36-0 | D3 |
| Arsenic | **<0.61** | ug/L | 2.5 | 0.61 | 5 | 11/04/24 13:11 | 11/06/24 10:33 | 7440-38-2 | D3 |
| Barium | **7.0** | ug/L | 1.5 | 0.35 | 5 | 11/04/24 13:11 | 11/06/24 10:33 | 7440-39-3 | |
| Cadmium | **<0.15** | ug/L | 0.40 | 0.15 | 5 | 11/04/24 13:11 | 11/06/24 10:33 | 7440-43-9 | D3 |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/04/24 13:11 | 11/06/24 10:33 | 7440-47-3 | D3 |
| Cobalt | **2.8** | ug/L | 2.5 | 0.48 | 5 | 11/04/24 13:11 | 11/06/24 10:33 | 7440-48-4 | |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/04/24 13:11 | 11/06/24 10:33 | 7439-92-1 | D3 |
| Lithium | **309** | ug/L | 2.5 | 0.92 | 5 | 11/04/24 13:11 | 11/06/24 10:33 | 7439-93-2 | |
| Molybdenum | **1.3J** | ug/L | 2.5 | 0.63 | 5 | 11/04/24 13:11 | 11/06/24 10:33 | 7439-98-7 | D3 |
| Selenium | **80.0** | ug/L | 2.5 | 0.37 | 5 | 11/04/24 13:11 | 11/06/24 10:33 | 7782-49-2 | |
| Thallium | **1.1** | ug/L | 0.50 | 0.13 | 5 | 11/04/24 13:11 | 11/06/24 10:33 | 7440-28-0 | |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 12/09/24 05:48 | 12/09/24 11:45 | 7439-97-6 | H3 |

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## ANALYTICAL RESULTS

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

**Sample: FC-CCR-MW73-1024** **Lab ID: 10714223014** Collected: 10/24/24 12:53 Received: 11/01/24 08:50 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **200.7 MET ICP** | Analytical Method: EPA 200.7 Preparation Method: EPA 200.7<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Beryllium | **<0.44** | ug/L | 5.0 | 0.44 | 1 | 11/04/24 13:20 | 11/12/24 12:53 | 7440-41-7 | |
| Boron | **1730** | ug/L | 150 | 16.0 | 1 | 11/04/24 13:20 | 11/12/24 12:53 | 7440-42-8 | |
| Calcium | **409000** | ug/L | 500 | 31.8 | 1 | 11/04/24 13:20 | 11/12/24 12:53 | 7440-70-2 | |
| **200.8 MET ICPMS** | Analytical Method: EPA 200.8 Preparation Method: EPA 200.8<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Antimony | **<0.44** | ug/L | 2.5 | 0.44 | 5 | 11/04/24 13:11 | 11/08/24 10:47 | 7440-36-0 | D3 |
| Arsenic | **<0.61** | ug/L | 2.5 | 0.61 | 5 | 11/04/24 13:11 | 11/08/24 10:47 | 7440-38-2 | D3 |
| Barium | **14.4** | ug/L | 1.5 | 0.35 | 5 | 11/04/24 13:11 | 11/08/24 10:47 | 7440-39-3 | |
| Cadmium | **0.20J** | ug/L | 0.40 | 0.15 | 5 | 11/04/24 13:11 | 11/08/24 10:47 | 7440-43-9 | D3 |
| Chromium | **<2.7** | ug/L | 10.0 | 2.7 | 5 | 11/04/24 13:11 | 11/08/24 10:47 | 7440-47-3 | D3 |
| Cobalt | **3.9** | ug/L | 2.5 | 0.48 | 5 | 11/04/24 13:11 | 11/08/24 10:47 | 7440-48-4 | |
| Lead | **<0.90** | ug/L | 2.5 | 0.90 | 5 | 11/04/24 13:11 | 11/08/24 10:47 | 7439-92-1 | D3 |
| Lithium | **246** | ug/L | 2.5 | 0.92 | 5 | 11/04/24 13:11 | 11/08/24 10:47 | 7439-93-2 | |
| Molybdenum | **1.5J** | ug/L | 2.5 | 0.63 | 5 | 11/04/24 13:11 | 11/08/24 10:47 | 7439-98-7 | D3 |
| Selenium | **1.7J** | ug/L | 2.5 | 0.37 | 5 | 11/04/24 13:11 | 11/08/24 10:47 | 7782-49-2 | D3 |
| Thallium | **0.26J** | ug/L | 0.50 | 0.13 | 5 | 11/04/24 13:11 | 11/08/24 10:47 | 7440-28-0 | D3 |
| **245.1 Mercury** | Analytical Method: EPA 245.1 Preparation Method: EPA 245.1<br>Pace Analytical Services - Minneapolis | | | | | | | | |
| Mercury | **<0.074** | ug/L | 0.20 | 0.074 | 1 | 12/09/24 05:48 | 12/09/24 11:46 | 7439-97-6 | H3 |

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

QC Batch: 983397
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714223001, 10714223002, 10714223003, 10714223004, 10714223005, 10714223006, 10714223007, 10714223008, 10714223009, 10714223010, 10714223011, 10714223012, 10714223013, 10714223014

METHOD BLANK: 5137763 Matrix: Water
Associated Lab Samples: 10714223001, 10714223002, 10714223003, 10714223004, 10714223005, 10714223006, 10714223007, 10714223008, 10714223009, 10714223010, 10714223011, 10714223012, 10714223013, 10714223014

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Mercury | ug/L | <0.074 | 0.20 | 0.074 | 12/09/24 11:17 | |

LABORATORY CONTROL SAMPLE: 5137764

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Mercury | ug/L | 5 | 5.3 | 105 | 85-115 | |

MATRIX SPIKE SAMPLE: 5137765

| Parameter | Units | 10714223001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Mercury | ug/L | <0.074 | 5 | 4.8 | 95 | 70-130 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5137766 5137767

| Parameter | Units | 10714223009 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ug/L | <0.074 | 5 | 5 | 4.7 | 4.6 | 95 | 93 | 70-130 | 2 | 20 | |

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## QUALITY CONTROL DATA

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

QC Batch: 977511
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714223001, 10714223002, 10714223003, 10714223004, 10714223005, 10714223006, 10714223007, 10714223008, 10714223009, 10714223010, 10714223011, 10714223012, 10714223013, 10714223014

METHOD BLANK: 5109205 Matrix: Water
Associated Lab Samples: 10714223001, 10714223002, 10714223003, 10714223004, 10714223005, 10714223006, 10714223007, 10714223008, 10714223009, 10714223010, 10714223011, 10714223012, 10714223013, 10714223014

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 5.0 | 0.44 | 11/12/24 12:13 | |
| Boron | ug/L | <16.0 | 150 | 16.0 | 11/12/24 16:31 | |
| Calcium | ug/L | <31.8 | 500 | 31.8 | 11/12/24 12:13 | |

LABORATORY CONTROL SAMPLE: 5109206

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Beryllium | ug/L | 1000 | 1030 | 103 | 85-115 | |
| Boron | ug/L | 1000 | 1010 | 101 | 85-115 | |
| Calcium | ug/L | 20000 | 19500 | 97 | 85-115 | |

MATRIX SPIKE SAMPLE: 5109207

| Parameter | Units | 10714223001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 1000 | 1100 | 110 | 70-130 | |
| Boron | ug/L | 97500 | 1000 | 110000 | 1290 | 70-130 | P6 |
| Calcium | ug/L | 426000 | 20000 | 449000 | 114 | 70-130 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5109208 5109209

| Parameter | Units | 10714223009 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ug/L | <0.44 | 1000 | 1000 | 1120 | 1080 | 112 | 108 | 70-130 | 3 | 20 | |
| Boron | ug/L | 99400 | 1000 | 1000 | 91800 | 102000 | -763 | 263 | 70-130 | 11 | 20 | P6 |
| Calcium | ug/L | 413000 | 20000 | 20000 | 402000 | 435000 | -58 | 111 | 70-130 | 8 | 20 | P6 |

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## QUALITY CONTROL DATA

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

QC Batch: 977516
QC Batch Method: EPA 200.8
Analysis Method: EPA 200.8
Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10714223001, 10714223002, 10714223003, 10714223004, 10714223005, 10714223006, 10714223007, 10714223008, 10714223009, 10714223010, 10714223011, 10714223012, 10714223013, 10714223014

METHOD BLANK: 5109228 Matrix: Water
Associated Lab Samples: 10714223001, 10714223002, 10714223003, 10714223004, 10714223005, 10714223006, 10714223007, 10714223008, 10714223009, 10714223010, 10714223011, 10714223012, 10714223013, 10714223014

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|---|---|---|---|---|---|---|
| Antimony | ug/L | <0.087 | 0.50 | 0.087 | 11/06/24 12:07 | |
| Arsenic | ug/L | <0.12 | 0.50 | 0.12 | 11/06/24 12:07 | |
| Barium | ug/L | 0.097J | 0.30 | 0.070 | 11/06/24 12:07 | |
| Cadmium | ug/L | <0.030 | 0.080 | 0.030 | 11/06/24 12:07 | |
| Chromium | ug/L | <0.54 | 2.0 | 0.54 | 11/06/24 12:07 | |
| Cobalt | ug/L | <0.095 | 0.50 | 0.095 | 11/06/24 12:07 | |
| Lead | ug/L | <0.18 | 0.50 | 0.18 | 11/06/24 12:07 | |
| Lithium | ug/L | <0.18 | 0.50 | 0.18 | 11/06/24 12:07 | |
| Molybdenum | ug/L | <0.13 | 0.50 | 0.13 | 11/06/24 12:07 | |
| Selenium | ug/L | <0.074 | 0.50 | 0.074 | 11/06/24 12:07 | |
| Thallium | ug/L | <0.026 | 0.10 | 0.026 | 11/06/24 12:07 | |

LABORATORY CONTROL SAMPLE: 5109229

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Antimony | ug/L | 100 | 101 | 101 | 85-115 | |
| Arsenic | ug/L | 100 | 105 | 105 | 85-115 | |
| Barium | ug/L | 100 | 109 | 109 | 85-115 | |
| Cadmium | ug/L | 100 | 106 | 106 | 85-115 | |
| Chromium | ug/L | 100 | 113 | 113 | 85-115 | |
| Cobalt | ug/L | 100 | 113 | 113 | 85-115 | |
| Lead | ug/L | 100 | 110 | 110 | 85-115 | |
| Lithium | ug/L | 100 | 106 | 106 | 85-115 | |
| Molybdenum | ug/L | 100 | 102 | 102 | 85-115 | |
| Selenium | ug/L | 100 | 107 | 107 | 85-115 | |
| Thallium | ug/L | 100 | 110 | 110 | 85-115 | |

MATRIX SPIKE SAMPLE: 5109230

| Parameter | Units | 10714223002 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Antimony | ug/L | <0.44 | 100 | 102 | 102 | 70-130 | |
| Arsenic | ug/L | 0.97J | 100 | 111 | 110 | 70-130 | |
| Barium | ug/L | 16.8 | 100 | 120 | 103 | 70-130 | |
| Cadmium | ug/L | <0.15 | 100 | 94.3 | 94 | 70-130 | |
| Chromium | ug/L | <2.7 | 100 | 113 | 113 | 70-130 | |
| Cobalt | ug/L | 9.8 | 100 | 114 | 104 | 70-130 | |

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## QUALITY CONTROL DATA

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

MATRIX SPIKE SAMPLE: 5109230

| Parameter | Units | 10714223002 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Lead | ug/L | <0.90 | 100 | 106 | 106 | 70-130 | |
| Lithium | ug/L | 265 | 100 | 369 | 104 | 70-130 | |
| Molybdenum | ug/L | 14.8 | 100 | 118 | 104 | 70-130 | |
| Selenium | ug/L | 1.2J | 100 | 117 | 116 | 70-130 | |
| Thallium | ug/L | 1.1 | 100 | 106 | 105 | 70-130 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5109231 5109232

| Parameter | Units | 10714223009 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ug/L | <0.44 | 100 | 100 | 104 | 84.0 | 104 | 84 | 70-130 | 21 | 20 | R1 |
| Arsenic | ug/L | 0.83J | 100 | 100 | 112 | 91.3 | 111 | 90 | 70-130 | 21 | 20 | R1 |
| Barium | ug/L | 13.1 | 100 | 100 | 121 | 116 | 108 | 103 | 70-130 | 4 | 20 | |
| Cadmium | ug/L | 0.46 | 100 | 100 | 99.9 | 98.6 | 99 | 98 | 70-130 | 1 | 20 | |
| Chromium | ug/L | <2.7 | 100 | 100 | 115 | 115 | 114 | 114 | 70-130 | 0 | 20 | |
| Cobalt | ug/L | 9.7 | 100 | 100 | 121 | 120 | 111 | 110 | 70-130 | 1 | 20 | |
| Lead | ug/L | <0.90 | 100 | 100 | 107 | 103 | 107 | 103 | 70-130 | 4 | 20 | |
| Lithium | ug/L | 321 | 100 | 100 | 431 | 398 | 109 | 77 | 70-130 | 8 | 20 | |
| Molybdenum | ug/L | 1.1J | 100 | 100 | 108 | 85.5 | 107 | 84 | 70-130 | 24 | 20 | R1 |
| Selenium | ug/L | 2.5J | 100 | 100 | 117 | 93.1 | 115 | 91 | 70-130 | 23 | 20 | R1 |
| Thallium | ug/L | 1.0 | 100 | 100 | 111 | 106 | 110 | 105 | 70-130 | 4 | 20 | |

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# QUALIFIERS

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## ANALYTE QUALIFIERS

| | |
|---|---|
| D3 | Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference. |
| H3 | Sample was received or analysis requested beyond the recognized method holding time. |
| P6 | Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level. |
| R1 | RPD value was outside control limits. |



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# QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1793198 WG2393123-Revised Report
Pace Project No.: 10714223

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **10714223005** | **FC-CCR-URS07-1024** | EPA 200.7 | 977511 | EPA 200.7 | 977833 |
| **10714223010** | **FC-CCR-URS08-1024** | EPA 200.7 | 977511 | EPA 200.7 | 977833 |
| **10714223006** | **FC-CCR-URS05-1024** | EPA 200.7 | 977511 | EPA 200.7 | 977833 |
| **10714223007** | **FC-CCR-FD01-1024** | EPA 200.7 | 977511 | EPA 200.7 | 977833 |
| **10714223009** | **FC-CCR-URS06-1024** | EPA 200.7 | 977511 | EPA 200.7 | 977833 |
| **10714223008** | **FC-CCR-FD02-1024** | EPA 200.7 | 977511 | EPA 200.7 | 977833 |
| **10714223004** | **FC-CCR-MW70-1024** | EPA 200.7 | 977511 | EPA 200.7 | 977833 |
| **10714223002** | **FC-CCR-MW66-1024** | EPA 200.7 | 977511 | EPA 200.7 | 977833 |
| **10714223003** | **FC-CCR-FD03-1024** | EPA 200.7 | 977511 | EPA 200.7 | 977833 |
| **10714223001** | **FC-CCR-MW86-1024** | EPA 200.7 | 977511 | EPA 200.7 | 977833 |
| **10714223012** | **FC-CCR-MW71-1024** | EPA 200.7 | 977511 | EPA 200.7 | 977833 |
| **10714223013** | **FC-CCR-MW72-1024** | EPA 200.7 | 977511 | EPA 200.7 | 977833 |
| **10714223014** | **FC-CCR-MW73-1024** | EPA 200.7 | 977511 | EPA 200.7 | 977833 |
| **10714223011** | **FC-CCR-MW84-1024** | EPA 200.7 | 977511 | EPA 200.7 | 977833 |
| **10714223005** | **FC-CCR-URS07-1024** | EPA 200.8 | 977516 | EPA 200.8 | 977864 |
| **10714223010** | **FC-CCR-URS08-1024** | EPA 200.8 | 977516 | EPA 200.8 | 977864 |
| **10714223006** | **FC-CCR-URS05-1024** | EPA 200.8 | 977516 | EPA 200.8 | 977864 |
| **10714223007** | **FC-CCR-FD01-1024** | EPA 200.8 | 977516 | EPA 200.8 | 977864 |
| **10714223009** | **FC-CCR-URS06-1024** | EPA 200.8 | 977516 | EPA 200.8 | 977864 |
| **10714223008** | **FC-CCR-FD02-1024** | EPA 200.8 | 977516 | EPA 200.8 | 977864 |
| **10714223004** | **FC-CCR-MW70-1024** | EPA 200.8 | 977516 | EPA 200.8 | 977864 |
| **10714223002** | **FC-CCR-MW66-1024** | EPA 200.8 | 977516 | EPA 200.8 | 977864 |
| **10714223003** | **FC-CCR-FD03-1024** | EPA 200.8 | 977516 | EPA 200.8 | 977864 |
| **10714223001** | **FC-CCR-MW86-1024** | EPA 200.8 | 977516 | EPA 200.8 | 977864 |
| **10714223012** | **FC-CCR-MW71-1024** | EPA 200.8 | 977516 | EPA 200.8 | 977864 |
| **10714223013** | **FC-CCR-MW72-1024** | EPA 200.8 | 977516 | EPA 200.8 | 977864 |
| **10714223014** | **FC-CCR-MW73-1024** | EPA 200.8 | 977516 | EPA 200.8 | 977864 |
| **10714223011** | **FC-CCR-MW84-1024** | EPA 200.8 | 977516 | EPA 200.8 | 977864 |
| **10714223005** | **FC-CCR-URS07-1024** | EPA 245.1 | 983397 | EPA 245.1 | 983493 |
| **10714223010** | **FC-CCR-URS08-1024** | EPA 245.1 | 983397 | EPA 245.1 | 983493 |
| **10714223006** | **FC-CCR-URS05-1024** | EPA 245.1 | 983397 | EPA 245.1 | 983493 |
| **10714223007** | **FC-CCR-FD01-1024** | EPA 245.1 | 983397 | EPA 245.1 | 983493 |
| **10714223009** | **FC-CCR-URS06-1024** | EPA 245.1 | 983397 | EPA 245.1 | 983493 |
| **10714223008** | **FC-CCR-FD02-1024** | EPA 245.1 | 983397 | EPA 245.1 | 983493 |
| **10714223004** | **FC-CCR-MW70-1024** | EPA 245.1 | 983397 | EPA 245.1 | 983493 |
| **10714223002** | **FC-CCR-MW66-1024** | EPA 245.1 | 983397 | EPA 245.1 | 983493 |
| **10714223003** | **FC-CCR-FD03-1024** | EPA 245.1 | 983397 | EPA 245.1 | 983493 |
| **10714223001** | **FC-CCR-MW86-1024** | EPA 245.1 | 983397 | EPA 245.1 | 983493 |
| **10714223012** | **FC-CCR-MW71-1024** | EPA 245.1 | 983397 | EPA 245.1 | 983493 |
| **10714223013** | **FC-CCR-MW72-1024** | EPA 245.1 | 983397 | EPA 245.1 | 983493 |
| **10714223014** | **FC-CCR-MW73-1024** | EPA 245.1 | 983397 | EPA 245.1 | 983493 |
| **10714223011** | **FC-CCR-MW84-1024** | EPA 245.1 | 983397 | EPA 245.1 | 983493 |



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WO#: 10714223

10714223

Chain of Custody Page 1 of 4

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 179398

A055

Acctnum: AMECTAZ
Template: T261976
Prelogin: P1107674
PM: 288 - Daphne Richards
PB:

Shipped Via: FedEX Ground

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project # US00235513.0155

Lab Project # AMECTAZ-FOURCORNERS-UPS

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N____ Y____

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250ml HDPE-HNO3 | 200.8 Total Metals 250ml HDPE-HNO3 | ALKCA/OH 125ml HDPE-NoPres | Chloride 250ml HDPE-NoPres | Fluoride 250ml HDPE-NoPres | HG 250ml HDPE-HNO3 | Sulfate 250ml HDPE NoPres | TDS 1L-HDPE-NoPres | pH 250ml HDPE-NoPres | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW80-1024 | | ~~WW~~ GW | | 102324 | 1345 | 4 | X | X | | X | X | X | X | X | X | | -01 |
| FC-CCR-MW60-1024 | | ~~WW~~ | | " | 1224 | " | X | X | | X | X | X | X | X | X | | -02 |
| FC-CCR-FD03-1024 | | ~~WW~~ | | " | 1313 | " | X | X | | X | X | X | X | X | X | | -03 |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | ~~WW~~ | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, Ca, Be, Li, ~~Fe, Mn, K, Mg, Na~~.
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__UPS __FedEx __Courier _____

Tracking # MW14

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| | 10 25 24 | 1020 | FedEx |
| Relinquished by : (Signature) | Date: 11/1/24 | Time: 5:50 | Received by: (Signature) |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) |

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received:

Date: 10-26-24 Time: 9:30

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

1-6c, 1.9c, 1.9c

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034
Pres Chk

Report to: Samantha O'Shea
Email To: samantha.oshea@wsp.com

Project Description:
City/State Collected: FRUITLAND, NM
Please Circle: PT MT CT ET

Phone: 602-733-6110
Client Project #: US0023513.0155
Lab Project #: AMECTAZ-FOURCORNERS - VRS

Collected by (print):
Site/Facility ID #:
P.O. #:

Collected by (signature):
Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Quote #:
Date Results Needed:

Immediately Packed on Ice N___ Y___

Analysis / Container / Preservation

Chain of Custody Page 2 of 4

Pace
PEOPLE ADVANCING SCIENCE
MT JULIET, TN

SDG # 179398
Table #
Acctnum: AMECTAZ
Template: T261976
Prelogin: P1107674
PM: 288 - Daphne Richards
PB:
Shipped Via: FedEX Ground

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKCA/OH 125mlHDPE-NoPres | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE-NoPres | TDS 1L-HDPE-NoPres | pH SM4500-HB, 250ml HDPE NoPres | | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW70-1024 | | GW ~~WW~~ | | 102324 | 1120 | 4 | X | X | | X | X | X | X | X | X | | | -04 |
| FC-CCR-VRS07-1024 | | ~~WW~~ | | 102124 | 1237 | | X | X | | X | X | X | X | X | X | | | -05 |
| FC-CCR-VRS05-1024 | | ~~WW~~ | | | 1541 | | X | X | | X | X | X | X | X | X | | | -06 |
| FC-CCR-FD01-1024 | | ~~WW~~ | | | 1555 | | X | X | | X | X | X | X | X | X | | | -07 |
| FC-CCR-FD02-1024 | | ~~WW~~ | | | 1655 | | X | X | | X | X | X | X | X | X | | | -08 |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | | |

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, Ca, Be, Li, ~~Fe, Mn, K, Mg, Na~~
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: ___ UPS ___ FedEx ___ Courier _____
Tracking #: multi

Sample Receipt Checklist
COC Seal Present/Intact: KP ✓ N
COC Signed/Accurate: ✓ N
Bottles arrive intact: ✓ N
Correct bottles used: ✓ N
Sufficient volume sent: ✓ N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: ✓ Y N
RAD Screen <0.5 mR/hr: ✓ Y N

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCL / MeOH TBR | |
|---|---|---|---|---|---|
| [signature] | 102524 | 1020 | FEDEX | | |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp: °C Bottles Received: | If preservation required by Login: Date/Time |
| | 11/1/24 | 8:50 | [signature] | multi | |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: Time: | Hold: Condition: NCF / OK |
| | | | [signature] | 10-26-24 9:36 | |

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com

Project Description:

City/State Collected: FRUITLAND, NM

Please Circle: PT MT CT ET

Phone: 602-733-6110

Client Project #: US0023513.6155

Lab Project #: AMECTAZ-FOURCORNERS-VRS

Collected by (print):

Site/Facility ID #:

P.O. #:

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #:

Date Results Needed:

Immediately Packed on Ice N___ Y___

Analysis / Container / Preservative

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKCA/OH 125mlHDPE-NoPres | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE-NoPres | TDS 1L-HDPE-NoPres | pH SM4500-HB, 250mlHDPE-NoPres | | Remarks | Sample # (lab only) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-VRS06-1024 | | GW ~~WW~~ | | 102124 | 1044 | 4 | X | X | | X | X | X | X | X | X | | | -09 |
| FC-CCR-VRS06-1024-MS | | ~~WW~~ | | | 1044 | 4 | X | X | | X | X | X | X | X | X | | | -10-09 |
| FC-CCR-VRS06-1024-SD | | ~~WW~~ | | | 1044 | 4 | X | X | | X | X | X | X | X | X | | | -11 |
| FC-CCR-VRS08-1024 | | ~~WW~~ | | | 1403 | 4 | X | X | | X | X | X | X | X | X | | | -12-10 |
| FC-CCR-MW84-1024 | | ~~WW~~ | | 102424 | 1722 | 4 | X | X | | X | X | X | X | X | X | | | -13-11 |
| | | ~~WW~~ | | | | | | | | | | | | | | | | |
| | | ~~WW~~ | | | | | | | | | | | | | | | | |
| | | ~~WW~~ | | | | | | | | | | | | | | | | |
| | | ~~WW~~ | | | | | | | | | | | | | | | | |
| | | ~~WW~~ | | | | | | | | | | | | | | | | |

Chain of Custody Page 3 of 4

Pace
PEOPLE ENHANCING SCIENCE

MT JULIET, TN

SDG # 1793198

Table #

Account: AMECTAZ
Template: T261976
Prelogin: P1107674
PM: 288 - Daphne Richards
PB:

Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: 200.7: Total B, Ca, Be, Li, ~~Fe, Mn, K, Mg, Na~~
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: ___ UPS ___ FedEx ___ Courier _____

Tracking #: multi

Sample Receipt Checklist
COC Seal Present/Intact: NP ✓ B
COC Signed/Accurate: ✓ B
Bottles arrive intact: ✓ B
Correct bottles used: ✓ B
Sufficient volume sent: ✓ B
IC Applicable
VOA Zero Headspace: ✓ B
Preservation Correct/Checked: ✓ B
RAD Screen <0.5 mR/hr: ✓ B

| Relinquished by: (Signature) | Date: | Time: | Received by: (Signature) | Trip Blank Received: Yes / No HCl / MeOH TBR | |
|---|---|---|---|---|---|
| [signature] | 102524 | 1020 | FED EX | | |
| Relinquished by: (Signature) | Date: 11/1/24 | Time: 8:50 | Received by: (Signature) [signature] | Temp: °C Bottles Received: multi | If preservation required by Login: Date/Time |
| Relinquished by: (Signature) | Date: | Time: | Received for lab by: (Signature) [signature] | Date: 10-26-24 Time: 9:30 | Hold: Condition: NCF / OK |

Company Name/Address:
**WSP (Formely Wood E&I)-Phoenix, AZ**

4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Billing Information:
Accounts Payable
4600 East Washington Street, Ste 600
Phoenix, AZ 85034

Pres Chk

Report to: Samantha O'Shea

Email To: samantha.oshea@wsp.com

Project Description:

City/State Collected: FARMINGTON, NM

Pacing Code: PT MT CT ET

Phone: 602-733-6110

Client Project # USGR23513.0155

Lab Project # AMECTAZ-FOURCORNERS UPS

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ____ Y ____

Rush? (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Quote #

Date Results Needed

| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | No. of Cntrs | 200.7 Total Metals 250mlHDPE-HNO3 | 200.8 Total Metals 250mlHDPE-HNO3 | ALKCA/OH 125mlHDPE-NoPres | Chloride 250mlHDPE-NoPres | Fluoride 250mlHDPE-NoPres | HG 250mlHDPE-HNO3 | Sulfate 250mlHDPE-NoPres | TDS 1L-HDPE-NoPres | PH, 4°C TO 25 2 50ml HDPE NoPres | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW11-1024 | | GW WW | | 10/24/24 | 1042 | 4 | X | X | | X | X | X | X | X | X | | -1712 |
| FC-CCR-MW12-1024 | | GW WW | | | 1155 | | X | X | | X | X | X | X | X | X | | -1713 |
| FC-CCR-MW13-1024 | | GW WW | | | 1253 | | X | X | | X | X | X | X | X | X | | -1714 |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |
| | | WW | | | | | | | | | | | | | | | |

Analysis / Container / Preservative

Chain of Custody Page 4 of 4

Pace
ANALYTICAL NATIONWIDE NETWORK

MT JULIET, TN

SDG # 193178

Table #

Acctnum: AMECTAZ

Template: T261976

Prelogin: P1107674

TSR: 208 - Daphne Richards

PB:

Shipped Via: FedEX Ground

Remarks | Sample # (lab only)

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: 200.7: Total B, Ca, Be, Li, ~~Fe, Mn, K, Mg, Na~~,
200.8: Total Sb, As, Ba, Cd, Cr, Pb, Mo, Se, Tl, Co

pH ____ Temp ____

Flow ____ Other ____

Samples returned via: ___ UPS ___ FedEx ___ Courier

Tracking # MW11

Sample Receipt Checklist

| | | |
|---|---|---|
| COC Seal Present/Intact: | NP | Y N |
| COC Signed/Accurate: | | Y N |
| Bottles arrive intact: | | Y N |
| Correct bottles used: | | Y N |
| Sufficient volume sent: | | Y N |
| If Applicable | | |
| VOA Zero Headspace: | | Y N |
| Preservation Correct/Checked: | | Y N |
| RAD Screen <0.5 mR/hr: | | Y N |

| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
|---|---|---|---|
| | 102524 | 1020 | FEDEX |
| Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) |
| | 11/1/24 | 5:50 | |
| Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) |
| | | | |

Trip Blank Received: Yes No
HCL / Meoh
TBR

Temp: 1.1 °C Bottles Received:

If preservation required by Login: Date/Time

| Date: | Time: | Hold: | Condition: NCF / OK |
|---|---|---|---|
| 10/26/24 | 0:30 | | |

L179398

| Fed Ex tracking # | Gun ID | Temperature |
|---|---|---|
| 4212 6467 8877 | TLA9 | 1.4.3=5.4 |
| 4212 6467 8888 | TLA9 | 1.0.4.3=1.3 |
| 4212 6467 8899 | TLA9 | 19 +.3=2.2 |
| 4212 6467 0903 | TLA9 | 804.3=33 |

Name

10-26-14
Date

# ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

**CLIENT NAME:** Pace MTJL **PROJECT** **WO#: 10714223**

**COURIER:** ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

**PM: TKL** **Due Date: 11/15/24**

**CLIENT: PASI-TN**

**TRACKING NUMBER:** 4041 0492 0891 ☐ See Exceptions form ENV-FRM-MIN4-0142

4041 0492 0880, 4041 0492 0870

**Custody Seal on Cooler/Box Present:** ☑ YES ☐ NO **Seals Intact:** ☑ YES ☐ NO **Biological Tissue Frozen:** ☐ YES ☐ NO ☑ N/A

**Packing Material:** ☐ Bubble Bags ☐ Bubble Wrap ☑ None ☐ Other **Temp Blank:** ☑ YES ☐ NO **Type of Ice:** ☐ Blue ☐ Dry ☑ Wet ☐ Melted ☐ None

**Thermometer:** ☑ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

| | |
|---|---|
| **Did Samples Originate in West Virginia:** ☐ YES ☑ NO | **Were All Container Temps taken:** ☐ YES ☐ NO ☑ N/A |
| **Correction Factor:** +0.1 **Cooler Temp Read w/Temp Blank:** 1.5, 1.5, 1.7 °C **Cooler Temp Corrected w/Temp Blank:** 1.6, 1.6, 1.9 °C | **Average Corrected Temp (no Temp Blank Only):** _____ °C |
| ***NOTE:*** *Temp should be above freezing to 6°C.* | ☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container |
| **USDA Regulated Soil:** ☑ N/A – Water Sample/Other (describe): _____ | **Initials & Date of Person Examining Contents:** SMC 11/1/24 |
| Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO | Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO |
| **NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.** | |

| **LOCATION (check one):** ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA | YES | NO | N/A | COMMENT(S) |
|---|---|---|---|---|
| Chain of Custody Present and Filled Out? | ☑ | ☐ | | 1. |
| Chain of Custody Relinquished? | ☑ | ☐ | | 2. |
| Sampler Name and/or Signature on COC? | ☐ | ☑ | ☐ | 3. |
| Samples Arrived within Hold Time? | ☑ | ☐ | | 4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No |
| **Short Hold Time Analysis (<72 hr)?** | ☐ | ☑ | | 5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____ |
| **Rush Turn Around Time Requested?** | ☐ | ☑ | | 6. 7 day hold |
| Sufficient Sample Volume? | ☑ | ☐ | | 7. 7-14. 2 BP3N |
| Correct Containers Used? – Pace Containers Used? | ☑ ☐ | ☐ ☑ | ☐ | 8. |
| Containers Intact? | ☑ | ☐ | | 9. |
| Field Filtered Volume Received for Dissolved Tests? | ☐ | ☐ | ☑ | 10. Is sediment visible in the dissolved container: ☐ YES ☐ NO |
| Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other | ☑ | ☐ | | 11. **If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142 |
| All containers needing acid/base preservation have been checked? | ☑ | ☐ | ☐ | 12. Sample #: 1-14; 2 |
| All containers needing preservation are found to be in compliance with EPA recommendation? ($HNO_3$, $H_2SO_4$, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide) | ☑ | ☐ | ☐ | ☑ $HNO_3$ ☐ $H_2SO_4$ ☐ NaOH ☐ Zinc Acetate |
| Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS | ☐ | ☐ | ☑ | Positive for Residual Chlorine: ☐ YES ☐ NO |
| **NOTE:** If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs. | | | | **pH Paper Lot #** |
| | | | | Residual Chlorine: 0-6 Roll 205224; 0-6 Strip; 0-14 Strip |
| | | | | ☐ See Exceptions form ENV-FRM-MIN4-0142 |
| Headspace in Methyl Mercury Container? | ☐ | ☐ | ☑ | 13. |
| Extra labels present on soil VOA or WIDRO containers? | ☐ | ☐ | ☑ | 14. |
| Headspace in VOA Vials (greater than 6mm)? | ☐ | ☐ | ☑ | ☐ See Exceptions form ENV-FRM-MIN4-0140 |
| Trip Blanks Present? | ☐ | ☐ | ☑ | 15. |
| Trip Blank Custody Seals Present? | ☐ | ☐ | ☑ | Pace Trip Blank Lot # (if purchased): _____ |

**CLIENT NOTIFICATION / RESOLUTION** **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

**Project Manager Review:** _____ **Date:** 11/01/24

***NOTE:*** *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

**Labeled By:** _____ **Line:** _____

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



| **Section A** Required Client Information: | | **Section B** Required Project Information: | | **Section C** Invoice Information: | |
|---|---|---|---|---|---|
| Company: | Pace Analytical | Report To: | Pace Analytical Subout Team | Attention: | Samantha O'Shea |
| Address: | 12065 Lebanon Rd. | Copy To: | | Company Name: | |
| Mt. Juliet, TN 37122 | | | | Address: | |
| Email: | MTJLSuboutTeam@pacelabs.com | Purchase Order #: | L1793198 | Pace Quote: | |
| Phone: (615) 773-9756 | Fax: (615) 758-5859 | Project Name: | | Pace Project Manager: | Tong Lee |
| Requested Due Date: | 8-Nov | Project #: | US0023513.6155 | Pace Profile #: | 38076 |

| Regulatory Agency | |
|---|---|
| | |
| **State / Location** | |
| **NM** | |

**SAMPLE ID**
**One Character per box.**
**(A-Z, 0-9 / , -)**
**Sample Ids must be unique**

| MATRIX | CODE |
|---|---|
| Drinking Water | DW |
| Water | WT |
| Waste Water | WW |
| Product | P |
| Soil/Solid | SL |
| Oil | OL |
| Wipe | WP |
| Air | AR |
| Other | OT |
| Tissue | TS |

| ITEM # | SAMPLE ID | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | Analyses Test Y/N | Analyses Test: Metals | Residual Chlorine (Y/N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FC-CCR-MW86-1024 | WT | | | | 23-Oct | 13:45 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI. 200.8-SB, |
| 2 | FC-CCR-MW66-1024 | WT | | | | 23-Oct | 12:24 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI. 200.8-SB, |
| 3 | FC-CCR-FD03-1024 | WT | | | | 23-Oct | 13:13 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI. 200.8-SB, |
| 4 | FC-CCR-MW70-1024 | WT | | | | 23-Oct | 11:20 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI. 200.8-SB, |
| 5 | FC-CCR-URS07-1024 | WT | | | | 21-Oct | 12:37 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI. 200.8-SB, |
| 6 | FC-CCR-URS05-1024 | WT | | | | 21-Oct | 15:41 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI. 200.8-SB, |
| 7 | FC-CCR-FD01-1024 | WT | | | | 21-Oct | 15:55 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI. 200.8-SB, |
| 8 | FC-CCR-FD02-1024 | WT | | | | 21-Oct | 16:55 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI. 200.8-SB, |
| 9 | FC-CCR-URS06-1024 | WT | | | | 21-Oct | 16:44 | | 1 | | | | | | | | 1 | | X | | MS/MSD, 200.7 - B, CA, BE, LI. |
| 10 | FC-CCR-URS08-1024 | WT | | | | 21-Oct | 14:03 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI. 200.8-SB, |
| 11 | FC-CCR-MW84-1024 | WT | | | | 24-Oct | 17:22 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI. 200.8-SB, |
| 12 | FC-CCR-MW71-1024 | WT | | | | 24-Oct | 10:42 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI. 200.8-SB, |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | James C Huckaba | 31-Oct | 14:07 | | | | | | | |
| Pace Analytical Batch: WG2393123 | | | | | | | | | | |
| **Pace Analytical SDGs: L1793198** | | | | | | | | | | |
| **Location: Minneapolis, MN 55414** | | | | | | | | | | |

| SAMPLER NAME AND SIGNATURE | | TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
|---|---|---|---|---|---|
| **PRINT Name of SAMPLER:** | | | | | |
| **SIGNATURE of SAMPLER:** | **DATE Signed:** | | | | |

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



| **Section A** Required Client Information: | | **Section B** Required Project Information: | | **Section C** Invoice Information: | |
|---|---|---|---|---|---|
| Company: | Pace Analytical | Report To: | Pace Analytical Subout Team | Attention: | Samantha O'Shea |
| Address: | 12065 Lebanon Rd. | Copy To: | | Company Name: | |
| Mt. Juliet, TN 37122 | | | | Address: | |
| Email: | MTJLSuboutTeam@pacelabs.com | Purchase Order #: | L1793198 | Pace Quote: | |
| Phone: (615) 773-9756 | Fax: (615) 758-5859 | Project Name: | | Pace Project Manager: | Tong Lee |
| Requested Due Date: | 8-Nov | Project #: | US0023513.6155 | Pace Profile #: | 38076 |

| Regulatory Agency |
|---|
| |
| **State / Location** |
| **NM** |

**SAMPLE ID**
**One Character per box.**
**(A-Z, 0-9 / , -)**
**Sample Ids must be unique**

| MATRIX | CODE |
|---|---|
| Drinking Water | DW |
| Water | WT |
| Waste Water | WW |
| Product | P |
| Soil/Solid | SL |
| Oil | OL |
| Wipe | WP |
| Air | AR |
| Other | OT |
| Tissue | TS |

| ITEM # | SAMPLE ID | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Preservatives: Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | Analyses Test Y/N | Analyses Test: Metals | Residual Chlorine (Y/N) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FC-CCR-MW72-1024 | WT | | | | 24-Oct | 11:55 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI. 200.8-SB, |
| 2 | FC-CCR-MW73-1024 | WT | | | | 24-Oct | 12:53 | | 1 | | | | | | | | 1 | | X | | 200.7 - B, CA, BE, LI. 200.8-SB, |
| 3 | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | |

| ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS |
|---|---|---|---|---|---|---|---|
| | James C Huckaba | 31-Oct | 14:07 | | | | |
| Pace Analytical Batch: WG2393123 | | | | | | | |
| **Pace Analytical SDGs: L1793198** | | | | | | | |
| **Location: Minneapolis, MN 55414** | | | | | | | |

| SAMPLER NAME AND SIGNATURE | | TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N) |
|---|---|---|---|---|---|
| **PRINT Name of SAMPLER:** | | | | | |
| **SIGNATURE of SAMPLER:** | **DATE Signed:** | | | | |

# APPENDIX

# F

## 2024 DATA VALIDATION REPORT

ARIZONA PUBLIC SERVICE COMPANY

# 2024 DATA VALIDATION REPORT

## CCR RULE COMPLIANCE GROUNDWATER MONITORING DATA – APS FOUR CORNERS POWER PLANT
## ARIZONA PUBLIC SERVICE FOUR CORNERS POWER PLANT
## FRUITLAND, NEW MEXICO

# 2024 DATA VALIDATION REPORT

## CCR RULE COMPLIANCE GROUNDWATER MONITORING DATA – APS FOUR CORNERS POWER PLANT
## ARIZONA PUBLIC SERVICE FOUR CORNERS POWER PLANT
## FRUITLAND, NEW MEXICO

ARIZONA PUBLIC SERVICE COMPANY

PROJECT NO.: US0023513.6155
DATE: JANUARY 31, 2025

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## ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| % | percent |
| APS | Arizona Public Service Company |
| BTVs | background threshold value(s) |
| CCR | coal combustion residuals |
| CLP | Contract Laboratory Program |
| COC | chain of custody |
| EPA | United States Environmental Protection Agency |
| GWPS(s) | Groundwater Protection Standard(s) |
| LCS | laboratory control sample |
| LCSD | laboratory control sample |
| MCL | maximum contaminant level |
| mg/L | milligrams per liter |
| MS | matrix spike |
| MSD | matrix spike duplicate |
| QC | quality control |
| RL | reporting limit |
| RPD | relative percent difference |
| SAP | sampling and analysis plan |
| SDG | sample delivery group |
| SM | Standard Method |
| TDS | total dissolved solids |
| Wood | Wood Environment & Infrastructure Solutions, Inc. |
| WSP | WSP USA Environment & Infrastructure Inc |

# 1 INTRODUCTION

Arizona Public Service Company (APS) collected groundwater Detection and Assessment Monitoring samples to support Coal Combustion Residuals (CCR) Rule Compliance during the 2024 calendar year (the reporting period) at the APS Four Corners Power Plant, located near Fruitland, New Mexico. This report presents the standard methods used to validate reporting period data and documents the results of the data validation process in summary tables and checklists generated as the samples were collected throughout the year.

# 2 DATA VALIDATION METHODOLOGY

WSP USA Inc. (WSP) performed a United States Environmental Protection Agency (EPA) Stage 2A validation on samples collected by APS during the 2024 calendar year. This is equivalent to a Level I data evaluation as defined in the project sampling and analysis plan (SAP). The Stage 2A validation includes review of the quality control (QC) results in laboratory analytical reports and does not include review or validation of the raw analytical data. Data validation activities have been performed in general accordance with:

- EPA, 2004. SW 846 Test Methods for Evaluating Solid Wastes, Update IIIB.
- EPA, 2017. EPA Contract Laboratory Program (CLP) National Functional Guidelines for Inorganic Superfund Data Review, EPA 540-R-2017-001.
- Wood, 2022. Groundwater Sampling and Analysis Program, Coal Combustion Residuals Rule Groundwater Monitoring System Compliance, Four Corners Power Plant, Fruitland, New Mexico.

The CLP guidelines were written specifically for the CLP, and have been modified for the purposes of data reviews conducted during the reporting period where they differ from method specific QC requirements.

During each groundwater monitoring round conducted during the reporting period, the laboratory's certified analytical report and supporting documentation were reviewed to assess the following:

- Data package and electronic data deliverable completeness;
- Chain of custody (COC) compliance;
- Holding time compliance;
- Presence or absence of laboratory contamination as demonstrated by laboratory blanks;
- Accuracy and bias as demonstrated by recovery of laboratory control sample (LCS) and matrix spike (MS) samples;
- Analytical precision as relative percent difference (RPD) of analyte concentration between laboratory duplicates, LCS/LCS duplicates (LCSDs), or MSs/MS duplicates (MSDs);
- Insofar as possible, the degree of conformance to method requirements and good laboratory practices.

**Appendix A** presents data assessment checklists generated for each sample delivery group submitted to the analytical laboratory during the reporting period. The laboratory performing the analyses as well as the methods of analysis are presented in the individual checklists. **Table 1** presents a comprehensive listing of reporting period samples and **Table 2** summarizes field duplicate detections at concentrations greater than analytical reporting limits.

In general, it is important to recognize that no analytical data are guaranteed to be correct, even if all QC audits are passed. Strict QC serves to increase confidence in data, but any reported value may potentially contain error.

# 3 EXPLANATION OF DATA QUALITY INDICATORS

Summary explanations of the specific data quality indicators reviewed during data validation are presented below.

## 3.1 LABORATORY CONTROL SAMPLE RECOVERIES

LCSs are aliquots of analyte free matrices that are spiked with the analytes of interest for an analytical method, or a representative subset of those analytes. The spiked matrix is then processed through the same analytical procedures as the samples it accompanies. LCS recovery is an indication of a laboratory's ability to successfully perform an analytical method in an interference free matrix.

## 3.2 MATRIX SPIKE RECOVERIES

MSs and MSDs are prepared by adding known amounts of the analytes of interest for an analytical method, or a representative subset of those analytes, to an aliquot of sample. The spiked sample is then processed through the same extraction, concentration, cleanup, and analytical procedures as the unspiked samples in an analytical batch.

MS recovery and precision are an indication of a laboratory's ability to successfully recover an analyte in the matrix of a specific sample or closely related sample matrices. It is important not to apply MS results for any specific sample to other samples without understanding how the sample matrices are related.

## 3.3 BLANK CONCENTRATIONS

Blank samples are aliquots of analyte free matrix that are used as negative controls to verify that the sample collection, storage, preparation, and analysis system does not produce false positive results.

Equipment blanks are collected in the field on all non-dedicated sampling equipment and processed by the laboratory using the same procedures as the field samples. Target analytes should not be found in equipment blanks.

Laboratory blanks are processed by the laboratory using exactly the same procedures as the field samples. Target analytes should not be found in laboratory blanks.

When target analytes are detected in blanks, analyte concentrations in associated samples less than five times the concentration detected in the blank will be U qualified as being not detected.

## 3.4 LABORATORY DUPLICATES

Laboratory duplicate analysis verifies acceptable method precision by the laboratory at the time of preparation and analysis and/or sampling precision at the time of collection.

## 3.5 FIELD DUPLICATES

Field duplicates are collected at the time of sample collection under a duplicate identifier documented in the field forms. Field duplicate analysis verifies acceptable method precision by the laboratory at the time of preparation and analysis and/or sampling precision at the time of collection.

# 4 DEFINITIONS OF DATA VALIDATION QUALIFIERS

The following qualifiers may be added to the data during data validation:

**J** The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

**U** The analyte was analyzed for, but was not detected.

**UJ** The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to measure the analyte accurately and precisely in the sample.

# 5 CHAIN OF CUSTODY AND SAMPLE RECEIPT CONDITION DOCUMENTATION

The samples were received at the laboratories under proper COC, intact, properly preserved, and at temperatures less than the SAP specified maximum of 6 degrees Celsius with the exception of samples collected at CM-01 and CM-02 during the second semi-annual 2024 monitoring event (SA2 2024). The detections of pH, sulfate, and total dissolved solids were J qualified for the described samples (**Table 3**).

# 6 SPECIFIC DATA VALIDATION FINDINGS

Results for groundwater monitoring samples collected in 2024 may be considered usable with the limitations and exceptions summarized in **Table 3**. The following sections identify requirements used in data assessment. Laboratory-specified limits are noted on the Data Assessment Checklists included in **Appendix A**.

## 6.1 METALS BY EPA METHODS 200.7, 200.8, AND 245.1

### 6.1.1 HOLDING TIMES

Samples must be analyzed for metals within the SAP-specified holding time of 28 days for mercury and 180 days for additional metals. All holding times were met in 2024.

### 6.1.2 LABORATORY BLANKS

Target analytes must not be detected in the laboratory blanks associated with the analysis of site samples. During SA 2 2024, iron and boron were detected in the method blank associated with the samples for MW-05 and MW-64, respectively. Iron was not detected and U qualified and the boron detection was J qualified.

### 6.1.3 LABORATORY CONTROL SAMPLE ACCURACY AND PRECISION

LCS and LCSD recoveries must be within the laboratory-specified limits and RPDs between the LCS and LCSD results must be less than the laboratory-specified maximum. A total of 46 detections of barium during the first semi-annual event 2024 (SA1 2024) were J qualified for a low LCS recovery (**Table 3**).

### 6.1.4 MATRIX SPIKES/MATRIX SPIKE DUPLICATES

Laboratories performed MS and MSD analysis on the project samples specified in the Data Assessment Checklists included in **Appendix A**. MS/MSD recoveries must be within laboratory-specified limits and RPDs between MS and MSD results must be less than the laboratory-specified maximum. During SA1 2024, potassium at MW-16 was non-detect but had low matrix spike recovery and the result was UJ qualified. During SA2 2024, the detection of boron at MW-64 was J qualified for high matrix spike recovery and mercury was non-detect at MW-67 which was UJ qualified for low matrix spike recovery.

### 6.1.5 LABORATORY DUPLICATES

Laboratories performed duplicate analysis on the project samples specified in the Data Assessment Checklists included in **Appendix A**. The RPDs between duplicate results must be less than the laboratory-specified limit.

### 6.1.6 ANALYTICAL SENSITIVITY

**Multiunit**

Reporting levels (RLs) for antimony, arsenic, barium, beryllium, cadmium, chromium, mercury, and thallium, must be sufficiently low to meet the National Primary Drinking Water Regulation Maximum Contamination Limits (MCLs). RLs for cobalt, lead, lithium, molybdenum, and selenium must be sufficiently low to meet alternative risk-based Groundwater Protection Standards (GWPSs) or background threshold values (BTVs).

### URS/CWTP

Reporting levels (RLs) for antimony, barium, beryllium, cadmium, chromium, mercury, and thallium must be sufficiently low to meet the MCLs. RLs for arsenic, cobalt, lead, lithium, and molybdenum, and selenium must be sufficiently low to meet alternative risk-based GWPSs and/or BTVs.

Boron and calcium are not EPA-regulated analytes in groundwater, and it is not possible to evaluate the RLs for these analytes against the National Primary Drinking Water Regulation MCLs.

MDLs are employed where RLs do not meet the project specific comparison criteria (GWPS for units in assessment monitoring and background threshold values [BTVs] for units in detection monitoring). RLs are preferred over MDLs for establishing a sample's detection status (i.e., detect or non-detect) in Appendix III and Appendix IV statistical evaluations because RLs represent the concentration at which an analyte can be reliably quantified.

### Semi-annual 1 2024 monitoring event (SA1 2024)

In SA1 2024, the following 200.7 and 200.8 results were reported at the MDL:

- **Antimony:** Supplementary surface water data collection points SW-1 and its field duplicate, SW-2, and SW-3)
- **Beryllium:** MW-87
- **Cobalt:** MW-62, MW-63, MW-64, MW-65 and SW-2
- **Molybdenum:** MW-62, MW-63, and MW-64

These detections were J qualified and were given a DL reason code for distinction as presented in Table 3.

Beryllium was initially reported to the RL of 0.1 mg/L at MW-87, exceeding the project specific criteria of 0.004 mg/L. Upon reanalysis by Eurofins TestAmerica Laboratories, Inc. (Eurofins), beryllium was detected at a concentration of 0.027 mg/L. This intermediate detection raises concerns about its reliability, as it is inconsistent with historical data at this location and the result in SA2 2024 (<0.0022 mg/L). This data was deemed useable based on the Stage 2A validation but anomalous which was confirmed by the SA2 2024 monitoring event.

### Semi-annual 2 2024 monitoring event (SA2 2024)

In SA2 2024, Pace Analytical Laboratories (Pace) reported the results for all 200.7 and 200.8 constituents to the MDL, even when the RL was able to achieve the project specific comparison criteria. The only results where the RL was not able to achieve the project specific criteria and required estimating between the MDL and RL were the following:

- **Beryllium:** All monitoring locations were reported to the MDL and there were a total of five detections (MW-08, MW-61, MW-67, MW-68, and MW-75) between the RL and MDL (**Table 3**)
- **Cobalt:** DMX-05R and MW-05
- **Molybdenum:** MW-05

Detections between the MDL and RL were J qualified and flagged with the DL reason code. Those 200.7 and 200.8 constituents that were unnecessarily reported by the laboratory at the MDL were modified by WSP to report at the RL in **Table 3**. Modified values not detected at the RL were U qualified with a ND reason code.

## 6.2 ANIONS BY EPA METHOD 300.0

### 6.2.1 HOLDING TIMES

Samples must be analyzed for anions within the SAP-specified holding time of 28 days. One sample at MW-62 for fluoride did not meet the holding time and was J qualified (**Table 3**).

### 6.2.2 LABORATORY BLANKS

Fluoride, chloride, and sulfate must not be detected in the laboratory blanks associated with the analysis of these samples.

### 6.2.3 LABORATORY CONTROL SAMPLE ACCURACY AND PRECISION

LCS and LCSD recoveries must be within the laboratory-specified limits and RPDs between the LCS and LCSD results must be less than the laboratory-specified maximum values.

### 6.2.4 MATRIX SPIKES/MATRIX SPIKE DUPLICATES

Laboratories performed MS and MSD analysis on the project samples specified in the Data Assessment Checklists included in **Appendix A**. Recoveries must be within the laboratory specified limits. RPDs between MS and MSD results must be less than the laboratory-specified limit. During SA1 2024, the detection of chloride was J qualified at MW-66 for low matrix recovery. During SA2 2024, the detections of fluoride and sulfate were J qualified at CM-02 and MW-64 for low matrix recovery, respectively.

### 6.2.5 LABORATORY DUPLICATES

Laboratories performed duplicate analysis on the project samples specified in the Data Assessment Checklists included in **Appendix A**. The RPDs between duplicate results must be less than the laboratory-specified limit.

### 6.2.6 ANALYTICAL SENSITIVITY

Fluoride RLs must be sufficiently low to meet the 4 milligrams per liter (mg/L) MCL. Chloride and sulfate are not EPA-regulated analytes in groundwater, and it is not possible to evaluate the RLs for these analytes against the Primary Drinking Water Regulation MCLs.

Due to a lowered dilution factor, the analytical laboratory reported fluoride to the MDL and all detections reported between the RL and MDL were J qualified by the analytical laboratory. There was a total of 20 records at 16 locations J qualified by Pace for detections between the RL and MDL during SA2 2024 (**Table 3**).

## 6.3 TOTAL DISSOLVED SOLIDS BY SM 2540C

### 6.3.1 HOLDING TIMES

All samples must be analyzed for TDS within the SAP-specified holding time of 7 days.

### 6.3.2 LABORATORY BLANKS

TDS must not be detected in the laboratory blanks at concentrations above the reporting limit.

### 6.3.3 LABORATORY CONTROL SAMPLE ACCURACY AND PRECISION

LCS and LCSD recoveries must be within the laboratory-specified limits and RPDs between the LCS and LCSD results must be less than the laboratory-specified maximum.

### 6.3.4 LABORATORY DUPLICATES

Laboratories performed duplicate analysis for TDS on the project samples specified in the Data Assessment Checklists included in **Appendix A.** RPDs between primary sample and laboratory duplicate results must be less than the laboratory-specified limit.

## 6.4 PH BY SM 4500B

### 6.4.1 HOLDING TIMES

All samples must be analyzed for pH within 15 minutes of sample collection and all samples analyzed outside of the holding time are J qualified (**Table 3**).

### 6.4.2 LABORATORY CONTROL SAMPLE ACCURACY AND PRECISION

LCS recoveries must be within the laboratory-specified limits.

### 6.4.3 LABORATORY DUPLICATES

Laboratories performed duplicate analysis for pH on the project samples specified in the Data Assessment Checklists included in **Appendix A.** RPDs between primary sample and laboratory duplicate results must be less than the laboratory-specified limit.

## 6.5 GENERAL CHEMISTRY BY SM 2320B

### 6.5.1 HOLDING TIMES

Samples must be analyzed for alkalinity within 14 days of sample collection.

### 6.5.2 LABORATORY CONTROL SAMPLE ACCURACY AND PRECISION

LCS recoveries must be within the laboratory-specified limits.

### 6.5.3 LABORATORY DUPLICATES

Laboratories performed duplicate analysis on the project samples specified in the Data Assessment Checklists included in **Appendix A**. RPDs between primary sample and laboratory duplicate results must be less than the laboratory-specified limit.

## 6.6 RADIUM BY EPA METHODS 903.0 AND 904.0

### 6.6.1 HOLDING TIMES

All samples must be analyzed for radium within the EPA-recommended holding time of 6 months.

### 6.6.2 LABORATORY BLANKS

Radium must not be detected in the laboratory blanks at concentrations above the reporting limit.

### 6.6.3 LABORATORY CONTROL SAMPLE ACCURACY AND PRECISION

LCS and LCSD recoveries must be within laboratory-specified limits.

### 6.6.4 CARRIER ACCURACY

Carrier recoveries must be within the laboratory-specified limits.

### 6.6.5 ANALYTICAL SENSITIVITY

Total radium RLs must be sufficiently low to meet the MCL of 5 picocuries per liter. Pending development of applicable CCR Groundwater Monitoring Program BTVs and/or GPSs for the site, analytical sensitivity must also be evaluated for these site-specific comparison criteria.

# 7 FIELD DUPLICATES

APS collected field duplicate samples of the specified field original samples as specified in **Table 1**. Target analyte detections are summarized in **Table 2**. Field duplicates were collected at the following locations in 2024: MW-17R, MW-19, MW-30, MW-52, MW-81, MW-82S, MW-84, MW-86, URS-05, URS-06, DMX-01, and SW-1. Precision values must be less than or equal-to the SAP specified maximum of 20 percent (%), or the differences between the detected concentrations must be less than or equal-to the RLs.

- Imprecision between the original sample and field duplicates were noted at the following locations for radium 228 and total radium in SA1 2024:
  - MW84;
  - URS-05;
  - URS-06; and,
  - MW-17R.
- Field duplicated imprecision was noted for total radium at URS-05, radium 226 at URS-06, and radium 228 at MW-17R in SA2 2024. These detections were J qualified as presented in **Table 3**.
- Imprecision between DMX-01 and MW-82S and the field duplicates was observed for boron in SA1 2024 and J qualified.
- Imprecision between SW-1 and the field duplicate was observed for iron and sulfate in SA1 2024 and J qualified. Imprecision between MW-82S and the field duplicate was observed for calcium, magnesium, and sodium in SA1 2024 and J qualified.
- Imprecision between URS-06 and the field duplicate was observed for total dissolved solids in SA1 2024 and J qualified (**Table 3**).

# 8 SUMMARY AND CONCLUSIONS

The data are usable with the addition of qualifiers, as presented in **Table 3**. Most of the added qualifiers were related to holding time exceedances for pH, which is measured in the field during sample collection. A total of 46 of the analytical records from 2024 were J-qualified due to low LCS recoveries, suggesting a potential underestimation of the actual concentrations for the flagged results. In contrast, no data was J-qualified for high laboratory control sample (LCS) recoveries (indicating a possible overestimation) in 2024, as was observed in the 2023 reporting period. Additional qualifiers were applied for equipment blank detections, imprecision in duplicate samples, method blank detections, elevated receipt temperature, and holding times.

RLs are the preferred detection measure over MDLs because RLs represent the concentration at which an analyte can be reliably quantified. However, in the SA1 and SA2 2024 analyses, MDLs were used in cases where RLs did not meet the project specific comparison criteria (BTVs or GWPSs).

Key analytes and locations where results were estimated between the MDL and RL to meet project specific comparison criteria include:

- **Beryllium:** Detected at MW-87 in SA1 2024 and at all monitored locations in SA2 2024. The estimated concentration at MW-87 raises concerns about its reliability, as it is inconsistent with historical data at this location and the result in SA2 2024 (<0.0022 mg/L). Detected at five locations (MW-08, MW-61, MW-67, MW-68, and MW-75) above the MDL below the RL and results were J qualified.
- **Fluoride:** Detected at 16 locations in SA2 2024 and four duplicates were reported to the MDL and J qualified for detections between the RL and MDL by Pace.
- **Molybdenum:** Detected at MW-62, MW-63, and MW-64 in SA1 2024.

# 9 LIMITATIONS

This report was prepared exclusively for APS by WSP. The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in WSP services and based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This data validation report is intended to be used by APS for the Four Corners Power Plant site only, subject to the terms and conditions of its contract with WSP. Any other use of, or reliance on, this report by any third party is at that party's sole risk.

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— EPA, 2004. SW 846 Test Methods for Evaluating Solid Wastes, Update IIIB.

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# TABLES

**TABLE 1**
**FIELD SAMPLES SUBMITTED TO ANALYTICAL LABORATORIES**
**Coal Combustion Residuals Rule**
**2024 Compliance Monitoring Groundwater Data**

| CCR Unit | Collection Date and Time | Field Sample Identification | Eurofins TestAmerica Phoenix Sample Identification | Pace Analytical Mt. Juliet | Pace Analytical MN | Radiation Safety Engineering Sample Identification | Notes |
|---|---|---|---|---|---|---|---|
| CWTP | 5/22/2024 10:32 | FC-CCR-MW62-0524 | 550-218889-1 | | | 74567 | |
| CWTP | 5/22/2024 12:23 | FC-CCR-MW65-0524 | 550-218889-4 | | | 74570 | |
| CWTP | 5/22/2024 12:35 | FC-CCR-SW2-0524 | 550-218889-6 | | | 74572 | |
| CWTP | 5/22/2024 12:48 | FC-CCR-SW3-0524 | 550-218889-7 | | | 74573 | |
| CWTP | 5/22/2024 13:17 | FC-CCR-MW63-0524 | 550-218889-2 | | | 74568 | |
| CWTP | 5/22/2024 13:58 | FC-CCR-MW64-0524 | 550-218889-3 | | | 74569 | |
| CWTP | 5/23/2024 16:20 | FC-CCR-FD09-0524 | 550-218889-8 | | | 74574 | Field duplicate of FC-CCR-SW1-0524 |
| CWTP | 5/23/2024 20:20 | FC-CCR-SW1-0524 | 550-218889-5 | | | 74571 | |
| MU1 | 5/16/2024 12:55 | FC-CCR-MW75-0524 | 550-218672-3 | | | 74565 | |
| MU1 | 5/16/2024 14:05 | FC-CCR-MW61-0524 | 550-218672-2 | | | 74564 | |
| MU1 | 5/23/2024 11:10 | FC-CCR-MW87-0524 | 550-218891-4 | | | 74566 | |
| MU1 | 5/23/2024 14:32 | FC-CCR-MW49A-0524 | 550-218891-3 | | | 74563 | |
| MU1 | 5/23/2024 18:57 | FC-CCR-MW08-0524 | 550-218891-2 | | | 74562 | |
| MU1 | 5/23/2024 19:53 | FC-CCR-MW07-0524 | 550-218891-1 | | | 74561 | |
| MU1 | 5/24/2024 11:25 | FC-CCR-EB01-0524 | 550-218891-5 | | | 74607 | Equipment blank |
| MU1 | 5/16/2024 12:00 | FC-CCR-MW52-0524 | 550-218672-1 | | | | |
| MU1 | 5/16/2024 16:20 | FC-CCR-FD03-0524 | 550-218672-4 | | | | Field Duplicate of FC-CCR-MW52-0524 |
| Other | 5/17/2024 15:52 | FC-CCR-EW11R-0524 | 550-218680-22 | | | 74605 | |
| Other | 5/17/2024 17:40 | FC-CCR-EW12R-0524 | 550-218680-23 | | | 74606 | |
| Other | 5/20/2024 15:09 | FC-CCR-DMX03-0524 | 550-218680-2 | | | 74595 | |
| Other | 5/21/2024 10:07 | FC-Pond3PumpHouse-0524 | 550-218890-1 | | | | |
| URS | 5/16/2024 9:12 | FC-CCR-MW71-0524 | 550-218673-4 | | | 74580 | |
| URS | 5/16/2024 10:02 | FC-CCR-MW72-0524 | 550-218673-5 | | | 74581 | |
| URS | 5/16/2024 10:59 | FC-CCR-MW73-0524 | 550-218673-6 | | | 74582 | |
| URS | 5/18/2024 10:38 | FC-CCR-URS08-0524 | 550-218673-16 | | | 74593 | |
| URS | 5/18/2024 12:05 | FC-CCR-URS07-0524 | 550-218673-15 | | | 74592 | |
| URS | 5/18/2024 12:34 | FC-CCR-FD02-0524 | 550-218673-17 | | | 74587 | Field duplicate of FC-CCR-URS06-0524 |
| URS | 5/18/2024 13:13 | FC-CCR-URS05-0524 | 550-218673-13 | | | 74590 | |
| URS | 5/18/2024 13:18 | FC-CCR-CM01-0524 | 550-218673-11 | | | 74588 | |
| URS | 5/18/2024 13:55 | FC-CCR-URS06-0524 | 550-218673-14 | | | 74591 | |
| URS | 5/18/2024 13:57 | FC-CCR-CM02-0524 | 550-218673-12 | | | 74589 | |
| URS | 5/18/2024 16:04 | FC-CCR-MW84-0524 | 550-218673-8 | | | 74584 | |
| URS | 5/18/2024 16:20 | FC-CCR-FD01-0524 | 550-218673-10 | | | 74594 | Field duplicate of FC-CCR-MW84-0524 |
| URS | 5/18/2024 17:06 | FC-CCR-MW83-0524 | 550-218673-7 | | | 74583 | |
| URS | 5/20/2024 9:15 | FC-CCR-MW68-0524 | 550-218673-2 | | | 74577 | |

**TABLE 1**
**FIELD SAMPLES SUBMITTED TO ANALYTICAL LABORATORIES**
**Coal Combustion Residuals Rule**
**2024 Compliance Monitoring Groundwater Data**

| CCR Unit | Collection Date and Time | Field Sample Identification | Eurofins TestAmerica Phoenix Sample Identification | Pace Analytical Mt. Juliet | Pace Analytical MN | Radiation Safety Engineering Sample Identification | Notes |
|---|---|---|---|---|---|---|---|
| URS | 5/20/2024 9:57 | FC-CCR-MW67-0524 | 550-218673-1 | | | 74576 | |
| URS | 5/20/2024 10:47 | FC-CCR-MW69-0524 | 550-218673-3 | | | 74578 | |
| URS | 5/20/2024 11:36 | FC-CCR-MW85-0524 | 550-218673-9 | | | 74585 | |
| URS | 5/22/2024 9:11 | FC-CCR-MW70-0524 | 550-218888-2 | | | 74579 | |
| URS | 5/22/2024 9:54 | FC-CCR-MW86-0524 | 550-218888-3 | | | 74586 | |
| URS | 5/22/2024 11:34 | FC-CCR-MW66-0524 | 550-218888-1 | | | 74575 | |
| Other | 5/17/2024 14:27 | FC-CCR-DMX01-0524 | 550-218680-1 | | | | |
| Other | 5/16/2024 16:51 | FC-CCR-MW01-0524 | 550-218680-3 | | | | |
| Other | 5/16/2024 17:42 | FC-CCR-MW03-0524 | 550-218680-4 | | | | |
| Other | 5/20/2024 16:14 | FC-CCR-MW05-0524 | 550-218680-5 | | | | |
| Other | 5/17/2024 13:31 | FC-CCR-FD04-0524 | 550-218680-6 | | | | Field duplicate of FC-CCR-DMX01-0524 |
| Other | 5/20/2024 17:04 | FC-CCR-MW18-0524 | 550-218680-7 | | | | |
| Other | 5/20/2024 14:11 | FC-CCR-MW19-0524 | 550-218680-8 | | | | |
| Other | 5/16/2024 18:28 | FC-CCR-MW21-0524 | 550-218680-9 | | | | |
| Other | 5/20/2024 18:00 | FC-CCR-MW23R-0524 | 550-218680-10 | | | | |
| Other | 5/17/2024 9:31 | FC-CCR-MW30-0524 | 550-218680-11 | | | | |
| Other | 5/20/2024 18:40 | FC-CCR-MW36R-0524 | 550-218680-12 | | | | |
| Other | 5/20/2024 12:34 | FC-CCR-FD05-0524 | 550-218680-13 | | | | Field duplicate of FC-CCR-MW19-0524 |
| Other | 5/17/2024 18:25 | FC-CCR-MW82S-0524 | 550-218680-14 | | | | |
| Other | 5/16/2024 15:22 | FC-CCR-MW60-0524 | 550-218680-15 | | | | |
| Other | 5/17/2024 10:31 | FC-CCR-MW77S-0524 | 550-218680-16 | | | | |
| Other | 5/17/2024 11:52 | FC-CCR-MW78S-0524 | 550-218680-17 | | | | |
| Other | 5/17/2024 13:38 | FC-CCR-MW79S-0524 | 550-218680-18 | | | | |
| Other | 5/17/2024 11:11 | FC-CCR-FD08-0524 | 550-218680-19 | | | | Field Duplicate of FC-CCR-MW82S-0524 |
| Other | 5/17/2024 12:48 | FC-CCR-MW81-0524 | 550-218680-20 | | | | |
| Other | 5/17/2024 18:42 | FC-CCR-EW17-0524 | 550-218680-21 | | | | |
| Other | 5/17/2024 16:20 | FC-CCR-FD06-0524 | 550-218680-24 | | | | Field duplicate of FC-CCR-MW30-0524 |
| Other | 5/17/2024 12:34 | FC-CCR-FD07-0524 | 550-218680-25 | | | | Field Duplicate of FC-CCR-MW81-0524 |
| Other | 5/21/2024 14:20 | FC-CCR-DMX04-0524 | 550-218892-1 | | | 74596 | |
| Other | 5/23/2024 12:23 | FC-CCR-DMX06-0524 | 550-218892-2 | | | 74597 | |
| Other | 5/23/2024 18:20 | FC-CCR-MW11-0524 | 550-218892-3 | | | | |
| Other | 5/23/2024 16:00 | FC-CCR-MW15-0524 | 550-218892-4 | | | 74599 | |
| Other | 5/23/2024 17:11 | FC-CCR-MW16-0524 | 550-218892-5 | | | 74600 | |
| Other | 5/21/2024 13:27 | FC-CCR-MW17R-0524 | 550-218892-6 | | | 74601 | |
| Other | 5/22/2024 17:15 | FC-CCR-MW38R-0524 | 550-218892-7 | | | 74602 | |

**TABLE 1**
**FIELD SAMPLES SUBMITTED TO ANALYTICAL LABORATORIES**
**Coal Combustion Residuals Rule**
**2024 Compliance Monitoring Groundwater Data**

| CCR Unit | Collection Date and Time | Field Sample Identification | Eurofins TestAmerica Phoenix Sample Identification | Pace Analytical Mt. Juliet | Pace Analytical MN | Radiation Safety Engineering Sample Identification | Notes |
|---|---|---|---|---|---|---|---|
| Other | 5/21/2024 12:25 | FC-CCR-MW56-0524 | 550-218892-8 | | | 74603 | |
| Other | 5/21/2024 17:35 | FC-CCR-MW57-0524 | 550-218892-9 | | | 74604 | |
| Other | 5/21/2024 15:18 | FC-CCR-MW34-0524 | 550-218892-10 | | | | |
| Other | 5/21/2024 15:57 | FC-CCR-EW15-0524 | 550-218892-11 | | | | |
| Other | 5/21/2024 16:39 | FC-CCR-MW24-0524 | 550-218892-12 | | | | |
| Other | 5/23/2024 10:22 | FC-CCR-DMX05R-0524 | 550-218892-13 | | | 74598 | |
| Other | 5/23/2024 10:22 | FC-CCR-EW14-0524 | 550-218892-14 | | | | |
| Other | 5/21/2024 8:27 | FC-CCR-SUMP1-0524 | 550-218892-15 | | | | |
| Other | 5/21/2024 8:33 | FC-CCR-SUMP2-0524 | 550-218892-16 | | | | |
| Other | 5/21/2024 8:42 | FC-CCR-SUMP3-0524 | 550-218892-17 | | | | |
| Other | 5/21/2024 9:02 | FC-CCR-SUMP7-0524 | 550-218892-18 | | | | |
| Other | 5/21/2024 8:55 | FC-CCR-SUMP8-0524 | 550-218892-19 | | | | |
| Other | 5/21/2024 9:09 | FC-CCR-SUMP9-0524 | 550-218892-20 | | | | |
| Other | 5/21/2024 9:13 | FC-CCR-SUMP10-0524 | 550-218892-21 | | | | |
| Other | 5/21/2024 9:17 | FC-CCR-SUMP11-0524 | 550-218892-22 | | | | |
| Other | 5/21/2024 9:22 | FC-CCR-SUMP12-0524 | 550-218892-23 | | | | |
| Other | 5/21/2024 9:26 | FC-CCR-SUMP13-0524 | 550-218892-24 | | | | |
| Other | 5/21/2024 9:32 | FC-CCR-SUMP14-0524 | 550-218892-25 | | | | |
| Other | 5/21/2024 9:39 | FC-CCR-SUMP15-0524 | 550-218892-26 | | | | |
| Other | 5/21/2024 9:43 | FC-CCR-SUMP16-0524 | 550-218892-27 | | | | |
| Other | 5/21/2024 9:47 | FC-CCR-SUMP17-0524 | 550-218892-28 | | | | |
| Other | 5/21/2024 9:53 | FC-CCR-SUMP18-0524 | 550-218892-29 | | | | |
| Other | 5/21/2024 10:15 | FC-CCR-AshPond6Vault-0524 | 550-218892-30 | | | | |
| URS | 10/18/2024 8:10 | FC-CCR-MW67-1024 | | L1791416-01 | 10714668001 | 75657 | |
| URS | 10/18/2024 9:34 | FC-CCR-MW68-1024 | | L1791416-02 | 10714668002 | 75658 | |
| URS | 10/20/2024 10:55 | FC-CCR-MW69-1024 | | L1791416-03 | 10714668003 | 75659 | |
| URS | 10/20/2024 11:33 | FC-CCR-CM01-1024 | | L1791416-06 | 10714668006 | 75660 | |
| URS | 10/20/2024 11:39 | FC-CCR-CM02-1024 | | L1791416-07 | 10714668007 | 75661 | |
| URS | 10/20/2024 12:45 | FC-CCR-MW83-1024 | | L1791416-04 | 10714668004 | 75662 | |
| URS | 10/20/2024 13:45 | FC-CCR-MW85-1024 | | L1791416-05 | 10714668005 | 75663 | |
| URS | 10/24/2024 17:22 | FC-CCR-MW84-1024 | | L1793198-11 | 10714223011 | 75664 | |
| URS | 10/21/2024 14:30 | FC-CCR-URS08-1024 | | L1793198-10 | 10714223010 | 75665 | |
| URS | 10/21/2024 12:37 | FC-CCR-URS07-1024 | | L1793198-05 | 10714223005 | 75666 | |
| URS | 10/21/2024 15:41 | FC-CCR-URS05-1024 | | L1793198-06 | 10714223006 | 75667 | |
| URS | 10/21/2024 16:44 | FC-CCR-URS06-1024 | | L1793198-09 | 10714223009 | 75668 | |

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**FIELD SAMPLES SUBMITTED TO ANALYTICAL LABORATORIES**
**Coal Combustion Residuals Rule**
**2024 Compliance Monitoring Groundwater Data**

| CCR Unit | Collection Date and Time | Field Sample Identification | Eurofins TestAmerica Phoenix Sample Identification | Pace Analytical Mt. Juliet | Pace Analytical MN | Radiation Safety Engineering Sample Identification | Notes |
|---|---|---|---|---|---|---|---|
| URS | 10/23/2024 11:20 | FC-CCR-MW70-1024 | | L1793198-04 | 10714223004 | 75669 | |
| URS | 10/24/2024 10:42 | FC-CCR-MW71-1024 | | L1793198-12 | 10714223012 | 75670 | |
| URS | 10/24/2024 11:55 | FC-CCR-MW72-1024 | | L1793198-13 | 10714223013 | 75671 | |
| URS | 10/24/2024 12:53 | FC-CCR-MW73-1024 | | L1793198-14 | 10714223014 | 75672 | |
| URS | 10/23/2024 13:45 | FC-CCR-MW86-1024 | | L1793198-01 | 10714223001 | 75673 | |
| URS | 10/23/2024 12:24 | FC-CCR-MW66-1024 | | L1793198-02 | 10714223002 | 75674 | |
| URS | 10/21/2024 15:55 | FC-CCR-FD01-1024 | | L1793198-07 | 10714223007 | 75675 | Field duplicate of FC-CCR-URS05-1024 |
| URS | 10/21/2024 16:55 | FC-CCR-FD02-1024 | | L1793198-08 | 10714223008 | 75676 | Field duplicate of FC-CCR-URS06-1024 |
| URS | 10/23/2024 13:13 | FC-CCR-FD03-1024 | | L1793198-03 | 10714223003 | 75677 | Field duplicate of FC-CCR-MW86-1024 |
| CWTP | 10/23/2024 14:43 | FC-CCR-MW62-1024 | | L1793200-01 | 10714208001 | 75678 | |
| CWTP | 10/23/2024 16:15 | FC-CCR-MW63-1024 | | L1793200-03 | 10714208003 | 75679 | |
| CWTP | 10/23/2024 17:10 | FC-CCR-MW64-1024 | | L1793200-04 | 10714208004 | 75680 | |
| CWTP | 10/23/2024 18:03 | FC-CCR-MW65-1024 | | L1793200-05 | 10714208005 | 75681 | |
| CWTP | 10/24/2024 13:24 | FC-CCR-SW1-1024 | | L1793200-02 | 10714208002 | 75682 | |
| CWTP | 10/23/2024 18:10 | FC-CCR-SW2-1024 | | L1793200-06 | 10714208006 | 75683 | |
| CWTP | 10/23/2024 15:30' | FC-CCR-SW3-1024 | | L1793200-07 | 10714208007 | 75684 | |
| Other | 10/28/2024 12:12 | FC-CCR-EW12R-1024 | | L1794416-22 | 10714605022 | 75685 | |
| Other | 10/28/2024 13:40 | FC-CCR-EW11R-1024 | | L1794416-03 | 10714605003 | 75686 | |
| MU1 | 10/25/2024 13:46 | FC-CCR-MW75-1024 | | L1794401-02 | 10714603002 | 75687 | |
| MU1 | 10/25/2024 15:07 | FC-CCR-MW61-1024 | | L1794401-01 | 10714603001 | 75688 | |
| URS | 10/26/2024 10:28 | RC-CCR-MW30-1024 | | L1794416-01 | 10714605001 | | |
| URS | 10/26/2024 7:35 | RC-CCR-FD04-1024 | | L1794416-02 | 10714605002 | | Field Duplicate of RC-CCR-MW30-1024 |
| Other | 10/25/2024 16:37 | FC-CCR-MW01-1024 | | L1794416-04 | 10714605001 | | |
| Other | 10/30/2024 8:49 | FC-CCR-SUMP7-1024 | | L1794416-05 | 10714605005 | | |
| Other | 10/30/2024 8:38 | FC-CCR-SUMP8-1024 | | L1794416-06 | 10714605006 | | |
| Other | 10/30/2024 8:58 | FC-CCR-SUMP9-1024 | | L1794416-07 | 10714605007 | | |
| Other | 10/30/2024 9:06 | FC-CCR-SUMP10-1024 | | L1794416-08 | 10714605008 | | |
| Other | 10/30/2024 9:35 | FC-CCR-SUMP11-1024 | | L1794416-09 | 10714605009 | | |
| Other | 10/30/2024 10:58 | FC-CCR-POND3PUMP-1024 | | L1794416-10 | 10714605015 | | |
| Other | 10/30/2024 8:05 | FC-CCR-SUMP1-1024 | | L1794416-11 | 10714605011 | | |
| Other | 10/30/2024 8:25 | FC-CCR-SUMP3-1024 | | L1794416-12 | 10714605012 | | |
| Other | 10/30/2024 9:44 | FC-CCR-SUMP12-1024 | | L1794416-13 | 10714605013 | | |
| Other | 10/30/2024 9:52 | FC-CCR-SUMP13-1024 | | L1794416-14 | 10714605014 | | |
| Other | 10/30/2024 11:10 | FC-CCR-ASHPONDV6-1024 | | L1794416-15 | 10714605010 | | |
| Other | 10/30/2024 10:03 | FC-CCR-SUMP14-1024 | | L1794416-16 | 10714605016 | | |

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**FIELD SAMPLES SUBMITTED TO ANALYTICAL LABORATORIES**
**Coal Combustion Residuals Rule**
**2024 Compliance Monitoring Groundwater Data**

| CCR Unit | Collection Date and Time | Field Sample Identification | Eurofins TestAmerica Phoenix Sample Identification | Pace Analytical Mt. Juliet | Pace Analytical MN | Radiation Safety Engineering Sample Identification | Notes |
|---|---|---|---|---|---|---|---|
| Other | 10/30/2024 10:07 | FC-CCR-SUMP15-1024 | | L1794416-17 | 10714605017 | | |
| Other | 10/30/2024 10:13 | FC-CCR-SUMP16-1024 | | L1794416-18 | 10714605018 | | |
| Other | 10/30/2024 10:24 | FC-CCR-SUMP17-1024 | | L1794416-19 | 10714605019 | | |
| Other | 10/30/2024 10:35 | FC-CCR-SUMP18-1024 | | L1794416-20 | 10714605020 | | |
| Other | 10/30/2024 11:18 | FC-CCR-MW82S-1024 | | L1794416-21 | 10714605021 | | |
| Other | 10/30/2024 6:21 | FC-CCR-FD08-1024 | | L1794416-23 | 10714605023 | | Field Duplicate of FC-CCR-MW82S-1024 |
| Other | 10/28/2024 14:25 | FC-CCR-MW03-1024 | | L1794416-24 | 10714605024 | | |
| Other | 10/28/2024 15:31 | FC-CCR-MW19-1024 | | L1794416-25 | 10714605025 | | |
| Other | 10/28/2024 16:32 | FC-CCR-MW21-1024 | | L1794416-26 | 10714605026 | | |
| Other | 10/28/2024 10:30 | FC-CCR-MW60-1024 | | L1794416-27 | 10714605027 | | |
| Other | 10/26/2024 12:23 | FC-CCR-DMX01-1024 | | L1794416-28 | 10714605028 | | |
| Other | 10/26/2024 11:11 | FC-CCR-FD06-1024 | | L1794416-29 | 10714605029 | | Field Duplicate of FC-CCR-DMX01-1024 |
| Other | 10/28/2024 12:34 | FC-CCR-FD07-1024 | | L1794416-30 | 10714605030 | | Field Duplicate of FC-CCR-MW19-1024 |
| Other | 11/15/2024 15:12 | FC-CCR-BASWR-1124 | | L1801388-01 | | | |
| Other | 11/15/2024 15:19 | FC-CCR-LOWVOLUME WASTE TANK-1124 | | L1801388-02 | | | |
| MU1 | 11/15/2024 12:24 | FC-CCR-MW43-1124 | | L1801396-01 | | | |
| MU1 | 11/15/2024 16:41 | FC-CCR-MW50A-1124 | | L1801396-02 | | | |
| MU1 | 11/15/2024 13:53 | FC-CCR-MW36R-1124 | | L1801382-01 | | | |
| MU1 | 11/16/2024 8:30 | FC-CCR-MW38R-1124 | | L1801382-02 | | 75835 | |
| MU1 | 11/15/2024 16:56 | FC-CCR-MW57-1124 | | L1801382-03 | | 75837 | |
| MU1 | 11/15/2024 15:24 | FC-CCR-MW56-1124 | | L1801382-04 | | 75836 | |
| MU1 | 11/16/2024 9:30 | FC-CCR-EB01-1124 | | L1801382-05 | | 75838 | Equipment Blank |
| MU1 | 11/12/2024 12:32 | FC-CCR-MW07-1024 | | L1800973-03 | 10716439003 | 75823 | |
| MU1 | 11/12/2024 11:35 | FC-CCR-MW08-1024 | | L1800973-02 | 10716439002 | 75824 | |
| MU1 | 11/12/2024 9:09 | FC-CCR-MW49A-1024 | | L1800973-05 | 10716439005 | 75825 | |
| MU1 | 11/12/2024 13:38 | FC-CCR-DMX03-1024 | | L1800977-14 | 10716438014 | 75826 | |
| MU1 | 11/12/2024 14:50 | FC-CCR-DMX06-1024 | | L1800977-10 | 10716438010 | 75827 | |
| MU1 | 11/12/2024 16:07 | FC-CCR-MW87-1024 | | L1800973-01 | 10716439001 | 75828 | |
| Other | 11/13/2024 11:56 | FC-CCR-DMX05R-1124 | | L1800977-04 | 10716438004 | 75829 | |
| Other | 11/14/2024 12:18 | FC-CCR-MW16-1124 | | L1800977-08 | 10716438008 | 75830 | |
| Other | 11/14/2024 13:22 | FC-CCR-MW15-1124 | | L1800977-05 | 10716438005 | 75831 | |
| Other | 11/14/2024 14:48 | FC-CCR-MW17R-1124 | | L1800977-09 | 10716438009 | 75832 | |
| Other | 11/14/2024 17:14 | FC-CCR-DMX04-1124 | | L1800977-11 | 10716438011 | 75833 | |
| Other | 11/14/2024 17:35 | FC-CCR-FD09-1124 | | L1800977-12 | 10716438012 | 75834 | Field duplicate of FC-CCR-MW17R-1124 |
| MU1 | 11/12/2024 10:43 | FC-CCR-MW52-1024 | | L1800973-04 | 10716439004 | | |

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**FIELD SAMPLES SUBMITTED TO ANALYTICAL LABORATORIES**
**Coal Combustion Residuals Rule**
**2024 Compliance Monitoring Groundwater Data**

| CCR Unit | Collection Date and Time | Field Sample Identification | Eurofins TestAmerica Phoenix Sample Identification | Pace Analytical Mt. Juliet | Pace Analytical MN | Radiation Safety Engineering Sample Identification | Notes |
|---|---|---|---|---|---|---|---|
| Other | 12/12/2024 13:16 | FC-CCR-MW79S-1224 | | L1809878-01 | | | |
| Other | 12/12/2024 13:58 | FC-CCR-MW81-1224 | | L1809878-02 | | | |
| Other | 12/12/2024 15:11 | FC-CCR-MW78S-1224 | | L1809878-03 | | | |
| Other | 12/12/2024 9:30 | FC-CCR-FD05-1224 | | L1809878-04 | | | Field duplicate of FC-CCR-MW81-1224 |
| Other | 11/13/2024 13:37 | FC-CCR-MW24-1124 | | L1800977-01 | 10716438001 | | |
| Other | 11/13/2024 12:47 | FC-CCR-EW14-1124 | | L1800977-02 | 10716438002 | | |
| Other | 11/13/2024 15:03 | FC-CCR-MW34-1124 | | L1800977-03 | 10716438003 | | |
| Other | 11/14/2024 11:11 | FC-CCR-MW11-1124 | | L1800977-06 | 10716438006 | | |
| Other | 11/14/2024 16:01 | FC-CCR-MW18-1124 | | L1800977-07 | 10716438007 | | |
| Other | 11/14/2024 10:12 | FC-CCR-EW15-1124 | | L1800977-13 | 10716438013 | | |
| Other | 11/13/2024 10:58 | FC-CCR-MW05-1124 | | L1800977-15 | 10716438015 | | |

**TABLE 2**
**FIELD DUPLICATE DETECTIONS**
**Coal Combustion Residuals Rule**
**2024 Compliance Monitoring Groundwater Data**

| Analyte | Average Reporting Limit | | Primary Result | | Duplicate Result | | RPD | Notes |
|---|---|---|---|---|---|---|---|---|
| Samples FC-CCR-MW84-0524 and FC-CCR-FD01-0524 | | | | | | | | |
| Radium 226 | 1.0 | pCi/L | 0.90 | ± 0.2 | 1.0 | U | NC | ± RL |
| Radium 228 | 1.0 | pCi/L | 2.4 | ± 0.4 | 0.90 | ± 0.4 | 91% | J, FD |
| Total Radium | 1.0 | pCi/L | 3.3 | ± 0.4 | 0.90 | ± 0.4 | 114% | J, FD |
| Chloride | 400 | mg/L | 840 | | 780 | | 7% | |
| Sulfate | 400 | mg/L | 7,800 | | 7,500 | | 4% | |
| Boron | 0.25 | mg/L | 95 | | 100 | | 5% | |
| Calcium | 10 | mg/L | 560 | | 570 | | 2% | |
| Lithium | 20 | µg/L | 250 | | 260 | | 4% | |
| Arsenic | 0.0050 | mg/L | 0.0069 | | 0.0069 | | 0% | |
| Barium | 0.0050 | mg/L | 0.015 | | 0.015 | | 0% | |
| Cobalt | 0.0050 | mg/L | 0.0069 | | 0.0071 | | 3% | |
| Selenium | 0.0050 | mg/L | 0.068 | | 0.070 | | 3% | |
| Total Dissolved Solids | 100 | mg/L | 14,000 | | 14,000 | | 0% | |
| pH | 1.7 | SU | 7.10 | | 7.20 | | 1% | |
| Samples FC-CCR-URS06-0524 and FC-CCR-FD02-0524 | | | | | | | | |
| Radium 228 | 1.0 | pCi/L | 1.2 | ± 0.4 | 2.4 | ± 0.5 | 67% | J, FD |
| Total Radium | 1.0 | pCi/L | 1.2 | ± 0.4 | 2.4 | ± 0.5 | 67% | J, FD |
| Chloride | 400 | mg/L | 1,100 | | 1,100 | | 0% | |
| Sulfate | 400 | mg/L | 8,600 | | 8,700 | | 1% | |
| Boron | 0.25 | mg/L | 130 | | 140 | | 7% | |
| Calcium | 20 | mg/L | 460 | | 470 | | 2% | |
| Lithium | 10 | µg/L | 390 | | 380 | | 3% | |
| Arsenic | 0.0050 | mg/L | 0.0072 | | 0.0066 | | 9% | |
| Barium | 0.0050 | mg/L | 0.012 | | 0.013 | | 8% | |
| Cobalt | 0.0050 | mg/L | 0.0095 | | 0.0099 | | 4% | |
| Selenium | 0.0050 | mg/L | 0.0083 | | 0.012 | | 36% | ± RL |
| Thallium | 0.0010 | mg/L | 0.0010 | | 0.0010 | U | NC | ± RL |
| Total Dissolved Solids | 100 | mg/L | 16,000 | | 11,000 | | 37% | J, FD |
| pH | 1.7 | SU | 6.80 | | 7.00 | | 3% | |
| Samples FC-CCR-MW52-0524 and FC-CCR-FD03-0524 | | | | | | | | |
| Boron | 0.25 | mg/L | 14 | | 15 | | 7% | |
| Cobalt | 0.0050 | mg/L | 0.11 | | 0.11 | | 0% | |
| Samples FC-CCR-DMX01-0524 and FC-CCR-FD04-0524 | | | | | | | | |
| Boron | 2.5 | mg/L | 100 | | 140 | | 33% | J, FD |
| Molybdenum | 0.0050 | mg/L | 0.022 | | 0.023 | | 4% | |
| Samples FC-CCR-MW19-0524 and FC-CCR-FD05-0524 | | | | | | | | |
| Boron | 2.5 | mg/L | 2.5 | | 2.6 | | 4% | |
| Samples FC-CCR-MW30-0524 and FC-CCR-FD06-0524 | | | | | | | | |
| Boron | 2.5 | mg/L | 37 | | 32 | | 14% | |
| Samples FC-CCR-MW81-0524 and FC-CCR-FD07-0524 | | | | | | | | |

**TABLE 2**
**FIELD DUPLICATE DETECTIONS**
**Coal Combustion Residuals Rule**
**2024 Compliance Monitoring Groundwater Data**

| Analyte | Average Reporting Limit | | Primary Result | | Duplicate Result | | RPD | Notes |
|---|---|---|---|---|---|---|---|---|
| Boron | 2.5 | mg/L | 61 | | 56 | | 9% | |
| Cobalt | 0.0050 | mg/L | 0.023 | | 0.025 | | 8% | |
| Samples FC-CCR-MW82S-0524 and FC-CCR-FD08-0524 | | | | | | | | |
| Chloride | 400 | mg/L | 580 | | 540 | | 7% | |
| Sulfate | 400 | mg/L | 5,100 | | 4,800 | | 6% | |
| Boron | 2.5 | mg/L | 62 | | 120 | | 64% | J, FD |
| Calcium | 100 | mg/L | 470 | | 880 | | 61% | J, FD |
| Magnesium | 100 | mg/L | 720 | | 1,300 | | 57% | J, FD |
| Potassium | 25 | mg/L | 25 | | 45 | | 57% | ± RL |
| Sodium | 25 | mg/L | 1,300 | | 2,500 | | 63% | J, FD |
| Cobalt | 0.0050 | mg/L | 0.11 | | 0.10 | | 10% | |
| Alkalinity as CaCO3 | 6.0 | mg/L | 260 | | 260 | | 0% | |
| Bicarbonate Alkalinity as CaCO3 | 6.0 | mg/L | 260 | | 260 | | 0% | |
| Total Dissolved Solids | 100 | mg/L | 9,500 | | 9,200 | | 3% | |
| pH | 1.7 | SU | 7.30 | | 7.40 | | 1% | |
| Fluoride | 0.40 | mg/L | 0.40 | U | 0.56 | | NC | ± RL |
| Samples FC-CCR-SW1-0524 and FC-CCR-FD09-0524 | | | | | | | | |
| Chloride | 2.0 | mg/L | 46 | | 46 | | 0% | |
| Fluoride | 0.40 | mg/L | 0.73 | | 0.79 | | 8% | |
| Sulfate | 11 | mg/L | 310 | | 390 | | 23% | J, FD |
| Boron | 0.050 | mg/L | 0.36 | | 0.34 | | 6% | |
| Calcium | 2.0 | mg/L | 97 | | 100 | | 3% | |
| Iron | 0.10 | mg/L | 0.10 | U | 0.29 | | NC | UJ/J, FD |
| Magnesium | 2.0 | mg/L | 33 | | 35 | | 6% | |
| Potassium | 5.0 | mg/L | 7.3 | | 8.4 | | 14% | |
| Sodium | 5.0 | mg/L | 110 | | 130 | | 17% | |
| Lithium | 20 | µg/L | 90 | | 94 | | 4% | |
| Antimony | 0.010 | mg/L | 0.00074 | J | 0.00086 | J | 15% | |
| Arsenic | 0.0050 | mg/L | 0.0068 | | 0.0070 | | 3% | |
| Barium | 0.0050 | mg/L | 0.17 | | 0.17 | | 0% | |
| Molybdenum | 0.0050 | mg/L | 0.0062 | | 0.0060 | | 3% | |
| Alkalinity as CaCO3 | 6.0 | mg/L | 130 | | 130 | | 0% | |
| Bicarbonate Alkalinity as CaCO3 | 6.0 | mg/L | 130 | | 130 | | 0% | |
| Total Dissolved Solids | 20 | mg/L | 840 | | 820 | | 2% | |
| pH | 1.7 | SU | 8.20 | | 8.20 | | 0% | |
| Samples FC-CCR-URS05-1024 and FC-CCR-FD01-1024 | | | | | | | | |
| Radium 226 | 1.0 | pCi/L | 1.0 | ± 0.2 | 1.9 | ± 0.2 | 62% | ± RL |
| Radium 228 | 1.0 | pCi/L | 1.8 | ± 0.4 | 2.8 | ± 0.4 | 43% | ± RL |
| Total Radium | 1.0 | pCi/L | 2.8 | ± 0.4 | 4.7 | ± 0.4 | 51% | J, FD |
| Boron | 1,500 | µg/L | 126,000 | | 125,000 | | 1% | |
| Calcium | 500 | µg/L | 398,000 | | 395,000 | | 1% | |

**TABLE 2**
**FIELD DUPLICATE DETECTIONS**
**Coal Combustion Residuals Rule**
**2024 Compliance Monitoring Groundwater Data**

| Analyte | Average Reporting Limit | | Primary Result | | Duplicate Result | | RPD | Notes |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.5 | µg/L | 0.95 | J | 0.97 | J | 2% | |
| Barium | 1.5 | µg/L | 16.9 | | 15.9 | | 6% | |
| Cobalt | 2.5 | µg/L | 11.7 | | 11.7 | | 0% | |
| Lithium | 2.5 | µg/L | 243 | | 235 | | 3% | |
| Molybdenum | 2.5 | µg/L | 12.6 | | 12.2 | | 3% | |
| Selenium | 2.5 | µg/L | 1.3 | J | 1.3 | J | 0% | |
| Thallium | 0.50 | µg/L | 1.5 | | 1.5 | | 0% | |
| Total Dissolved Solids | 200,000 | µg/L | 16,900,000 | | 17,200,000 | | 2% | |
| pH | 1.7 | SU | 7.26 | | 7.33 | | 1% | |
| Chloride | 50,000 | µg/L | 1,350,000 | | 1,360,000 | | 1% | |
| Fluoride | 7,500 | µg/L | 8,690 | | 8,450 | | 3% | |
| Sulfate | 250,000 | µg/L | 9,750,000 | | 9,790,000 | | 0% | |
| Samples FC-CCR-URS06-1024 and FC-CCR-FD02-1024 | | | | | | | | |
| Radium 226 | 1.0 | pCi/L | 2.7 | ± 0.5 | 0.80 | ± 0.2 | 109% | J, FD |
| Radium 228 | 1.0 | pCi/L | 1.0 | U | 1.6 | ± 0.4 | NC | ± RL |
| Total Radium | 1.0 | pCi/L | 2.7 | ± 0.5 | 2.4 | ± 0.4 | 12% | |
| Boron | 1,500 | µg/L | 95,000 | | 99,400 | | 5% | |
| Calcium | 500 | µg/L | 401,000 | | 413,000 | | 3% | |
| Arsenic | 2.5 | µg/L | 0.78 | J | 0.83 | J | 6% | |
| Barium | 1.5 | µg/L | 12.3 | | 13.1 | | 6% | |
| Cadmium | 0.40 | µg/L | 0.40 | J | 0.46 | | 14% | |
| Cobalt | 2.5 | µg/L | 8.5 | | 9.7 | | 13% | |
| Lithium | 2.5 | µg/L | 299 | | 321 | | 7% | |
| Molybdenum | 2.5 | µg/L | 0.77 | J | 1.1 | J | 35% | ± RL |
| Selenium | 2.5 | µg/L | 1.9 | J | 2.5 | J | 27% | ± RL |
| Thallium | 0.50 | µg/L | 0.96 | | 1.0 | | 4% | |
| Total Dissolved Solids | 200,000 | µg/L | 16,400,000 | | 16,400,000 | | 0% | |
| pH | 1.7 | SU | 7.04 | | 7.12 | | 1% | |
| Chloride | 50,000 | µg/L | 1,290,000 | | 1,260,000 | | 2% | |
| Fluoride | 750 | µg/L | 515 | | 532 | J | 3% | |
| Sulfate | 250,000 | µg/L | 9,560,000 | | 9,500,000 | | 1% | |
| Samples FC-CCR-MW86-1024 and FC-CCR-FD03-1024 | | | | | | | | |
| Radium 226 | 1.0 | pCi/L | 0.60 | ± 0.2 | 1.1 | ± 0.2 | 59% | ± RL |
| Radium 228 | 1.0 | pCi/L | 1.4 | ± 0.4 | 1.0 | U | NC | ± RL |
| Total Radium | 1.0 | pCi/L | 2.0 | ± 0.4 | 1.1 | ± 0.2 | 58% | ± RL |
| Boron | 1,500 | µg/L | 97,500 | | 111,000 | | 13% | |
| Calcium | 500 | µg/L | 426,000 | | 427,000 | | 0% | |
| Arsenic | 2.5 | µg/L | 0.91 | J | 0.96 | J | 5% | |
| Barium | 1.5 | µg/L | 12.7 | | 12.5 | | 2% | |
| Cadmium | 0.40 | µg/L | 0.15 | | 0.21 | J | 33% | ± RL |
| Cobalt | 2.5 | µg/L | 5.1 | | 5.2 | | 2% | |

**TABLE 2**
**FIELD DUPLICATE DETECTIONS**
**Coal Combustion Residuals Rule**
**2024 Compliance Monitoring Groundwater Data**

| Analyte | Average Reporting Limit | | Primary Result | | Duplicate Result | | RPD | Notes |
|---|---|---|---|---|---|---|---|---|
| Lithium | 2.5 | µg/L | 278 | | 275 | | 1% | |
| Molybdenum | 2.5 | µg/L | 1.5 | J | 1.6 | | 6% | |
| Selenium | 2.5 | µg/L | 2.1 | J | 1.9 | | 10% | |
| Thallium | 0.50 | µg/L | 0.77 | J | 0.87 | | 12% | |
| Total Dissolved Solids | 200,000 | µg/L | 14,100,000 | | 14,400,000 | | 2% | |
| pH | 1.7 | SU | 7.28 | | 7.29 | | 0% | |
| Chloride | 50,000 | µg/L | 1,120,000 | | 1,190,000 | | 6% | |
| Fluoride | 4,125 | µg/L | 816 | | 4,740 | J | 141% | ± RL |
| Sulfate | 250,000 | µg/L | 7,490,000 | | 7,910,000 | | 5% | |
| Samples RC-CCR-MW30-1024 and RC-CCR-FD04-1024 | | | | | | | | |
| Boron | 750 | µg/L | 50,200 | | 47,600 | | 5% | |
| Molybdenum | 2.5 | µg/L | 1.7 | J | 1.8 | J | 6% | |
| Samples FC-CCR-DMX01-1024 and FC-CCR-FD06-1024 | | | | | | | | |
| Boron | 750 | µg/L | 62,200 | | 58,600 | | 6% | |
| Cobalt | 2.5 | µg/L | 1.9 | J | 1.9 | J | 0% | |
| Molybdenum | 2.5 | µg/L | 11.7 | | 11.7 | | 0% | |
| Samples FC-CCR-MW19-1024 and FC-CCR-FD07-1024 | | | | | | | | |
| Boron | 750 | µg/L | 2,200 | | 2,570 | | 16% | |
| Cobalt | 2.5 | µg/L | 1.3 | J | 1.1 | J | 17% | |
| Molybdenum | 2.5 | µg/L | 2.4 | J | 2.3 | J | 4% | |
| Samples FC-CCR-MW82S-1024 and FC-CCR-FD08-1024 | | | | | | | | |
| Total Dissolved Solids | 100,000 | µg/L | 8,970,000 | | 9,590,000 | | 7% | |
| Alkalinity,Bicarbonate | 20,000 | µg/L | 279,000 | | 272,000 | | 3% | |
| Chloride | 50,000 | µg/L | 602,000 | | 609,000 | | 1% | |
| Fluoride | 750 | µg/L | 403 | J | 472 | J | 16% | |
| Sulfate | 250,000 | µg/L | 5,520,000 | | 5,620,000 | | 2% | |
| pH | 1.7 | SU | 7.36 | | 7.38 | | 0% | |
| Boron | 1,500 | µg/L | 60,300 | | 61,300 | | 2% | |
| Calcium | 500 | µg/L | 395,000 | | 404,000 | | 2% | |
| Magnesium | 500 | µg/L | 650,000 | | 668,000 | | 3% | |
| Potassium | 2,500 | µg/L | 30,700 | | 31,500 | | 3% | |
| Sodium | 10,000 | µg/L | 1,290,000 | | 1,340,000 | | 4% | |
| Cobalt | 2.5 | µg/L | 90.9 | | 87.3 | | 4% | |
| Molybdenum | 2.5 | µg/L | 2.7 | | 2.2 | J | 20% | ± RL |
| Samples FC-CCR-MW17R-1124 and FC-CCR-FD09-1124 | | | | | | | | |
| Radium 226 | 1.0 | pCi/L | 2.0 | ± 0.2 | 1.0 | ± 0.3 | 67% | ± RL |
| Radium 228 | 1.0 | pCi/L | 1.0 | ± 0.4 | 2.7 | ± 0.4 | 92% | J, FD |
| Total Radium | 1.0 | pCi/L | 3.0 | ± 0.4 | 3.7 | ± 0.5 | 21% | ± RL |
| Total Dissolved Solids | 100,000 | µg/L | 6,730,000 | | 6,700,000 | | 0% | |
| Alkalinity,Bicarbonate | 20,000 | µg/L | 147,000 | | 145,000 | | 1% | |
| pH | 1.7 | SU | 7.65 | | 7.65 | | 0% | |

**TABLE 2**
**FIELD DUPLICATE DETECTIONS**
**Coal Combustion Residuals Rule**
**2024 Compliance Monitoring Groundwater Data**

| Analyte | Average Reporting Limit | | Primary Result | | Duplicate Result | | RPD | Notes |
|---|---|---|---|---|---|---|---|---|
| Chloride | 100,000 | µg/L | 346,000 | | 353,000 | | 2% | |
| Fluoride | 750 | µg/L | 515 | J | 495 | J | 4% | |
| Sulfate | 500,000 | µg/L | 3,830,000 | | 3,930,000 | | 3% | |
| Boron | 3,000 | µg/L | 41,800 | | 40,700 | | 3% | |
| Calcium | 500 | µg/L | 413,000 | | 414,000 | | 0% | |
| Iron | 50 | µg/L | 16.2 | J | 22.9 | J | 34% | ± RL |
| Magnesium | 500 | µg/L | 285,000 | | 292,000 | | 2% | |
| Manganese | 5.0 | µg/L | 1,010 | | 1,020 | | 1% | |
| Potassium | 2,500 | µg/L | 23,600 | | 24,400 | | 3% | |
| Sodium | 20,000 | µg/L | 1,190,000 | | 1,170,000 | | 2% | |
| Barium | 1.5 | µg/L | 17.2 | | 17.2 | | 0% | |
| Cadmium | 0.40 | µg/L | 1.3 | | 1.2 | | 8% | |
| Cobalt | 2.5 | µg/L | 62.5 | | 63.2 | | 1% | |
| Lead | 2.5 | µg/L | 2.1 | J | 2.1 | J | 0% | |
| Lithium | 2.5 | µg/L | 416 | | 432 | | 4% | |
| Molybdenum | 2.5 | µg/L | 1.0 | J | 1.0 | J | 0% | |
| Thallium | 0.50 | µg/L | 0.26 | J | 0.28 | J | 7% | |
| Samples FC-CCR-MW81-1224 and FC-CCR-FD05-1224 | | | | | | | | |
| Boron | 200 | µg/L | 44,400 | | 42,700 | | 4% | |
| Cobalt | 2.0 | µg/L | 17.9 | | 17.2 | | 4% | |

Notes:

µg/L = micrograms per liter

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

mg/L = milligrams per liter

pCi/L = picocurie per liter

± RL = The difference between analyte concentrations is less than or equal to the reporting limit, indicating acceptable sampling and analytical precision.

FD = Imprecision between primary and field duplicate results.

NC = not calculable

RPD = relative percent difference

SU = standard pH units

UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**TABLE 3**
**QUALIFIERS ADDED DURING DATA VALIDATION**
**Coal Combustion Residuals Rule**
**2024 Compliance Monitoring Groundwater Data**

| Sample Identification | Sample Delivery Group | Analyte | Result | | Qualifier and Reason Code | |
|---|---|---|---|---|---|---|
| FC-CCR-SW2-1024 | L1793200 | Hydrogen ion/pH | 8.42 | SU | J | HT |
| FC-CCR-SW2-1024 | L1793200 | Alkalinity Carbonate | 20 | mg/L | U | ND |
| FC-CCR-SW3-1024 | 10714208 | Lead | 0.00050 | mg/L | U | ND |
| FC-CCR-SW3-1024 | 10714208 | Cadmium | 0.000080 | mg/L | U | ND |
| FC-CCR-SW3-1024 | 10714208 | Cobalt | 0.00050 | mg/L | U | ND |
| FC-CCR-SW3-1024 | 10714208 | Selenium | 0.00050 | mg/L | U | ND |
| FC-CCR-SW3-1024 | L1793200 | Hydrogen ion/pH | 8.42 | SU | J | HT |
| FC-CCR-SW3-1024 | L1793200 | Alkalinity Carbonate | 20 | mg/L | U | ND |
| FC-CCR-FD01-1024 | 10714223 | Arsenic | 0.0025 | mg/L | U | ND |
| FC-CCR-FD01-1024 | 10714223 | Selenium | 0.0025 | mg/L | U | ND |
| FC-CCR-FD01-1024 | 75657-75668 | Total Radium | 4.7 | pCi/L | J | FD |
| FC-CCR-FD01-1024 | L1793198 | Hydrogen ion/pH | 7.33 | SU | J | HT |
| FC-CCR-URS05-1024 | 10714223 | Arsenic | 0.0025 | mg/L | U | ND |
| FC-CCR-URS05-1024 | 10714223 | Selenium | 0.0025 | mg/L | U | ND |
| FC-CCR-URS05-1024 | 75657-75668 | Total Radium | 2.8 | pCi/L | J | FD |
| FC-CCR-URS05-1024 | L1793198 | Hydrogen ion/pH | 7.26 | SU | J | HT |
| FC-CCR-FD02-1024 | 10714223 | Molybdenum | 0.0025 | mg/L | U | ND |
| FC-CCR-FD02-1024 | 10714223 | Arsenic | 0.0025 | mg/L | U | ND |
| FC-CCR-FD02-1024 | 10714223 | Cadmium | 0.00040 | mg/L | U | ND |
| FC-CCR-FD02-1024 | 10714223 | Selenium | 0.0025 | mg/L | U | ND |
| FC-CCR-FD02-1024 | 75657-75668 | Radium 226 | 0.80 | pCi/L | J | FD |
| FC-CCR-FD02-1024 | L1793198 | Hydrogen ion/pH | 7.12 | SU | J | HT |
| FC-CCR-FD02-1024 | L1793198 | Fluoride | 0.53 | mg/L | J | DL-L |
| FC-CCR-URS06-1024 | 10714223 | Molybdenum | 0.0025 | mg/L | U | ND |
| FC-CCR-URS06-1024 | 10714223 | Arsenic | 0.0025 | mg/L | U | ND |
| FC-CCR-URS06-1024 | 10714223 | Selenium | 0.0025 | mg/L | U | ND |
| FC-CCR-URS06-1024 | 75657-75668 | Radium 226 | 2.7 | pCi/L | J | FD |
| FC-CCR-URS06-1024 | L1793198 | Fluoride | 0.52 | mg/L | J | DL-L |
| FC-CCR-URS06-1024 | L1793198 | Hydrogen ion/pH | 7.04 | SU | J | HT |
| FC-CCR-URS07-1024 | 10714223 | Thallium | 0.00050 | mg/L | U | ND |
| FC-CCR-URS07-1024 | 10714223 | Arsenic | 0.0025 | mg/L | U | ND |
| FC-CCR-URS07-1024 | 10714223 | Selenium | 0.0025 | mg/L | U | ND |
| FC-CCR-URS07-1024 | L1793198 | Fluoride | 4.5 | mg/L | J | DL-L |
| FC-CCR-URS07-1024 | L1793198 | Hydrogen ion/pH | 7.39 | SU | J | HT |
| FC-CCR-URS08-1024 | 10714223 | Thallium | 0.00050 | mg/L | U | ND |
| FC-CCR-URS08-1024 | 10714223 | Arsenic | 0.0025 | mg/L | U | ND |
| FC-CCR-URS08-1024 | 10714223 | Selenium | 0.0025 | mg/L | U | ND |
| FC-CCR-URS08-1024 | L1793198 | Hydrogen ion/pH | 7.29 | SU | J | HT |

**Notes:**
µg/L = micrograms per liter
mg/L = milligrams per liter
pCi/L = picocurie per liter
SU = standard pH units

**TABLE 3**
**QUALIFIERS ADDED DURING DATA VALIDATION**
**Coal Combustion Residuals Rule**
**2024 Compliance Monitoring Groundwater Data**

| Sample Identification | Sample Delivery Group | Analyte | Result | Qualifier and Reason Code |
|---|---|---|---|---|

**Qualifier Definition:**

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**Reason Codes:**

DL = The detected concentration is less than the reporting limit.

DL-L = The detected concentration is less than the reporting limit and qualified by the analytical laboratory due to lowered dilution.

EB = Equipment Blank

FD = Imprecision between primary and field duplicate results.

FD = Imprecision between field sample and laboratory duplicate results.

HD = Imprecision between matrix spike and matrix spike duplicate.

HT = The maximum recommended hold time was exceeded and the result should be considered an estimated value.

LL = Low LCS recovery. Result may be biased low.

LM = Low matrix spike recovery. Result may be biased low.

MB = Method blank contamination.

ND = Qualified as non-detect at the reporting limit

# APPENDIX

# A

# DATA ASSESSMENT CHECKLISTS BY SAMPLE DELIVERY GROUP

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Radiation Safety Engineering, Inc. | | |
| **Sample Delivery Group:** | 74561-74566 | **Review Date:** | 6/14/2024 |
| **Validator's Name:** | Caitlin Riechmann | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW07-0524 | 05/23/2024 19:53 | 74561 | |
| FC-CCR-MW08-0524 | 05/23/2024 18:57 | 74562 | |
| FC-CCR-MW49A-0524 | 05/23/2024 14:32 | 74563 | |
| FC-CCR-MW61-0524 | 05/16/2024 14:05 | 74564 | |
| FC-CCR-MW75-0524 | 05/16/2024 12:55 | 74565 | |
| FC-CCR-MW87-0524 | 05/23/2024 11:10 | 74566 | |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Radium 226, Radium 228, Total Radium | Radionuclides | HPGE |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? Yes No (N/A)

If no, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   Yes No (N/A)

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   Yes No (N/A)

5. Samples analyzed for pH within 15 minutes of sampling? Yes No (N/A)

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| | | | |

6. Target analytes detected in the blanks? Yes No (N/A)

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| | | | |

7. LCS recoveries within laboratory-specified limits? Yes No (N/A)

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

8. MS performed on a project-specific sample? Yes No (N/A)

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| | |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes No (N/A)

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

9. Field duplicate collected? Yes (No)

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| | |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No) N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| | |
| | |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
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**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Radiation Safety Engineering, Inc. | | |
| **Sample Delivery Group:** | 74567-74607 | **Review Date:** | 6/14/2024 |
| **Validator's Name:** | Caitlin Riechmann | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW62-0524 | 05/22/2024 10:32 | 74567 | |
| FC-CCR-MW63-0524 | 05/22/2024 13:17 | 74568 | |
| FC-CCR-MW64-0524 | 05/22/2024 13:58 | 74569 | |
| FC-CCR-MW65-0524 | 05/22/2024 12:23 | 74570 | |
| FC-CCR-SW1-0524 | 05/23/2024 20:20 | 74571 | |
| FC-CCR-SW2-0524 | 05/22/2024 12:35 | 74572 | |
| FC-CCR-SW3-0524 | 05/22/2024 12:48 | 74573 | |
| FC-CCR-FD09-0524 | 05/23/2024 16:20 | 74574 | Field duplicate of FC-CCR-SW1-0524 |
| FC-CCR-MW66-0524 | 05/22/2024 11:34 | 74575 | |
| FC-CCR-MW67-0524 | 05/20/2024 9:57 | 74576 | |
| FC-CCR-MW68-0524 | 05/20/2024 9:15 | 74577 | |
| FC-CCR-MW69-0524 | 05/20/2024 10:47 | 74578 | |
| FC-CCR-MW70-0524 | 05/22/2024 9:11 | 74579 | |
| FC-CCR-MW71-0524 | 05/16/2024 9:12 | 74580 | |
| FC-CCR-MW72-0524 | 05/16/2024 10:02 | 74581 | |
| FC-CCR-MW73-0524 | 05/16/2024 10:59 | 74582 | |
| FC-CCR-MW83-0524 | 05/18/2024 17:06 | 74583 | |
| FC-CCR-MW84-0524 | 05/18/2024 16:04 | 74584 | |
| FC-CCR-MW85-0524 | 05/20/2024 11:36 | 74585 | |
| FC-CCR-MW86-0524 | 05/22/2024 9:54 | 74586 | |
| FC-CCR-FD02-0524 | 05/18/2024 12:34 | 74587 | Field duplicate of FC-CCR-URS06-0524 |
| FC-CCR-CM01-0524 | 05/18/2024 13:18 | 74588 | |
| FC-CCR-CM02-0524 | 05/18/2024 13:57 | 74589 | |
| FC-CCR-URS05-0524 | 05/18/2024 13:13 | 74590 | |
| FC-CCR-URS06-0524 | 05/18/2024 13:55 | 74591 | |
| FC-CCR-URS07-0524 | 05/18/2024 12:05 | 74592 | |
| FC-CCR-URS08-0524 | 05/18/2024 10:38 | 74593 | |
| FC-CCR-FD01-0524 | 05/18/2024 16:20 | 74594 | Field duplicate of FC-CCR-MW84-0524 |
| FC-CCR-DMX03-0524 | 05/20/2024 15:09 | 74595 | |
| FC-CCR-DMX04-0524 | 05/21/2024 14:20 | 74596 | |
| FC-CCR-DMX06-0524 | 05/23/2024 12:23 | 74597 | |
| FC-CCR-DMX05R-0524 | 05/23/2024 9:22 | 74598 | |
| FC-CCR-MW15-0524 | 05/23/2024 16:00 | 74599 | |
| FC-CCR-MW16-0524 | 05/23/2024 17:11 | 74600 | |
| FC-CCR-MW17R-0524 | 05/21/2024 13:27 | 74601 | |
| FC-CCR-MW38R-0524 | 05/22/2024 17:15 | 74602 | |
| FC-CCR-MW56-0524 | 05/21/2024 12:25 | 74603 | |

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW57-0524 | 05/21/2024 17:35 | 74604 | |
| FC-CCR-EW11R-0524 | 05/17/2024 15:52 | 74605 | |
| FC-CCR-EW12R-0524 | 05/17/2024 17:40 | 74606 | |
| FC-CCR-EB01-0524 | 05/24/2024 11:25 | 74607 | Equipment blank |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Radium 226, Radium 228, Total Radium | Radionuclides | HPGE |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? Yes No (N/A)

If no, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   Yes No (N/A)

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   Yes No (N/A)

5. Samples analyzed for pH within 15 minutes of sampling? Yes No (N/A)

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| | | | |

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| Radium 228 | 10.0 pCi/L | No associated samples | NA |
| Total Radium | 10.0 pCi/L | No associated samples | NA |

Note:
NA = Not applicable.

7. LCS recoveries within laboratory-specified limits? Yes No (N/A)

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

8. MS performed on a project-specific sample? Yes No (N/A)

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| | |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes No (N/A)

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

9. Field duplicate collected? (Yes) No

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| FC-CCR-SW1-0524 | FC-CCR-FD09-0524 |
| FC-CCR-MW84-0524 | FC-CCR-FD01-0524 |
| FC-CCR-URS06-0524 | FC-CCR-FD02-0524 |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes (No) N/A

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| FC-CCR-MW84-0524 | FC-CCR-FD01-0524 | Radium 228 | 91% | J-FD |
| FC-CCR-MW84-0524 | FC-CCR-FD01-0524 | Total Radium | 114% | J-FD |
| FC-CCR-URS06-0524 | FC-CCR-FD02-0524 | Radium 228 | 67% | J-FD |
| FC-CCR-URS06-0524 | FC-CCR-FD02-0524 | Total Radium | 67% | J-FD |

Note:
FD = Imprecision between primary and field duplicate results.

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No) N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| | |
| | |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
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**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Eurofins Environment Testing | | |
| **Sample Delivery Group:** | J218672-1 | **Review Date:** | 9/6/2024 |
| **Validator's Name:** | Morgan Schimelfenig | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW52-0524 | 05/16/24 12:00 | 550-218672-1 | |
| FC-CCR-MW61-0524 | 05/16/24 14:05 | 550-218672-2 | |
| FC-CCR-MW75-0524 | 05/16/24 12:55 | 550-218672-3 | |
| FC-CCR-FD03-0524 | 05/16/24 16:20 | 550-218672-4 | Field Duplicate of FC-CCR-MW52-0524 |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Calcium, Magnesium, Potassium, Sodium, Beryllium, Boron, Lithium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Thallium, Selenium | Metals | EPA 200.8 |
| Mercury | Metals | EPA 245.1 |
| Alkalinity | General Chemistry | SM 2320B |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| pH | General Chemistry | SM 4500 H+ B |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| FC-CCR-MW61-0524 | pH | 12 Days, 18 Hours, 17 Minutes | J-HT |
| FC-CCR-MW75-0524 | pH | 12 Days, 19 Hours, 39 Minutes | J-HT |

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| Sodium | 0.506 mg/L | None | None |

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| Barium | 78%, 74% | 85 – 115% | FC-CCR-MW61-0524, FC-CCR-MW75-0524 | J-LL |

Notes:
LL = Low LCS and/or LCSD recovery.

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| FC-CCR-MW52-0524 | Boron, cobalt, molybdenum |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes (No) N/A

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| FC-CCR-MW52-0524 | Boron | -124%, 137% | 70 - 130 | NA4 |

Notes:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery

9. Field duplicate collected? (Yes) No

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| FC-CCR-MW52-0524 | FC-CCR-FD03-0524 |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| FC-CCR-MW75-0524 | Total Dissolved Solids |
| FC-CCR-MW61-0524 | pH |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are there other QC issues that affect data quality?

Yes (No)

| |
|---|
| |

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (No)

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| FC-CCR-MW61-0524, FC-CCR-MW75-0524 | Antimony | 0.01 mg/L |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Eurofins Environment Testing | | |
| **Sample Delivery Group:** | J218673-1 | **Review Date:** | 9/6/2024 |
| **Validator's Name:** | Morgan Schimelfenig | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW67-0524 | 05/20/24 09:57 | 550-218673-1 | |
| FC-CCR-MW68-0524 | 05/20/24 09:15 | 550-218673-2 | |
| FC-CCR-MW69-0524 | 05/20/24 10:47 | 550-218673-3 | |
| FC-CCR-MW71-0524 | 05/16/24 09:12 | 550-218673-4 | |
| FC-CCR-MW72-0524 | 05/16/24 10:02 | 550-218673-5 | |
| FC-CCR-MW73-0524 | 05/16/24 10:59 | 550-218673-6 | |
| FC-CCR-MW83-0524 | 05/18/24 17:06 | 550-218673-7 | |
| FC-CCR-MW84-0524 | 05/18/24 16:04 | 550-218673-8 | |
| FC-CCR-MW85-0524 | 05/18/24 11:36 | 550-218673-9 | |
| FC-CCR-FD01-0524 | 05/20/24 16:20 | 550-218673-10 | Field duplicate of FC-CCR-MW84-0524 |
| FC-CCR-CM01-0524 | 05/18/24 13:18 | 550-218673-11 | |
| FC-CCR-CM02-0524 | 05/18/24 13:57 | 550-218673-12 | |
| FC-CCR-URS05-0524 | 05/18/24 13:13 | 550-218673-13 | |
| FC-CCR-URS06-0524 | 05/18/24 13:55 | 550-218673-14 | |
| FC-CCR-URS07-0524 | 05/18/24 12:05 | 550-218673-15 | |
| FC-CCR-URS08-0524 | 05/18/24 10:38 | 550-218673-16 | |
| FC-CCR-FD02-0524 | 05/18/24 12:34 | 550-218673-17 | Field duplicate of FC-CCR-URS06-0524 |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Boron, Calcium, Beryllium, Lithium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Thallium, Selenium | Metals | EPA 200.8 |
| Mercury | Metals | EPA 245.1 |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| pH | General Chemistry | SM 4500 H+ B |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| FC-CCR-MW67-0524 | pH | 8 Days, 22 Hours, 40 Minutes | J-HT |
| FC-CCR-MW68-0524 | pH | 8 Days, 23 Hours, 24 Minutes | J-HT |
| FC-CCR-MW69-0524 | pH | 8 Days, 21 Hours, 54 Minutes | J-HT |
| FC-CCR-MW71-0524 | pH | 12 Days, 23 Hours, 30 Minutes | J-HT |
| FC-CCR-MW72-0524 | pH | 12 Days, 22 Hours, 42 Minutes | J-HT |
| FC-CCR-MW73-0524 | pH | 12 Days, 21 Hours, 52 Minutes | J-HT |
| FC-CCR-MW83-0524 | pH | 10 Days, 15 Hours, 48 Minutes | J-HT |
| FC-CCR-MW84-0524 | pH | 10 Days, 16 Hours, 52 Minutes | J-HT |
| FC-CCR-MW85-0524 | pH | 10 Days, 21 Hours, 22 Minutes | J-HT |
| FC-CCR-FD01-0524 | pH | 8 Days, 16 Hours, 41 Minutes | J-HT |
| FC-CCR-CM01-0524 | pH | 10 Days, 20 Hours, 7 Minutes | J-HT |
| FC-CCR-CM02-0524 | pH | 10 Days, 20 Hours, 18 Minutes | J-HT |
| FC-CCR-URS05-0524 | pH | 10 Days, 21 Hours, 5 Minutes | J-HT |
| FC-CCR-URS06-0524 | pH | 10 Days, 20 Hours, 18 Minutes | J-HT |
| FC-CCR-URS07-0524 | pH | 10 Days, 22 Hours, 14 Minutes | J-HT |
| FC-CCR-URS08-0524 | pH | 10 Days, 23 Hours, 43 Minutes | J-HT |
| FC-CCR-FD02-0524 | pH | 10 Days, 21 Hours, 48 Minutes | J-HT |

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| | | | |

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| Barium | 78%, 74% | 85 - 115 | FC-CCR-MW67-0524<br>FC-CCR-MW68-0524<br>FC-CCR-MW69-0524<br>FC-CCR-MW71-0524<br>FC-CCR-MW72-0524<br>FC-CCR-MW73-0524<br>FC-CCR-MW83-0524 | J-LL |
| Barium | 79%, 79% | 85 - 115 | FC-CCR-MW84-0524<br>FC-CCR-MW85-0524<br>FC-CCR-FD01-0524<br>FC-CCR-CM01-0524<br>FC-CCR-CM02-0524<br>FC-CCR-URS05-0524<br>FC-CCR-URS06-0524<br>FC-CCR-URS07-0524<br>FC-CCR-URS08-0524<br>FC-CCR-FD02-0524 | J-LL |

Notes:
LL = Low LCS and/or LCSD recovery.

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| FC-CCR-URS06-0524 | Chloride, Fluoride, Sulfate, Calcium, Beryllium, Boron, Lithium, Selenium, Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Thallium, Mercury |
| FC-CCR-URS07-0524 | Lithium |
| FC-CCR-MW85-0524 | Mercury |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes (No) N/A

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| FC-CCR-URS06-0524 | Calcium | 34%, MSD | 70 - 130 | NA4 |
| FC-CCR-URS06-0524 | Boron | -1499%, -516% | 70 - 130 | NA4 |

Notes:

NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery

9. Field duplicate collected? (Yes) No

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| FC-CCR-MW84-0524 | FC-CCR-FD01-0524 |
| FC-CCR-URS06-0524 | FC-CCR-FD02-0524 |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes (No) N/A

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| FC-CCR-URS06-0524 | FC-CCR-FD02-0524 | Total Dissolved Solids | 37% | J-FD |

Notes:
FD = High field duplicate RPD

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| FC-CCR-CM01-0524 | Total Dissolved Solids |
| FC-CCR-MW73-0524, FC-CCR-URS06-0524 | pH |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are there other QC issues that affect data quality?

Yes (No)

If Yes:

| |
|---|
| |

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (No)

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| FC-CCR-MW67-0524 | Antimony | 0.01 mg/L |
| FC-CCR-MW68-0524 | Beryllium | 0.005 mg/L |
| FC-CCR-MW69-0524 | | |
| FC-CCR-MW71-0524 | | |
| FC-CCR-MW72-0524 | | |
| FC-CCR-MW73-0524 | | |
| FC-CCR-MW83-0524 | | |
| FC-CCR-MW84-0524 | | |
| FC-CCR-MW85-0524 | | |
| FC-CCR-FD01-0524 | | |
| FC-CCR-CM01-0524 | | |
| FC-CCR-CM02-0524 | | |
| FC-CCR-URS05-0524 | | |
| FC-CCR-URS06-0524 | | |
| FC-CCR-URS07-0524 | | |
| FC-CCR-URS08-0524 | | |
| FC-CCR-FD02-0524 | | |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Eurofins Environment Testing | | |
| **Sample Delivery Group:** | J218673-1 | **Review Date:** | 9/6/2024 |
| **Validator's Name:** | Morgan Schimelfenig | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-DMX01-0524 | 05/17/24 14:27 | 550-218680-1 | |
| FC-CCR-DMX03-0524 | 05/20/24 15:09 | 550-218680-2 | |
| FC-CCR-MW01-0524 | 05/16/24 16:51 | 550-218680-3 | |
| FC-CCR-MW03-0524 | 05/16/24 17:42 | 550-218680-4 | |
| FC-CCR-MW05-0524 | 05/20/24 16:14 | 550-218680-5 | |
| FC-CCR-FD04-0524 | 05/17/24 13:31 | 550-218680-6 | Field duplicate of FC-CCR-DMX01-0524 |
| FC-CCR-MW18-0524 | 05/20/24 17:04 | 550-218680-7 | |
| FC-CCR-MW19-0524 | 05/20/24 14:11 | 550-218680-8 | |
| FC-CCR-MW21-0524 | 05/16/24 18:28 | 550-218680-9 | |
| FC-CCR-MW23R-0524 | 05/20/24 18:00 | 550-218680-10 | |
| FC-CCR-MW30-0524 | 05/17/24 09:31 | 550-218680-11 | |
| FC-CCR-MW36R-0524 | 05/20/24 18:40 | 550-218680-12 | |
| FC-CCR-FD05-0524 | 05/20/24 12:34 | 550-218680-13 | Field duplicate of FC-CCR-MW19-0524 |
| FC-CCR-MW82S-0524 | 05/17/24 18:25 | 550-218680-14 | |
| FC-CCR-MW60-0524 | 05/16/24 15:22 | 550-218680-15 | |
| FC-CCR-MW77S-0524 | 05/17/24 10:31 | 550-218680-16 | |
| FC-CCR-MW78S-0524 | 05/17/24 11:52 | 550-218680-17 | |
| FC-CCR-MW79S-0524 | 05/17/24 13:38 | 550-218680-18 | |
| FC-CCR-FD08-0524 | 05/17/24 11:11 | 550-218680-19 | Field Duplicate of FC-CCR-MW82S-0524 |
| FC-CCR-MW81-0524 | 05/17/24 12:48 | 550-218680-20 | |
| FC-CCR-EW17-0524 | 05/17/24 18:42 | 550-218680-21 | |
| FC-CCR-EW11R-0524 | 05/17/24 15:52 | 550-218680-22 | |
| FC-CCR-EW12R-0524 | 05/17/24 17:40 | 550-218680-23 | |
| FC-CCR-FD06-0524 | 05/17/24 16:20 | 550-218680-24 | Field duplicate of FC-CCR-MW30-0524 |
| FC-CCR-FD07-0524 | 05/17/24 12:34 | 550-218680-25 | Field Duplicate of FC-CCR-MW81-0524 |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium, Beryllium, Lithium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Thallium, Selenium | Metals | EPA 200.8 |
| Alkalinity | General Chemistry | SM 2320B |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| pH | General Chemistry | SM 4500 H+ B |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| FC-CCR-DMX03-0524 | pH | 8 Days, 18 Hours, 18 Minutes | J-HT |
| FC-CCR-MW05-0524 | pH | 8 Days, 17 Hours, 14 Minutes | J-HT |
| FC-CCR-MW18-0524 | pH | 8 Days, 16 Hours, 25 Minutes | J-HT |
| FC-CCR-MW23R-0524 | pH | 8 Days, 15 Hours, 30 Minutes | J-HT |
| FC-CCR-MW36R-0524 | pH | 8 Days, 14 Hours, 57 Minutes | J-HT |
| FC-CCR-MW82S-0524 | pH | 11 Days, 15 Hours, 13 Minutes | J-HT |
| FC-CCR-FD08-0524 | pH | 11 Days, 22 Hours, 28 Minutes | J-HT |
| FC-CCR-EW17-0524 | pH | 11 Days, 15 Hours, 0 Minutes | J-HT |
| FC-CCR-EW11R-0524 | pH | 11 Days, 17 Hours, 51 Minutes | J-HT |
| FC-CCR-EW12R-0524 | pH | 11 Days, 16 Hours, 5 Minutes | J-HT |

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| Total Dissolved Solids | 22.0 mg/L | None | none |

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| Barium | 81%, LCSD | 85 - 115 | FC-CCR-EW17-0524<br>FC-CCR-EW11R-0524<br>FC-CCR-EW12R-0524 | J-LL |

Notes:
LL = Low LCS and/or LCSD recovery.

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| FC-CCR-MW82S-0524 | Chloride, Fluoride, Sulfate, Boron, Calcium, Magnesium, Potassium, Sodium, Cobalt, Molybdenum |
| FC-CCR-DMX01-0524 | Boron, Cobalt, Molybdenum |
| FC-CCR-MW30-0524 | Boron, Cobalt, Molybdenum |
| FC-CCR-MW81-0524 | Boron, Cobalt, Molybdenum |
| FC-CCR-EW12R-0524 | Lithium |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes (No) N/A

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| FC-CCR-DMX01-0524 | Boron | -1770%, -142% | 70 – 130% | NA4 |
| FC-CCR-MW30-0524 | Boron | -347%, 59% | 70 – 130% | NA4 |
| FC-CCR-MW82S-0524 | Boron | -73%, 41% | 70 – 130% | NA4 |
| FC-CCR-MW82S-0524 | Calcium | 69%, MS | 70 – 130% | NA4 |
| FC-CCR-MW82S-0524 | Magnesium | 48%, MS | 70 – 130% | NA4 |
| FC-CCR-MW82S-0524 | Sodium | -19%, 55% | 70 – 130% | NA4 |
| FC-CCR-MW81-0524 | Boron | 46%, -87% | 70 – 130% | NA4 |

Notes:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery

9. Field duplicate collected? (Yes) No

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| FC-CCR-DMX01-0524 | FC-CCR-FD04-0524 |
| FC-CCR-MW19-0524 | FC-CCR-FD05-0524 |
| FC-CCR-MW82S-0524 | FC-CCR-FD08-0524 |
| FC-CCR-MW30-0524 | FC-CCR-FD06-0524 |
| FC-CCR-MW81-0524 | FC-CCR-FD07-0524 |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes (No) N/A

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| FC-CCR-DMX01-0524 | FC-CCR-FD04-0524 | Boron | 33% | J-FD |
| FC-CCR-MW82S-0524 | FC-CCR-FD08-0524 | Boron | 64% | J-FD |
| FC-CCR-MW82S-0524 | FC-CCR-FD08-0524 | Calcium | 61% | J-FD |
| FC-CCR-MW82S-0524 | FC-CCR-FD08-0524 | Magnesium | 57% | J-FD |
| FC-CCR-MW82S-0524 | FC-CCR-FD08-0524 | Sodium | 63% | J-FD |

Notes:
FD = High field duplicate RPD

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| FC-CCR-FD08-0524 | Alkalinity |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are there other QC issues that affect data quality?

Yes (No)

If Yes:

| |
|---|
| |

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (No)

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| FC-CCR-DMX03-0524<br>FC-CCR-EW17-0524<br>FC-CCR-EW11R-0524<br>FC-CCR-EW12R-0524 | Antimony | 0.01 mg/L |
| FC-CCR-MW05-0524<br>FC-CCR-MW18-0524<br>FC-CCR-MW23R-0524<br>FC-CCR-MW36R-0524<br>FC-CCR-EW17-0524<br>FC-CCR-EW11R-0524<br>FC-CCR-EW12R-0524 | Beryllium | 0.050 mg/L |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Eurofins Environment Testing | | |
| **Sample Delivery Group:** | J218888 | **Review Date:** | 6/14/2024 |
| **Validator's Name:** | Caitlin Riechmann | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW66-0524 | 05/22/24 11:34 | 550-218888-1 | |
| FC-CCR-MW70-0524 | 05/22/24 09:11 | 550-218888-2 | |
| FC-CCR-MW86-0524 | 05/22/24 09:54 | 550-218888-3 | |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Beryllium, Boron, Calcium, Lithium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium | Metals | EPA 200.8 |
| Mercury | Metals | EPA 245.1 |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| pH | General Chemistry | SM 4500 H+B |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| FC-CCR-MW66-0524 | pH | 7 days, 6 hours, 15 minutes | J-HT |
| FC-CCR-MW70-0524 | pH | 7 days, 8 hours, 41 minutes | J-HT |
| FC-CCR-MW86-0524 | pH | 7 days, 8 hours, 1 minute | J-HT |

Note:
HT = Maximum recommended hold time was exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| | | | |

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| Barium | 83%, 79% | 85-115% | FC-CCR-MW66-0524, FC-CCR-MW70-0524, FC-CCR-MW86-0524 | J-LL |

Note:
LL = Low LCS recovery.

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| FC-CCR-MW66-0524 | Chloride, Fluoride, Sulfate, Boron, Calcium, Beryllium, Lithium |
| FC-CCR-MW86-0524 | Mercury |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes (No) N/A

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| FC-CCR-MW66-0524 | Chloride | 53%, 58% | 80-120% | J-LM |
| FC-CCR-MW66-0524 | Boron | -431%, -20% | 70-130% | NA4 |
| FC-CCR-MW66-0524 | Calcium | 27%, MS | 70-130% | NA4 |
| FC-CCR-MW66-0524 | Sulfate | -229%, -192% | 80-120% | NA4 |

Note:
LM = Low MS recovery.
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? Yes (No)

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| | |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No) N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| | |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (No)

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| FC-CCR-MW66-0524, FC-CCR-MW70-0524, FC-CCR-MW86-0524 | Antimony | 0.010 mg/L |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Eurofins Environment Testing | | |
| **Sample Delivery Group:** | J218889 | **Review Date:** | 6/14/2024 |
| **Validator's Name:** | Caitlin Riechmann | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW62-0524 | 05/22/24 10:32 | 550-218889-1 | |
| FC-CCR-MW63-0524 | 05/22/24 13:17 | 550-218889-2 | |
| FC-CCR-MW64-0524 | 05/22/24 13:58 | 550-218889-3 | |
| FC-CCR-MW65-0524 | 05/22/24 12:23 | 550-218889-4 | |
| FC-CCR-SW1-0524 | 05/23/24 20:20 | 550-218889-5 | |
| FC-CCR-SW2-0524 | 05/22/24 12:35 | 550-218889-6 | |
| FC-CCR-SW3-0524 | 05/22/24 12:48 | 550-218889-7 | |
| FC-CCR-FD09-0524 | 05/23/24 16:20 | 550-218889-8 | Field duplicate of FC-CCR-SW1-0524 |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Beryllium, Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium | Metals | EPA 200.8 |
| Mercury | Metals | EPA 245.1 |
| Alkalinity | General Chemistry | SM 2320B |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| pH | General Chemistry | SM 4500 H+B |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| FC-CCR-MW62-0524 | pH | 8 days, 4 hours, 10 minutes | J-HT |
| FC-CCR-MW63-0524 | pH | 8 days, 1 hour, 32 minutes | J-HT |
| FC-CCR-MW64-0524 | pH | 8 days, 0 hours, 54 minutes | J-HT |
| FC-CCR-MW65-0524 | pH | 8 days, 2 hours, 32 minutes | J-HT |
| FC-CCR-SW1-0524 | pH | 6 days, 18 hours, 37 minutes | J-HT |
| FC-CCR-SW2-0524 | pH | 8 days, 2 hours, 24 minutes | J-HT |
| FC-CCR-SW3-0524 | pH | 8 days, 2 hours, 13 minutes | J-HT |
| FC-CCR-FD09-0524 | pH | 6 days, 22 hours, 43 minutes | J-HT |

Note:
HT = Maximum recommended hold time was exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| | | | |

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| Barium | 83%, 79% | 85-115% | FC-CCR-MW62-0524, FC-CCR-MW63-0524, FC-CCR-MW64-0524, FC-CCR-MW65-0524, FC-CCR-SW1-0524, FC-CCR-SW2-0524, FC-CCR-SW3-0524, FC-CCR-FD09-0524 | J-LL |

Note:
LL = Low LCS recovery.

8. MS performed on a project-specific sample? Yes (No) N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| | |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes No (N/A)

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

9. Field duplicate collected? (Yes) No

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| FC-CCR-SW1-0524 | FC-CCR-FD09-0524 |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes (No) N/A

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| FC-CCR-SW1-0524 | FC-CCR-FD09-0524 | Sulfate | 23% | J-FD |
| FC-CCR-SW1-0524 | FC-CCR-FD09-0524 | Iron | NC | J/UJ-FD |

Note:
NC = The RPD was not calculable, but the difference between analyte concentrations was greater than the RL.

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| FC-CCR-MW63-0524 | Alkalinity |
| FC-CCR-MW62-0524 | pH |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (No)

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| FC-CCR-MW62-0524,<br>FC-CCR-MW63-0524,<br>FC-CCR-MW64-0524,<br>FC-CCR-MW65-0524,<br>FC-CCR-SW1-0524,<br>FC-CCR-SW2-0524,<br>FC-CCR-SW3-0524,<br>FC-CCR-FD09-0524 | Antimony | 0.010 mg/L |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Eurofins Environment Testing | | |
| **Sample Delivery Group:** | J218889 | **Review Date:** | 7/3/2024 |
| **Validator's Name:** | Caitlin Riechmann | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW62-0524 | 05/22/24 10:32 | 550-218889-1 | |
| FC-CCR-MW63-0524 | 05/22/24 13:17 | 550-218889-2 | |
| FC-CCR-MW64-0524 | 05/22/24 13:58 | 550-218889-3 | |
| FC-CCR-MW65-0524 | 05/22/24 12:23 | 550-218889-4 | |
| FC-CCR-SW1-0524 | 05/23/24 20:20 | 550-218889-5 | |
| FC-CCR-SW2-0524 | 05/22/24 12:35 | 550-218889-6 | |
| FC-CCR-SW3-0524 | 05/22/24 12:48 | 550-218889-7 | |
| FC-CCR-FD09-0524 | 05/23/24 16:20 | 550-218889-8 | Field duplicate of FC-CCR-SW1-0524 |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Beryllium, Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium | Metals | EPA 200.8 |
| Mercury | Metals | EPA 245.1 |
| Alkalinity | General Chemistry | SM 2320B |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| pH | General Chemistry | SM 4500 H+B |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| FC-CCR-MW62-0524 | pH | 8 days, 4 hours, 10 minutes | J-HT |
| FC-CCR-MW63-0524 | pH | 8 days, 1 hour, 32 minutes | J-HT |
| FC-CCR-MW64-0524 | pH | 8 days, 0 hours, 54 minutes | J-HT |
| FC-CCR-MW65-0524 | pH | 8 days, 2 hours, 32 minutes | J-HT |
| FC-CCR-SW1-0524 | pH | 6 days, 18 hours, 37 minutes | J-HT |
| FC-CCR-SW2-0524 | pH | 8 days, 2 hours, 24 minutes | J-HT |
| FC-CCR-SW3-0524 | pH | 8 days, 2 hours, 13 minutes | J-HT |
| FC-CCR-FD09-0524 | pH | 6 days, 22 hours, 43 minutes | J-HT |

Note:
HT = Maximum recommended hold time was exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| | | | |

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| Barium | 83%, 79% | 85-115% | FC-CCR-MW62-0524, FC-CCR-MW63-0524, FC-CCR-MW64-0524, FC-CCR-MW65-0524, FC-CCR-SW1-0524, FC-CCR-SW2-0524, FC-CCR-SW3-0524, FC-CCR-FD09-0524 | J-LL |

Note:
LL = Low LCS recovery.

8. MS performed on a project-specific sample? Yes (No) N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| | |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes No (N/A)

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

9. Field duplicate collected? (Yes) No

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| FC-CCR-SW1-0524 | FC-CCR-FD09-0524 |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes (No) N/A

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| FC-CCR-SW1-0524 | FC-CCR-FD09-0524 | Sulfate | 23% | J-FD |
| FC-CCR-SW1-0524 | FC-CCR-FD09-0524 | Iron | NC | J/UJ-FD |

Note:
NC = The RPD was not calculable, but the difference between analyte concentrations was greater than the RL.

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| FC-CCR-MW63-0524 | Alkalinity |
| FC-CCR-MW62-0524 | pH |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Other QC issues? (Yes) No N/A

If Yes:

| Sample ID | Analyte | QC Issue | Effect on Data Usability |
|---|---|---|---|
| FC-CCR-MW62-0524 | Cobalt | Detected concentration is less than the reporting limit | J-DL |
| | Molybdenum | | |
| FC-CCR-MW63-0524 | Cobalt | | |
| | Molybdenum | | |
| FC-CCR-MW64-0524 | Cobalt | | |
| | Molybdenum | | |
| FC-CCR-MW65-0524 | Cobalt | | |
| FC-CCR-SW1-0524 | Antimony | | |
| FC-CCR-SW2-0524 | Antimony | | |
| | Cobalt | | |
| FC-CCR-SW3-0524 | Antimony | | |
| FC-CCR-FD09-0524 | Antimony | | |

Note:

DL = Detected concentration is less than the reporting limit.

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| | | |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Eurofins Environment Testing | | |
| **Sample Delivery Group:** | J218890 | **Review Date:** | 6/14/2024 |
| **Validator's Name:** | Caitlin Riechmann | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-Pond3PumpHouse-0524 | 05/21/24 10:07 | 550-218890-1 | |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride | Anions | EPA 300.0 |
| Boron, Magnesium, Manganese | Metals | EPA 200.7 |
| Cobalt, Molybdenum | Metals | EPA 200.8 |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes No (N/A)

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| | | | |

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| TDS | 22.0 mg/L | None | NA |

Note:
NA = not applicable.

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| FC-Pond3PumpHouse-0524 | Cobalt, Molybdenum |

a. Are MS recoveries and/or precision within laboratory specified limits?

(Yes) No N/A

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

9. Field duplicate collected? Yes (No)

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| | |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No) N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| | |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| | | |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Eurofins Environment Testing | | |
| **Sample Delivery Group:** | J218891 | **Review Date:** | 6/14/2024 |
| **Validator's Name:** | Caitlin Riechmann | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW07-0524 | 05/23/24 19:53 | 550-218891-1 | |
| FC-CCR-MW08-0524 | 05/23/24 18:57 | 550-218891-2 | |
| FC-CCR-MW49A-0524 | 05/23/24 14:32 | 550-218891-3 | |
| FC-CCR-MW87-0524 | 05/23/24 11:10 | 550-218891-4 | |
| FC-CCR-EB01-0524 | 05/24/24 11:25 | 550-218891-5 | Equipment blank |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Beryllium, Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium | Metals | EPA 200.8 |
| Mercury | Metals | EPA 245.1 |
| Alkalinity | General Chemistry | SM 2320B |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| pH | General Chemistry | SM 4500 H+B |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| FC-CCR-MW07-0524 | pH | 6 days, 19 hours, 14 minutes | J-HT |
| FC-CCR-MW08-0524 | pH | 6 days, 20 hours, 13 minutes | J-HT |
| FC-CCR-MW49A-0524 | pH | 11 days, 16 hours, 37 minutes | J-HT |
| FC-CCR-MW87-0524 | pH | 11 days, 19 hours, 59 minutes | J-HT |

Note:
HT = Maximum recommended hold time was exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| Arsenic | 0.0055 mg/L | FC-CCR-MW07-0524, FC-CCR-MW08-0524, FC-CCR-MW49A-0524, FC-CCR-MW87-0524 | J-EB |
| Sodium | 18 mg/L | None | NA |

Note:
EB = Detection in an associated equipment blank.
NA = Not applicable.

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| Barium | 83%, 79% | 85-115% | FC-CCR-MW07-0524, FC-CCR-MW08-0524, FC-CCR-MW49A-0524, FC-CCR-MW87-0524 | J-LL |

Note:
LL = Low LCS recovery.

8. MS performed on a project-specific sample? Yes (No) N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| | |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes No (N/A)

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

9. Field duplicate collected? Yes (No)

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| | |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| FC-CCR-MW49A-0524 | TDS, pH |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (No)

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| FC-CCR-MW07-0524, FC-CCR-MW08-0524, FC-CCR-MW49A-0524, FC-CCR-MW87-0524 | Antimony | 0.010 mg/L |
| FC-CCR-MW87-0524 | Beryllium | 0.010 mg/L |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Eurofins Environment Testing | | |
| **Sample Delivery Group:** | J218891-2 | **Review Date:** | 7/8/2024 |
| **Validator's Name:** | Caitlin Riechmann | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW87-0524 | 05/23/24 11:10 | 550-218891-4 | |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Beryllium | Metals | EPA 200.7 |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   Yes No (N/A)

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   Yes No (N/A)

5. Samples analyzed for pH within 15 minutes of sampling? Yes No (N/A)

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| | | | |

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| | | | |
| | | | |

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

8. MS performed on a project-specific sample? Yes (No) N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| | |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes No (N/A)

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

9. Field duplicate collected? Yes (No)

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| | |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No) N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| | |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| | | |
| | | |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Eurofins Environment Testing | | |
| **Sample Delivery Group:** | J218892-1 | **Review Date:** | 9/27/2024 |
| **Validator's Name:** | Morgan Schimelfenig | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-DMX04-0524 | 05/21/24 14:20 | 550-218892-1 | |
| FC-CCR-DMX06-0524 | 05/23/24 12:23 | 550-218892-2 | |
| FC-CCR-MW11-0524 | 05/23/24 18:20 | 550-218892-3 | |
| FC-CCR-MW15-0524 | 05/23/24 16:00 | 550-218892-4 | |
| FC-CCR-MW16-0524 | 05/23/24 17:11 | 550-218892-5 | |
| FC-CCR-MW17R-0524 | 05/21/24 13:27 | 550-218892-6 | |
| FC-CCR-MW38R-0524 | 05/22/24 17:15 | 550-218892-7 | |
| FC-CCR-MW56-0524 | 05/21/24 12:25 | 550-218892-8 | |
| FC-CCR-MW57-0524 | 05/21/24 17:35 | 550-218892-9 | |
| FC-CCR-MW34-0524 | 05/21/24 15:18 | 550-218892-10 | |
| FC-CCR-EW15-0524 | 05/21/24 15:57 | 550-218892-11 | |
| FC-CCR-MW24-0524 | 05/21/24 16:39 | 550-218892-12 | |
| FC-CCR-DMX05R-0524 | 05/23/24 10:22 | 550-218892-13 | |
| FC-CCR-EW14-0524 | 05/23/24 10:22 | 550-218892-14 | |
| FC-CCR-SUMP1-0524 | 05/21/24 08:27 | 550-218892-15 | |
| FC-CCR-SUMP2-0524 | 05/21/24 08:33 | 550-218892-16 | |
| FC-CCR-SUMP3-0524 | 05/21/24 08:42 | 550-218892-17 | |
| FC-CCR-SUMP7-0524 | 05/21/24 09:02 | 550-218892-18 | |
| FC-CCR-SUMP8-0524 | 05/21/24 08:55 | 550-218892-19 | |
| FC-CCR-SUMP9-0524 | 05/21/24 09:09 | 550-218892-20 | |
| FC-CCR-SUMP10-0524 | 05/21/24 09:13 | 550-218892-21 | |
| FC-CCR-SUMP11-0524 | 05/21/24 09:17 | 550-218892-22 | |
| FC-CCR-SUMP12-0524 | 05/21/24 09:22 | 550-218892-23 | |
| FC-CCR-SUMP13-0524 | 05/21/24 09:26 | 550-218892-24 | |
| FC-CCR-SUMP14-0524 | 05/21/24 09:32 | 550-218892-25 | |
| FC-CCR-SUMP15-0524 | 05/21/24 09:39 | 550-218892-26 | |
| FC-CCR-SUMP16-0524 | 05/21/24 09:43 | 550-218892-27 | |
| FC-CCR-SUMP17-0524 | 05/21/24 09:47 | 550-218892-28 | |
| FC-CCR-SUMP18-0524 | 05/21/24 09:53 | 550-218892-29 | |
| FC-CCR-AshPond6Vault-0524 | 05/21/24 10:15 | 550-218892-30 | |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium, Beryllium, Lithium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Thallium, Selenium | Metals | EPA 200.8 |
| Alkalinity | General Chemistry | SM 2320B |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| pH | General Chemistry | SM 4500 H+ B |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| FC-CCR-DMX04-0524 | pH | 13 Days, 16 Hours, 49 Minutes | J-HT |
| FC-CCR-DMX06-0524 | pH | 11 Days, 18 Hours, 46 Minutes | J-HT |
| FC-CCR-MW11-0524 | pH | 11 Days, 12 Hours, 49 Minutes | J-HT |
| FC-CCR-MW15-0524 | pH | 11 Days, 15 Hours, 9 Minutes | J-HT |
| FC-CCR-MW16-0524 | pH | 11 Days, 13 Hours, 58 Minutes | J-HT |
| FC-CCR-MW17R-0524 | pH | 13 Days, 17 Hours, 42 Minutes | J-HT |
| FC-CCR-MW38R-0524 | pH | 12 Days, 13 Hours, 54 Minutes | J-HT |
| FC-CCR-MW56-0524 | pH | 13 Days, 22 Hours, 45 Minutes | J-HT |
| FC-CCR-MW57-0524 | pH | 13 Days, 17 Hours, 39 Minutes | J-HT |
| FC-CCR-MW24-0524 | pH | 13 Days, 18 Hours, 38 Minutes | J-HT |
| FC-CCR-DMX05R-0524 | pH | 12 Days, 0 Hours, 59 Minutes | J-HT |

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| | | | |

7. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| Barium | 83%, 79% | 85 - 115 | FC-CCR-DMX04-0524<br>FC-CCR-DMX06-0524 | J-LL |
| Barium | 74%, 79% | 85 - 115 | FC-CCR-MW15-0524<br>FC-CCR-MW16-0524<br>FC-CCR-MW17R-0524<br>FC-CCR-MW38R-0524<br>FC-CCR-MW56-0524<br>FC-CCR-MW57-0524<br>FC-CCR-DMX05R-0524 | J-LL |

Notes:
LL = Low LCS and/or LCSD recovery.

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| FC-CCR-SUMP9-0524 | Chloride |
| FC-CCR-MW16-0524 | Boron, Calcium, Iron, Manganese, Beryllium, Potassium, Magnesium, Sodium, Lithium |
| FC-CCR-MW15-0524 | Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Thallium, Selenium |
| FC-CCR-MW17R-0524 | Lithium |
| FC-CCR-SUMP13-0524 | Cobalt, Molybdenum |
| FC-CCR-SUMP14-0524 | Boron, Iron, Magnesium, Manganese |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes (No) N/A

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| FC-CCR-MW16-0524 | Boron | 56%, MS | 70-130 | NA4 |
| FC-CCR-MW16-0524 | Calcium | -49%, 9% | 70-130 | NA4 |
| FC-CCR-MW16-0524 | Magnesium | -1251%, -1942% | 70-130 | NA4 |
| FC-CCR-MW16-0524 | Potassium | 57%, 30% | 70-130 | UJ-LM |
| FC-CCR-MW16-0524 | Sodium | -3278%, -4703% | 70-130 | NA4 |
| FC-CCR-SUMP14-0524 | Boron | 50%, -71% | 70-130 | NA4 |
| FC-CCR-SUMP14-0524 | Magnesium | 26%, MSD | 70-130 | NA4 |

Notes:

NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery
LM = Low MS and/or MSD recovery.

9. Field duplicate collected? Yes (No)

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| | |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| FC-CCR-DMX04-0524 | Alkalinity, Total Dissolved Solids |
| FC-CCR-SUMP7-0524 | Total Dissolved Solids |
| FC-CCR-MW56-0524 | pH |
| FC-CCR-MW24-0524 | Alkalinity |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are there other QC issues that affect data quality?

Yes (No)

If Yes:

| |
|---|
| |

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (No)

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| FC-CCR-DMX04-0524<br>FC-CCR-DMX06-0524<br>FC-CCR-MW15-0524<br>FC-CCR-MW16-0524<br>FC-CCR-MW17R-0524<br>FC-CCR-MW38R-0524 | Antimony | 0.01 mg/L |

| | | |
|---|---|---|
| FC-CCR-MW56-0524<br>FC-CCR-MW57-0524<br>FC-CCR-DMX05R-0524 | | |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Pace Analytical | | |
| **Sample Delivery Group:** | L1791416/L1793200/L1794401 | **Review Date:** | 01/09/2025 |
| **Validator's Name:** | Morgan Schimelfenig | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW67-1024 | 10/18/24 08:10 | L1791416-01/10714668001 | |
| FC-CCR-MW68-1024 | 10/18/24 09:34 | L1791416-02/10714668002 | |
| FC-CCR-MW69-1024 | 10/20/24 10:55 | L1791416-03/10714668003 | |
| FC-CCR-MW83-1024 | 10/20/24 12:45 | L1791416-04/10714668004 | |
| FC-CCR-MW85-1024 | 10/20/24 13:45 | L1791416-05/10714668005 | |
| FC-CCR-CM01-1024 | 10/20/24 11:33 | L1791416-06/10714668006 | |
| FC-CCR-CM02-1024 | 10/20/24 11:39 | L1791416-07/10714668007 | |
| FC-CCR-MW62-1024 | 10/23/24 14:43 | L1793200-01/10714208001 | |
| FC-CCR-SW1-1024 | 10/24/24 13:24 | L1793200-02/10714208002 | |
| FC-CCR-MW63-1024 | 10/23/24 16:15 | L1793200-03/10714208003 | |
| FC-CCR-MW64-1024 | 10/23/24 17:10 | L1793200-04/10714208004 | |
| FC-CCR-MW65-1024 | 10/23/24 18:03 | L1793200-05/10714208005 | |
| FC-CCR-SW2-1024 | 10/23/24 18:10 | L1793200-06/10714208006 | |
| FC-CCR-SW3-1024 | 10/23/24 15:30 | L1793200-07/10714208007 | |
| RC-CCR-MW30-1024 | 10/26/24 10:28 | L1794416-01/10714605004 | |
| RC-CCR-FD04-1024 | 10/26/24 07:35 | L1794416-02/10714605002 | Field duplicate of RC-CCR-MW30-1024 |
| FC-CCR-EW11R-1024 | 10/26/24 13:40 | L1794416-03/10714605003 | |
| FC-CCR-MW01-1024 | 10/25/24 16:37 | L1794416-04/10714605001 | |
| FC-CCR-SUMP7-1024 | 10/30/24 08:49 | L1794416-05/10714605005 | |
| FC-CCR-SUMP8-1024 | 10/30/24 08:38 | L1794416-06/10714605006 | |
| FC-CCR-SUMP9-1024 | 10/30/24 08:58 | L1794416-07/10714605007 | |
| FC-CCR-SUMP10-1024 | 10/30/24 09:06 | L1794416-08/10714605008 | |
| FC-CCR-SUMP11-1024 | 10/30/24 09:35 | L1794416-09/10714605009 | |
| FC-CCR-POND3PUMP-1024 | 10/30/24 10:58 | L1794416-10/10714605015 | |
| FC-CCR-SUMP1-1024 | 10/30/24 08:05 | L1794416-11/10714605011 | |
| FC-CCR-SUMP3-1024 | 10/30/24 08:25 | L1794416-12/10714605012 | |
| FC-CCR-SUMP12-1024 | 10/30/24 09:44 | L1794416-13/10714605013 | |
| FC-CCR-SUMP13-1024 | 10/30/24 09:52 | L1794416-14/10714605014 | |
| FC-CCR-ASHPONDV6-1024 | 10/30/24 11:10 | L1794416-15/10714605010 | |
| FC-CCR-SUMP14-1024 | 10/30/24 10:03 | L1794416-16/10714605016 | |
| FC-CCR-SUMP15-1024 | 10/30/24 10:07 | L1794416-17/10714605017 | |
| FC-CCR-SUMP16-1024 | 10/30/24 10:13 | L1794416-18/10714605018 | |
| FC-CCR-SUMP17-1024 | 10/30/24 10:24 | L1794416-19/10714605017 | |
| FC-CCR-SUMP18-1024 | 10/30/24 10:35 | L1794416-20/10714605020 | |
| FC-CCR-MW82S-1024 | 10/30/24 11:18 | L1794416-21/10714605021 | |
| FC-CCR-EW12R-1024 | 10/30/24 12:12 | L1794416-22/10714605022 | |

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-FD08-1024 | 10/30/24 06:21 | L1794416-23/10714605023 | Field duplicate of FC-CCR-MW82S-1024 |
| FC-CCR-MW03-1024 | 10/28/24 14:25 | L1794416-24/10714605024 | |
| FC-CCR-MW19-1024 | 10/28/24 15:31 | L1794416-25/10714605025 | |
| FC-CCR-MW21-1024 | 10/28/24 16:32 | L1794416-26/10714605026 | |
| FC-CCR-MW60-1024 | 10/28/24 10:30 | L1794416-27/10714605027 | |
| FC-CCR-DMX01-1024 | 10/26/24 12:23 | L1794416-28/10714605028 | |
| FC-CCR-FD06-1024 | 10/26/24 11:11 | L1794416-29/10714605029 | Field duplicate of FC-CCR-DMX01-1024 |
| FC-CCR-FD07-1024 | 10/28/24 12:34 | L1794416-30/10714605030 | Field duplicate of FC-CCR-MW19-1024 |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Antimony, Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Manganese, Molybdenum, Selenium, Thallium | Metals | EPA 200.8 |
| Mercury | Metals | EPA 245.1 |
| Alkalinity | General Chemistry | SM 2320B |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| pH | General Chemistry | SM 4500 H+ B |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? Yes (No) N/A

If no, provide details.

| |
|---|
| FC-CCR-CM01 and FC-CCR-CM02 were received out of temperature at 8.0°C. WSP J qualified detects for analysis pH, Sulfate, and TDS in samples FC-CCR-CM01 and FC-CCR-CM02. (J, RT) |

Note:
RT =Elevated sample receipt temperature.

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   Yes (No) N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? (Yes) No N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| FC-CCR-MW67-1024 | pH | 5 Days, 8 Hours, 40 Minutes | J-HT |
| FC-CCR-MW68-1024 | pH | 5 Days, 7 Hours, 16 Minutes | J-HT |
| FC-CCR-MW69-1024 | pH | 3 Days, 5 Hours, 55 Minutes | J-HT |
| FC-CCR-MW83-1024 | pH | 3 Days, 4 Hours, 5 Minutes | J-HT |
| FC-CCR-MW85-1024 | pH | 3 Days, 3 Hours, 5 Minutes | J-HT |
| FC-CCR-CM01-1024 | pH | 3 Days, 5 Hours, 17 Minutes | J-HT |
| FC-CCR-CM02-1024 | pH | 3 Days, 5 Hours, 11 Minutes | J-HT |
| FC-CCR-MW62-1024 | Fluoride | 42 days | J-HT |
| FC-CCR-MW62-1024 | pH | 4 Days, 20 Hours, 7 Minutes | J-HT |
| FC-CCR-SW1-1024 | pH | 3 Days, 21 Hours, 26 Minutes | J-HT |
| FC-CCR-MW63-1024 | pH | 4 Days, 18 Hours, 35 Minutes | J-HT |
| FC-CCR-MW64-1024 | pH | 4 Days, 17 Hours, 40 Minutes | J-HT |
| FC-CCR-MW65-1024 | pH | 4 Days, 16 Hours, 47 Minutes | J-HT |
| FC-CCR-SW2-1024 | pH | 5 Days, 13 Hours, 15 Minutes | J-HT |
| FC-CCR-SW3-1024 | pH | 5 Days, 15 Hours, 55 Minutes | J-HT |
| FC-CCR-EW11R-1024 | pH | 5 Days, 20 Hours, 20 Minutes | J-HT |
| FC-CCR-MW82S-1024 | pH | 1 Days, 22 Hours, 42 Minutes | J-HT |
| FC-CCR-EW12R-1024 | pH | 1 Days, 21 Hours, 48 Minutes | J-HT |
| FC-CCR-FD08-1024 | pH | 2 Days, 3 Hours, 39 Minutes | J-HT |

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| Calcium | 44.2 ug/L | None | NA |
| Lithium | 0.19 ug/L | None | NA |
| Boron | 42.1 ug/L | FC-CCR-MW64-1024 | J-MB |
| Sodium | 177 ug/L | None | NA |
| Boron (20-30) | 64.2 ug/L | None | NA |
| Calcium | 43.7 ug/L | None | NA |
| Magnesium | 127 ug/L | None | NA |
| Manganese | 0.80 ug/L | None | NA |
| Sodium | 147 ug/L | None | NA |

Notes:
MB = The concentration detected in the sample was less than five times the concentration detected in the blank.

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| FC-CCR-CM02-1024, FC-CCR-EW12R-1024, FC-CCR-FD08-1024 | Fluoride |
| FC-CCR-MW67-1024 | Mercury, Antimony, Beryllium, Boron, Calcium |
| FC-CCR-CM01-1024 | Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium |
| FC-CCR-MW64-1024 | Chloride, Fluoride, Sulfate |
| FC-CCR-MW62-1024 | Mercury, Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium |
| FC-CCR-SW1-1024 | Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium |
| FC-CCR-MW82S-1024 | Chloride, Sulfate, Fluoride, Boron, Calcium, Magnesium, Potassium, Sodium, Cobalt, Molybdenum |
| FC-CCR-MW01-1024 | Boron, Cobalt, Molybdenum |
| FC-CCR-ASHPONDV6-1024 | Boron, Iron, Magnesium |
| FC-CCR-SUMP1-1024, FC-CCR-FD06-1024 | Cobalt, Molybdenum |
| FC-CCR-FD07-1024 | Boron |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes (No) N/A

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| FC-CCR-CM02-1024 | Fluoride | 51%, 49.2% | 90-110% | J-LM |
| FC-CCR-MW67-1024 | Mercury | 46.6%, 47.4% | 70-130% | J-LM |
| FC-CCR-MW67-1024 | Boron | -530%, -1640% | 70-130% | NA4 |
| FC-CCR-MW64-1024 | Sulfate | 63.2%, 63.7% | 90-110% | J-LM |
| FC-CCR-MW64-1024 | Boron | 141%, MSD | 70-130% | J-HM |
| FC-CCR-MW64-1024 | Calcium | 270%, 351% | 70-130% | NA4 |
| FC-CCR-MW64-1024 | Magnesium | 263%, 344% | 70-130% | NA4 |
| FC-CCR-MW64-1024 | Manganese | 152%, 159% | 70-130% | NA4 |
| FC-CCR-MW64-1024 | Sodium | 435%, 484% | 70-130% | NA4 |
| FC-CCR-SW1-1024 | Antimony | 39%, RPD | 20% | J-HD |
| FC-CCR-SW1-1024 | Arsenic | 38%, RPD | 20% | J-HD |
| FC-CCR-SW1-1024 | Molybdenum | 38%, RPD | 20% | J-HD |
| FC-CCR-SW1-1024 | Selenium | 37%, RPD | 20% | J-HD |
| FC-CCR-MW82S-1024 | Chloride | 0%, 0% | 90-110% | NA4 |
| FC-CCR-MW82S-1024 | Sulfate | 0%, 0% | 90-110% | NA4 |
| FC-CCR-MW01-1024 | Boron | -40%, -19% | 70-130% | NA4 |
| FC-CCR-MW01-1024 | Calcium | 50%, 22% | 70-130% | NA4 |
| FC-CCR-MW01-1024 | Magnesium | -184%, -130% | 70-130% | NA4 |
| FC-CCR-MW01-1024 | Sodium | -187%, -132% | 70-130% | NA4 |
| FC-CCR-ASHPONDV6-1024 | Boron | 159%, MS | 70-130% | NA4 |
| FC-CCR-ASHPONDV6-1024 | Magnesium | 133%, MS | 70-130% | NA4 |
| FC-CCR-MW82S-1024 | Boron | 135%, 497% | 70-130% | NA4 |
| FC-CCR-MW82S-1024 | Calcium | 153%, MSD | 70-130% | NA4 |
| FC-CCR-MW82S-1024 | Magnesium | 217%, MSD | 70-130% | NA4 |
| FC-CCR-MW82S-1024 | Potassium | 132%, MSD | 70-130% | NA4 |
| FC-CCR-MW82S-1024 | Sodium | 386%, 602% | 70-130% | NA4 |

Notes:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery
HD = Imprecision between the MS and MSD results.
LM = Low MS recovery.
HM = High MS recovery.

9. Field duplicate collected? (Yes) No

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| RC-CCR-MW30-1024 | RC-CCR-FD04-1024 |
| FC-CCR-DMX01-1024 | FC-CCR-FD06-1024 |
| FC-CCR-MW19-1024 | FC-CCR-FD07-1024 |
| FC-CCR-MW82S-1024 | FC-CCR-FD08-1024 |

a. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| FC-CCR-CM02-1024, FC-CCR-MW65-1024, FC-CCR-SW3-1024, FC-CCR-SUMP18-1024, FC-CCR-FD08-1024 | TDS |
| FC-CCR-MW64-1024, FC-CCR-MW82S-1024 | Chloride, Sulfate, Fluoride |
| FC-CCR-EW12R-1024, FC-CCR-CM02-1024 | Fluoride |
| FC-CCR-MW62-1024, FC-CCR-FD08-1024 | pH |

a. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are there other QC issues that affect data quality?

Yes (circled) No

If Yes:

| |
|---|
| Detections with concentrations between the detection and reporting limits were J qualified as being quantitatively uncertain. (J, DL) |

Note:
DL = The detected concentration was between the detection and reporting limits.

12. Are non-detect results sufficiently low to meet EPA and Alternative GWPS primary drinking water criteria?

Yes (circled) No

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| | | |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Pace Analytical | | |
| **Sample Delivery Group:** | L1793198/10714223 | **Review Date:** | Marie Bevier |
| **Validator's Name:** | Morgan Schimelfenig | **Reviewed By:** | 12/23/2024 |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW86-1024 | 10/23/24 13:45 | L1793198-01/ 10714223001 | |
| FC-CCR-MW66-1024 | 10/23/24 12:24 | L1793198-02/ 10714223002 | |
| FC-CCR-FD03-1024 | 10/23/24 13:13 | L1793198-03/ 10714223003 | Field duplicate of FC-CCR-MW86-1024 |
| FC-CCR-MW70-1024 | 10/23/24 11:20 | L1793198-04/ 10714223004 | |
| FC-CCR-URS07-1024 | 10/21/24 12:37 | L1793198-05/ 10714223005 | |
| FC-CCR-URS05-1024 | 10/21/24 15:41 | L1793198-06/ 10714223006 | |
| FC-CCR-FD01-1024 | 10/21/24 15:55 | L1793198-07/ 10714223007 | Field duplicate of FC-CCR-URS05-1024 |
| FC-CCR-FD02-1024 | 10/21/24 16:55 | L1793198-08/ 10714223008 | Field duplicate of FC-CCR-URS06-1024 |
| FC-CCR-URS06-1024 | 10/21/24 16:44 | L1793198-09/ 10714223009 | |
| FC-CCR-URS08-1024 | 10/21/24 14:03 | L1793198-10/ 10714223010 | |
| FC-CCR-MW84-1024 | 10/24/24 17:22 | L1793198-11/ 10714223011 | |
| FC-CCR-MW71-1024 | 10/24/24 10:42 | L1793198-12/ 10714223012 | |
| FC-CCR-MW72-1024 | 10/24/24 11:55 | L1793198-13/ 10714223013 | |
| FC-CCR-MW73-1024 | 10/24/24 12:53 | L1793198-14/ 10714223014 | |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Beryllium, Boron, Calcium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium | Metals | EPA 200.8 |
| Mercury | Metals | EPA 245.1 |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| pH | General Chemistry | SM 4500 H+B |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| FC-CCR-MW86-1024 | pH | 4 Days, 20 Hours, 25 Minutes | J-HT |
| FC-CCR-MW66-1024 | pH | 4 Days, 22 Hours, 26 Minutes | J-HT |
| FC-CCR-FD03-1024 | pH | 4 Days, 21 Hours, 37 Minutes | J-HT |
| FC-CCR-MW70-1024 | pH | 4 Days, 23 Hours, 30 Minutes | J-HT |
| FC-CCR-URS07-1024 | pH | 6 Days, 22 Hours, 13 Minutes | J-HT |
| FC-CCR-URS05-1024 | pH | 6 Days, 19 Hours, 9 Minutes | J-HT |
| FC-CCR-FD01-1024 | pH | 6 Days, 18 Hours, 55 Minutes | J-HT |
| FC-CCR-FD02-1024 | pH | 6 Days, 17 Hours, 55 Minutes | J-HT |
| FC-CCR-URS06-1024 | pH | 6 Days, 17 Hours, 26 Minutes | J-HT |
| FC-CCR-URS08-1024 | pH | 6 Days, 20 Hours, 7 Minutes | J-HT |
| FC-CCR-MW84-1024 | pH | 3 Days, 17 Hours, 28 Minutes | J-HT |
| FC-CCR-MW71-1024 | pH | 4 Days, 0 Hours, 8 Minutes | J-HT |
| FC-CCR-MW72-1024 | pH | 3 Days, 22 Hours, 55 Minutes | J-HT |
| FC-CCR-MW73-1024 | pH | 3 Days, 21 Hours, 57 Minutes | J-HT |

Note:
HT = Maximum recommended hold time was exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| Barium | 0.97 ug/L | None | NA |

Note:
NA = Not applicable.

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| FC-CCR-URS06-1024 | Chloride, Fluoride, Sulfate, Mercury, Beryllium, Boron, Calcium, Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium |
| FC-CCR-MW86-1024 | Mercury, Beryllium, Boron, Calcium |
| FC-CCR-MW66-1024 | Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes (No) N/A

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| FC-CCR-URS06-1024 | Chloride | 0%, 0% | 80-120% | NA4 |
| FC-CCR-URS06-1024 | Sulfate | 0%, 0% | 80-120% | NA4 |
| FC-CCR-URS06-1024 | Boron | -763%, 263% | 70-130% | NA4 |
| FC-CCR-URS06-1024 | Calcium | -58%, MS | 70-130% | NA4 |
| FC-CCR-MW86-1024 | Boron | 1290%, MS | 70-130% | NA4 |
| FC-CCR-MW66-1024 | Antimony | 21% | 20% | None |
| FC-CCR-MW66-1024 | Arsenic | 21% | 20% | J-HD |
| FC-CCR-MW66-1024 | Molybdenum | 24% | 20% | J-HD |
| FC-CCR-MW66-1024 | Selenium | 23% | 20% | J-HD |

Note:
NA4 = Analyte concentration in the unspiked native sample is greater than four times the spike concentration
HD = Imprecision between matrix spike and matrix spike duplicate.

9. Field duplicate collected? (Yes) No

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| FC-CCR-URS05-1024 | FC-CCR-FD01-1024 |
| FC-CCR-URS06-1024 | FC-CCR-FD02-1024 |
| FC-CCR-MW86-1024 | FC-CCR-FD03-1024 |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| FC-CCR-MW84-1024 | Total Dissolved Solids |
| FC-CCR-URS06-1024 | pH, Chloride, Fluoride, Sulfate |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Other sample receipt issues? (Yes) No

If yes, provide details.

Detections with concentrations less than the reporting limit were J qualified as being quantitatively uncertain. (J, DL)

12. Are non-detect results sufficiently low to meet EPA or Alternative GWPS primary drinking water criteria?

Yes (circled) No

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| | | |
| | | |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Pace Analytical Mt Juliet/Pace Analytical MN | | |
| **Sample Delivery Group:** | L1794401/10714603 | **Review Date:** | |
| **Validator's Name:** | Morgan Schimelfenig | **Reviewed By:** | |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW61-1024 | 10/25/24 15:07 | L1794401-01/10714603001 | |
| FC-CCR-MW75-1024 | 10/25/24 13:46 | L1794401-02/10714603002 | |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Beryllium, Boron, Calcium, Magnesium, Potassium, Sodium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium | Metals | EPA 200.8 |
| Mercury | Metals | EPA 245.1 |
| Alkalinity | General Chemistry | SM 2320B |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| pH | General Chemistry | SM 4500 H+ B |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| FC-CCR-MW61-1024 | pH | 6 Days, 18 Hours, 53 Minutes | J-HT |
| FC-CCR-MW75-1024 | pH | 6 Days, 20 Hours, 14 Minutes | J-HT |

Note:
HT = Holding time exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| Fluoride | 79.1 ug/L | None | NA |
| Boron | 64.2 ug/L | None | NA |
| Calcium | 43.7 ug/L | None | NA |
| Magnesium | 127 ug/L | None | NA |
| Sodium | 147 ug/L | None | NA |

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

Notes:
LL = Low LCS and/or LCSD recovery.

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| FC-CCR-MW61-1024 | Mercury, Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes (No) N/A

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| FC-CCR-MW61-1024 | Lithium | 53%, MSD | 70-130% | NA4 |

Notes:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? Yes (No)

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| | |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No) N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| | |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are there other QC issues that affect data quality?

(Yes) No

If Yes:

| |
|---|
| Detections with concentrations less than the reporting limit were J qualified as being quantitatively uncertain. (J, DL) |

Note:
DL = The detected concentration was less than the reporting limit.

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| | | |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Pace Analytical | | |
| **Sample Delivery Group:** | L1800973/10716439 | **Review Date:** | 12/16/2024 |
| **Validator's Name:** | Morgan Schimelfenig | **Reviewed By:** | Caitlin Riechmann |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW87-1024 | 11/12/24 16:07 | L1800973-01/ 10716439001 | |
| FC-CCR-MW08-1024 | 11/12/24 11:35 | L1800973-02/ 10716439002 | |
| FC-CCR-MW07-1024 | 11/12/24 12:32 | L1800973-03/ 10716439003 | |
| FC-CCR-MW52-1024 | 11/12/24 10:43 | L1800973-04/ 10716439004 | |
| FC-CCR-MW49A-1024 | 11/12/24 09:09 | L1800973-05/ 10716439005 | |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium | Metals | EPA 200.8 |
| Mercury | Metals | EPA 245.1 |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| Alkalinity | General Chemistry | SM 2320B |
| pH | General Chemistry | SM 4500 H+B |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| FC-CCR-MW87-1024 | pH | 7 Days, 5 Hours, 23 Minutes | J-HT |
| FC-CCR-MW08-1024 | pH | 7 Days, 9 Hours, 55 Minutes | J-HT |
| FC-CCR-MW07-1024 | pH | 7 Days, 8 Hours, 58 Minutes | J-HT |
| FC-CCR-MW49A-1024 | pH | 7 Days, 12 Hours, 21 Minutes | J-HT |

Note:
HT = Maximum recommended hold time was exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| Iron | 26.9 ug/L | FC-CCR-MW08-1024 | U-MB |
| Sodium | 162 ug/L | None | NA |

Note:
MB = Method blank contamination.

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| FC-CCR-MW07-1024 | Mercury |
| FC-CCR-MW52-1024 | Cobalt, Molybdenum |

a. Are MS recoveries and/or precision within laboratory specified limits?

(Yes) No N/A

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

9. Field duplicate collected? Yes (No)

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| | |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| FC-CCR-MW87-1024 | Alkalinity |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Other sample receipt issues? (Yes) No

If yes, provide details.

| |
|---|
| Detections with concentrations less than the reporting limit were J qualified as being quantitatively uncertain. (J, DL) |

13. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| | | |
| | | |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Pace Analytical | | |
| **Sample Delivery Group:** | L1800977/10716438 | **Review Date:** | 1/14/2025 |
| **Validator's Name:** | Morgan Schimelfenig | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW24-1124 | 11/13/24 13:37 | L1800977-01/10716438001 | |
| FC-CCR-EW14-1124 | 11/13/24 12:47 | L1800977-02/10716438002 | |
| FC-CCR-MW34-1124 | 11/13/24 15:03 | L1800977-03/10716438003 | |
| FC-CCR-DMX05R-1124 | 11/13/24 11:56 | L1800977-04/10716438004 | |
| FC-CCR-MW15-1124 | 11/14/24 13:22 | L1800977-05/10716438005 | |
| FC-CCR-MW11-1124 | 11/14/24 11:11 | L1800977-06/10716438006 | |
| FC-CCR-MW18-1124 | 11/14/24 16:01 | L1800977-07/10716438007 | |
| FC-CCR-MW16-1124 | 11/14/24 12:18 | L1800977-08/10716438008 | |
| FC-CCR-MW17R-1124 | 11/14/24 14:48 | L1800977-09/10716438009 | |
| FC-CCR-DMX06-1024 | 11/12/24 14:50 | L1800977-10/10716438010 | |
| FC-CCR-DMX04-1124 | 11/14/24 17:14 | L1800977-11/10716438011 | |
| FC-CCR-FD09-1124 | 11/14/24 07:35 | L1800977-12/10716438012 | Field duplicate of FC-CCR-MW17R-1124 |
| FC-CCR-EW15-1124 | 11/14/24 10:12 | L1800977-13/10716438013 | |
| FC-CCR-DMX03-1024 | 11/12/24 13:38 | L1800977-14/10716438014 | |
| FC-CCR-MW05-1124 | 11/13/24 10:58 | L1800977-15/10716438015 | |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 9056A |
| Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium | Metals | EPA 200.8 |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| Alkalinity | General Chemistry | SM 2320B |
| pH | General Chemistry | SM 9040C |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| FC-CCR-MW24-1124 | pH | 6 Days, 7 Hours, 53 Minutes | J-HT |
| FC-CCR-DMX05R-1124 | pH | 6 Days, 9 Hours, 34 Minutes | J-HT |
| FC-CCR-MW15-1124 | pH | 5 Days, 8 Hours, 8 Minutes | J-HT |
| FC-CCR-MW11-1124 | pH | 5 Days, 10 Hours, 19 Minutes | J-HT |
| FC-CCR-MW18-1124 | pH | 5 Days, 5 Hours, 29 Minutes | J-HT |
| FC-CCR-MW16-1124 | pH | 5 Days, 9 Hours, 12 Minutes | J-HT |
| FC-CCR-MW17R-1124 | pH | 5 Days, 6 Hours, 42 Minutes | J-HT |
| FC-CCR-DMX06-1024 | pH | 8 Days, 6 Hours, 45 Minutes | J-HT |
| FC-CCR-DMX04-1124 | pH | 5 Days, 4 Hours, 16 Minutes | J-HT |
| FC-CCR-FD09-1124 | pH | 5 Days, 13 Hours, 55 Minutes | J-HT |
| FC-CCR-DMX03-1024 | pH | 7 Days, 7 Hours, 52 Minutes | J-HT |
| FC-CCR-MW05-1124 | pH | 6 Days, 10 Hours, 32 Minutes | J-HT |

Note:
HT = Maximum recommended hold time was exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| Chloride | 559 ug/L | NONE | NA |
| Fluoride | 80.4 ug/L | NONE | NA |
| Sulfate | 1040 ug/L | NONE | NA |
| Iron | 29.9 ug/L | FC-CCR-MW24-1124<br>FC-CCR-EW14-1124<br>FC-CCR-MW34-1124<br>FC-CCR-MW18-1124<br>FC-CCR-MW16-1124<br>FC-CCR-MW17R-1124<br>FC-CCR-DMX06-1024<br>FC-CCR-DMX04-1124<br>FC-CCR-FD09-1124<br>FC-CCR-EW15-1124<br>FC-CCR-MW05-1124 | U-MB |
| Sodium | 162 ug/L | NONE | NA |

Note:
MB = The concentration detected in the sample was less than five times the concentration detected in the blank.

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| FC-CCR-MW24-1124 | Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium |
| FC-CCR-DMX04-1124 | Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium |
| FC-CCR-MW15-1124 | Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium |
| FC-CCR-FD09-1124 | Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium |
| FC-CCR-DMX05R-1124 | Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Lithium, Molybdenum, Selenium, Thallium |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes (No) N/A

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| FC-CCR-MW24-1124 | Calcium | 58%, 56% | 70-130% | NA4 |
| FC-CCR-MW24-1124 | Sodium | -1030%, -992% | 70-130% | NA4 |
| FC-CCR-DMX04-1124 | Magnesium | 146%, MS | 70-130% | NA4 |
| FC-CCR-DMX04-1124 | Sodium | 527%, MS | 70-130% | NA4 |
| FC-CCR-MW15-1124 | Calcium | -75%, 54% | 70-130% | NA4 |
| FC-CCR-MW15-1124 | Magnesium | 31%, 40% | 70-130% | NA4 |
| FC-CCR-MW15-1124 | Sodium | -809%, -180% | 70-130% | NA4 |

Notes:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on the MS recovery.

9. Field duplicate collected? (Yes) No

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| FC-CCR-MW17R-1124 | FC-CCR-FD09-1124 |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| FC-CCR-DMX03-1024 | TDS |
| FC-CCR-MW11-1124 | TDS |
| FC-CCR-DMX05R-1124 | Alkalinity |
| FC-CCR-DMX06-1024 | Alkalinity |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are there other QC issues that affect data quality?

(Yes) No

If Yes:

| |
|---|
| Detections with concentrations less than the reporting limit were J qualified as being quantitatively uncertain. (J, DL) |

Notes:
DL = The detected concentration was less than the reporting limit.

12. Are non-detect results sufficiently low to meet EPA and Alternative GWPS primary drinking water criteria?

Yes (circled) No

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| | | |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Pace Analytical | | |
| **Sample Delivery Group:** | L1801382 | **Review Date:** | 12/10/24 |
| **Validator's Name:** | Morgan Schimelfenig | **Reviewed By:** | Michelle Zhao |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW36R-1124 | 11/15/24 13:53 | L1801382-01 | |
| FC-CCR-MW38R-1124 | 11/16/24 08:38 | L1801382-02 | |
| FC-CCR-MW57-1124 | 11/15/24 16:56 | L1801382-03 | |
| FC-CCR-MW56-1124 | 11/15/24 15:24 | L1801382-04 | |
| FC-CCR-EB01-1124 | 11/16/24 09:30 | L1801382-05 | Equipment Blank |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Beryllium, Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium | Metals | EPA 200.8 |
| Mercury | Metals | EPA 245.1 |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| Alkalinity | General Chemistry | SM 2320B |
| pH | General Chemistry | SM 4500 H+B |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? (Yes) No N/A

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   Yes (No) N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| FC-CCR-MW36R-1124 | pH | 5 Days, 7 Hours, 42 Minutes | J-HT |
| FC-CCR-MW38R-1124 | pH | 4 Days, 9 Hours, 42 Minutes | J-HT |
| FC-CCR-MW57-1124 | pH | 5 Days, 1 Hours, 24 Minutes | J-HT |
| FC-CCR-MW56-1124 | pH | 5 Days, 2 Hours, 56 Minutes | J-HT |

Note:
HT = Maximum recommended hold time was exceeded.

6. Target analytes detected in the blanks? (Yes) No N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| Iron | 34.7 ug/L | FC-CCR-MW36R-1124<br>FC-CCR-MW38R-1124<br>FC-CCR-MW56-1124 | J-EB |
| Magnesium | 122 ug/L | None | NA |
| Manganese | 1.02 ug/L | None | NA |
| Sodium | 798 ug/L | None | NA |
| Chromium | 7.24 ug/L | None | NA |
| Molybdenum | 0.884 ug/L | FC-CCR-MW36R-1124<br>FC-CCR-MW38R-1124<br>FC-CCR-MW57-1124<br>FC-CCR-MW56-1124 | J-EB |

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

8. MS performed on a project-specific sample? Yes (No) N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| | |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes No (N/A)

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

9. Field duplicate collected? Yes (No)

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| | |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| FC-CCR-MW57-1124 | Total Dissolved Solids |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes (No) N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| FC-CCR-MW57-1124 | Total Dissolved Solids | J-HD |

Note:
HD = Analytical imprecision between the field sample and laboratory duplicate.

11. Other sample receipt issues? (Yes) No

If yes, provide details.

In L1801382-03 there were 2 TDS results reported from sample FC-CCR-MW57-1124, one analyzed in hold with a "J3" lab qualifier, and one analyzed out of hold. We've set the use flag to N for the sample analyzed out of hold.

Detections with concentrations less than the reporting limit were J qualified as being quantitatively uncertain. (J, DL)

13. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| | | |
| | | |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Pace Analytical | | |
| **Sample Delivery Group:** | L1801388 | **Review Date:** | 12/04/2024 |
| **Validator's Name:** | Morgan Schimelfenig | **Reviewed By:** | Caitlin Riechmann |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-BASWR-1124 | 11/15/24 15:12 | L1801388-01 | |
| FC-CCR-LOWVOLUME WASTE TANK-1124 | 11/15/24 15:19 | L1801388-02 | |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Fluoride | Anions | EPA 300.0 |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   Yes No (N/A)

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   Yes No (N/A)

5. Samples analyzed for pH within 15 minutes of sampling? Yes No (N/A)

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| | | | |

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| | | | |

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

8. MS performed on a project-specific sample? Yes (No) N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| | |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes No (N/A)

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

9. Field duplicate collected? Yes (No)

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| | |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No) N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| | |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are there other QC issues that affect data quality?

Yes (No)

If Yes:

| |
|---|
| |

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

(Yes) No

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| | | |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Pace Analytical | | |
| **Sample Delivery Group:** | L1801396 | **Review Date:** | 12/04/2024 |
| **Validator's Name:** | Morgan Schimelfenig | **Reviewed By:** | Caitlin Riechmann |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW43-1124 | 11/15/24 12:24 | L1801396-01 | |
| FC-CCR-MW50A-1124 | 11/15/24 16:41 | L1801396-02 | |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Chloride, Fluoride, Sulfate | Anions | EPA 300.0 |
| Beryllium, Boron, Calcium, Lithium | Metals | EPA 200.7 |
| Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium | Metals | EPA 200.8 |
| Mercury | Metals | EPA 245.1 |
| Total Dissolved Solids (TDS) | General Chemistry | SM 2540C |
| pH | General Chemistry | SM 4500 H+B |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   (Yes) No N/A

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   (Yes) No N/A

5. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| FC-CCR-MW43-1124 | pH | 7 Days, 3 Hours, 6 Minutes | J-HT |

Note:
HT = Maximum recommended hold time was exceeded.

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| | | | |

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

8. MS performed on a project-specific sample? Yes (No) N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| | |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes No (N/A)

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

9. Field duplicate collected? Yes (No)

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| | |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| FC-CCR-MW43-1124 | Total Dissolved Solids, pH |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Other sample receipt issues? (Yes) No

If yes, provide details.

| |
|---|
| Detections with concentrations less than the reporting limit were J qualified as being quantitatively uncertain. (J, DL) |

13. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| | | |
| | | |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Pace Analytical | | |
| **Sample Delivery Group:** | L1809878 | **Review Date:** | 1/2/2025 |
| **Validator's Name:** | Caitlin Riechmann | **Reviewed By:** | Sean Gormley |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW79S-1224 | 12/12/24 13:16 | L1809878-01 | |
| FC-CCR-MW81-1224 | 12/12/24 13:58 | L1809878-02 | |
| FC-CCR-MW78S-1224 | 12/12/24 15:11 | L1809878-03 | |
| FC-CCR-FD05-1224 | 12/12/24 09:30 | L1809878-04 | Field duplicate of FC-CCR-MW81-1224 |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Boron | Metals | EPA 200.7 |
| Cobalt, Molybdenum | Metals | EPA 200.8 |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? Yes (No)

If no, provide details.

| |
|---|
| Sample FC-CCR-MW62-1224 was logged on the COC for fluoride analysis, but the laboratory was unable to perform this analysis. The sample was removed from this SDG. |

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

| |
|---|
| |

Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   Yes No (N/A)

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   Yes No (N/A)

5. Samples analyzed for pH within 15 minutes of sampling? Yes No (N/A)

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| | | | |

6. Target analytes detected in the blanks? Yes (No) N/A

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| | | | |

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

8. MS performed on a project-specific sample? (Yes) No N/A

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| FC-CCR-MW81-1224 | Boron |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes (No) N/A

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| FC-CCR-MW81-1224 | Boron | 0%, 0% | 70-130% | NA4 |

Note:
NA4 = The concentration detected in the unspiked native sample is more than four times the spike concentration and it is not possible to assess data usability based on MS recoveries.

9. Field duplicate collected? (Yes) No

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| FC-CCR-MW81-1224 | FC-CCR-FD05-1224 |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| FC-CCR-MW81-1224 | Cobalt, Molybdenum |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

(Yes) No N/A

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|

| | | |
|---|---|---|
| | | |

11. Other sample receipt issues? Yes (No)

If yes, provide details.

| |
|---|
| |

13. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| | | |
| | | |

**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Radiation Safety Engineering, Inc. | | |
| **Sample Delivery Group:** | 75657-75688 | **Review Date:** | 11/15/2024 |
| **Validator's Name:** | Morgan Schimelfenig | **Reviewed By:** | Marie Bevier |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW67-1024 | 10/18/2024 8:10 | 75657 | |
| FC-CCR-MW68-1024 | 10/18/2024 9:34 | 75658 | |
| FC-CCR-MW69-1024 | 10/20/2024 10:55 | 75659 | |
| FC-CCR-CM01-1024 | 10/20/2024 11:33 | 75660 | |
| FC-CCR-CM02-1024 | 10/20/2024 11:39 | 75661 | |
| FC-CCR-MW83-1024 | 10/20/2024 12:45 | 75662 | |
| FC-CCR-MW85-1024 | 10/20/2024 13:45 | 75663 | |
| FC-CCR-MW84-1024 | 10/24/2024 17:22 | 75664 | |
| FC-CCR-URS08-1024 | 10/21/2024 14:30 | 75665 | |
| FC-CCR-URS07-1024 | 10/21/2024 12:37 | 75666 | |
| FC-CCR-URS05-1024 | 10/21/2024 15:41 | 75667 | |
| FC-CCR-URS06-1024 | 10/21/2024 16:44 | 75668 | |
| FC-CCR-MW70-1024 | 10/23/2024 11:20 | 75669 | |
| FC-CCR-MW71-1024 | 10/24/2024 10:42 | 75670 | |
| FC-CCR-MW72-1024 | 10/24/2024 11:55 | 75671 | |
| FC-CCR-MW73-1024 | 10/24/2024 12:53 | 75672 | |
| FC-CCR-MW86-1024 | 10/23/2024 13:45 | 75673 | |
| FC-CCR-MW66-1024 | 10/23/2024 12:24 | 75674 | |
| FC-CCR-FD01-1024 | 10/21/2024 15:55 | 75675 | Field duplicate of FC-CCR-URS05-1024 |
| FC-CCR-FD02-1024 | 10/21/2024 16:55 | 75676 | Field duplicate of FC-CCR-URS06-1024 |
| FC-CCR-FD03-1024 | 10/23/2024 13:13 | 75677 | Field duplicate of FC-CCR-MW86-1024 |
| FC-CCR-MW62-1024 | 10/23/2024 14:43 | 75678 | |
| FC-CCR-MW63-1024 | 10/23/2024 16:15 | 75679 | |
| FC-CCR-MW64-1024 | 10/23/2024 17:10 | 75680 | |
| FC-CCR-MW65-1024 | 10/23/2024 18:03 | 75681 | |
| FC-CCR-SW1-1024 | 10/24/2024 13:24 | 75682 | |
| FC-CCR-SW2-1024 | 10/23/2024 18:10 | 75683 | |
| FC-CCR-SW3-1024 | 10/23/2024 15:30' | 75684 | |
| FC-CCR-EW12R-1024 | 10/28/2024 12:12 | 75685 | |
| FC-CCR-EW11R-1024 | 10/28/2024 13:40 | 75686 | |
| FC-CCR-MW75-1024 | 10/25/2024 13:46 | 75687 | |
| FC-CCR-MW61-1024 | 10/25/2024 15:07 | 75688 | |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Radium 226, Radium 228, Total Radium | Radionuclides | HPGE |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? Yes No (N/A)

If no, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   Yes No (N/A)

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   Yes No (N/A)

5. Samples analyzed for pH within 15 minutes of sampling? Yes No (N/A)

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| | | | |

6. Target analytes detected in the blanks? Yes No (N/A)

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| | | | |

Note:
NA = Not applicable.

7. LCS recoveries within laboratory-specified limits? Yes No (N/A)

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

8. MS performed on a project-specific sample? Yes No (N/A)

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| | |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes No (N/A)

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

9. Field duplicate collected? (Yes) No

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| FC-CCR-URS05-1024 | FC-CCR-FD01-1024 |
| FC-CCR-URS06-1024 | FC-CCR-FD02-1024 |
| FC-CCR-MW86-1024 | FC-CCR-FD03-1024 |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes No N/A

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| FC-CCR-URS05-1024 | FC-CCR-FD01-1024 | Total Radium | 51% | J-FD |
| FC-CCR-URS06-1024 | FC-CCR-FD02-1024 | Radium 226 | 109% | J-FD |

Note:
FD = Imprecision between primary and field duplicate results.

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No) N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| | |
| | |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are non-detect results sufficiently low to meet EPA primary drinking water criteria?

Yes (circled) No

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| | | |
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**Four Corners CCR Data Review**

| | | | |
|---|---|---|---|
| **Laboratory Name:** | Radiation Safety Engineering, Inc. | | |
| **Sample Delivery Group:** | 75823-75838 | **Review Date:** | 12/11/2024 |
| **Validator's Name:** | Morgan Schimelfenig | **Reviewed By:** | Caitlin Riechmann |

**Sample Summary:**

| Field Sample Identification | Collection Date and Time | Laboratory Sample Identification | Notes |
|---|---|---|---|
| FC-CCR-MW07-1024 | 11/12/2024 12:32 | 75823 | |
| FC-CCR-MW08-1024 | 11/12/2024 11:35 | 75824 | |
| FC-CCR-MW49A-1024 | 11/12/2024 9:09 | 75825 | |
| FC-CCR-DMX03-1024 | 11/12/2024 13:38 | 75826 | |
| FC-CCR-DMX06-1024 | 11/12/2024 14:50 | 75827 | |
| FC-CCR-MW87-1024 | 11/12/2024 16:07 | 75828 | |
| FC-CCR-DMX05R-1124 | 11/13/2024 11:56 | 75829 | |
| FC-CCR-MW16-1124 | 11/14/2024 12:18 | 75830 | |
| FC-CCR-MW15-1124 | 11/14/2024 13:22 | 75831 | |
| FC-CCR-MW17R-1124 | 11/14/2024 14:48 | 75832 | |
| FC-CCR-DMX04-1124 | 11/14/2024 17:14 | 75833 | |
| FC-CCR-FD09-1124 | 11/14/2024 17:35 | 75834 | Field Duplicate of FC-CCR-MW17R-1124 |
| FC-CCR-MW38R-1124 | 11/16/2024 8:38 | 75835 | |
| FC-CCR-MW56-1124 | 11/15/2024 15:24 | 75836 | |
| FC-CCR-MW57-1124 | 11/15/2024 16:56 | 75837 | |
| FC-CCR-EB01-1124 | 11/16/2024 9:30 | 75838 | Equipment Blank |

**Analytical Methods:**

| Analyte | Analyte Group | Method |
|---|---|---|
| Radium 226, Radium 228, Total Radium | Radionuclides | HPGE |

**Qualifier Definitions:**

**J** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

**R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

**U** The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

**UJ** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Sample Receipt Condition:**

COC Signed and Complete? (Yes) No

If No, provide details.

| |
|---|
| |

Sample Login Matched COC? (Yes) No

If no, provide details.

| |
|---|
| |

Sample receipt temperature ≤ 6°C? Yes No (N/A)

If no, provide details.

| |
|---|
| |

1. Samples analyzed for metals and radionuclides within 180 days of sampling?

   (Yes) No N/A

2. Samples analyzed for mercury, ammonia, chloride, fluoride, nitrate/nitrite, sulfate, TOC, and/or DOC within 28 days of sampling?

   Yes No (N/A)

3. Samples Analyzed for alkalinity within 14 days of sampling? Yes No (N/A)

4. Samples analyzed for total dissolved solids within 7 days of sampling?

   Yes No (N/A)

5. Samples analyzed for pH within 15 minutes of sampling? Yes No (N/A)

If No:

| Sample ID | Analysis | Time Between Collection and Analysis | Effect on Data Usability |
|---|---|---|---|
| | | | |

6. Target analytes detected in the blanks? Yes No (N/A)

If Yes:

| Detected Analyte | Concentration | Samples with concentrations less than 5 times the blank detection | Effect on Data Usability |
|---|---|---|---|
| | | | |

7. LCS recoveries within laboratory-specified limits? Yes No (N/A)

If No:

| Analyte | Recovery | QC Limits | Affected Samples | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

8. MS performed on a project-specific sample? Yes No (N/A)

If Yes:

| Spiked Sample ID | Spiked Analyte(s) |
|---|---|
| | |

a. Are MS recoveries and/or precision within laboratory specified limits?

Yes No (N/A)

If No:

| Sample ID | Analyte | RPD or Recovery | Accuracy or Recovery Limits | Effect on Data Usability |
|---|---|---|---|---|
| | | | | |

9. Field duplicate collected? (Yes) No

If Yes:

| Parent Sample | Field Duplicate |
|---|---|
| FC-CCR-MW17R-1124 | FC-CCR-FD09-1124 |

b. Are RPDs between primary and duplicate results ≤ 20% or are differences between analyte concentrations ≤ the reporting limit?

Yes (No) N/A

If No:

| Primary Sample ID | Duplicate Sample ID | Analyte | RPD | Effect on Data Usability |
|---|---|---|---|---|
| FC-CCR-MW17R-1124 | FC-CCR-FD09-1124 | Radium 228 | 92% | J-FD |

Note:
FD = Imprecision between primary and field duplicate results.

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No) N/A

If Yes:

| Sample ID | Analysis |
|---|---|
| | |

c. Is the RPD between duplicate results within laboratory-specified limits or is the difference between analyte concentrations less than the reporting limit?

Yes No (N/A)

If No:

| Sample ID | Analyte | Effect on Data Usability |
|---|---|---|
| | | |

11. Are non-detect results sufficiently low to meet EPA or alternative GWPS primary drinking water criteria?

Yes (circled) No

| Analyte | List | MCL | Alternative GWPS | Units |
|---|---|---|---|---|
| Antimony | Appendix IV | 0.006 | -- | mg/L |
| Arsenic | Appendix IV | 0.010 | -- | mg/L |
| Barium | Appendix IV | 2 | -- | mg/L |
| Beryllium | Appendix IV | 0.004 | -- | mg/L |
| Boron | Appendix III | -- | -- | mg/L |
| Cadmium | Appendix IV | 0.005 | -- | mg/L |
| Calcium | Appendix III | -- | -- | mg/L |
| Chloride | Appendix III | -- | -- | mg/L |
| Chromium | Appendix IV | 0.1 | -- | mg/L |
| Cobalt | Appendix IV | -- | 0.006 | mg/L |
| Fluoride | Appendix III/IV | 4.0 | -- | mg/L |
| Lead | Appendix IV | -- | 0.015 | mg/L |
| Lithium | Appendix IV | -- | 0.040 | mg/L |
| Mercury | Appendix IV | 0.002 | -- | mg/L |
| Molybdenum | Appendix IV | -- | 0.1 | mg/L |
| pH | Appendix III | -- | -- | S.U. |
| Radium 226 + Radium 228 | Appendix IV | 5 | -- | pCi/L |
| Selenium | Appendix IV | 0.05 | -- | mg/L |
| Sulfate | Appendix III | -- | -- | mg/L |
| Total Dissolved Solids | Appendix III | -- | -- | mg/L |
| Thallium | Appendix IV | 0.002 | -- | mg/L |

If No, list affected samples and analytes.

| Sample ID | Analyte | Reporting Limit |
|---|---|---|
| | | |
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# APPENDIX

# G

## GROUNDWATER QUALITY DATA TABLES THROUGH 2024

**Table G-1**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | *1.9* | *540* | *710* | *<RL* | *LPL and UPL* | *LPL and UPL* | *13,000* | *20,000* |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-71 | URS/CWTP | Background | 3/5/2016 | FC-CCR-MW-71-030516 | **0.44** | **450** | **660** | <0.050 | **7.73** | -- | **8,500** | **13,000** |
| MW-71 | URS/CWTP | Background | 3/5/2016 | FC-CCR-MW-71-030516 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 3/5/2016 | *DUP* FC-CCR-FD-2-030516 | **0.46** | **480** | **670** | <0.050 | -- | -- | **8,500** | **13,000** |
| MW-71 | URS/CWTP | Background | 3/5/2016 | *DUP* FC-CCR-FD-2-030516 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 4/26/2016 | FC-CCR-MW-71-042616 | **0.69** | **470** | **670** | <2.0 | **6.58** | -- | **13,000** | **21,000** |
| MW-71 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW71-616 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW71-616 | **0.70** | **460** | **750** | <0.40 | **6.47** | **6.87** | **13,000** | **20,000** |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW71-816 | **0.56** | **450** | **590** | <0.80 | **7.04** | **7.1** | **8,400** | **14,000** |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW71-816 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW71-816 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW101-816 | -- | -- | -- | -- | -- | **7.1** | -- | **14,000** |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW101-816 | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW101-816 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 9/12/2016 | FC-CCR-MW71-916 | **0.58** | **460** | **570** | <0.40 | **6.86** | **7.2** | **9,300** | **16,000** |
| MW-71 | URS/CWTP | Background | 9/12/2016 | FC-CCR-MW71-916 | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 9/12/2016 | FC-CCR-MW71-916 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW71-1016 | **0.55** | **410** | **580** | <0.40 | **6.90** | **7.3** | **9,100** | **15,000** |
| MW-71 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW71-1016 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW71-117 | **0.62** | **440** | **610** | <0.40 | **6.64** | **7.6** | **14,000** | **17,000** |
| MW-71 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW71-117 | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW71-117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW71-41717 | **0.52** | **400** | **550** | <2.0 | **6.81** | **7.6** | **9,400** | **15,000** |
| MW-71 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW71-41717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW71-41717 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW71-5217 | -- | -- | -- | <13 | **6.86** | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW71-5217 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW71-52917 | -- | -- | -- | <2.0 | **6.76** | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW71-52917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW71-62217 | **0.60** | **460** | **620** | -- | **6.79** | **7.2** | **4,600** | **17,000** |
| MW-71 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW71-62217 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW71-62117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW71-72117 | **0.55** | **450** | **590** | <2.0 | **7.00** | **7.1** | **10,000** | **15,000** |
| MW-71 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW71-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW71-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW71-81017 | **0.55** | **450** | **560** | -- | **6.59** | **7.4** | **10,000** | **15,000** |
| MW-71 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW71-81017 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW71-81017 | -- | -- | -- | -- | -- | -- | -- | -- |

**Table G-1**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | *1.9* | *540* | *710* | *<RL* | *LPL and UPL* | *LPL and UPL* | *13,000* | *20,000* |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-71 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW71-81717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW71-81717 | **0.56** | **480** | **570** | <2.0 | **6.62** | **7.3** | **9,500** | **15,000** |
| MW-71 | URS/CWTP | Background | 9/11/2017 | FC-CCR-MW71-91117 | **0.55** | **470** | **570** | -- | **6.56** | **7.1** | **9,900** | **15,000** |
| MW-71 | URS/CWTP | Background | 9/11/2017 | FC-CCR-MW71-91117 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 9/11/2017 | FC-CCR-MW71-91117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW71-101317 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW71-101317 | **0.54** | **420** | **570** | <2.0 | **6.79** | **7.2** | **10,000** | **15,000** |
| MW-71 | URS/CWTP | Background | 11/30/2017 | FC-CCR-MW71-113017 | **0.56** | **490** | **540** | <2.0 | **6.71** | **7.1** | **10,000** | **15,000** |
| MW-71 | URS/CWTP | Background | 3/16/2018 | FC-CCR-MW71-31618 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-71-6218 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-71-6218 | **0.55** | **420** | **520** | <0.80 | **6.85** | **7.1** | **10,000** | **15,000** |
| MW-71 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW71-11318 | **0.56** | **470** | **520** | <2.0 | **6.81** | **7.0** | **11,000** | **16,000** |
| MW-71 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW71-11318 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW71-11318 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD01-11318 | **0.54** | **450** | **520** | <0.80 | **6.68** | **7.2** | **11,000** | **16,000** |
| MW-71 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD01-11318 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW71-031819 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW71-031819 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 5/6/2019 | FC-CCR-MW71-5719 | -- | -- | -- | -- | **6.66** | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 12/2/2019 | FC-CCR-MW71-120219 | **0.50** | **440** | **500** | <0.80 | **6.66** | **7.2 J** | **10,000** | **16000 J** |
| MW-71 | URS/CWTP | Background | 6/20/2020 | FC-CCR-MW71-0620 | **0.59** | **450** | **480** | <0.8 | **6.71** | **7.3 J** | **9,900** | **15,000** |
| MW-71 | URS/CWTP | Background | 11/5/2020 | FC-CCR-MW71-1120 | **0.59** | **460** | **490** | <0.4 | **6.78** | **7.2 J** | **10,000** | **16,000** |
| MW-71 | URS/CWTP | Background | 4/22/2021 | FC-CCR-MW71-0421 | **0.73** | **510** | **560** | **3.8N J** | **6.83** | **7.2 J** | **14,000** | **19,000** |
| MW-71 | URS/CWTP | Background | 11/12/2021 | FC-CCR-MW71-1121 | **0.54** | **440** | **560** | **0.14 J** | **6.74** | **7.4 J** | **12,000** | **8,000** |
| MW-71 | URS/CWTP | Background | 5/21/2022 | FC-CCR-MW71-0522 | **0.56** | **450** | **560** | <0.8 | **6.74** | **7.58 J** | **9,900** | **16,000** |
| MW-71 | URS/CWTP | Background | 5/21/2022 | FC-CCR-SS04-0522 | **0.78 J** | **467** | **642** | <50/0.28 J | **6.74** | **7.8 J** | **12,400** | **16,000** |
| MW-71 | URS/CWTP | Background | 11/13/2022 | FC-CCR-MW71-1122 | **0.52** | **490** | **530** | <0.8 | **6.79** | **7.1 J** | **12,000** | **19,000** |
| MW-71 | URS/CWTP | Background | 5/8/2023 | FC-CCR-MW71-0523 | **0.58** | **470** | **570** | <2 | **6.80** | **7.2 J** | **10,000** | **17,000** |
| MW-71 | URS/CWTP | Background | 6/27/2023 | FC-CCR-MW71-0623 | **0.57** | **530** | **600** | < 20 | **7.04** | **7.0 J** | **14,000** | **20,000** |
| MW-71 | URS/CWTP | Background | 11/08/2023 | FC-CCR-MW71-1123 | **0.67 J** | **540 J** | **640** | <0.8 | **6.86** | **7.2 J** | **14,000** | **20,000 J** |
| MW-71 | URS/CWTP | Background | 05/16/2024 | FC-CCR-MW71-0524 | **0.76** | **440** | **550** | <0.4 | **6.85** | **7.3 J** | **9,800** | **17,000** |
| MW-71 | URS/CWTP | Background | 10/24/2024 | FC-CCR-MW71-1024 | **0.652** | **427** | **611** | <0.38 | **6.83** | **7.24 J** | **10,100** | **18,000** |
| MW-72 | URS/CWTP | Background | 3/7/2016 | FC-CCR-MW72-030716 | **0.16** | **480** | **490** | <0.050 | **7.71** | -- | **12,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 3/7/2016 | FC-CCR-MW72-030716 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 4/26/2016 | FC-CCR-MW-72-042616 | **0.22** | **470** | **430** | <2.0 | **6.87** | -- | **11,000** | **19,000** |
| MW-72 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW72-616 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW72-616 | **0.25** | **570** | **530** | <0.40 | **6.56** | **6.99** | **4,500** | **9,500** |
| MW-72 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW72-816 | **0.23** | **450** | **440** | <0.40 | **6.72** | **7.0** | **10,000** | **17,000** |

**Table G-1**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | *1.9* | *540* | *710* | *<RL* | *LPL and UPL* | *LPL and UPL* | *13,000* | *20,000* |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-72 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW72-816 | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW72-816 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 9/13/2016 | FC-CCR-MW72-916 | **0.24** | **470** | **450** | <0.40 | **6.17** | **7.1** | **10,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 9/13/2016 | FC-CCR-MW72-916 | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 9/13/2016 | FC-CCR-MW72-916 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW72-1016 | **0.23** | **400** | **480** | <0.40 | **6.84** | **7.1** | **11,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW72-1016 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW72-117 | **0.23** | **420** | **430** | <0.40 | **6.63** | **7.5** | **11,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW72-117 | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW72-117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW101-117 | **0.21** | **430** | **450** | <0.40 | -- | **7.5** | **11,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW101-117 | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW101-117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW-72-41717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW-72-41717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW72-41717 | **0.20** | **440** | **450** | <2.0 | **6.73** | **7.4** | **610** | **17,000** |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW72-41717 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW-72-5217 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW72-5217 | -- | -- | -- | <13 | **6.83** | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW72-52917 | -- | -- | -- | <2.0 | **6.68** | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW72-62217 | **0.23** | **450** | **450** | -- | **6.65** | **7.1** | **11,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW72-62217 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW-72-62117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | *DUP* FC-CCR-FD02-62217 | **0.22** | **440** | **450** | -- | -- | **7.0** | **11,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 6/22/2017 | *DUP* FC-CCR-FD02-62217 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | *DUP* FC-CCR-FD02-62117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW72-72117 | **0.23** | **450** | **460** | <2.0 | **6.93** | **7.1** | **11,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW72-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW72-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW72-81017 | **0.21** | **450** | **460** | -- | **6.47** | **7.3** | **11,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW72-81017 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW72-81017 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | *DUP* FC-CCR-FD02-81017 | **0.25** | **460** | **460** | -- | -- | **7.2** | **12,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 8/10/2017 | *DUP* FC-CCR-FD02-81017 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | *DUP* FC-CCR-FD02-81017 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW72-81717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW72-81717 | **0.26** | **490** | **450** | <2.0 | **6.18** | **7.1** | **11,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 8/17/2017 | *DUP* FC-CCR-FD02-81717 | -- | -- | -- | -- | -- | -- | -- | -- |

**Table G-1**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | *1.9* | *540* | *710* | *<RL* | *LPL and UPL* | *LPL and UPL* | *13,000* | *20,000* |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-72 | URS/CWTP | Background | 8/17/2017 | *DUP* FC-CCR-FD02-81717 | **0.27** | **480** | **460** | <2.0 | -- | **7.2** | **12,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW72-91017 | **0.21** | **470** | **460** | -- | **6.61** | **7.0** | **11,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW72-91017 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW72-91017 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW72-101317 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW72-101317 | **0.22** | **430** | **450** | <2.0 | **6.65** | **7.2** | **11,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 11/29/2017 | FC-CCR-MW72-112917 | **0.22** | **500** | **450** | <2.0 | **6.63** | **7.2** | **10,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 3/16/2018 | FC-CCR-MW72-31618 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-72-6218 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-72-6218 | **0.21** | **410** | **450** | <0.80 | **6.75** | **7.0** | **11,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW72-11318 | **0.22** | **470** | **450** | <2.0 | **6.75** | **7.0** | **11,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW72-11318 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW72-11318 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD02-11318 | **0.21** | **460** | **450** | <2.0 | -- | **7.1** | **11,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD02-11318 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 3/17/2019 | FC-CCR-MW72-031719 | -- | -- | -- | <0.80 | **6.68** | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 3/17/2019 | FC-CCR-MW72-031719 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 5/7/2019 | FC-CCR-MW72-5719 | -- | -- | -- | -- | **6.85** | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 12/2/2019 | FC-CCR-MW72-120219 | **0.19** | **430** | **430** | <0.80 | **6.62** | **7.1 J** | **11,000** | **16000 J** |
| MW-72 | URS/CWTP | Background | 6/19/2020 | FC-CCR-MW72-0620 | **0.23** | **440** | **400** | <0.8 | **6.65** | **7.2 J** | **11,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 11/5/2020 | FC-CCR-MW72-1120 | **0.24** | **470** | **430** | <0.4 | **6.70** | **7.1 J** | **10,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 4/22/2021 | FC-CCR-MW72-0421 | **0.25** | **480** | **400** | <0.8 | **6.89** | **7.2 J** | **10,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 11/12/2021 | FC-CCR-MW72-1121 | **0.22** | **440** | **450** | <0.8 | **6.64** | **7.1 J** | **11,000** | **14,000** |
| MW-72 | URS/CWTP | Background | 5/22/2022 | FC-CCR-MW72-0522 | **0.22** | **440** | **410** | <0.8 | **6.63** | **7.5 J** | **9,600** | **13,000** |
| MW-72 | URS/CWTP | Background | 11/13/2022 | FC-CCR-MW72-1122 | **0.15** | **470** | **400** | <0.8 | **6.81** | **7.2 J** | **10,000** | **15,000** |
| MW-72 | URS/CWTP | Background | 5/8/2023 | FC-CCR-MW72-0523 | **0.28** | **440** | **440** | **4.2** | **6.75** | **7.2 J** | **9,800** | **15,000** |
| MW-72 | URS/CWTP | Background | 6/27/2023 | FC-CCR-MW72-0623 | **0.18** | **510** | **430** | < 20 | **7.06** | **7.1 J** | **9,700** | **15,000** |
| MW-72 | URS/CWTP | Background | 11/08/2023 | FC-CCR-MW72-1123 | **0.21 J** | **500 J** | **430** | <0.8 | **6.89** | **7.3 J** | **9,500** | **15,000** |
| MW-72 | URS/CWTP | Background | 05/16/2024 | FC-CCR-MW72-0524 | **0.28** | **470** | **400** | <0.4 | **6.83** | **7.3 J** | **8,500** | **14,000** |
| MW-72 | URS/CWTP | Background | 10/24/2024 | FC-CCR-MW72-1024 | **0.291** | **419** | **415** | <0.38 | **6.88** | **7.30 J** | **9,080** | **15,100** |
| MW-73 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW73-117 | **1.6** | **480** | **380** | <0.40 | **6.65** | **7.5** | **5,400** | **8,800** |
| MW-73 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW73-117 | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW73-117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 4/18/2017 | FC-CCR-MW73-41817 | **1.6** | **450** | **340** | <0.80 | **6.70** | **7.3** | **5,700** | **9,200** |
| MW-73 | URS/CWTP | Background | 4/18/2017 | FC-CCR-MW73-41817 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 4/18/2017 | FC-CCR-MW73-41817 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW73-5217 | -- | -- | -- | <5.0 | **6.70** | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW73-5217 | -- | -- | -- | -- | -- | -- | -- | -- |

**Table G-1**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | *1.9* | *540* | *710* | *<RL* | *LPL and UPL* | *LPL and UPL* | *13,000* | *20,000* |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-73 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW73-52917 | -- | -- | -- | <0.80 | **6.70** | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW73-52917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW73-62217 | **1.6** | **490** | **450** | -- | **6.74** | **7.0** | **6,700** | **11,000** |
| MW-73 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW73-62217 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW73-62117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 7/22/2017 | FC-CCR-MW73-72217 | **1.6** | **490** | **520** | <0.80 | **6.83** | **7.1** | **8,000** | **12,000** |
| MW-73 | URS/CWTP | Background | 7/22/2017 | FC-CCR-MW73-72217 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 7/22/2017 | FC-CCR-MW73-72217 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 7/22/2017 | *DUP* FC-CCR-FD02-72217 | **1.6** | **490** | **500** | <2.0 | -- | **7.1** | **7,800** | **12,000** |
| MW-73 | URS/CWTP | Background | 7/22/2017 | *DUP* FC-CCR-FD02-72217 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW73-81017 | **1.7** | **500** | **540** | -- | **6.45** | **7.4** | **7,700** | **12,000** |
| MW-73 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW73-81017 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW73-81017 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW73-81717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW73-81717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW73-81717 | **1.7** | **540** | **550** | <0.80 | **6.50** | **7.0** | **7,600** | **11,000** |
| MW-73 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW73-91017 | **1.9** | **520** | **470** | -- | **6.62** | **7.0** | **6,000** | **9,900** |
| MW-73 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW73-91017 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW73-91017 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 10/12/2017 | FC-CCR-MW73-101217 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 10/12/2017 | FC-CCR-MW73-101217 | **2.0** | **510** | **310** | <0.80 | **6.64** | **7.3** | **3,900** | **6,600** |
| MW-73 | URS/CWTP | Background | 10/12/2017 | *DUP* FC-CCR-FD01-101217 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 10/12/2017 | *DUP* FC-CCR-FD01-101217 | **2.0** | **510** | **300** | <0.80 | -- | **7.1** | **3,700** | **6,600** |
| MW-73 | URS/CWTP | Background | 11/29/2017 | FC-CCR-MW73-112917 | **1.8** | **550** | **420** | <0.80 | **6.61** | **7.1** | **5,600** | **8,900** |
| MW-73 | URS/CWTP | Background | 3/16/2018 | FC-CCR-MW73-31618 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-73-6218 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-73-6218 | **1.6** | **460** | **550** | <0.80 | **6.67** | **6.9** | **7,100** | **12,000** |
| MW-73 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW73-11318 | **1.7** | **480** | **660** | <0.80 | **6.64** | **7.0** | **7,500** | **12,000** |
| MW-73 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW73-11318 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW73-031819 | -- | -- | -- | <0.80 | **6.95** | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW73-031819 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 5/6/2019 | FC-CCR-MW73-5619 | -- | -- | -- | -- | **6.51** | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 12/2/2019 | FC-CCR-MW73-120219 | **1.6** | **460** | **520** | <0.80 | **6.49** | **7.1 J** | **7,100** | **11000 J** |
| MW-73 | URS/CWTP | Background | 12/2/2019 | *DUP* FC-CCR-FD01-120219 | **1.7** | **480** | **500** | <0.80 | -- | **7.0 J** | **6,900** | **11000 J** |
| MW-73 | URS/CWTP | Background | 6/20/2020 | FC-CCR-MW73-0620 | **1.7** | **450** | **520** | <0.8 | **6.53** | **7.2 J** | **7,200** | **12,000** |
| MW-73 | URS/CWTP | Background | 11/5/2020 | FC-CCR-MW73-1120 | **1.6** | **480** | **530** | **0.063 J** | **6.65** | **7.0 J** | **7,100** | **12,000** |
| MW-73 | URS/CWTP | Background | 4/22/2021 | FC-CCR-MW73-0421 | **1.6** | **530** | **380** | <0.4 | **6.76** | **7.1 J** | **5,700** | **9,700** |
| MW-73 | URS/CWTP | Background | 11/13/2021 | FC-CCR-MW73-1121 | **1.6** | **460** | **560** | **0.12 J** | **6.48** | **7.0 J** | **7,400** | **9,600** |
| MW-73 | URS/CWTP | Background | 5/22/2022 | FC-CCR-MW73-0522 | **1.6** | **470** | **570** | <0.8 | **6.55** | **7.47 J** | **7,100** | **11,000** |

**Table G-1**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | *1.9* | *540* | *710* | *<RL* | *LPL and UPL* | *LPL and UPL* | *13,000* | *20,000* |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-73 | URS/CWTP | Background | 11/14/2022 | FC-CCR-MW73-1122 | **1.6** | **490** | **610** | <0.8 | **6.73** | **7.0 J** | **6,800** | **12,000** |
| MW-73 | URS/CWTP | Background | 5/7/2023 | FC-CCR-MW73-0523 | **1.9** | **510** | **740** | <80 | **6.62** | **7.0 J** | **8,200** | **12,000** |
| MW-73 | URS/CWTP | Background | 6/27/2023 | FC-CCR-MW73-0623 | **1.7** | **520** | **640** | < 20 | **6.82** | **6.9 J** | **7,000** | **12,000** |
| MW-73 | URS/CWTP | Background | 11/08/2023 | FC-CCR-MW73-1123 | **1.7 J** | **550 J** | **650** | <0.8 | **6.72** | **7.2 J** | **7,000** | **12,000** |
| MW-73 | URS/CWTP | Background | 05/16/2024 | FC-CCR-MW73-0524 | **2.4** | **520** | **520** | <0.4 | **6.65** | **7.1 J** | **6,300** | **11,000** |
| MW-73 | URS/CWTP | Background | 10/24/2024 | FC-CCR-MW73-1024 | **1.73** | **409** | **620** | <0.38 | **6.72** | **7.03 J** | **6,750** | **12,600** |
| MW-66 | URS | Downgradient Boundary | 11/5/2015 | FC-CCR-MW66-110515 | **87** | **470** | **870** | **18** | -- | -- | **7,300** | **11,000** |
| MW-66 | URS | Downgradient Boundary | 11/5/2015 | FC-CCR-MW66-110515 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-66-042716 | -- | -- | -- | **18** | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-MW66-616 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-MW66-616 | **89** | **470** | **1,300** | **20** | -- | **7.31** | **7,000** | **13,000** |
| MW-66 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW66-816 | **100** | **480** | **1,400** | **20** | -- | **7.3** | **7,600** | **15,000** |
| MW-66 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW66-816 | -- | -- | -- | **19** | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW66-816 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 9/12/2016 | FC-CCR-MW66-916 | **110** | **470** | **1,500** | **12** | -- | **7.4** | **8,000** | **15,000** |
| MW-66 | URS | Downgradient Boundary | 9/12/2016 | FC-CCR-MW66-916 | -- | -- | -- | **17** | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 9/12/2016 | FC-CCR-MW66-916 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 10/19/2016 | FC-CCR-MW66-1016 | **130** | **440** | **1,600** | **17** | -- | **7.4** | **9,100** | **16,000** |
| MW-66 | URS | Downgradient Boundary | 10/19/2016 | FC-CCR-MW66-1016 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW66-117 | **130** | **470** | **1,800** | **18** | -- | **7.5** | **10,000** | **16,000** |
| MW-66 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW66-117 | -- | -- | -- | **19** | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW66-117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 4/16/2017 | FC-CCR-MW66-41617 | **140** | **460** | **1,600** | **25** | -- | **7.4** | **11,000** | **17,000** |
| MW-66 | URS | Downgradient Boundary | 4/16/2017 | FC-CCR-MW66-41617 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 4/16/2017 | FC-CCR-MW66-41617 | -- | -- | -- | **23** | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 5/1/2017 | FC-CCR-MW66-5117 | -- | -- | -- | **32** | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 5/1/2017 | FC-CCR-MW66-5117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW66-52917 | -- | -- | -- | **25** | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW66-52917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW66-62117 | **130** | **450** | **1,700** | -- | -- | **7.3** | **11,000** | **18,000** |
| MW-66 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW66-62117 | -- | -- | -- | **24** | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW66-62117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW66-72117 | **140** | **450** | **1,700** | **25** | -- | **7.3** | **12,000** | **19,000** |
| MW-66 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW66-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW66-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW66-8917 | **140** | **460** | **1,700** | -- | -- | **7.4** | **12,000** | **19,000** |
| MW-66 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW66-8917 | -- | -- | -- | **26** | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW66-8917 | -- | -- | -- | -- | -- | -- | -- | -- |

**Table G-1**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | *1.9* | *540* | *710* | *<RL* | *LPL and UPL* | *LPL and UPL* | *13,000* | *20,000* |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-66 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW66-81617 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW66-81617 | **150** | **510** | **1,700** | **25** | -- | **7.5** | **11,000** | **19,000** |
| MW-66 | URS | Downgradient Boundary | 9/9/2017 | FC-CCR-MW66-9917 | **140** | **480** | **1,800** | -- | -- | **7.3** | **12,000** | **19,000** |
| MW-66 | URS | Downgradient Boundary | 9/9/2017 | FC-CCR-MW66-9917 | -- | -- | -- | **26** | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 9/9/2017 | FC-CCR-MW66-9917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW66-101317 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW66-101317 | **150** | **440** | **2,000** | **26** | -- | **7.3** | **13,000** | **18,000** |
| MW-66 | URS | Downgradient Boundary | 11/30/2017 | FC-CCR-MW66-113017 | **140** | **500** | **1,900** | **26** | -- | **7.3** | **13,000** | **19,000** |
| MW-66 | URS | Downgradient Boundary | 3/16/2018 | FC-CCR-MW66-31618 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 3/16/2018 | *DUP* FC-CCR-FD01-31618 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 5/31/2018 | FC-CCR-MW-66-53118 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 5/31/2018 | FC-CCR-MW-66-53118 | **150** | **440** | **1,800** | **25** | -- | **7.2** | **12,000** | **19,000** |
| MW-66 | URS | Downgradient Boundary | 11/2/2018 | FC-CCR-MW66-11218 | **140** | **470** | **1,800** | -- | -- | **7.3** | **12,000** | **20,000** |
| MW-66 | URS | Downgradient Boundary | 11/2/2018 | FC-CCR-MW66-11218 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 11/2/2018 | FC-CCR-MW66-11218 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 3/18/2019 | FC-CCR-MW66-031819 | -- | -- | -- | **23** | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 3/18/2019 | FC-CCR-MW66-031819 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 5/7/2019 | FC-CCR-MW66-5719 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 12/3/2019 | FC-CCR-MW66-120319 | **130** | **430** | **1,800** | **22** | -- | **7.2 J** | **12,000** | **19,000** |
| MW-66 | URS | Downgradient Boundary | 12/3/2019 | *DUP* FC-CCR-FD02-120319 | **150** | **460** | **1,800** | **22** | -- | **7.3 J** | **14,000** | **19,000** |
| MW-66 | URS | Downgradient Boundary | 6/18/2020 | FC-CCR-MW66-0620 | **140** | **450** | **1,700** | **17** | **6.85** | **7.3 J** | **12,000** | **20,000** |
| MW-66 | URS | Downgradient Boundary | 11/5/2020 | FC-CCR-MW66-1120 | **140** | **490** | **1,700** | **26 J** | **7.07** | **7.3 J** | **13,000** | **18,000** |
| MW-66 | URS | Downgradient Boundary | 11/5/2020 | *DUP* FC-CCR-FD02-1120 | **140** | **490** | **1,800** | **21 J** | -- | **7.3 J** | **13,000** | **20,000** |
| MW-66 | URS | Downgradient Boundary | 4/21/2021 | FC-CCR-MW66-0421 | **150** | **500** | **1,700** | **19** | **7.24** | **7.4 J** | **12,000** | **19,000 J** |
| MW-66 | URS | Downgradient Boundary | 11/12/2021 | FC-CCR-MW66-1121 | **140** | **460** | **1,700** | **20** | **6.98** | **7.4 J** | **12,000** | **18,000** |
| MW-66 | URS | Downgradient Boundary | 5/20/2022 | FC-CCR-MW66-05222 | **140** | **450** | **1,500** | **16** | **7.18** | **7.45 J** | **11,000** | **17,000** |
| MW-66 | URS | Downgradient Boundary | 11/13/2022 | FC-CCR-MW66-1122 | **130** | **480** | **1,600** | **16** | **7.08** | **7.3 J** | **11,000** | **19,000** |
| MW-66 | URS | Downgradient Boundary | 5/7/2023 | FC-CCR-MW66-0523 | **170** | **490** | **1,600** | <80 | **7.10** | **7.4 J** | **11,000** | **18,000** |
| MW-66 | URS | Downgradient Boundary | 11/06/2023 | FC-CCR-MW66-1123 | **140 J** | **550 J** | **1,500** | **19** | **7.08** | **7.4 J** | **11,000** | **18,000** |
| MW-66 | URS | Downgradient Boundary | 05/22/2024 | FC-CCR-MW66-0524 | **130** | **500** | **2,700 J** | **14** | **7.17** | **7.1 J** | **2,100** | **17,000** |
| MW-66 | URS | Downgradient Boundary | 10/23/2024 | FC-CCR-MW66-1024 | **142** | **437** | **1,460** | **18.2** | **7.10** | **7.30 J** | **9,980** | **18,000** |
| MW-67 | URS | Downgradient Boundary | 11/4/2015 | FC-CCR-MW67-110415 | **75** | **330** | **990** | **18** | -- | -- | **6,900** | **11,000** |
| MW-67 | URS | Downgradient Boundary | 11/4/2015 | FC-CCR-MW67-110415 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-67-042716 | -- | -- | -- | **19** | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 4/27/2016 | FC-CCR-DUP2-042716 | -- | -- | -- | **21** | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 6/6/2016 | FC-CCR-MW67-616 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 6/6/2016 | FC-CCR-MW67-616 | **90** | **490** | **1,600** | **24** | -- | **7.27** | **7,000** | **13,000** |
| MW-67 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW67-816 | **100** | **510** | **1,400** | **23** | -- | **7.1** | **7,500** | **15,000** |
| MW-67 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW67-816 | -- | -- | -- | **19** | -- | -- | -- | -- |

**Table G-1**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | *1.9* | *540* | *710* | *<RL* | *LPL and UPL* | *LPL and UPL* | *13,000* | *20,000* |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-67 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW67-816 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW100-816 | -- | -- | -- | -- | -- | **7.1** | -- | **16,000** |
| MW-67 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW100-816 | -- | -- | -- | **20** | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW100-816 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW67-916 | **110** | **510** | **1,500** | **23** | -- | **7.3** | **7,900** | **16,000** |
| MW-67 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW67-916 | -- | -- | -- | **17** | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW67-916 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 10/20/2016 | FC-CCR-MW67-1016 | **120** | **480** | **1,500** | **16** | -- | **7.3** | **8,300** | **16,000** |
| MW-67 | URS | Downgradient Boundary | 10/20/2016 | FC-CCR-MW67-1016 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW67-117 | **120** | **510** | **1,800** | **16** | -- | **7.5** | **9,400** | **16,000** |
| MW-67 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW67-117 | -- | -- | -- | **16** | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW67-117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW67-41717 | **130** | **500** | **1,700** | **22** | -- | **7.3** | **10,000** | **17,000** |
| MW-67 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW67-41717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW67-41717 | -- | -- | -- | **21** | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 5/1/2017 | FC-CCR-MW67-5117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 5/2/2017 | FC-CCR-MW67-5217 | -- | -- | -- | **28** | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW67-52917 | -- | -- | -- | **21** | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW67-52917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW67-62117 | **130** | **480** | **1,900** | -- | -- | **7.3** | **11,000** | **18,000** |
| MW-67 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW67-62117 | -- | -- | -- | **21** | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW67-62117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW67-72117 | **150** | **520** | **2,000** | **22** | -- | **7.1** | **12,000** | **20,000** |
| MW-67 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW67-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW67-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW67-8917 | **160** | **490** | **2,200** | -- | -- | **7.4** | **13,000** | **21,000** |
| MW-67 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW67-8917 | -- | -- | -- | **22** | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW67-8917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW67-81617 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW67-81617 | **160** | **550** | **2,000** | **22** | -- | **7.4** | **12,000** | **22,000** |
| MW-67 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW67-91017 | **150** | **500** | **2,100** | -- | -- | **7.3** | **13,000** | **21,000** |
| MW-67 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW67-91017 | -- | -- | -- | **24** | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW67-91017 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW67-101317 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW67-101317 | **160** | **460** | **2,300** | **25** | -- | **7.1** | **14,000** | **21,000** |
| MW-67 | URS | Downgradient Boundary | 11/29/2017 | FC-CCR-MW67-112917 | **160** | **520** | **2,300** | **24** | -- | **7.3** | **15,000** | **23,000** |
| MW-67 | URS | Downgradient Boundary | 3/16/2018 | FC-CCR-MW67-31618 | -- | -- | -- | -- | -- | -- | -- | -- |

**Table G-1**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | *1.9* | *540* | *710* | *<RL* | *LPL and UPL* | *LPL and UPL* | *13,000* | *20,000* |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-67 | URS | Downgradient Boundary | 6/2/2018 | FC-CCR-MW-67-6218 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 6/2/2018 | FC-CCR-MW-67-6218 | **200** | **430** | **2,000** | **25** | -- | **7.1** | **15,000** | **23,000** |
| MW-67 | URS | Downgradient Boundary | 11/3/2018 | FC-CCR-MW67-11318 | **170** | **470** | **2,000** | **16** | -- | **7.4** | **13,000** | **19,000** |
| MW-67 | URS | Downgradient Boundary | 11/3/2018 | FC-CCR-MW67-11318 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 3/17/2019 | FC-CCR-MW67-031719 | -- | -- | -- | **15** | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 3/17/2019 | FC-CCR-MW67-031719 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 5/7/2019 | FC-CCR-MW67-5719 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 12/2/2019 | FC-CCR-MW67-120219 | **150** | **450** | **1,900** | **14** | -- | **7.4 J** | **13,000** | **20000 J** |
| MW-67 | URS | Downgradient Boundary | 6/19/2020 | FC-CCR-MW67-0620 | **160** | **440** | **1,900** | **12** | **7.14** | **7.5 J** | **13,000** | **20,000** |
| MW-67 | URS | Downgradient Boundary | 11/4/2020 | FC-CCR-MW67-1120 | **160** | **470** | **2,000** | **15** | **7.30** | **7.4 J** | **14,000** | **20,000** |
| MW-67 | URS | Downgradient Boundary | 11/4/2020 | *DUP* FC-CCR-FD01-1120 | **170** | **470** | **1,900** | **15** | -- | **7.4 J** | **14,000** | **20,000** |
| MW-67 | URS | Downgradient Boundary | 4/21/2021 | FC-CCR-MW67-0421 | **160** | **490** | **1,800** | **12** | **7.31** | **7.4 J** | **13,000** | **19,000 J** |
| MW-67 | URS | Downgradient Boundary | 4/21/2021 | *DUP* FC-CCR-FD01-0421 | **160** | **490** | **1,800** | **12** | **7.31** | **7.4 J** | **13,000** | **20,000 J** |
| MW-67 | URS | Downgradient Boundary | 11/12/2021 | FC-CCR-MW67-1121 | **170** | **460** | **2,100** | **13** | **6.81** | **7.5 J** | **15,000** | **21,000** |
| MW-67 | URS | Downgradient Boundary | 5/21/2022 | FC-CCR-MW67-0522 | **160** | **460** | **1,800** | **8.2** | **6.84** | **7.37 J** | **13,000** | **1,900** |
| MW-67 | URS | Downgradient Boundary | 11/16/2022 | FC-CCR-MW67-1122 | **160** | **500** | **1,900** | **13** | **6.95** | **7.2 J** | **12,000** | **21,000** |
| MW-67 | URS | Downgradient Boundary | 5/9/2023 | FC-CCR-MW67-0523 | **160** | **470** | **1,900** | <20 | **6.84** | **7.2 J** | **13,000** | **19,000 J** |
| MW-67 | URS | Downgradient Boundary | 11/13/2023 | FC-CCR-MW67-1123 | **170** | **500** | **1,800** | **13** | **7.02** | **7.4 J** | **13,000** | **20,000** |
| MW-67 | URS | Downgradient Boundary | 05/20/2024 | FC-CCR-MW67-0524 | **120** | **500** | **1,100** | **1.9** | **7.26** | **7.4 J** | **7,700** | **14,000** |
| MW-67 | URS | Downgradient Boundary | 10/18/2024 | FC-CCR-MW67-1024 | **166** | **417** | **1,710** | **8.27** | **6.86** | **7.17 J** | **10,800** | **19,700** |
| MW-68 | URS | Downgradient Boundary | 11/6/2015 | FC-CCR-MW68-110615 | **93** | **470** | **1,200** | **7.0** | -- | **7.11** | **7,900** | **12,000** |
| MW-68 | URS | Downgradient Boundary | 11/6/2015 | FC-CCR-MW68-110615 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 4/26/2016 | FC-CCR-MW-68-042616 | **110** | **460** | **1,300** | **8.0** | -- | -- | **7,700** | **14,000** |
| MW-68 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-MW68-616 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-MW68-616 | **100** | **450** | **1,500** | **10** | -- | **7.05** | **8,000** | **15,000** |
| MW-68 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW68-816 | **120** | **460** | **1,300** | **8.6** | -- | **7.0** | **8,100** | **16,000** |
| MW-68 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW68-816 | -- | -- | -- | **7.5** | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW68-816 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW68-916 | **120** | **480** | **1,400** | **9.7** | -- | **7.1** | **8,500** | **16,000** |
| MW-68 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW68-916 | -- | -- | -- | **5.7** | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW68-916 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 10/20/2016 | FC-CCR-MW68-1016 | **120** | **430** | **1,400** | **6.8** | -- | **7.1** | **11,000** | **16,000** |
| MW-68 | URS | Downgradient Boundary | 10/20/2016 | FC-CCR-MW68-1016 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW68-117 | **120** | **450** | **1,600** | **6.4** | -- | **7.5** | **10,000** | **16,000** |
| MW-68 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW68-117 | -- | -- | -- | **6.8** | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW68-117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW68-41717 | **130** | **450** | **1,400** | **10** | -- | **7.1** | **9,900** | **16,000** |
| MW-68 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW68-41717 | -- | -- | -- | -- | -- | -- | -- | -- |

**Table G-1**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | *1.9* | *540* | *710* | *<RL* | *LPL and UPL* | *LPL and UPL* | *13,000* | *20,000* |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-68 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW68-41717 | -- | -- | -- | **9.7** | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 5/1/2017 | FC-CCR-MW68-5117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 5/2/2017 | FC-CCR-MW68-5217 | -- | -- | -- | **18** | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW68-52917 | -- | -- | -- | **8.3** | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW68-52917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW68-62117 | **120** | **470** | **1,400** | -- | -- | **7.1** | **9,700** | **17,000** |
| MW-68 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW68-62117 | -- | -- | -- | **8.7** | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW68-62117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW68-72117 | **130** | **470** | **1,500** | **9.6** | -- | **7.0** | **10,000** | **17,000** |
| MW-68 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW68-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW68-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW68-8917 | **120** | **460** | **1,600** | -- | -- | **7.2** | **11,000** | **18,000** |
| MW-68 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW68-8917 | -- | -- | -- | **11** | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW68-8917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW68-8917 | -- | -- | -- | **11** | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW68-81617 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW68-81617 | **130** | **510** | **1,500** | **11** | -- | **7.2** | **9,900** | **17,000** |
| MW-68 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW68-91017 | **130** | **480** | **1,500** | -- | -- | **7.0** | **10,000** | **18,000** |
| MW-68 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW68-91017 | -- | -- | -- | **11** | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW68-91017 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW68-101317 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW68-101317 | **140** | **450** | **1,800** | **10** | -- | **7.1** | **11,000** | **17,000** |
| MW-68 | URS | Downgradient Boundary | 11/30/2017 | FC-CCR-MW68-113017 | **130** | **520** | **1,400** | **10** | -- | **7.1** | **9,700** | **16,000** |
| MW-68 | URS | Downgradient Boundary | 11/30/2017 | *DUP* FC-CCR-FD01-113017 | **130** | **520** | **1,400** | **10** | -- | **7.1** | **9,400** | **16,000** |
| MW-68 | URS | Downgradient Boundary | 3/16/2018 | FC-CCR-MW68-31618 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 6/2/2018 | FC-CCR-MW-68-6218 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 6/2/2018 | FC-CCR-MW-68-6218 | **130** | **430** | **1,500** | **12** | -- | **6.9** | **10,000** | **17,000** |
| MW-68 | URS | Downgradient Boundary | 11/3/2018 | FC-CCR-MW68-11318 | **150** | **460** | **1,500** | **12** | -- | **7.2** | **11,000** | **18,000** |
| MW-68 | URS | Downgradient Boundary | 11/3/2018 | FC-CCR-MW68-11318 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 3/17/2019 | FC-CCR-MW68-031719 | -- | -- | -- | **9.2** | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 3/17/2019 | FC-CCR-MW68-031719 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 5/7/2019 | FC-CCR-MW68-5719 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 12/2/2019 | FC-CCR-MW68-120219 | **94** | **450** | **1,200** | **10** | -- | **7.0 J** | **9,600** | **15000 J** |
| MW-68 | URS | Downgradient Boundary | 6/19/2020 | FC-CCR-MW68-0620 | **110** | **460** | **5,000** | **7.7** | **6.75** | **7.3 J** | **9,000** | **16,000** |
| MW-68 | URS | Downgradient Boundary | 11/4/2020 | FC-CCR-MW68-1120 | **110** | **470** | **1,300** | **10** | **6.86** | **7.2 J** | **11,000** | **17,000** |
| MW-68 | URS | Downgradient Boundary | 4/22/2021 | FC-CCR-MW68-0421 | **110** | **500** | **1,200** | **8.6** | **6.94** | **7.3 J** | **11,000** | **17,000** |
| MW-68 | URS | Downgradient Boundary | 11/12/2021 | FC-CCR-MW68-1121 | **110** | **460** | **1,100** | **10** | **6.67** | **7.3 J** | **13,000** | **10,000** |
| MW-68 | URS | Downgradient Boundary | 5/21/2022 | FC-CCR-MW68-0522 | **110** | **450** | **1,000** | **7.5** | **6.55** | **7.47 J** | **11,000** | **18,000** |
| MW-68 | URS | Downgradient Boundary | 11/13/2022 | FC-CCR-MW68-1122 | **120** | **490** | **1,100** | **7.5** | **6.79** | **7.1 J** | **12,000** | **18,000** |

**Table G-1**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | *1.9* | *540* | *710* | *<RL* | *LPL and UPL* | *LPL and UPL* | *13,000* | *20,000* |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-68 | URS | Downgradient Boundary | 5/9/2023 | FC-CCR-MW68-0523 | **150** | **460** | **1,400** | <20 | **6.68** | **7.1 J** | **14,000** | **22,000** |
| MW-68 | URS | Downgradient Boundary | 11/11/2023 | FC-CCR-MW68-1123 | **170** | **490** | **1,500** | **13** | **6.79** | **7.2 J** | **15,000** | **24,000** |
| MW-68 | URS | Downgradient Boundary | 05/20/2024 | FC-CCR-MW68-0524 | **130** | **490** | **1,000** | **2.8** | **6.88** | **7.2 J** | **8,100** | **15,000** |
| MW-68 | URS | Downgradient Boundary | 10/18/2024 | FC-CCR-MW68-1024 | **188** | **422** | **1,580** | **12.5** | **6.79** | **7.34 J** | **14,000** | **20,500** |
| MW-69 | URS | Downgradient Boundary | 11/4/2015 | FC-CCR-MW69-110415 | **80** | **490** | **1,000** | **9.8** | -- | -- | **6,600** | **10,000** |
| MW-69 | URS | Downgradient Boundary | 11/4/2015 | FC-CCR-MW69-110415 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 4/26/2016 | FC-CCR-MW-69-042616 | **95** | **480** | **1,200** | **13** | -- | -- | **7,100** | **13,000** |
| MW-69 | URS | Downgradient Boundary | 4/26/2016 | FC-CCR-DUP1-042616 | **97** | **490** | **1,200** | **13** | -- | -- | **7,200** | **13,000** |
| MW-69 | URS | Downgradient Boundary | 6/6/2016 | FC-CCR-MW69-616 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 6/6/2016 | FC-CCR-MW69-616 | **94** | **470** | **1,400** | **13** | -- | **7.47** | **7,600** | **13,000** |
| MW-69 | URS | Downgradient Boundary | 8/21/2016 | FC-CCR-MW69-816 | **110** | **480** | **1,300** | **16** | -- | **7.4** | **8,500** | **16,000** |
| MW-69 | URS | Downgradient Boundary | 8/21/2016 | FC-CCR-MW69-816 | -- | -- | -- | **13** | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 8/21/2016 | FC-CCR-MW69-816 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW69-916 | **110** | **500** | **1,400** | **16** | -- | **7.1** | **8,700** | **17,000** |
| MW-69 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW69-916 | -- | -- | -- | **11** | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW69-916 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 10/20/2016 | FC-CCR-MW69-1016 | **120** | **450** | **1,400** | **9.0** | -- | **7.4** | **9,800** | **18,000** |
| MW-69 | URS | Downgradient Boundary | 10/20/2016 | FC-CCR-MW69-1016 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW69-117 | **130** | **460** | **1,500** | **11** | -- | **7.6** | **12,000** | **18,000** |
| MW-69 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW69-117 | -- | -- | -- | **12** | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW69-117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW69-41717 | **130** | **470** | **1,400** | **17** | -- | **7.5** | **11,000** | **18,000** |
| MW-69 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW69-41717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW69-41717 | -- | -- | -- | **17** | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 4/17/2017 | *DUP* FC-CCR-FD02-41717 | **140** | **470** | **1,400** | **17** | -- | **7.5** | **12,000** | **18,000** |
| MW-69 | URS | Downgradient Boundary | 4/17/2017 | *DUP* FC-CCR-FD02-41717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 4/17/2017 | *DUP* FC-CCR-FD02-41717 | -- | -- | -- | **17** | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 5/2/2017 | FC-CCR-MW69-5217 | -- | -- | -- | **24** | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 5/2/2017 | FC-CCR-MW69-5217 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW69-52917 | -- | -- | -- | **16** | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW69-52917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW69-62117 | **120** | **460** | **1,400** | -- | -- | **7.5** | **10,000** | **16,000** |
| MW-69 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW69-62117 | -- | -- | -- | **14** | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW69-62117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW69-72117 | **150** | **470** | **1,600** | **18** | -- | **7.4** | **13,000** | **19,000** |
| MW-69 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW69-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW69-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW69-8917 | **140** | **470** | **1,600** | -- | -- | **7.5** | **12,000** | **19,000** |

**Table G-1**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | *1.9* | *540* | *710* | *<RL* | *LPL and UPL* | *LPL and UPL* | *13,000* | *20,000* |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-69 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW69-8917 | -- | -- | -- | **17** | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW69-8917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 8/9/2017 | *DUP* FC-CCR-FD01-8917 | **150** | **470** | **1,500** | -- | -- | **7.5** | **12,000** | **19,000** |
| MW-69 | URS | Downgradient Boundary | 8/9/2017 | *DUP* FC-CCR-FD01-8917 | -- | -- | -- | **17** | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 8/9/2017 | *DUP* FC-CCR-FD01-8917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW69-81617 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW69-81617 | **130** | **520** | **1,500** | **17** | -- | **7.6** | **11,000** | **20,000** |
| MW-69 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW69-91017 | **150** | **490** | **1,600** | -- | -- | **7.5** | **13,000** | **18,000** |
| MW-69 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW69-91017 | -- | -- | -- | **20** | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW69-91017 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 9/10/2017 | *DUP* FC-CCR-FD02-91017 | **150** | **480** | **1,600** | -- | -- | **7.5** | **13,000** | **20,000** |
| MW-69 | URS | Downgradient Boundary | 9/10/2017 | *DUP* FC-CCR-FD02-91017 | -- | -- | -- | **20** | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 9/10/2017 | *DUP* FC-CCR-FD02-91017 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW69-101317 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW69-101317 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW69-101317 | **150** | **430** | **1,600** | **20** | -- | **7.5** | **13,000** | **19,000** |
| MW-69 | URS | Downgradient Boundary | 11/29/2017 | FC-CCR-MW69-112917 | **150** | **500** | **1,600** | **21** | -- | **7.4** | **13,000** | **20,000** |
| MW-69 | URS | Downgradient Boundary | 3/16/2018 | FC-CCR-MW69-31618 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 6/2/2018 | FC-CCR-MW-69-6218 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 6/2/2018 | FC-CCR-MW-69-6218 | **120** | **430** | **1,400** | **21** | -- | **7.3** | **12,000** | **18,000** |
| MW-69 | URS | Downgradient Boundary | 6/2/2018 | *DUP* FC-CCR-FD02-6218 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 6/2/2018 | *DUP* FC-CCR-FD02-6218 | **130** | **430** | **1,300** | **21** | -- | **7.3** | **12,000** | **18,000** |
| MW-69 | URS | Downgradient Boundary | 11/3/2018 | FC-CCR-MW69-11318 | **92** | **470** | **1,200** | **11** | -- | **7.3** | **8,700** | **14,000** |
| MW-69 | URS | Downgradient Boundary | 11/3/2018 | FC-CCR-MW69-11318 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 3/17/2019 | FC-CCR-MW69-031719 | -- | -- | -- | **3.1** | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 3/17/2019 | FC-CCR-MW69-031719 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 5/7/2019 | FC-CCR-MW69-5719 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 12/3/2019 | FC-CCR-MW69-120219 | **88** | **490** | **1,000** | **9.0** | -- | **7.2 J** | **8,100** | **13000 J** |
| MW-69 | URS | Downgradient Boundary | 6/19/2020 | FC-CCR-MW69-0620 | **58** | **500** | **830** | **5.5** | **6.89** | **7.4 J** | **5,500** | **9,700** |
| MW-69 | URS | Downgradient Boundary | 11/4/2020 | FC-CCR-MW69-1120 | **63** | **550** | **890** | **5.8** | **6.75** | **7.3 J** | **6,000** | **9,600** |
| MW-69 | URS | Downgradient Boundary | 4/21/2021 | FC-CCR-MW69-0421 | **53** | **590** | **810** | **4.1** | **7.18** | **7.4 J** | **5,000** | **8,300 J** |
| MW-69 | URS | Downgradient Boundary | 11/12/2021 | FC-CCR-MW69-1121 | **62** | **530** | **1,000** | **4.9** | **6.72** | **7.4 J** | **6,900** | **5,100** |
| MW-69 | URS | Downgradient Boundary | 5/21/2022 | FC-CCR-MW69-0522 | **45** | **500** | **790** | **3.9** | **6.57** | **7.57 J** | **4,800** | **8,300** |
| MW-69 | URS | Downgradient Boundary | 5/21/2022 | FC-CCR-SS03-0522 | **45.1** | **527** | **942** | <25/3.33 | **6.57** | **7.8 J** | **5,360** | **8,270 J** |
| MW-69 | URS | Downgradient Boundary | 11/14/2022 | FC-CCR-MW69-1122 | **40** | **550** | **790** | **4.2** | **7.15** | **7.4 J** | **4,600** | **8,000** |
| MW-69 | URS | Downgradient Boundary | 5/9/2023 | FC-CCR-MW69-0523 | **49** | **530** | **970** | **4.1** | **6.91** | **7.4 J** | **4,800** | **8,600 J** |
| MW-69 | URS | Downgradient Boundary | 11/11/2023 | FC-CCR-MW69-1123 | **57** | **560** | **920** | **4.7** | **7.07** | **7.4 J** | **5,000** | **8,900** |
| MW-69 | URS | Downgradient Boundary | 05/20/2024 | FC-CCR-MW69-0524 | **230** | **460** | **1,600** | **9.4** | **7.23** | **7.4 J** | **12,000** | **20,000** |
| MW-69 | URS | Downgradient Boundary | 10/20/2024 | FC-CCR-MW69-1024 | **37.5** | **498** | **827** | **2.79** | **7.06** | **7.37 J** | **3,650** | **6,710** |

**Table G-1**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | *1.9* | *540* | *710* | *<RL* | *LPL and UPL* | *LPL and UPL* | *13,000* | *20,000* |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-70 | URS | Downgradient Boundary | 11/9/2015 | FC-CCR-MW70-110915 | **95** | **500** | **1,200** | **2.6** | -- | **6.87** | **7,000** | **11,000** |
| MW-70 | URS | Downgradient Boundary | 11/9/2015 | FC-CCR-MW70-110915 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-70-042716 | -- | -- | -- | **2.3** | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-MW70-616 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-MW70-616 | **89** | **480** | **1,200** | **2.1** | -- | **6.97** | **6,300** | **12,000** |
| MW-70 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-DUP-616 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-DUP-616 | **89** | **480** | **1,100** | **2.2** | -- | **6.94** | **6,300** | **12,000** |
| MW-70 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW70-816 | **91** | **490** | **1,100** | **0.66** | -- | **7.0** | **5,800** | **12,000** |
| MW-70 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW70-816 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW70-816 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 9/12/2016 | FC-CCR-MW70-916 | **93** | **500** | **1,100** | **0.69** | -- | **7.0** | **5,900** | **12,000** |
| MW-70 | URS | Downgradient Boundary | 9/12/2016 | FC-CCR-MW70-916 | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 9/12/2016 | FC-CCR-MW70-916 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 10/19/2016 | FC-CCR-MW70-1016 | **91** | **450** | **1,100** | <0.40 | -- | **7.1** | **6,400** | **12,000** |
| MW-70 | URS | Downgradient Boundary | 10/19/2016 | FC-CCR-MW70-1016 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW70-117 | **90** | **480** | **1,100** | <0.40 | -- | **7.5** | **6,400** | **11,000** |
| MW-70 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW70-117 | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW70-117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 4/16/2017 | FC-CCR-MW70-41717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 4/16/2017 | FC-CCR-MW70-41617 | **94** | **490** | **1,100** | **0.94** | -- | **7.1** | **6,000** | **11,000** |
| MW-70 | URS | Downgradient Boundary | 4/16/2017 | FC-CCR-MW70-41617 | -- | -- | -- | **0.85** | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 4/16/2017 | *DUP* FC-CCR-FD01-41617 | **92** | **460** | **1,100** | **0.95** | -- | **7.1** | **6,100** | **11,000** |
| MW-70 | URS | Downgradient Boundary | 4/16/2017 | *DUP* FC-CCR-FD01-41617 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 4/16/2017 | *DUP* FC-CCR-FD01-41617 | -- | -- | -- | **0.85** | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 5/1/2017 | FC-CCR-MW70-5117 | -- | -- | -- | <5.0 | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 5/1/2017 | FC-CCR-MW70-5117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW70-52917 | -- | -- | -- | **2.6** | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW70-52917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW70-62117 | **92** | **500** | **1,000** | -- | -- | **7.1** | **6,200** | **11,000** |
| MW-70 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW70-62117 | -- | -- | -- | **2.9** | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW70-62117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW70-72117 | **100** | **510** | **1,100** | **2.1** | -- | **7.0** | **6,800** | **12,000** |
| MW-70 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW70-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW70-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW70-8917 | **98** | **510** | **1,100** | -- | -- | **7.2** | **6,800** | **11,000** |
| MW-70 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW70-8917 | -- | -- | -- | **3.0** | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW70-8917 | -- | -- | -- | -- | -- | -- | -- | -- |

**Table G-1**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | *1.9* | *540* | *710* | *<RL* | *LPL and UPL* | *LPL and UPL* | *13,000* | *20,000* |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-70 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW70-81617 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW70-81617 | **94** | **540** | **1,100** | **3.2** | -- | **7.1** | **6,200** | **12,000** |
| MW-70 | URS | Downgradient Boundary | 9/9/2017 | FC-CCR-MW70-9917 | **99** | **520** | **1,100** | -- | -- | **7.0** | **6,500** | **12,000** |
| MW-70 | URS | Downgradient Boundary | 9/9/2017 | FC-CCR-MW70-9917 | -- | -- | -- | **2.5** | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 9/9/2017 | FC-CCR-MW70-9917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW70-101317 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW70-101317 | **97** | **490** | **1,200** | **1.0** | -- | **7.1** | **6,600** | **12,000** |
| MW-70 | URS | Downgradient Boundary | 11/30/2017 | FC-CCR-MW70-113017 | **92** | **560** | **1,100** | **2.7** | -- | **6.9** | **6,300** | **11,000** |
| MW-70 | URS | Downgradient Boundary | 3/16/2018 | FC-CCR-MW70-31618 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 5/31/2018 | FC-CCR-MW-70-53118 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 5/31/2018 | FC-CCR-MW-70-53118 | **100** | **490** | **1,100** | **1.8** | -- | **6.9** | **6,500** | **11,000** |
| MW-70 | URS | Downgradient Boundary | 11/2/2018 | FC-CCR-MW70-11218 | **88** | **510** | **1,100** | **2.7** | -- | **7.0** | **6,400** | **11,000** |
| MW-70 | URS | Downgradient Boundary | 11/2/2018 | FC-CCR-MW70-11218 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 3/18/2019 | FC-CCR-MW70-031819 | -- | -- | -- | **2.3** | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 3/18/2019 | FC-CCR-MW70-031819 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 5/7/2019 | FC-CCR-MW70-5719 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 12/3/2019 | FC-CCR-MW70-120319 | **95** | **510** | **1,200** | **2.1** | -- | **7.0 J** | **6,400** | **11,000** |
| MW-70 | URS | Downgradient Boundary | 6/19/2020 | FC-CCR-MW70-0620 | **98** | **490** | **1,100** | **1.9** | **6.54** | **7.1 J** | **6,300** | **11,000** |
| MW-70 | URS | Downgradient Boundary | 11/5/2020 | FC-CCR-MW70-1120 | **93** | **510** | **1,100** | **2.0** | **6.69** | **7.1 J** | **6,300** | **10,000** |
| MW-70 | URS | Downgradient Boundary | 4/21/2021 | FC-CCR-MW70-0421 | **97** | **540** | **1,100** | **1.8** | **6.73** | **7.0 J** | **5,600** | **11,000 J** |
| MW-70 | URS | Downgradient Boundary | 11/12/2021 | FC-CCR-MW70-1121 | **95** | **510** | **1,300** | **1.9** | **6.51** | **7.1 J** | **6,900** | **9,800** |
| MW-70 | URS | Downgradient Boundary | 5/20/2022 | FC-CCR-MW70-0522 | **92** | **510** | **1,200** | **1.6** | **6.76** | **7.51 J** | **5,600** | **9,900** |
| MW-70 | URS | Downgradient Boundary | 11/13/2022 | FC-CCR-MW70-1122 | **90** | **540** | **1,100** | **1.4** | **6.71** | **7.1 J** | **5,700** | **11,000** |
| MW-70 | URS | Downgradient Boundary | 5/7/2023 | FC-CCR-MW70-0523 | **110** | **560** | **1,200** | <80 | **6.68** | **7.1 J** | **5,600** | **11,000** |
| MW-70 | URS | Downgradient Boundary | 11/06/2023 | FC-CCR-MW70-1123 | **99 J** | **590 J** | **1,100** | **1.5** | **6.74** | **7.2 J** | **5,800** | **11,000** |
| MW-70 | URS | Downgradient Boundary | 05/22/2024 | FC-CCR-MW70-0524 | **94** | **540** | **1,700** | **0.77** | **6.80** | **7.2 J** | **9,800** | **11,000** |
| MW-70 | URS | Downgradient Boundary | 10/23/2024 | FC-CCR-MW70-1024 | **85.4** | **470** | **1,100** | **0.735 J** | **6.73** | **7.11 J** | **5,180** | **10,900** |
| MW-83 | URS | Downgradient | 3/18/2019 | FC-CCR-MW83-031819 | -- | -- | -- | **1.2** | -- | -- | -- | -- |
| MW-83 | URS | Downgradient | 3/18/2019 | FC-CCR-MW83-031819 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-83 | URS | Downgradient | 5/6/2019 | FC-CCR-MW83-5619 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-83 | URS | Downgradient | 5/6/2019 | *DUP* FC-CCR-FD01-5619 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-83 | URS | Downgradient | 12/2/2019 | FC-CCR-MW83-120319 | **2.5** | **480** | **130** | **1.8** | -- | **7.4 J** | **3,600** | **5,400** |
| MW-83 | URS | Downgradient | 6/19/2020 | FC-CCR-MW83-0620 | **2.1** | **290** | **83** | **1.0** | **6.80** | **7.4 J** | **1,500** | **2,800** |
| MW-83 | URS | Downgradient | 6/19/2020 | *DUP* FC-CCR-FD01-0620 | **2.2** | **340** | **83** | **1.0** | -- | **7.3 J** | **1,500** | **2,800** |
| MW-83 | URS | Downgradient | 11/4/2020 | FC-CCR-MW83-1120 | **2.2** | **300** | **84** | **0.98** | **7.00** | **7.3 J** | **1,500** | **2,700** |
| MW-83 | URS | Downgradient | 4/21/2021 | FC-CCR-MW83-0421 | **2.3** | **310** | **77** | **0.55** | **7.12** | **7.3 J** | **1,200** | **2,100 J** |
| MW-83 | URS | Downgradient | 11/12/2021 | FC-CCR-MW83-1121 | **2.5** | **460** | **120** | **1.8** | **6.96** | **7.4 J** | **4,500** | **4,300** |
| MW-83 | URS | Downgradient | 5/21/2022 | FC-CCR-MW83-0522 | **2.4** | **440** | **130** | **2.0** | **6.93** | **7.71 J** | **3,500** | **5,300** |

**Table G-1**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | *1.9* | *540* | *710* | *<RL* | *LPL and UPL* | *LPL and UPL* | *13,000* | *20,000* |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-83 | URS | Downgradient | 5/21/2022 | FC-CCR-SS05-0522 | **2.46** | **503** | **112** | **2.85 J/1.78** | **6.93** | **8.1 J** | **3,530** | **5,450 J** |
| MW-83 | URS | Downgradient | 11/14/2022 | FC-CCR-MW83-1122 | **2.5** | **490** | **130** | **2.0** | **7.13** | **7.4 J** | **3,400** | **5,800** |
| MW-83 | URS | Downgradient | 5/7/2023 | FC-CCR-MW83-0523 | **2.8** | **530** | **120** | <8 | **7.02** | **7.4 J** | **3,400** | **5,300** |
| MW-83 | URS | Downgradient | 11/11/2023 | FC-CCR-MW83-1123 | **2.8** | **520** | **120** | **2.1** | **7.07** | **7.4 J** | **3,500** | **620** |
| MW-83 | URS | Downgradient | 05/18/2024 | FC-CCR-MW83-0524 | **250** | **440** | **1,700** | **8.7** | **7.16** | **7.2 J** | **15,000** | **25,000** |
| MW-83 | URS | Downgradient | 10/20/2024 | FC-CCR-MW83-1024 | **3.09** | **412** | **117** | **1.58** | **7.11** | **7.43 J** | **2,840** | **5,700** |
| MW-84 | URS | Downgradient | 3/17/2019 | FC-CCR-MW84-031719 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-84 | URS | Downgradient | 3/17/2019 | FC-CCR-MW84-031719 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-84 | URS | Downgradient | 5/7/2019 | FC-CCR-MW84-5719 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-84 | URS | Downgradient | 12/3/2019 | FC-CCR-MW84-120319 | **110** | **470** | **1,400** | <0.80 | -- | **7.0 J** | **8,900** | **14,000** |
| MW-84 | URS | Downgradient | 6/20/2020 | FC-CCR-MW84-0620 | **45** | **480** | **590** | **0.83** | **6.71** | **7.3 J** | **6,000** | **9,600** |
| MW-84 | URS | Downgradient | 11/4/2020 | FC-CCR-MW84-1120 | **32** | **490** | **630** | **0.71** | **6.91** | **7.2 J** | **7,200** | **11,000** |
| MW-84 | URS | Downgradient | 4/21/2021 | FC-CCR-MW84-0421 | **27** | **470** | **430** | **0.82** | **7.05** | **7.2 J** | **6,900** | **11,000 J** |
| MW-84 | URS | Downgradient | 11/12/2021 | FC-CCR-MW84-1121 | **92** | **450** | **1,300** | **0.12 J** | **6.64** | **7.1 J** | **10,000 J** | **13,000** |
| MW-84 | URS | Downgradient | 11/12/2021 | FC-CCR-FD01-1121 | **96** | **500** | **1,200** | **0.12 J** | **6.64** | **7.2 J** | **9,800 J** | **13,000** |
| MW-84 | URS | Downgradient | 5/21/2022 | FC-CCR-MW84-0522 | **77** | **480** | **940** | <0.8 | **6.6** | **7.35 J** | **8,100** | **13,000** |
| MW-84 | URS | Downgradient | 5/21/2022 | *DUP* FC-CCR-FD01-0522 | **81** | **490** | **950** | <0.8 | **6.6** | **7.47 J** | **8,400** | **13,000** |
| MW-84 | URS | Downgradient | 11/14/2022 | FC-CCR-MW84-1122 | **67** | **490** | **870** | <0.8 | **6.84** | **7.1 J** | **8,400** | **15,000** |
| MW-84 | URS | Downgradient | 11/14/2022 | *DUP* FC-CCR-FD01-1122 | **68** | **500** | **890** | <0.8 | **6.84** | **7.2 J** | **8,800** | **15,000** |
| MW-84 | URS | Downgradient | 5/9/2023 | FC-CCR-MW84-0523 | **29** | **460** | **380** | <2 | **6.83** | **7.3 J** | **6,000** | **9,200** |
| MW-84 | URS | Downgradient | 5/9/2023 | *DUP* FC-CCR-FD01-0523 | **28** | **450** | **380** | <2 | **6.83** | **7.3 J** | **6,000** | **9,600** |
| MW-84 | URS | Downgradient | 11/11/2023 | FC-CCR-MW84-1123 | **66** | **530** | **890** | <0.8 | **6.81** | **7.2 J** | **8,700** | **15,000 J** |
| MW-84 | URS | Downgradient | 11/11/2023 | *DUP* FC-CCR-FD01-1123 | **71** | **550** | **890** | <0.8 | **6.81** | **7.2 J** | **8,800** | **15,000** |
| MW-84 | URS | Downgradient | 05/18/2024 | FC-CCR-MW84-0524 | **47** | **550** | **760** | **2.9** | **6.85** | **7.4 J** | **3,500** | **6,600** |
| MW-84 | URS | Downgradient | 05/18/2024 | *DUP* FC-CCR-FD01-0524 | **3.8** | **500** | **140** | **1.7** | **6.85** | **7.5 J** | **3,500** | **5,500** |
| MW-84 | URS | Downgradient | 10/24/2024 | FC-CCR-MW84-1024 | **62.3** | **436** | **863** | <0.38 | **6.79** | **7.18 J** | **8,430** | **15,500** |
| MW-85 | URS | Downgradient | 3/20/2019 | FC-CCR-MW85-032019 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-85 | URS | Downgradient | 3/20/2019 | FC-CCR-MW85-032019 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-85 | URS | Downgradient | 3/20/2019 | *DUP* FC-CCR-FD01-032019 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-85 | URS | Downgradient | 3/20/2019 | *DUP* FC-CCR-FD01-032019 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-85 | URS | Downgradient | 5/7/2019 | FC-CCR-MW85-5719 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-85 | URS | Downgradient | 12/3/2019 | FC-CCR-MW85-120319 | **20** | **500** | **580** | <0.80 | -- | **7.0 J** | **4,600** | **8,200** |
| MW-85 | URS | Downgradient | 6/19/2020 | FC-CCR-MW85-0620 | **38** | **510** | **620** | <0.8 | **6.61** | **7.1 J** | **4,900** | **8,700** |
| MW-85 | URS | Downgradient | 11/4/2020 | FC-CC-MW85-1120 | **35** | **540** | **670** | **0.35 J** | **6.69** | **7.0 J** | **5,000** | **8,400** |
| MW-85 | URS | Downgradient | 4/21/2021 | FC-CCR-MW85-0421 | **30** | **560** | **560** | **0.22 J** | **6.85** | **7.2 J** | **4,800** | **8,300 J** |
| MW-85 | URS | Downgradient | 11/12/2021 | FC-CCR-MW85-1121 | **51** | **530** | **680** | **0.27 J** | **6.62** | **7.3 J** | **6,300** | **9,900** |
| MW-85 | URS | Downgradient | 11/16/2022 | FC-CCR-MW85-1122 | **67** | **530** | **710** | <4 | **6.83** | **7.2 J** | **5,900** | **10,000** |
| MW-85 | URS | Downgradient | 5/9/2023 | FC-CCR-MW85-0523 | **65** | **500** | **680** | <2 | **6.76** | **7.3 J** | **6,100** | **10,000** |

**Table G-1**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | *1.9* | *540* | *710* | *<RL* | *LPL and UPL* | *LPL and UPL* | *13,000* | *20,000* |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-85 | URS | Downgradient | 11/11/2023 | FC-CCR-MW85-1123 | **75** | **580** | **630** | **1.9** | **6.84** | **7.2 J** | **5,900** | **10,000** |
| MW-85 | URS | Downgradient | 05/18/2024 | FC-CCR-MW85-0524 | **95** | **560** | **840** | <0.4 | **6.79** | **7.1 J** | **7,800** | **14,000** |
| MW-85 | URS | Downgradient | 10/20/2024 | FC-CCR-MW85-1024 | **67.1** | **453** | **651** | **0.988 J** | **6.76** | **7.23 J** | **4,830** | **9,300** |
| MW-86 | URS | Downgradient | 3/18/2019 | FC-CCR-MW86-031819 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-86 | URS | Downgradient | 3/18/2019 | FC-CCR-MW86-031819 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-86 | URS | Downgradient | 5/7/2019 | FC-CCR-MW86-5719 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-86 | URS | Downgradient | 5/7/2019 | *DUP* FC-CCR-FD02-5719 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-86 | URS | Downgradient | 12/3/2019 | FC-CCR-MW86-120319 | **120** | **480** | **1,400** | <0.80 | -- | **7.1 J** | **8,700** | **14,000** |
| MW-86 | URS | Downgradient | 6/19/2020 | FC-CCR-MW86-0620 | **110** | **500** | **1,300** | <0.8 | **6.71** | **7.1 J** | **8,300** | **14,000** |
| MW-86 | URS | Downgradient | 6/20/2020 | *DUP* FC-CCR-FD02-0620 | **46** | **460** | **620** | **0.83** | -- | **7.1 J** | **6,100** | **9,700** |
| MW-86 | URS | Downgradient | 11/5/2020 | FC-CCR-MW86-1120 | **120** | **470** | **1,500** | **0.63 J** | **6.87** | **7.2 J** | **9,400** | **15,000** |
| MW-86 | URS | Downgradient | 4/21/2021 | FC-CCR-MW86-0421 | **110** | **500** | **1,300** | **0.58 J** | **7.00** | **7.2 J** | **8,900** | **14,000 J** |
| MW-86 | URS | Downgradient | 4/21/2021 | *DUP* FC-CCR-FD02-0421 | **110** | **510** | **1,300** | **0.60 J** | **7.00** | **7.3 J** | **8,700** | **14,000 J** |
| MW-86 | URS | Downgradient | 11/12/2021 | FC-CCR-MW86-1121 | **120** | **510** | **1,600** | **0.56 J** | **6.69** | **7.2 J** | **11,000** | **15,000** |
| MW-86 | URS | Downgradient | 11/12/2021 | FC-CCR-FD02-1121 | **120** | **490** | **1,600** | **0.55 J** | **6.69** | **7.2 J** | **11,000** | **14,000** |
| MW-86 | URS | Downgradient | 5/20/2022 | FC-CCR-MW86-0522 | **110** | **470** | **1,200** | **0.92** | **6.96** | **7.45 J** | **8,600** | **14,000** |
| MW-86 | URS | Downgradient | 5/20/2022 | *DUP* FC-CCR-FD02-0522 | **110** | **460** | **1,200** | **0.94** | **6.96** | **7.31 J** | **8,400** | **14,000** |
| MW-86 | URS | Downgradient | 11/13/2022 | FC-CCR-MW86-1122 | **110** | **500** | **1,300** | <0.8 | **6.86** | **7.3 J** | **8,600** | **15,000** |
| MW-86 | URS | Downgradient | 11/13/2022 | *DUP* FC-CCR-FD02-1122 | **110** | **490** | **1,300** | **1.0** | **6.86** | **7.2 J** | **9,000** | **15,000** |
| MW-86 | URS | Downgradient | 5/7/2023 | FC-CCR-MW86-0523 | **49** | **470** | **720** | <80 | **7.00** | **7.3 J** | **5,600** | **9,300** |
| MW-86 | URS | Downgradient | 5/7/2023 | *DUP* FC-CCR-FD02-0523 | **49** | **470** | **690** | <80 | **7.00** | **7.3 J** | **5,400** | **9,400** |
| MW-86 | URS | Downgradient | 11/06/2023 | FC-CCR-MW86-1123 | **90 J** | **530 J** | **970** | **0.95** | **6.95** | **7.4 J** | **7,200** | **12,000** |
| MW-86 | URS | Downgradient | 05/22/2024 | FC-CCR-MW86-0524 | **85** | **510** | **1,100** | <0.4 | **6.98** | **7.2 J** | **7,700** | **12,000** |
| MW-86 | URS | Downgradient | 10/23/2024 | FC-CCR-MW86-1024 | **97.5** | **426** | **1,120** | **0.816** | **6.95** | **7.28 J** | **7,490** | **14,100** |
| MW-86 | URS | Downgradient | 10/23/2024 | *DUP* FC-CCR-FD03-1024 | **111** | **427** | **1,190** | **4.74 J** | **6.95** | **7.29 J** | **7,910** | **14,400** |
| CM-01 | URS | Extraction | 11/04/2020 | FC-CCR-CM01-1120 | -- | -- | **1,700** | **3.7** | **6.94** | **7.3 J** | **12,000** | **19,000 J** |
| CM-01 | URS | Extraction | 05/09/2023 | FC-CCR-CM01-0523 | **120** | **480** | **1,500** | <20 | **7.35** | **7.6 J** | **9,300** | **16,000** |
| CM-01 | URS | Extraction | 11/13/2023 | FC-CCR-CM01-1123 | **120** | **540** | **1,400** | **3.3** | **7.04** | **7.3 J** | **9,100** | **16,000** |
| CM-01 | URS | Extraction | 05/18/2024 | FC-CCR-CM01-0524 | **100** | **570** | **780** | <0.4 | **7.22** | **7.2 J** | **7,500** | **14,000** |
| CM-01 | URS | Extraction | 10/20/2024 | FC-CCR-CM01-1024 | **99.4** | **429** | **1,320** | **1.74** | **6.92** | **7.10 J** | **7400 J** | **15,500 J** |
| CM-02 | URS | Extraction | 11/04/2020 | FC-CCR-CM02-1120 | -- | -- | **1,800** | **6.8** | **7.12** | **7.4 J** | **12,000** | **19,000 J** |
| CM-02 | URS | Extraction | 05/09/2023 | FC-CCR-CM02-0523 | **110** | **450** | **1,300** | **4.1** | **6.9** | **7.1 J** | **9,600** | **16,000** |
| CM-02 | URS | Extraction | 11/13/2023 | FC-CCR-CM02-1123 | **110** | **510** | **1,100** | **4.2** | **6.88** | **7.0 J** | **9,200** | **15,000** |
| CM-02 | URS | Extraction | 05/18/2024 | FC-CCR-CM02-0524 | **93** | **580** | **630** | **1.1** | **6.98** | **7.1 J** | **5,500** | **9,600** |
| CM-02 | URS | Extraction | 10/20/2024 | FC-CCR-CM02-1024 | **100** | **429** | **1,180** | **2.24 J** | **6.88** | **7.12 J** | **9510 J** | **12,700 J** |
| CM-03 | URS | Supplementary | 11/04/2020 | FC-CCR-CM03-1120 | -- | -- | **1,600** | **16** | **7.11** | **7.4 J** | **14,000** | **21,000 J** |
| CM-04 | URS | Supplementary | 11/04/2020 | FC-CCR-CM04-1120 | -- | -- | **1,700** | **10** | **7.07** | **7.4 J** | **11,000** | **17,000 J** |

**Table G-1**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | *1.9* | *540* | *710* | *<RL* | *LPL and UPL* | *LPL and UPL* | *13,000* | *20,000* |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| URS-05 | URS | Supplementary | 05/18/2024 | FC-CCR-URS05-0524 | **180** | **470** | **1,200** | **4.8** | **7.03** | **7.2 J** | **8,800** | **15,000** |
| URS-05 | URS | Supplementary | 10/21/2024 | FC-CCR-URS05-1024 | **126** | **398** | **1,350** | **8.69** | **7.04** | **7.26 J** | **9,750** | **16,900** |
| URS-05 | URS | Supplementary | 10/21/2024 | *DUP* FC-CCR-FD01-1024 | **125** | **395** | **1,360** | **8.45** | **7.04** | **7.33 J** | **9,790** | **17,200** |
| URS-06 | URS | Extraction (Inactive) | 05/18/2024 | FC-CCR-URS06-0524 | **130** | **460** | **1,100** | <0.4 | **6.67** | **6.8 J** | **8,600** | **16,000 J** |
| URS-06 | URS | Extraction (Inactive) | 05/18/2024 | *DUP* FC-CCR-FD02-0524 | **140** | **470** | **1,100** | <0.4 | **6.67** | **7.0 J** | **8,700** | **11,000 J** |
| URS-06 | URS | Extraction (Inactive) | 10/21/2024 | FC-CCR-URS06-1024 | **99.4** | **413** | **1,290** | **0.515 J** | **6.64** | **7.04 J** | **9,560** | **16,400** |
| URS-06 | URS | Extraction (Inactive) | 10/21/2024 | *DUP* FC-CCR-FD02-1024 | **95** | **401** | **1,260** | **0.532 J** | **6.64** | **7.12 J** | **9,500** | **16,400** |
| URS-07 | URS | Extraction (Inactive) | 05/18/2024 | FC-CCR-URS07-0524 | **170** | **510** | **940** | **1.4** | **7.01** | **7.3 J** | **7,300** | **12,000** |
| URS-07 | URS | Extraction (Inactive) | 10/21/2024 | FC-CCR-URS07-1024 | **108** | **423** | **1,000** | **4.49 J** | **6.88** | **7.39 J** | **7,740** | **13,800** |
| URS-08 | URS | Supplementary | 05/18/2024 | FC-CCR-URS08-0524 | **130** | **380** | **1,100** | **8.1** | **7.11** | **7.3 J** | **8,400** | **14,000** |
| URS-08 | URS | Supplementary | 10/21/2024 | FC-CCR-URS08-1024 | **107** | **373** | **1,190** | **12** | **7.02** | **7.29 J** | **8,810** | **15,200** |

*Notes:*

BTV exceedances are shown in grey shaded cells. GWPS exceedences are shown in red text.

*Abbreviations and Data Qualifiers:*

< = less than
BTV = Background Threshold Value
degrees C = degrees Celsius
GWPS = Groundwater Protection Standard
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
NJ = The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
mg/L = milligrams per liter
pCi/L = Picocuries per liter
su = standard units
UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Table G-2**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Total Radium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | *0.01* | *0.13* | *2* | *0.004* | *0.005* | *0.1* | *0.016* | *4* | *0.015* | *0.8* | *0.002* | *0.1* | *0.45* | *0.002* | *5.4* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | |
| MW-71 | URS/CWTP | Background | 3/5/2016 | FC-CCR-MW-71-030516 | **0.00016** | **0.016** | **0.027** | **0.00064** | **0.00019** | **0.00078** | **0.0028** | <0.050 | **0.00061** | **0.28** | <0.00020 | **0.0028** | **0.19** | **0.00031** | -- |
| MW-71 | URS/CWTP | Background | 3/5/2016 | FC-CCR-MW-71-030516 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 3/5/2016 | *DUP* FC-CCR-FD-2-030516 | <0.0020 | **0.017** | **0.025** | <0.0010 | **0.00010** | **0.00054** | **0.0028** | <0.050 | **0.00021** | **0.28** | <0.00020 | **0.0029** | **0.20** | **0.00026** | -- |
| MW-71 | URS/CWTP | Background | 3/5/2016 | *DUP* FC-CCR-FD-2-030516 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 4/26/2016 | FC-CCR-MW-71-042616 | <0.0025 | **0.0064** | **0.019** | <0.0010 | **0.00015** | <0.00050 | **0.0049** | <2.0 | <0.00050 | **0.45** | <0.00020 | **0.0018** | **0.31** | **0.00047** | **2.2** |
| MW-71 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW71-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.2** |
| MW-71 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW71-616 | **0.00012** | **0.0069** | **0.020** | <0.0010 | **0.00015** | <0.00050 | **0.0041** | <0.40 | **0.00073** | **0.41** | <0.00020 | **0.0014** | **0.28** | **0.00043** | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW71-816 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW71-816 | **0.00022** | **0.0066** | **0.014** | <0.0010 | <0.00020 | <0.0010 | <0.0010 | <0.80 | <0.0010 | **0.36** | <0.00020 | **0.0025** | **0.26** | **0.00029** | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW71-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.6** |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW101-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW101-816 | **0.00024** | **0.0076** | **0.013** | <0.0010 | <0.00020 | <0.0010 | <0.0010 | <0.40 | <0.0010 | **0.37** | <0.00020 | **0.0024** | **0.25** | **0.00028** | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW101-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** |
| MW-71 | URS/CWTP | Background | 9/12/2016 | FC-CCR-MW71-916 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 9/12/2016 | FC-CCR-MW71-916 | <0.0025 | <0.0010 | **0.013** | <0.0010 | <0.00050 | <0.0025 | **0.0012** | <0.40 | <0.00050 | **0.30** | <0.00020 | **0.0013** | **0.18** | <0.00050 | -- |
| MW-71 | URS/CWTP | Background | 9/12/2016 | FC-CCR-MW71-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.1** |
| MW-71 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW71-1016 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW71-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** |
| MW-71 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW71-117 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW71-117 | <0.0010 | **0.0094** | **0.012** | <0.0010 | **0.00011** | <0.00050 | **0.0012** | <0.40 | <0.00050 | **0.39** | <0.00020 | **0.00078** | **0.34** | **0.00037** | -- |
| MW-71 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW71-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** |
| MW-71 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW71-41717 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW71-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** |
| MW-71 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW71-41717 | <0.0040 | **0.0063** | **0.010** | <0.0010 | <0.00040 | <0.0020 | <0.0020 | <2.0 | <0.0020 | **0.32** | <0.00020 | <0.0020 | **0.20** | <0.00040 | -- |
| MW-71 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW71-5217 | <0.0010 | **0.0072** | **0.0087** | <0.0010 | <0.00010 | <0.0010 | <0.0010 | <13 | <0.00050 | **0.34** | <0.00020 | <0.0010 | **0.27** | **0.00025** | -- |
| MW-71 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW71-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** |
| MW-71 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW71-52917 | <0.010 | **0.0070** | **0.010** | <0.0010 | <0.0010 | <0.0050 | <0.0050 | <2.0 | <0.0050 | **0.33** | <0.00020 | <0.0050 | **0.21** | <0.0010 | -- |
| MW-71 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW71-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-71 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW71-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW71-62217 | <0.0040 | **0.0063** | **0.012** | <0.0010 | <0.00040 | <0.0020 | <0.0020 | <2.0 | <0.0020 | **0.38** | <0.00020 | <0.0020 | **0.25** | <0.00040 | -- |
| MW-71 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW71-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.7** |
| MW-71 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW71-72117 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW71-72117 | <0.0040 | **0.0053** | **0.0086** | <0.0010 | <0.00040 | <0.0020 | <0.0010 | -- | <0.0020 | <0.40 | <0.00020 | <0.0020 | **0.24** | <0.00040 | -- |
| MW-71 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW71-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 |
| MW-71 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW71-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW71-81017 | <0.010 | **0.0048** | **0.0092** | <0.0010 | <0.0010 | <0.0040 | <0.0020 | <2.0 | <0.0050 | **0.34** | <0.00020 | <0.0050 | **0.21** | <0.0010 | -- |
| MW-71 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW71-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-71 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW71-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.0** |
| MW-71 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW71-81717 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 9/11/2017 | FC-CCR-MW71-91117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 9/11/2017 | FC-CCR-MW71-91117 | <0.0040 | **0.0048** | **0.0089** | <0.0010 | <0.00040 | <0.0040 | <0.0020 | <2.0 | <0.0020 | **0.32** | <0.00020 | <0.0020 | **0.20** | <0.00040 | -- |
| MW-71 | URS/CWTP | Background | 9/11/2017 | FC-CCR-MW71-91117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-71 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW71-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.6** |
| MW-71 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW71-101317 | <0.010 | <0.0050 | **0.012** | <0.0010 | <0.0010 | <0.010 | <0.0050 | <2.0 | <0.0050 | **0.33** | <0.00020 | <0.0050 | **0.20** | <0.0010 | -- |
| MW-71 | URS/CWTP | Background | 11/30/2017 | FC-CCR-MW71-113017 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 3/16/2018 | FC-CCR-MW71-31618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** |
| MW-71 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-71-6218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** |
| MW-71 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-71-6218 | -- | **0.012** | <0.010 | -- | -- | -- | <0.010 | <0.80 | -- | **0.32** | <0.00020 | <0.010 | **0.20** | <0.0020 | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW71-11318 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW71-11318 | -- | **0.0046** | **0.0098** | -- | -- | -- | <0.00050 | -- | -- | **0.35** | -- | **0.00079** | **0.27** | **0.00031** | **1.2** |
| MW-71 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW71-11318 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD01-11318 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD01-11318 | -- | **0.0068** | **0.0095** | -- | -- | -- | <0.00050 | -- | -- | **0.34** | -- | **0.00065** | **0.31** | **0.00030** | **1.8** |
| MW-71 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW71-031819 | <0.0010 | **0.0069** | **0.010** | <0.0010 | <0.00010 | <0.0010 | <0.00050 | <0.80 | <0.00050 | **0.32** | <0.00020 | **0.00066** | **0.37** | **0.00031** | -- |
| MW-71 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW71-031819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-71 | URS/CWTP | Background | 5/6/2019 | FC-CCR-MW71-5719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** |
| MW-71 | URS/CWTP | Background | 12/2/2019 | FC-CCR-MW71-120219 | <0.0040 | **0.0095** | **0.012** | <0.0010 | <0.00040 | <0.0040 | <0.0020 | <0.80 | <0.0020 | **0.32** | <0.00020 | <0.0020 | **0.27** | **0.00065** | -- |

**Table G-2**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Total Radium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | *0.01* | *0.13* | *2* | *0.004* | *0.005* | *0.1* | *0.016* | *4* | *0.015* | *0.8* | *0.002* | *0.1* | *0.45* | *0.002* | *5.4* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | |
| MW-71 | URS/CWTP | Background | 6/20/2020 | FC-CCR-MW71-0620 | <0.002 | **0.0048** | **0.0045** | -- | <0.0002 | <0.002 | <0.001 | <0.8 | <0.001 | **0.75** | -- | <0.001 | **0.15** | **0.00025** | <0.8 |
| MW-71 | URS/CWTP | Background | 11/5/2020 | FC-CCR-MW71-1120 | <0.002 | **0.012** | **0.0092** | <0.001 | <0.0002U | <0.002 | **0.00026 J** | <0.4 | <0.001 | **0.35** | <0.0002 | **0.00061 J** | **0.28** | **0.00023** | <0.8 |
| MW-71 | URS/CWTP | Background | 4/22/2021 | FC-CCR-MW71-0421 | <0.004 | **0.0013 J** | **0.014** | <0.001 | **0.00012 J** | <0.004 | **0.0003 J** | **3.8N J** | <0.002 | **0.40** | <0.0002 | <0.002 | **0.36** | **0.00040** | **0.7** |
| MW-71 | URS/CWTP | Background | 11/12/2021 | FC-CCR-MW71-1121 | <0.002 | <0.001 | **0.010** | <0.001 | **0.00010 J** | <0.002 | **0.00013 J** | **0.14 J** | <0.001 | **0.37** | <0.0002 UJ | <0.001 | **0.24** | **0.00042** | **0.5** |
| MW-71 | URS/CWTP | Background | 5/21/2022 | FC-CCR-MW71-0522 | <0.002 | <0.001 | **0.0094** | <0.001 | <0.0002 | <0.002 | <0.001 | <0.8 | <0.001 | **0.37** | <0.0002 | <0.001 | **0.28** | **0.00037** | **1.2** |
| MW-71 | URS/CWTP | Background | 5/21/2022 | FC-CCR-SS04-0522 | <0.02 | <0.01 | **0.00887 J** | <0.0025 | <0.0025 | <0.02 | **0.00147 J** | <50/0.28 J | <0.005 | **0.367 J** | <0.001 | <0.005 | **0.233** | <0.005 | -- |
| MW-71 | URS/CWTP | Background | 11/13/2022 | FC-CCR-MW71-1122 | <0.001 | **0.00073** | **0.012** | <0.001 | <0.0001 | <0.001 | <0.0005 | <0.8 | <0.0005 | **0.37** | <0.0002 | **0.00052** | **0.36** | **0.00043** | **1.0** |
| MW-71 | URS/CWTP | Background | 5/8/2023 | FC-CCR-MW71-0523 | <0.002 | <0.005 | **0.0095** | <0.001 | <0.001 | <0.003 | <0.001 | <2 | <0.001 | **0.4** | <0.0002 | <0.002 | **0.2** | <0.001 | **1.7** |
| MW-71 | URS/CWTP | Background | 6/27/2023 | FC-CCR-MW71-0623 | < 0.01 | < 0.005 | **0.011** | **0.0022** | < 0.001 | < 0.01 | < 0.005 | < 20 | < 0.0005 | **0.45** | < 0.0002 | < 0.005 | **0.25** | **0.00039** | **2.2** |
| MW-71 | URS/CWTP | Background | 11/08/2023 | FC-CCR-MW71-1123 | <0.004 | **0.0024** | **0.010 J** | <0.001 | <0.0004 | <0.004 | <0.002 | <0.8 | <0.0005 | **0.40** | <0.0002 | <0.002 | **0.28** | **0.0004** | **1.8** |
| MW-71 | URS/CWTP | Background | 05/16/2024 | FC-CCR-MW71-0524 | <0.01 | **0.0070** | **0.011 J** | <0.005 | <0.001 | <0.01 | <0.005 | <0.4 | <0.005 | **0.39** | <0.0002 | <0.005 | **0.25** | <0.001 | **1.4** |
| MW-71 | URS/CWTP | Background | 10/24/2024 | FC-CCR-MW71-1024 | <0.0025 | <0.0025 | **0.010** | <0.00044 | <0.0004 | <0.01 | <0.0025 | <0.38 | <0.0025 | **0.30** | <0.0002 | <0.0025 | **0.259** | <0.0005 | **1.7** |
| MW-72 | URS/CWTP | Background | 3/7/2016 | FC-CCR-MW72-030716 | <0.0020 | **0.011** | **0.035** | <0.0010 | **0.000078** | **0.00044** | **0.019** | <0.050 | **0.00013** | **0.33** | <0.00020 | **0.011** | **0.13** | **0.0012** | -- |
| MW-72 | URS/CWTP | Background | 3/7/2016 | FC-CCR-MW72-030716 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 4/26/2016 | FC-CCR-MW-72-042616 | <0.0025 | **0.0038** | **0.034** | <0.0010 | <0.00010 | **0.0028** | **0.0087** | <2.0 | **0.0011** | **0.40** | <0.00020 | **0.0093** | **0.16** | **0.00081** | <0.8 |
| MW-72 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW72-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** |
| MW-72 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW72-616 | **0.00027** | **0.0084** | **0.051** | <0.0010 | <0.00020 | **0.00060** | **0.0029** | <0.40 | <0.0010 | <0.20 | <0.00020 | **0.0052** | **0.39** | **0.00058** | -- |
| MW-72 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW72-816 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW72-816 | **0.00026** | **0.0047** | **0.016** | <0.0010 | <0.00020 | <0.0010 | **0.0034** | <0.40 | <0.0010 | **0.42** | <0.00020 | **0.0061** | **0.18** | **0.0011** | -- |
| MW-72 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW72-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.2** |
| MW-72 | URS/CWTP | Background | 9/13/2016 | FC-CCR-MW72-916 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 9/13/2016 | FC-CCR-MW72-916 | <0.0025 | <0.0010 | **0.019** | <0.0010 | <0.00050 | <0.0025 | **0.0073** | <0.40 | <0.00050 | **0.35** | <0.00020 | **0.011** | <0.0030 | **0.00056** | -- |
| MW-72 | URS/CWTP | Background | 9/13/2016 | FC-CCR-MW72-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.9** |
| MW-72 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW72-1016 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW72-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **4.2** |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW72-117 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW72-117 | <0.0010 | **0.0041** | **0.0093** | <0.0010 | <0.00010 | <0.0010 | **0.0025** | <0.40 | <0.00050 | **0.39** | <0.00020 | **0.00093** | **0.13** | **0.00094** | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW72-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **4.0** |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW101-117 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW101-117 | <0.0020 | **0.0027** | **0.0084** | <0.0010 | <0.00020 | <0.0010 | **0.0025** | <0.40 | <0.0010 | **0.39** | <0.00020 | **0.0010** | **0.12** | **0.00096** | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW101-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW-72-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.5** |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW72-41717 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW72-41717 | <0.0040 | **0.0028** | **0.0096** | <0.0010 | <0.00040 | <0.0020 | **0.0024** | <2.0 | <0.0020 | **0.35** | <0.00020 | <0.0020 | **0.10** | **0.00096** | -- |
| MW-72 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW-72-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.8** |
| MW-72 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW72-5217 | <0.0010 | **0.0030** | **0.0079** | <0.0010 | <0.00010 | <0.0010 | **0.0024** | <13 | <0.00050 | **0.38** | <0.00020 | <0.0010 | **0.12** | **0.00091** | -- |
| MW-72 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW72-52917 | <0.010 | <0.0050 | **0.0093** | <0.0010 | <0.0010 | <0.0050 | <0.0050 | <2.0 | <0.0050 | **0.37** | <0.00020 | <0.0050 | **0.11** | **0.0011** | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW72-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW72-62217 | <0.0040 | **0.0023** | **0.0077** | <0.0010 | <0.00040 | <0.0020 | **0.0025** | <2.0 | <0.0020 | **0.39** | <0.00020 | <0.0020 | **0.10** | **0.0010** | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW-72-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.8** |
| MW-72 | URS/CWTP | Background | 6/22/2017 | *DUP* FC-CCR-FD02-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | *DUP* FC-CCR-FD02-62217 | <0.0040 | <0.0020 | **0.0086** | <0.0010 | <0.00040 | <0.0020 | **0.0025** | <2.0 | <0.0020 | **0.40** | **0.00020** | <0.0020 | **0.099** | **0.0011** | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | *DUP* FC-CCR-FD02-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.0** |
| MW-72 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW72-72117 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW72-72117 | <0.0040 | **0.0026** | **0.0073** | <0.0010 | <0.00040 | <0.0020 | **0.0024** | -- | <0.0020 | <0.80 | <0.00020 | <0.0020 | **0.13** | **0.00089** | -- |
| MW-72 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW72-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.7** |
| MW-72 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW72-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW72-81017 | <0.0010 | **0.0040** | **0.0075** | <0.0010 | <0.00010 | <0.0010 | **0.0023** | <2.0 | <0.00050 | **0.41** | <0.00020 | **0.00087** | **0.14** | **0.00091** | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW72-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.8** |
| MW-72 | URS/CWTP | Background | 8/10/2017 | *DUP* FC-CCR-FD02-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | *DUP* FC-CCR-FD02-81017 | <0.010 | **0.0028** | **0.0089** | <0.0010 | <0.0010 | <0.0040 | **0.0025** | <2.0 | <0.0050 | **0.42** | <0.00020 | <0.0050 | **0.10** | **0.0010** | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | *DUP* FC-CCR-FD02-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.7** |
| MW-72 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW72-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.1** |
| MW-72 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW72-81717 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/17/2017 | *DUP* FC-CCR-FD02-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.0** |
| MW-72 | URS/CWTP | Background | 8/17/2017 | *DUP* FC-CCR-FD02-81717 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW72-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table G-2**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Total Radium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | *0.01* | *0.13* | *2* | *0.004* | *0.005* | *0.1* | *0.016* | *4* | *0.015* | *0.8* | *0.002* | *0.1* | *0.45* | *0.002* | *5.4* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | |
| MW-72 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW72-91017 | <0.0040 | **0.0029** | **0.0086** | <0.0010 | <0.00040 | <0.0040 | **0.0023** | <2.0 | <0.0020 | **0.37** | <0.00020 | <0.0020 | **0.10** | **0.00095** | -- |
| MW-72 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW72-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.3** |
| MW-72 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW72-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.1** |
| MW-72 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW72-101317 | <0.010 | **0.0052** | **0.011** | <0.0010 | <0.0010 | <0.010 | <0.0050 | <2.0 | <0.0050 | **0.38** | <0.00020 | <0.0050 | **0.11** | **0.0010** | -- |
| MW-72 | URS/CWTP | Background | 11/29/2017 | FC-CCR-MW72-112917 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 3/16/2018 | FC-CCR-MW72-31618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** |
| MW-72 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-72-6218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.8** |
| MW-72 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-72-6218 | -- | <0.010 | <0.010 | -- | -- | -- | <0.010 | <0.80 | -- | **0.35** | <0.00020 | <0.010 | **0.10** | <0.0020 | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW72-11318 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW72-11318 | -- | **0.0031** | **0.0075** | -- | -- | -- | **0.0020** | -- | -- | **0.37** | -- | **0.00078** | **0.13** | **0.00088** | **1.7** |
| MW-72 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW72-11318 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD02-11318 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD02-11318 | -- | **0.0026** | **0.0075** | -- | -- | -- | **0.0020** | -- | -- | **0.37** | -- | **0.00078** | **0.15** | **0.00087** | **2.0** |
| MW-72 | URS/CWTP | Background | 3/17/2019 | FC-CCR-MW72-031719 | <0.0010 | **0.0034** | **0.0077** | <0.0010 | <0.00010 | <0.0010 | **0.0022** | <0.80 | <0.00050 | **0.36** | <0.00020 | **0.00095** | **0.13** | **0.00095** | -- |
| MW-72 | URS/CWTP | Background | 3/17/2019 | FC-CCR-MW72-031719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.4** |
| MW-72 | URS/CWTP | Background | 5/7/2019 | FC-CCR-MW72-5719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.4** |
| MW-72 | URS/CWTP | Background | 12/2/2019 | FC-CCR-MW72-120219 | <0.0020 | **0.0031** | **0.0081** | <0.0010 | <0.00020 | <0.0040 | **0.0023** | <0.80 | <0.0010 | **0.36** | <0.00020 | **0.0014** | **0.11** | **0.0011** | -- |
| MW-72 | URS/CWTP | Background | 6/19/2020 | FC-CCR-MW72-0620 | <0.004 | **0.0044** | **0.020** | -- | <0.0004 | <0.004 | **0.0027** | <0.8 | <0.001 | **0.89** | -- | <0.002 | **0.11** | **0.0011** | **3.5** |
| MW-72 | URS/CWTP | Background | 11/5/2020 | FC-CCR-MW72-1120 | <0.001U | **0.0053** | **0.018** | <0.001 | <0.0001U | **0.00071 J** | **0.0013** | <0.4 | <0.0005 | **0.38** | <0.0002 | **0.0020** | **0.11** | <0.00011U | **2.4** |
| MW-72 | URS/CWTP | Background | 4/22/2021 | FC-CCR-MW72-0421 | <0.004 | **0.0026** | **0.0086** | <0.001 | **0.00012 J** | <0.004 | **0.0029** | <0.8 | <0.002 | **0.37** | <0.0002 | **0.0011 J** | **0.11** | **0.0010** | **2.2** |
| MW-72 | URS/CWTP | Background | 11/12/2021 | FC-CCR-MW72-1121 | <0.002 | <0.001 | **0.0085** | <0.001 | **0.00006 J** | <0.002 | **0.0026** | <0.8 | <0.001 | **0.38** | <0.0002 | **0.00055 J** | **0.087** | **0.0010** | **3.7** |
| MW-72 | URS/CWTP | Background | 5/22/2022 | FC-CCR-MW72-0522 | <0.002 | <0.001 | **0.0073** | <0.001 | <0.0002 | <0.002 | **0.0025** | <0.8 | <0.001 | **0.37** | <0.0002 | <0.001 | **0.095** | **0.00094** | **1.2** |
| MW-72 | URS/CWTP | Background | 11/13/2022 | FC-CCR-MW72-1122 | <0.001 | **0.00070** | **0.0086** | <0.001 | <0.0001 | <0.001 | **0.0026** | <0.8 | <0.0005 | **0.34** | <0.0002 | **0.00077** | **0.12** | **0.0010** | **1.9** |
| MW-72 | URS/CWTP | Background | 5/8/2023 | FC-CCR-MW72-0523 | <0.002 | <0.005 | **0.0068** | <0.005 | <0.001 | <0.003 | **0.0025** | **4.2** | <0.001 | **0.38** | <0.0002 | <0.002 | **0.064** | <0.001 | **4** |
| MW-72 | URS/CWTP | Background | 6/27/2023 | FC-CCR-MW72-0623 | < 0.01 | **0.0014** | **0.0073** | **0.0011** | < 0.001 | < 0.001 | **0.0023** | < 20 | < 0.0005 | **0.37** | < 0.0002 | < 0.005 | **0.11** | **0.00093** | **1.9** |
| MW-72 | URS/CWTP | Background | 11/08/2023 | FC-CCR-MW72-1123 | <0.001 | **0.0024** | **0.008 J** | <0.001 | <0.0001 | <0.004 | **0.0023** | <0.8 | <0.0005 | **0.29** | <0.0002 | **0.0008** | **0.076** | **0.00096** | **5.1** |
| MW-72 | URS/CWTP | Background | 05/16/2024 | FC-CCR-MW72-0524 | <0.01 | **0.0069** | **0.0073 J** | <0.005 | <0.001 | <0.01 | <0.005 | <0.4 | <0.005 | **0.36** | <0.0002 | <0.005 | **0.078** | <0.001 | **3.1** |
| MW-72 | URS/CWTP | Background | 10/24/2024 | FC-CCR-MW72-1024 | <0.0025 | <0.0025 | **0.0070** | <0.00044 | <0.0004 | <0.01 | **0.0028** | <0.38 | <0.0025 | **0.309** | <0.0002 | <0.0025 | **0.080** | **0.0011** | **2.1** |
| MW-73 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW73-117 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW73-117 | <0.0010 | **0.0015** | **0.043** | <0.0010 | **0.00017** | <0.0010 | **0.0073** | <0.40 | <0.00050 | **0.21** | <0.00020 | **0.0086** | **0.029** | **0.00020** | -- |
| MW-73 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW73-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.2** |
| MW-73 | URS/CWTP | Background | 4/18/2017 | FC-CCR-MW73-41817 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 4/18/2017 | FC-CCR-MW73-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.8** |
| MW-73 | URS/CWTP | Background | 4/18/2017 | FC-CCR-MW73-41817 | <0.0040 | <0.0020 | **0.027** | <0.0010 | <0.00040 | <0.0020 | **0.0058** | <0.80 | <0.0020 | **0.22** | <0.00020 | **0.0041** | **0.019** | <0.00040 | -- |
| MW-73 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW73-5217 | <0.0020 | <0.0010 | **0.026** | <0.0010 | **0.00021** | <0.0010 | **0.0067** | <5.0 | <0.00050 | **0.24** | <0.00020 | **0.0037** | **0.015** | **0.00024** | -- |
| MW-73 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW73-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.3** |
| MW-73 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW73-52917 | <0.010 | <0.0050 | **0.028** | <0.0010 | <0.0010 | <0.0050 | <0.0050 | <0.80 | <0.0050 | <0.20 | <0.00020 | <0.0050 | **0.043** | <0.0010 | -- |
| MW-73 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW73-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-73 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW73-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW73-62217 | <0.0040 | <0.0020 | **0.029** | <0.0010 | <0.00040 | <0.0020 | **0.0066** | <0.80 | <0.0020 | **0.25** | <0.00020 | <0.0020 | **0.019** | <0.00040 | -- |
| MW-73 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW73-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.1** |
| MW-73 | URS/CWTP | Background | 7/22/2017 | FC-CCR-MW73-72217 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 7/22/2017 | FC-CCR-MW73-72217 | <0.0040 | <0.0020 | **0.024** | <0.0010 | <0.00040 | <0.0020 | **0.0067** | <2.0 | <0.0020 | <0.40 | <0.00020 | **0.0023** | **0.016** | <0.00040 | -- |
| MW-73 | URS/CWTP | Background | 7/22/2017 | FC-CCR-MW73-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.0** |
| MW-73 | URS/CWTP | Background | 7/22/2017 | *DUP* FC-CCR-FD02-72217 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 7/22/2017 | *DUP* FC-CCR-FD02-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.8** |
| MW-73 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW73-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW73-81017 | <0.010 | <0.0020 | **0.024** | <0.0010 | <0.0010 | **0.0041** | **0.0065** | <0.80 | <0.0050 | **0.27** | <0.00020 | <0.0050 | **0.017** | <0.0010 | -- |
| MW-73 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW73-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** |
| MW-73 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW73-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** |
| MW-73 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW73-81717 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW73-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW73-91017 | <0.0040 | **0.0020** | **0.023** | <0.0010 | <0.00040 | <0.0040 | **0.0048** | <0.80 | <0.0020 | **0.22** | <0.00020 | **0.0024** | **0.033** | <0.00040 | -- |
| MW-73 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW73-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.5** |
| MW-73 | URS/CWTP | Background | 10/12/2017 | FC-CCR-MW73-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** |
| MW-73 | URS/CWTP | Background | 10/12/2017 | FC-CCR-MW73-101217 | <0.010 | <0.0050 | **0.024** | <0.0010 | <0.0010 | <0.010 | <0.0050 | <0.80 | <0.0050 | <0.20 | <0.00020 | <0.0050 | **0.048** | <0.0010 | -- |
| MW-73 | URS/CWTP | Background | 10/12/2017 | *DUP* FC-CCR-FD01-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** |

**Table G-2**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | **Antimony** | **Arsenic** | **Barium** | **Beryllium** | **Cadmium** | **Chromium** | **Cobalt** | **Fluoride** | **Lead** | **Lithium** | **Mercury** | **Molybdenum** | **Selenium** | **Thallium** | **Total Radium** |
| **Filtered:** | | | | | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **N** |
| **Units:** | | | | | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **pCi/L** |
| *URS BTV (applicable to downgradient wells)* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *URS GWPS (applicable to downgradient wells)* | | | | | *0.01* | *0.13* | *2* | *0.004* | *0.005* | *0.1* | *0.016* | *4* | *0.015* | *0.8* | *0.002* | *0.1* | *0.45* | *0.002* | *5.4* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | |
| MW-73 | URS/CWTP | Background | 10/12/2017 | *DUP* FC-CCR-FD01-101217 | <0.010 | <0.0050 | **0.024** | <0.0010 | <0.0010 | <0.010 | <0.0050 | <0.80 | <0.0050 | <0.20 | <0.00020 | <0.0050 | **0.047** | <0.0010 | -- |
| MW-73 | URS/CWTP | Background | 11/29/2017 | FC-CCR-MW73-112917 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 3/16/2018 | FC-CCR-MW73-31618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.6** |
| MW-73 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-73-6218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.8** |
| MW-73 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-73-6218 | -- | <0.010 | **0.023** | -- | -- | -- | <0.010 | <0.80 | -- | **0.26** | <0.00020 | <0.010 | **0.011** | <0.0020 | -- |
| MW-73 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW73-11318 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW73-11318 | -- | <0.00050 | **0.022** | -- | -- | -- | **0.0078** | -- | -- | **0.31** | -- | **0.0026** | **0.0062** | **0.00020** | **2.9** |
| MW-73 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW73-031819 | <0.0010 | <0.00050 | **0.023** | <0.0010 | **0.00013** | <0.0010 | **0.0038** | <0.80 | <0.00050 | **0.26** | <0.00020 | **0.0017** | **0.0069** | **0.00025** | -- |
| MW-73 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW73-031819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.6** |
| MW-73 | URS/CWTP | Background | 5/6/2019 | FC-CCR-MW73-5619 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.7** |
| MW-73 | URS/CWTP | Background | 12/2/2019 | FC-CCR-MW73-120219 | <0.0020 | <0.0010 | **0.020** | <0.0010 | <0.00020 | <0.0040 | **0.0040** | <0.80 | <0.0010 | **0.23** | <0.00020 | **0.0020** | **0.0086** | **0.00022** | -- |
| MW-73 | URS/CWTP | Background | 12/2/2019 | *DUP* FC-CCR-FD01-120219 | <0.0020 | <0.0010 | **0.020** | <0.0010 | <0.00020 | <0.0040 | **0.0039** | <0.80 | <0.0010 | **0.23** | <0.00020 | **0.0021** | **0.0094** | **0.00021** | -- |
| MW-73 | URS/CWTP | Background | 6/20/2020 | FC-CCR-MW73-0620 | <0.004 | <0.002 | **0.033** | -- | <0.0004 | <0.004 | **0.0062** | <0.8 | <0.002 | **0.65** | -- | **0.0035** | **0.0077** | <0.0004 | **3.4** |
| MW-73 | URS/CWTP | Background | 11/5/2020 | FC-CCR-MW73-1120 | <0.002U | **0.0012** | **0.020** | <0.001 | <0.0002U | **0.00073 J** | **0.0067** | **0.063 J** | <0.001 | **0.29** | <0.0002 | **0.0016** | **0.0099** | **0.00022** | **2.8** |
| MW-73 | URS/CWTP | Background | 4/22/2021 | FC-CCR-MW73-0421 | <0.004 | <0.002 | **0.021** | <0.001 | **0.00016 J** | <0.004 | **0.0027** | <0.4 | <0.002 | **0.23** | <0.0002 | **0.0011 J** | **0.015** | **0.00026 J** | **1.8** |
| MW-73 | URS/CWTP | Background | 11/13/2021 | FC-CCR-MW73-1121 | **0.00017 J** | <0.001 | **0.022** | <0.001 | **0.00018 J** | <0.002 | **0.0041** | **0.12 J** | <0.001 | **0.31** | <0.0002 UJ | **0.00093 J** | **0.0072** | **0.00023** | **2.8** |
| MW-73 | URS/CWTP | Background | 5/22/2022 | FC-CCR-MW73-0522 | <0.002 | <0.001 | **0.018** | <0.001 | <0.0002 | <0.002 | **0.0042** | <0.8 | <0.001 | **0.34** | <0.0002 | **0.0012** | **0.0038** | **0.00023** | **1.4** |
| MW-73 | URS/CWTP | Background | 11/14/2022 | FC-CCR-MW73-1122 | <0.001 | **0.00092** | **0.022** | <0.001 | **0.00017** | <0.001 | **0.0042** | <0.8 | <0.0005 | **0.29** | <0.0002 | **0.0011** | **0.0095** | **0.00025** | **4.9** |
| MW-73 | URS/CWTP | Background | 5/7/2023 | FC-CCR-MW73-0523 | <0.002 | <0.005 | **0.018** | <0.001 | <0.001 | <0.003 | **0.0045** | <80 | <0.001 | **0.33** | <0.0002 | <0.002 | <0.005 | <0.001 | **0.8** |
| MW-73 | URS/CWTP | Background | 6/27/2023 | FC-CCR-MW73-0623 | < 0.01 | < 0.005 | **0.016** | **0.0014** | < 0.001 | < 0.01 | < 0.005 | < 20 | < 0.0005 | **0.34** | < 0.0002 | < 0.005 | < 0.005 | **0.00021** | **3.2** |
| MW-73 | URS/CWTP | Background | 11/08/2023 | FC-CCR-MW73-1123 | <0.001 | **0.0021** | **0.017 J** | <0.001 | **0.00018** | <0.004 | **0.0037** | <0.8 | <0.0005 | **0.32** | <0.0002 | **0.0011** | **0.002** | **0.00025** | **2.3** |
| MW-73 | URS/CWTP | Background | 05/16/2024 | FC-CCR-MW73-0524 | <0.01 | **0.0065** | **0.016 J** | <0.005 | <0.001 | <0.01 | <0.005 | <0.4 | <0.005 | **0.30** | <0.0002 | <0.005 | <0.005 | <0.001 | **3.2** |
| MW-73 | URS/CWTP | Background | 10/24/2024 | FC-CCR-MW73-1024 | <0.0025 | <0.0025 | **0.0144** | <0.00044 | <0.0004 | <0.01 | **0.0039** | <0.38 | <0.0025 | **0.25** | <0.0002 | <0.0025 | <0.0025 | <0.0005 | **4.4** |
| MW-66 | URS | Downgradient Boundary | 11/5/2015 | FC-CCR-MW66-110515 | <0.0020 | **0.0034** | **0.016** | <0.0010 | **0.000062** | **0.0010** | **0.0051** | **18** | **0.00018** | **0.24** | <0.00020 | **0.016** | **0.0022** | **0.00063** | -- |
| MW-66 | URS | Downgradient Boundary | 11/5/2015 | FC-CCR-MW66-110515 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-66-042716 | <0.0025 | **0.0013** | **0.024** | <0.0010 | <0.00010 | **0.0031** | **0.0076** | **18** | **0.00072** | **0.29** | <0.00020 | **0.012** | **0.0018** | **0.00070** | **0.6** |
| MW-66 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-MW66-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.7** |
| MW-66 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-MW66-616 | <0.00010 | **0.00067** | **0.016** | <0.0010 | <0.00010 | **0.00074** | **0.0078** | **20** | <0.00050 | **0.28** | <0.00020 | **0.013** | **0.0016** | **0.00060** | -- |
| MW-66 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW66-816 | -- | -- | -- | -- | -- | -- | -- | **20** | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW66-816 | **0.00013** | **0.0013** | **0.021** | <0.0010 | <0.00010 | **0.0012** | **0.0080** | **19** | <0.00050 | **0.32** | <0.00020 | **0.039** | **0.0018** | **0.00062** | -- |
| MW-66 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW66-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** |
| MW-66 | URS | Downgradient Boundary | 9/12/2016 | FC-CCR-MW66-916 | -- | -- | -- | -- | -- | -- | -- | **12** | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 9/12/2016 | FC-CCR-MW66-916 | <0.0025 | <0.0010 | **0.011** | <0.0010 | <0.00050 | <0.0025 | **0.0029** | **17** | <0.00050 | **0.27** | <0.00020 | **0.010** | **0.11** | **0.00088** | -- |
| MW-66 | URS | Downgradient Boundary | 9/12/2016 | FC-CCR-MW66-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.9** |
| MW-66 | URS | Downgradient Boundary | 10/19/2016 | FC-CCR-MW66-1016 | -- | -- | -- | -- | -- | -- | -- | **17** | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 10/19/2016 | FC-CCR-MW66-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.0** |
| MW-66 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW66-117 | -- | -- | -- | -- | -- | -- | -- | **18** | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW66-117 | <0.0010 | **0.0014** | **0.021** | <0.0010 | <0.00010 | **0.0031** | **0.0064** | **19** | <0.00050 | **0.29** | <0.00020 | **0.020** | **0.0019** | **0.00040** | -- |
| MW-66 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW66-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **4.0** |
| MW-66 | URS | Downgradient Boundary | 4/16/2017 | FC-CCR-MW66-41617 | -- | -- | -- | -- | -- | -- | -- | **25** | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 4/16/2017 | FC-CCR-MW66-41617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.8** |
| MW-66 | URS | Downgradient Boundary | 4/16/2017 | FC-CCR-MW66-41617 | <0.0040 | <0.0020 | **0.020** | <0.0010 | <0.00040 | <0.0020 | **0.0071** | **23** | <0.0020 | **0.31** | <0.00020 | **0.022** | <0.0020 | <0.00040 | -- |
| MW-66 | URS | Downgradient Boundary | 5/1/2017 | FC-CCR-MW66-5117 | <0.0010 | **0.0018** | **0.020** | <0.0010 | <0.00010 | <0.0010 | **0.0073** | **32** | <0.00050 | **0.32** | <0.00020 | **0.023** | **0.0022** | **0.00033** | -- |
| MW-66 | URS | Downgradient Boundary | 5/1/2017 | FC-CCR-MW66-5117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.9** |
| MW-66 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW66-52917 | <0.010 | <0.0050 | **0.022** | <0.0010 | <0.0010 | <0.0050 | **0.0077** | **25** | <0.0050 | **0.30** | <0.00020 | **0.023** | <0.0050 | <0.0010 | -- |
| MW-66 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW66-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.8** |
| MW-66 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW66-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW66-62117 | <0.0010 | **0.0028** | **0.022** | <0.0010 | <0.00010 | **0.00088** | **0.0074** | **24** | <0.00050 | **0.32** | <0.00020 | **0.023** | **0.0022** | **0.00041** | -- |
| MW-66 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW66-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.7** |
| MW-66 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW66-72117 | -- | -- | -- | -- | -- | -- | -- | **25** | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW66-72117 | <0.0040 | <0.0020 | **0.020** | <0.0010 | <0.00040 | <0.0020 | **0.0065** | -- | <0.0020 | <0.80 | <0.00020 | **0.021** | <0.0020 | <0.00040 | -- |
| MW-66 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW66-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** |
| MW-66 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW66-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW66-8917 | <0.010 | <0.0020 | **0.019** | <0.0010 | <0.0010 | <0.0040 | **0.0072** | **26** | <0.0050 | **0.34** | <0.00020 | **0.022** | <0.0020 | <0.0010 | -- |
| MW-66 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW66-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.2** |
| MW-66 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW66-81617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.5** |
| MW-66 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW66-81617 | -- | -- | -- | -- | -- | -- | -- | **25** | -- | -- | -- | -- | -- | -- | -- |

**Table G-2**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Total Radium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | *0.01* | *0.13* | *2* | *0.004* | *0.005* | *0.1* | *0.016* | *4* | *0.015* | *0.8* | *0.002* | *0.1* | *0.45* | *0.002* | *5.4* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | |
| MW-66 | URS | Downgradient Boundary | 9/9/2017 | FC-CCR-MW66-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 9/9/2017 | FC-CCR-MW66-9917 | <0.0040 | <0.0020 | **0.019** | <0.0010 | <0.00040 | <0.0040 | **0.0069** | **26** | <0.0020 | **0.32** | <0.00020 | **0.021** | <0.0020 | <0.00040 | -- |
| MW-66 | URS | Downgradient Boundary | 9/9/2017 | FC-CCR-MW66-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.5** |
| MW-66 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW66-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **5.1** |
| MW-66 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW66-101317 | <0.0010 | **0.0021** | **0.021** | <0.0010 | <0.00010 | <0.0010 | **0.0075** | **26** | <0.00050 | **0.34** | <0.00020 | **0.023** | **0.0021** | **0.00036** | -- |
| MW-66 | URS | Downgradient Boundary | 11/30/2017 | FC-CCR-MW66-113017 | -- | -- | -- | -- | -- | -- | -- | **26** | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 3/16/2018 | FC-CCR-MW66-31618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <1.5 |
| MW-66 | URS | Downgradient Boundary | 3/16/2018 | *DUP* FC-CCR-FD01-31618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **4.0** |
| MW-66 | URS | Downgradient Boundary | 5/31/2018 | FC-CCR-MW-66-53118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.1** |
| MW-66 | URS | Downgradient Boundary | 5/31/2018 | FC-CCR-MW-66-53118 | -- | <0.010 | **0.020** | -- | -- | -- | **0.010** | **25** | -- | **0.36** | <0.00020 | **0.015** | <0.010 | **0.0025** | -- |
| MW-66 | URS | Downgradient Boundary | 11/2/2018 | FC-CCR-MW66-11218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 11/2/2018 | FC-CCR-MW66-11218 | -- | **0.0015** | **0.023** | -- | -- | -- | **0.012** | -- | -- | **0.38** | -- | **0.019** | **0.0020** | **0.0011** | **2.9** |
| MW-66 | URS | Downgradient Boundary | 3/18/2019 | FC-CCR-MW66-031819 | <0.0010 | **0.0012** | **0.023** | <0.0010 | **0.00016** | **0.0010** | **0.017** | **23** | <0.00050 | **0.37** | <0.00020 | **0.016** | **0.0024 J** | **0.0011** | -- |
| MW-66 | URS | Downgradient Boundary | 3/18/2019 | FC-CCR-MW66-031819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** |
| MW-66 | URS | Downgradient Boundary | 5/7/2019 | FC-CCR-MW66-5719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.5** |
| MW-66 | URS | Downgradient Boundary | 12/3/2019 | FC-CCR-MW66-120319 | <0.0020 | <0.0020 | **0.024** | <0.0010 | <0.00020 | <0.0040 | **0.012** | **22** | <0.0010 | **0.32** | <0.00020 | **0.023** | <0.0020 | **0.0010** | -- |
| MW-66 | URS | Downgradient Boundary | 12/3/2019 | *DUP* FC-CCR-FD02-120319 | <0.0020 | **0.0013** | **0.021** | <0.0010 | <0.00020 | <0.0040 | **0.011** | **22** | <0.0010 | **0.33** | <0.00020 | **0.020** | **0.0020** | **0.00083** | -- |
| MW-66 | URS | Downgradient Boundary | 6/18/2020 | FC-CCR-MW66-0620 | <0.002 | **0.0016** | **0.019 J** | -- | <0.0002 | <0.002 | **0.011** | **17** | <0.001 | **0.81** | -- | **0.019** | **0.0019** | **0.00094** | **1.5** |
| MW-66 | URS | Downgradient Boundary | 11/5/2020 | FC-CCR-MW66-1120 | <0.001U | **0.0037** | **0.016 J** | <0.001 | <0.00018U | **0.0014 J** | **0.01 J** | **26 J** | <0.0005 | **0.36** | <0.0002 | **0.0014 J** | **0.0041** | **0.00038 J** | **2.4** |
| MW-66 | URS | Downgradient Boundary | 11/5/2020 | *DUP* FC-CCR-FD02-1120 | <0.001U | **0.0031** | **0.021 J** | <0.001 | <0.00014U | **0.00082 J** | **0.00058 J** | **21 J** | <0.001 | **0.35** | <0.0002 | **0.0067 J** | **0.0053** | **0.0009 J** | **2.0** |
| MW-66 | URS | Downgradient Boundary | 4/21/2021 | FC-CCR-MW66-0421 | <0.0004U | **0.0014 J** | **0.021** | <0.001 | **0.00013 J** | <0.004 | **0.010** | **19** | <0.002 | **0.32** | <0.0002 | **0.022** | **0.0028** | **0.00082** | **2.5** |
| MW-66 | URS | Downgradient Boundary | 11/12/2021 | FC-CCR-MW66-1121 | **0.00012 J** | <0.001 | **0.022** | <0.001 | **0.000068 J** | <0.002 | **0.0066** | **20** | <0.001 | **0.33** | <0.0002 | **0.021** | **0.0019** | **0.00089** | **2.0** |
| MW-66 | URS | Downgradient Boundary | 5/20/2022 | FC-CCR-MW66-05222 | <0.002 | <0.001 | **0.025** | <0.001 | <0.0002 | <0.002 | **0.0063** | **16** | <0.001 | **0.35** | <0.0002 | **0.019** | **0.0033** | **0.00066** | **1.0** |
| MW-66 | URS | Downgradient Boundary | 11/13/2022 | FC-CCR-MW66-1122 | <0.001 | **0.0013** | **0.020** | <0.001 | <0.0001 | **0.0010** | **0.015** | **16** | <0.0005 | **0.30** | <0.0002 | **0.019** | **0.0025** | **0.00099** | **3.2** |
| MW-66 | URS | Downgradient Boundary | 5/7/2023 | FC-CCR-MW66-0523 | <0.002 | <0.005 | **0.017** | <0.001 | <0.001 | <0.003 | **0.0079** | <80 | <0.001 | **0.33** | <0.0002 | **0.017** | <0.005 | <0.001 | **2.5** |
| MW-66 | URS | Downgradient Boundary | 11/06/2023 | FC-CCR-MW66-1123 | <0.001 | **0.0028** | **0.019 J** | <0.001 | <0.0001 | <0.004 | **0.0092** | **19** | <0.0005 | **0.27** | <0.0002 | **0.017** | **0.0022** | **0.0010** | **2.0** |
| MW-66 | URS | Downgradient Boundary | 05/22/2024 | FC-CCR-MW66-0524 | <0.01 | **0.0065** | **0.017 J** | <0.001 | <0.001 | <0.01 | **0.0091** | **14** | <0.005 | **0.32** | <0.0002 | **0.017** | <0.005 | <0.001 | **3.1** |
| MW-66 | URS | Downgradient Boundary | 10/23/2024 | FC-CCR-MW66-1024 | <0.0025 | <0.0025 | **0.0168** | <0.00044 | <0.0004 | <0.01 | **0.0098** | **18.2** | <0.0025 | **0.265** | <0.0002 | **0.0148 J** | <0.0025 | **0.0011** | **3.0** |
| MW-67 | URS | Downgradient Boundary | 11/4/2015 | FC-CCR-MW67-110415 | **0.00019** | **0.00099** | **0.017** | **0.00017** | **0.00018** | **0.00078** | **0.0078** | **18** | **0.00017** | **0.25** | <0.00020 | **0.050** | **0.0053** | **0.00047** | -- |
| MW-67 | URS | Downgradient Boundary | 11/4/2015 | FC-CCR-MW67-110415 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-67-042716 | <0.0025 | **0.0025** | **0.018** | <0.0010 | <0.00010 | **0.00057** | **0.0028** | **19** | <0.00050 | **0.31** | <0.00020 | **0.044** | **0.043** | **0.00038** | **2.1** |
| MW-67 | URS | Downgradient Boundary | 4/27/2016 | FC-CCR-DUP2-042716 | <0.0025 | **0.0029** | **0.017** | <0.0010 | <0.00010 | **0.00069** | **0.0027** | **21** | <0.00050 | **0.32** | <0.00020 | **0.043** | **0.043** | **0.00037** | -- |
| MW-67 | URS | Downgradient Boundary | 6/6/2016 | FC-CCR-MW67-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.0** |
| MW-67 | URS | Downgradient Boundary | 6/6/2016 | FC-CCR-MW67-616 | **0.00014** | **0.0030** | **0.018** | <0.0010 | <0.00010 | <0.00050 | **0.0025** | **24** | <0.00050 | **0.30** | <0.00020 | **0.041** | **0.044** | **0.00031** | -- |
| MW-67 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW67-816 | -- | -- | -- | -- | -- | -- | -- | **23** | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW67-816 | **0.00021** | **0.0039** | **0.020** | <0.0010 | **0.00011** | **0.0010** | **0.0055** | **19** | <0.00050 | **0.36** | <0.00020 | **0.064** | **0.067** | **0.00031** | -- |
| MW-67 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW67-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.3** |
| MW-67 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW100-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW100-816 | **0.00029** | **0.0040** | **0.022** | <0.0010 | <0.00020 | **0.0016** | **0.0064** | **20** | <0.0010 | **0.35** | <0.00020 | **0.063** | **0.068** | **0.00034** | -- |
| MW-67 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW100-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.0** |
| MW-67 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW67-916 | -- | -- | -- | -- | -- | -- | -- | **23** | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW67-916 | <0.0025 | **0.0023** | **0.021** | <0.0010 | <0.00050 | <0.0025 | **0.0057** | **17** | <0.00050 | **0.31** | <0.00020 | **0.045** | **0.059** | <0.00050 | -- |
| MW-67 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW67-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.1** |
| MW-67 | URS | Downgradient Boundary | 10/20/2016 | FC-CCR-MW67-1016 | -- | -- | -- | -- | -- | -- | -- | **16** | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 10/20/2016 | FC-CCR-MW67-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **4.1** |
| MW-67 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW67-117 | -- | -- | -- | -- | -- | -- | -- | **16** | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW67-117 | <0.0010 | **0.0033** | **0.019** | <0.0010 | **0.00015** | **0.00058** | **0.0058** | **16** | <0.00050 | **0.36** | <0.00020 | **0.046** | **0.064** | **0.00039** | -- |
| MW-67 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW67-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.0** |
| MW-67 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW67-41717 | -- | -- | -- | -- | -- | -- | -- | **22** | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW67-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.2** |
| MW-67 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW67-41717 | <0.0040 | **0.0020** | **0.020** | <0.0010 | <0.00040 | <0.0020 | **0.0062** | **21** | <0.0020 | **0.42** | <0.00020 | **0.039** | **0.032** | <0.00040 | -- |
| MW-67 | URS | Downgradient Boundary | 5/1/2017 | FC-CCR-MW67-5117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.3** |
| MW-67 | URS | Downgradient Boundary | 5/2/2017 | FC-CCR-MW67-5217 | <0.0010 | **0.0027** | **0.019** | <0.0010 | **0.00015** | <0.0010 | **0.0065** | **28** | <0.00050 | **0.43** | <0.00020 | **0.041** | **0.048** | **0.00042** | -- |
| MW-67 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW67-52917 | <0.010 | <0.0050 | **0.022** | <0.0010 | <0.0010 | <0.0050 | **0.0060** | **21** | <0.0050 | **0.38** | <0.00020 | **0.040** | **0.030** | <0.0010 | -- |
| MW-67 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW67-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.2** |
| MW-67 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW67-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW67-62117 | <0.0040 | **0.0020** | **0.020** | <0.0010 | <0.00040 | <0.0020 | **0.0049** | **21** | <0.0020 | **0.40** | <0.00020 | **0.039** | **0.024** | **0.00057** | -- |

**Table G-2**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Total Radium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | *0.01* | *0.13* | *2* | *0.004* | *0.005* | *0.1* | *0.016* | *4* | *0.015* | *0.8* | *0.002* | *0.1* | *0.45* | *0.002* | *5.4* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | |
| MW-67 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW67-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **4.2** |
| MW-67 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW67-72117 | -- | -- | -- | -- | -- | -- | -- | **22** | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW67-72117 | <0.0040 | **0.0027** | **0.020** | <0.0010 | <0.00040 | <0.0020 | **0.0053** | -- | <0.0020 | <0.80 | <0.00020 | **0.039** | **0.053** | **0.00050** | -- |
| MW-67 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW67-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <2.0 |
| MW-67 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW67-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW67-8917 | <0.010 | **0.0023** | **0.020** | <0.0010 | <0.0010 | <0.0040 | **0.0045** | **22** | <0.0050 | **0.44** | <0.00020 | **0.038** | **0.021** | <0.0010 | -- |
| MW-67 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW67-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.4** |
| MW-67 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW67-81617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.6** |
| MW-67 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW67-81617 | -- | -- | -- | -- | -- | -- | -- | **22** | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW67-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW67-91017 | <0.0040 | <0.0020 | **0.020** | <0.0010 | <0.00040 | <0.0040 | **0.0047** | **24** | <0.0020 | **0.43** | <0.00020 | **0.038** | **0.023** | **0.00056** | -- |
| MW-67 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW67-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.1** |
| MW-67 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW67-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.7** |
| MW-67 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW67-101317 | <0.0010 | **0.0027** | **0.022** | <0.0010 | **0.00016** | <0.0010 | **0.0064** | **25** | <0.00050 | **0.49** | <0.00020 | **0.045** | **0.038** | **0.00054** | -- |
| MW-67 | URS | Downgradient Boundary | 11/29/2017 | FC-CCR-MW67-112917 | -- | -- | -- | -- | -- | -- | -- | **24** | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 3/16/2018 | FC-CCR-MW67-31618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** |
| MW-67 | URS | Downgradient Boundary | 6/2/2018 | FC-CCR-MW-67-6218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** |
| MW-67 | URS | Downgradient Boundary | 6/2/2018 | FC-CCR-MW-67-6218 | -- | <0.010 | **0.020** | -- | -- | -- | <0.010 | **25** | -- | **0.50** | <0.00020 | **0.041** | <0.010 | <0.0020 | -- |
| MW-67 | URS | Downgradient Boundary | 11/3/2018 | FC-CCR-MW67-11318 | -- | -- | -- | -- | -- | -- | -- | **16** | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 11/3/2018 | FC-CCR-MW67-11318 | -- | **0.0016** | **0.017** | -- | -- | -- | **0.0061** | -- | -- | **0.39** | -- | **0.037** | **0.0043** | **0.00078** | **1.6** |
| MW-67 | URS | Downgradient Boundary | 3/17/2019 | FC-CCR-MW67-031719 | <0.0010 | **0.0016** | **0.014** | <0.0010 | <0.00010 | <0.0010 | **0.0058** | **15** | <0.00050 | **0.37** | <0.00020 | **0.036** | **0.0050** | **0.00086** | -- |
| MW-67 | URS | Downgradient Boundary | 3/17/2019 | FC-CCR-MW67-031719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **4.6** |
| MW-67 | URS | Downgradient Boundary | 5/7/2019 | FC-CCR-MW67-5719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.6** |
| MW-67 | URS | Downgradient Boundary | 12/2/2019 | FC-CCR-MW67-120219 | <0.0020 | **0.0035** | **0.020** | <0.0010 | <0.00020 | <0.0040 | **0.0096** | **14** | <0.0010 | **0.37** | <0.00020 | **0.038** | **0.0045** | **0.0011** | -- |
| MW-67 | URS | Downgradient Boundary | 6/19/2020 | FC-CCR-MW67-0620 | <0.002 | **0.0017** | **0.012** | -- | <0.0002 | <0.002 | **0.0052** | **12** | <0.001 | **0.90** | -- | **0.039** | **0.0040** | **0.00098** | **3.2** |
| MW-67 | URS | Downgradient Boundary | 11/4/2020 | FC-CCR-MW67-1120 | **0.00027 J** | **0.0027 J** | **0.0079 J** | <0.001 | <0.00025U | <0.001 | **0.0009 J** | **15** | <0.0005 | **0.40** | <0.0002 | **0.011 J** | **0.0054** | **0.00031 J** | **3.6** |
| MW-67 | URS | Downgradient Boundary | 11/4/2020 | *DUP* FC-CCR-FD01-1120 | <0.002 | **0.004 J** | **0.014 J** | <0.001 | <0.0002U | **0.0018 J** | **0.0078 J** | **15** | <0.001 | **0.40** | <0.0002 | **0.038 J** | **0.0069** | **0.0010 J** | **3.5** |
| MW-67 | URS | Downgradient Boundary | 4/21/2021 | FC-CCR-MW67-0421 | <0.0004U | **0.0018 J** | **0.019** | <0.001 | **0.00027 J** | <0.004 | **0.012** | **12** | <0.002 | **0.39** | <0.0002 | **0.044** | **0.0042** | **0.0011** | **4.4 J** |
| MW-67 | URS | Downgradient Boundary | 4/21/2021 | *DUP* FC-CCR-FD01-0421 | <0.0004U | **0.0020** | **0.018** | <0.001 | **0.00026 J** | <0.004 | **0.011** | **12** | <0.002 | **0.39** | <0.0002 | **0.041** | **0.0044** | **0.0011** | **2.0 J** |
| MW-67 | URS | Downgradient Boundary | 11/12/2021 | FC-CCR-MW67-1121 | **0.000088 J** | <0.001 | **0.014** | <0.001 | **0.00021** | <0.002 | **0.0069** | **13** | <0.001 | **0.41** | <0.0002 UJ | **0.046** | **0.004** | **0.0013** | **3.8** |
| MW-67 | URS | Downgradient Boundary | 5/21/2022 | FC-CCR-MW67-0522 | <0.002 | <0.001 | **0.012** | <0.001 | **0.00022** | <0.002 | **0.0062** | **8.2** | <0.001 | **0.42** | <0.0002 | **0.034** | **0.0041** | **0.0011** | **1.8** |
| MW-67 | URS | Downgradient Boundary | 11/16/2022 | FC-CCR-MW67-1122 | <0.001 | **0.00067** | **0.024** | <0.001 | **0.00021** | <0.001 | **0.0049** | **13** | <0.0005 | **0.37** | <0.0002 | **0.029** | **0.0022** | **0.0010** | **2.2** |
| MW-67 | URS | Downgradient Boundary | 5/9/2023 | FC-CCR-MW67-0523 | <0.002 | <0.005 | **0.035** | <0.005 | <0.001 | **0.0044** | **0.0085** | <20 | **0.0017** | **0.39** | <0.0002 | **0.030** | <0.005 | **0.0011** | **1.2** |
| MW-67 | URS | Downgradient Boundary | 11/13/2023 | FC-CCR-MW67-1123 | <0.01 | **0.0075** | **0.014** | <0.005 | <0.001 | <0.01 | **0.0082** | **13** | <0.005 | **0.91** | <0.0002 | **0.040** | <0.005 | **0.0012** | **3.6** |
| MW-67 | URS | Downgradient Boundary | 05/20/2024 | FC-CCR-MW67-0524 | <0.01 | **0.0068** | **0.016 J** | <0.005 | <0.001 | <0.01 | **0.0078** | **1.9** | <0.005 | **0.38** | <0.0002 | <0.005 | **0.071** | <0.001 | <0.8 |
| MW-67 | URS | Downgradient Boundary | 10/18/2024 | FC-CCR-MW67-1024 | <0.004 | <0.0025 | **0.0113** | **0.00095 J** | <0.0004 | <0.01 | **0.009** | **8.27** | <0.0025 | **0.303** | <0.0002 UJ | **0.028** | <0.0025 | **0.0011** | **3.2** |
| MW-68 | URS | Downgradient Boundary | 11/6/2015 | FC-CCR-MW68-110615 | **0.00045** | **0.0027** | **0.0093** | **0.00033** | **0.00046** | **0.0012** | **0.0053** | **7.0** | **0.00019** | **0.22** | <0.00020 | **0.010** | **0.045** | **0.00089** | -- |
| MW-68 | URS | Downgradient Boundary | 11/6/2015 | FC-CCR-MW68-110615 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 4/26/2016 | FC-CCR-MW-68-042616 | <0.0025 | **0.0032** | **0.013** | <0.0010 | <0.00010 | **0.0012** | **0.0030** | **8.0** | **0.00052** | **0.31** | <0.00020 | **0.0075** | **0.10** | **0.00056** | **1.5** |
| MW-68 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-MW68-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.9** |
| MW-68 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-MW68-616 | **0.00011** | **0.0032** | **0.0099** | <0.0010 | <0.00010 | **0.00073** | **0.0042** | **10** | <0.00050 | **0.27** | <0.00020 | **0.010** | **0.11** | **0.00066** | -- |
| MW-68 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW68-816 | -- | -- | -- | -- | -- | -- | -- | **8.6** | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW68-816 | **0.00012** | **0.0065** | **0.0078** | <0.0010 | **0.00016** | **0.00072** | **0.0020** | **7.5** | <0.00050 | **0.35** | <0.00020 | **0.0095** | **0.22** | **0.00063** | -- |
| MW-68 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW68-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** |
| MW-68 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW68-916 | -- | -- | -- | -- | -- | -- | -- | **9.7** | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW68-916 | <0.0025 | **0.0016** | **0.0074** | <0.0010 | <0.00050 | <0.0025 | **0.0025** | **5.7** | <0.00050 | **0.29** | <0.00020 | **0.012** | **0.15** | **0.0012** | -- |
| MW-68 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW68-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.8** |
| MW-68 | URS | Downgradient Boundary | 10/20/2016 | FC-CCR-MW68-1016 | -- | -- | -- | -- | -- | -- | -- | **6.8** | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 10/20/2016 | FC-CCR-MW68-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.4** |
| MW-68 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW68-117 | -- | -- | -- | -- | -- | -- | -- | **6.4** | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW68-117 | <0.0010 | **0.0048** | **0.0082** | <0.0010 | **0.00012** | **0.00081** | **0.0034** | **6.8** | <0.00050 | **0.32** | <0.00020 | **0.010** | **0.17** | **0.00080** | -- |
| MW-68 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW68-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.1** |
| MW-68 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW68-41717 | -- | -- | -- | -- | -- | -- | -- | **10** | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW68-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.2** |
| MW-68 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW68-41717 | <0.0040 | **0.0051** | **0.0078** | <0.0010 | <0.00040 | <0.0020 | **0.0028** | **9.7** | <0.0020 | **0.38** | <0.00020 | **0.0080** | **0.16** | **0.00067** | -- |
| MW-68 | URS | Downgradient Boundary | 5/1/2017 | FC-CCR-MW68-5117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** |
| MW-68 | URS | Downgradient Boundary | 5/2/2017 | FC-CCR-MW68-5217 | <0.0010 | **0.0084** | **0.0068** | <0.0010 | <0.00010 | <0.0010 | **0.0024** | **18** | <0.00050 | **0.37** | <0.00020 | **0.0073** | **0.28** | **0.00068** | -- |

**Table G-2**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Total Radium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | *0.01* | *0.13* | *2* | *0.004* | *0.005* | *0.1* | *0.016* | *4* | *0.015* | *0.8* | *0.002* | *0.1* | *0.45* | *0.002* | *5.4* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | |
| MW-68 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW68-52917 | <0.010 | **0.0085** | **0.0086** | <0.0010 | <0.0010 | <0.0050 | <0.0050 | **8.3** | <0.0050 | **0.32** | <0.00020 | **0.0054** | **0.29** | <0.0010 | -- |
| MW-68 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW68-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-68 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW68-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW68-62117 | <0.0040 | **0.0079** | **0.0075** | <0.0010 | <0.00040 | <0.0020 | <0.0020 | **8.7** | <0.0020 | **0.33** | <0.00020 | **0.0051** | **0.28** | **0.00065** | -- |
| MW-68 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW68-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.2** |
| MW-68 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW68-72117 | -- | -- | -- | -- | -- | -- | -- | **9.6** | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW68-72117 | <0.0040 | **0.0081** | **0.0066** | <0.0010 | <0.00040 | <0.0020 | **0.0017** | -- | <0.0020 | <0.80 | <0.00020 | **0.0058** | **0.30** | **0.00062** | -- |
| MW-68 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW68-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** |
| MW-68 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW68-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW68-8917 | <0.010 | **0.0055** | **0.0074** | <0.0010 | <0.0010 | <0.0040 | **0.0025** | **11** | <0.0050 | **0.37** | <0.00020 | **0.0067** | **0.27** | <0.0010 | -- |
| MW-68 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW68-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.3** |
| MW-68 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW68-81617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.2** |
| MW-68 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW68-81617 | -- | -- | -- | -- | -- | -- | -- | **11** | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW68-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW68-91017 | <0.0040 | **0.0086** | **0.0075** | <0.0010 | <0.00040 | <0.0040 | **0.0023** | **11** | <0.0020 | **0.34** | <0.00020 | **0.0063** | **0.29** | **0.00083** | -- |
| MW-68 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW68-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.9** |
| MW-68 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW68-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.9** |
| MW-68 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW68-101317 | <0.0010 | **0.0097** | **0.0078** | <0.0010 | **0.00011** | <0.0010 | **0.0019** | **10** | <0.00050 | **0.37** | <0.00020 | **0.0063** | **0.37** | **0.00069** | -- |
| MW-68 | URS | Downgradient Boundary | 11/30/2017 | FC-CCR-MW68-113017 | -- | -- | -- | -- | -- | -- | -- | **10** | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 11/30/2017 | *DUP* FC-CCR-FD01-113017 | -- | -- | -- | -- | -- | -- | -- | **10** | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 3/16/2018 | FC-CCR-MW68-31618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** |
| MW-68 | URS | Downgradient Boundary | 6/2/2018 | FC-CCR-MW-68-6218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** |
| MW-68 | URS | Downgradient Boundary | 6/2/2018 | FC-CCR-MW-68-6218 | -- | <0.010 | <0.010 | -- | -- | -- | <0.010 | **12** | -- | **0.38** | <0.00020 | <0.010 | **0.24** | <0.0020 | -- |
| MW-68 | URS | Downgradient Boundary | 11/3/2018 | FC-CCR-MW68-11318 | -- | -- | -- | -- | -- | -- | -- | **12** | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 11/3/2018 | FC-CCR-MW68-11318 | -- | **0.0030** | **0.0081** | -- | -- | -- | **0.0038** | -- | -- | **0.42** | -- | **0.0078** | **0.11** | **0.0016** | **1.9** |
| MW-68 | URS | Downgradient Boundary | 3/17/2019 | FC-CCR-MW68-031719 | <0.0010 | **0.0035** | **0.0084** | <0.0010 | **0.00014** | <0.0010 | **0.0026** | **9.2** | <0.00050 | **0.37** | <0.00020 | **0.0067** | **0.14** | **0.0010** | -- |
| MW-68 | URS | Downgradient Boundary | 3/17/2019 | FC-CCR-MW68-031719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.6** |
| MW-68 | URS | Downgradient Boundary | 5/7/2019 | FC-CCR-MW68-5719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.1** |
| MW-68 | URS | Downgradient Boundary | 12/2/2019 | FC-CCR-MW68-120219 | <0.0020 | **0.0058** | **0.068** | <0.0010 | <0.00020 | <0.0040 | **0.0037** | **10** | **0.0013** | **0.37** | <0.00020 | **0.0068** | **0.12** | **0.0017** | -- |
| MW-68 | URS | Downgradient Boundary | 6/19/2020 | FC-CCR-MW68-0620 | <0.002 | **0.0048** | **0.0093** | -- | <0.0002 | <0.002 | **0.0053** | **7.7** | <0.001 | **0.85** | -- | **0.0063** | **0.13** | **0.0015** | **0.9** |
| MW-68 | URS | Downgradient Boundary | 11/4/2020 | FC-CCR-MW68-1120 | <0.001U | **0.0038** | **0.012** | <0.001 | <0.00012U | **0.0012** | **0.00066** | **10** | <0.0005 | **0.41** | <0.0002 | **0.0045** | **0.069** | <0.0001U | **1.8** |
| MW-68 | URS | Downgradient Boundary | 4/22/2021 | FC-CCR-MW68-0421 | <0.0004U | **0.0017 J** | **0.011** | <0.001 | **0.00016 J** | <0.004 | **0.0076** | **8.6** | <0.002 | **0.41** | <0.0002 | **0.0079** | **0.036** | **0.0016** | **0.9** |
| MW-68 | URS | Downgradient Boundary | 11/12/2021 | FC-CCR-MW68-1121 | <0.002 | <0.001 | **0.0097 J** | <0.001 | **0.00009 J** | <0.002 | **0.0084** | **10** | <0.001 | **0.43** | <0.0002 | **0.0059** | **0.0069** | **0.0018** | **1.5** |
| MW-68 | URS | Downgradient Boundary | 5/21/2022 | FC-CCR-MW68-0522 | <0.002 | <0.001 | **0.017** | <0.001 | <0.0002 | <0.002 | **0.011** | **7.5** | <0.001 | **0.45** | <0.0002 | **0.0063** | **0.0060** | **0.0016** | <0.7 |
| MW-68 | URS | Downgradient Boundary | 11/13/2022 | FC-CCR-MW68-1122 | <0.001 | **0.0012** | **0.017** | <0.001 | <0.0001 | **0.0011** | **0.0034** | **7.5** | <0.0005 | **0.40** | <0.0002 | **0.0054** | **0.011** | **0.0014** | **1.3** |
| MW-68 | URS | Downgradient Boundary | 5/9/2023 | FC-CCR-MW68-0523 | <0.002 | <0.005 | **0.080** | <0.005 | <0.001 | **0.0030** | **0.011** | <20 | **0.0018** | **0.48** | <0.0002 | **0.0055** | **0.0052** | **0.0015** | **1.3** |
| MW-68 | URS | Downgradient Boundary | 11/11/2023 | FC-CCR-MW68-1123 | <0.01 | **0.0099** | **0.14** | <0.005 | <0.001 | <0.01 | **0.020** | **13** | <0.005 | **0.93** | <0.0002 | **0.0069** | **0.0078** | **0.0018** | <0.8 |
| MW-68 | URS | Downgradient Boundary | 05/20/2024 | FC-CCR-MW68-0524 | <0.01 | **0.0065** | **0.013 J** | <0.005 | <0.001 | <0.01 | **0.0086** | **2.8** | <0.005 | **0.34** | <0.0002 | <0.005 | **0.021** | **0.0010** | <0.8 |
| MW-68 | URS | Downgradient Boundary | 10/18/2024 | FC-CCR-MW68-1024 | <0.004 | **0.0039** | **0.245** | **0.0005 J** | <0.0004 | <0.01 U | **0.0212** | **12.5** | **0.0053** | **0.335** | <0.0002 | **0.007** | **0.0092** | **0.0016** | **0.6** |
| MW-69 | URS | Downgradient Boundary | 11/4/2015 | FC-CCR-MW69-110415 | **0.00046** | **0.0026** | **0.013** | **0.00029** | **0.00031** | **0.00081** | **0.0035** | **9.8** | **0.00021** | **0.27** | <0.00020 | **0.015** | **0.010** | **0.00047** | -- |
| MW-69 | URS | Downgradient Boundary | 11/4/2015 | FC-CCR-MW69-110415 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 4/26/2016 | FC-CCR-MW-69-042616 | <0.0025 | **0.0031** | **0.013** | <0.0010 | <0.00010 | <0.00050 | **0.0029** | **13** | <0.00050 | **0.31** | <0.00020 | **0.013** | **0.011** | **0.00028** | **3.1** |
| MW-69 | URS | Downgradient Boundary | 4/26/2016 | FC-CCR-DUP1-042616 | <0.0025 | **0.0031** | **0.013** | <0.0010 | <0.00010 | **0.00050** | **0.0029** | **13** | <0.00050 | **0.32** | <0.00020 | **0.014** | **0.011** | **0.00028** | **3.2** |
| MW-69 | URS | Downgradient Boundary | 6/6/2016 | FC-CCR-MW69-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.2** |
| MW-69 | URS | Downgradient Boundary | 6/6/2016 | FC-CCR-MW69-616 | **0.00021** | **0.0037** | **0.015** | <0.0010 | <0.00010 | <0.00050 | **0.0027** | **13** | <0.00050 | **0.27** | <0.00020 | **0.015** | **0.018** | **0.00022** | -- |
| MW-69 | URS | Downgradient Boundary | 8/21/2016 | FC-CCR-MW69-816 | -- | -- | -- | -- | -- | -- | -- | **16** | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 8/21/2016 | FC-CCR-MW69-816 | **0.00054** | **0.011** | **0.016** | <0.0010 | <0.00010 | **0.00076** | **0.0037** | **13** | <0.00050 | **0.37** | <0.00020 | **0.015** | **0.015** | **0.00024** | -- |
| MW-69 | URS | Downgradient Boundary | 8/21/2016 | FC-CCR-MW69-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.9** |
| MW-69 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW69-916 | -- | -- | -- | -- | -- | -- | -- | **16** | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW69-916 | <0.0025 | **0.0093** | **0.016** | <0.0010 | <0.00050 | <0.0025 | **0.0042** | **11** | <0.00050 | **0.31** | <0.00020 | **0.015** | **0.012** | <0.00050 | -- |
| MW-69 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW69-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **5.4** |
| MW-69 | URS | Downgradient Boundary | 10/20/2016 | FC-CCR-MW69-1016 | -- | -- | -- | -- | -- | -- | -- | **9.0** | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 10/20/2016 | FC-CCR-MW69-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **5.5** |
| MW-69 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW69-117 | -- | -- | -- | -- | -- | -- | -- | **11** | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW69-117 | <0.0010 | **0.0042** | **0.017** | <0.0010 | <0.00010 | **0.00083** | **0.0046** | **12** | <0.00050 | **0.40** | <0.00020 | **0.016** | **0.015** | **0.00017** | -- |
| MW-69 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW69-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **5.4** |
| MW-69 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW69-41717 | -- | -- | -- | -- | -- | -- | -- | **17** | -- | -- | -- | -- | -- | -- | -- |

**Table G-2**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Total Radium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | *0.01* | *0.13* | *2* | *0.004* | *0.005* | *0.1* | *0.016* | *4* | *0.015* | *0.8* | *0.002* | *0.1* | *0.45* | *0.002* | *5.4* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | |
| MW-69 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW69-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **6.0** |
| MW-69 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW69-41717 | <0.0040 | **0.0066** | **0.016** | <0.0010 | <0.00040 | <0.0020 | **0.0045** | **17** | <0.0020 | **0.45** | <0.00020 | **0.014** | **0.011** | <0.00040 | -- |
| MW-69 | URS | Downgradient Boundary | 4/17/2017 | *DUP* FC-CCR-FD02-41717 | -- | -- | -- | -- | -- | -- | -- | **17** | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 4/17/2017 | *DUP* FC-CCR-FD02-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **4.9** |
| MW-69 | URS | Downgradient Boundary | 4/17/2017 | *DUP* FC-CCR-FD02-41717 | <0.0040 | **0.0063** | **0.016** | <0.0010 | <0.00040 | <0.0020 | **0.0044** | **17** | <0.0020 | **0.44** | <0.00020 | **0.014** | **0.010** | <0.00040 | -- |
| MW-69 | URS | Downgradient Boundary | 5/2/2017 | FC-CCR-MW69-5217 | <0.0010 | **0.0087** | **0.015** | <0.0010 | <0.00010 | <0.0010 | **0.0043** | **24** | <0.00050 | **0.45** | <0.00020 | **0.014** | **0.019** | **0.00017** | -- |
| MW-69 | URS | Downgradient Boundary | 5/2/2017 | FC-CCR-MW69-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **5.0** |
| MW-69 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW69-52917 | <0.010 | **0.0076** | **0.018** | <0.0010 | <0.0010 | <0.0050 | <0.0050 | **16** | <0.0050 | **0.37** | <0.00020 | **0.016** | **0.013** | <0.0010 | -- |
| MW-69 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW69-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.6** |
| MW-69 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW69-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW69-62117 | <0.0040 | **0.0063** | **0.016** | <0.0010 | <0.00040 | <0.0020 | **0.0041** | **14** | <0.0020 | **0.36** | <0.00020 | **0.017** | **0.017** | <0.00040 | -- |
| MW-69 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW69-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **4.3** |
| MW-69 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW69-72117 | -- | -- | -- | -- | -- | -- | -- | **18** | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW69-72117 | <0.0040 | **0.0083** | **0.016** | <0.0010 | <0.00040 | <0.0020 | **0.0048** | -- | <0.0020 | <0.80 | <0.00020 | **0.014** | **0.013** | <0.00040 | -- |
| MW-69 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW69-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.4** |
| MW-69 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW69-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW69-8917 | <0.010 | **0.0066** | **0.016** | <0.0010 | <0.0010 | <0.0040 | **0.0044** | **17** | <0.0050 | **0.44** | <0.00020 | **0.016** | **0.014** | <0.0010 | -- |
| MW-69 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW69-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **5.1** |
| MW-69 | URS | Downgradient Boundary | 8/9/2017 | *DUP* FC-CCR-FD01-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 8/9/2017 | *DUP* FC-CCR-FD01-8917 | <0.010 | **0.0072** | **0.013** | <0.0010 | <0.0010 | **0.0059** | **0.0044** | **17** | <0.0050 | **0.43** | <0.00020 | **0.014** | **0.016** | <0.0010 | -- |
| MW-69 | URS | Downgradient Boundary | 8/9/2017 | *DUP* FC-CCR-FD01-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.7** |
| MW-69 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW69-81617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.6** |
| MW-69 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW69-81617 | -- | -- | -- | -- | -- | -- | -- | **17** | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW69-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW69-91017 | <0.0040 | **0.0073** | **0.018** | <0.0010 | <0.00040 | <0.0040 | **0.0043** | **20** | **0.0060** | **0.46** | <0.00020 | **0.016** | **0.014** | <0.00040 | -- |
| MW-69 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW69-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **5.9** |
| MW-69 | URS | Downgradient Boundary | 9/10/2017 | *DUP* FC-CCR-FD02-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 9/10/2017 | *DUP* FC-CCR-FD02-91017 | <0.0040 | **0.0075** | **0.018** | <0.0010 | <0.00040 | <0.0040 | **0.0044** | **20** | <0.0020 | **0.46** | <0.00020 | **0.017** | **0.013** | <0.00040 | -- |
| MW-69 | URS | Downgradient Boundary | 9/10/2017 | *DUP* FC-CCR-FD02-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **4.9** |
| MW-69 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW69-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **6.7** |
| MW-69 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW69-101317 | <0.0010 | **0.0078** | **0.019** | <0.0010 | <0.00010 | <0.0010 | **0.0051** | **20** | <0.00050 | **0.50** | <0.00020 | **0.015** | **0.023** | **0.00022** | -- |
| MW-69 | URS | Downgradient Boundary | 11/29/2017 | FC-CCR-MW69-112917 | -- | -- | -- | -- | -- | -- | -- | **21** | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 3/16/2018 | FC-CCR-MW69-31618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **5.4** |
| MW-69 | URS | Downgradient Boundary | 6/2/2018 | FC-CCR-MW-69-6218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **4.6** |
| MW-69 | URS | Downgradient Boundary | 6/2/2018 | FC-CCR-MW-69-6218 | -- | <0.010 | **0.016** | -- | -- | -- | <0.010 | **21** | -- | **0.49** | <0.00020 | **0.016** | **0.014** | <0.0020 | -- |
| MW-69 | URS | Downgradient Boundary | 6/2/2018 | *DUP* FC-CCR-FD02-6218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.1** |
| MW-69 | URS | Downgradient Boundary | 6/2/2018 | *DUP* FC-CCR-FD02-6218 | -- | <0.010 | **0.014** | -- | -- | -- | <0.010 | **21** | -- | **0.49** | <0.00020 | **0.015** | **0.013** | <0.0020 | -- |
| MW-69 | URS | Downgradient Boundary | 11/3/2018 | FC-CCR-MW69-11318 | -- | -- | -- | -- | -- | -- | -- | **11** | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 11/3/2018 | FC-CCR-MW69-11318 | -- | **0.0042** | **0.012** | -- | -- | -- | **0.0041** | -- | -- | **0.35** | -- | **0.012** | **0.025** | **0.00024** | **3.0** |
| MW-69 | URS | Downgradient Boundary | 3/17/2019 | FC-CCR-MW69-031719 | <0.0010 | **0.0032** | **0.010** | <0.0010 | **0.00021** | <0.0010 | **0.0031** | **3.1** | <0.00050 | **0.27** | <0.00020 | **0.011** | **0.038** | **0.00020** | -- |
| MW-69 | URS | Downgradient Boundary | 3/17/2019 | FC-CCR-MW69-031719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.6** |
| MW-69 | URS | Downgradient Boundary | 5/7/2019 | FC-CCR-MW69-5719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.8** |
| MW-69 | URS | Downgradient Boundary | 12/3/2019 | FC-CCR-MW69-120219 | <0.0020 | **0.0070** | **0.011** | <0.0010 | <0.00020 | <0.0040 | **0.0047** | **9.0** | <0.0010 | **0.35** | <0.00020 | **0.0096** | **0.12** | **0.00053** | -- |
| MW-69 | URS | Downgradient Boundary | 6/19/2020 | FC-CCR-MW69-0620 | <0.002 | **0.0040** | **0.014** | -- | <0.0002 | <0.002 | **0.0027** | **5.5** | <0.001 | **0.55** | -- | **0.0072** | **0.089** | **0.00030** | **1.9** |
| MW-69 | URS | Downgradient Boundary | 11/4/2020 | FC-CCR-MW69-1120 | <0.002U | **0.0058** | **0.0081** | <0.001 | <0.0002U | **0.00092 J** | **0.0028** | **5.8** | <0.0005 | **0.26** | <0.0002 | **0.0075** | **0.11** | **0.00034** | **1.3** |
| MW-69 | URS | Downgradient Boundary | 4/21/2021 | FC-CCR-MW69-0421 | <0.0004U | **0.0021** | **0.0090** | <0.001 | <0.0004 | <0.004 | **0.0021** | **4.1** | <0.002 | **0.19** | <0.0002 | **0.0075** | **0.14** | **0.0003 J** | **0.7** |
| MW-69 | URS | Downgradient Boundary | 11/12/2021 | FC-CCR-MW69-1121 | **0.00022 J** | <0.001 | **0.0081** | <0.001 | **0.000074 J** | <0.002 | **0.0023** | **4.9** | <0.001 | **0.24** | <0.0002 | **0.0061** | **0.17** | **0.00032** | **1.9** |
| MW-69 | URS | Downgradient Boundary | 5/21/2022 | FC-CCR-MW69-0522 | <0.002 | **0.0014** | **0.0073** | <0.001 | <0.0002 | <0.002 | **0.0018** | **3.9** | <0.001 | **0.21** | <0.0002 | **0.0056** | **0.14** | **0.00032** | **0.8** |
| MW-69 | URS | Downgradient Boundary | 5/21/2022 | FC-CCR-SS03-0522 | <0.01 | <0.005 | **0.00627 J** | <0.00125 | <0.00125 | <0.01 | **0.00279** | <25/3.33 | <0.0025 | **0.215** | <0.001 | **0.00583** | **0.131** | <0.0025 | -- |
| MW-69 | URS | Downgradient Boundary | 11/14/2022 | FC-CCR-MW69-1122 | <0.001 | **0.0015** | **0.008** | <0.001 | <0.0001 | <0.001 | **0.0024** | **4.2** | <0.0005 | **0.18** | <0.0002 | **0.006** | **0.18** | **0.00027** | **1.3** |
| MW-69 | URS | Downgradient Boundary | 5/9/2023 | FC-CCR-MW69-0523 | <0.002 | <0.005 | **0.0055** | <0.001 | <0.001 | <0.003 | **0.0020** | **4.1** | <0.001 | **0.23** | <0.0002 | **0.0051** | **0.17** | <0.001 | **1.4** |
| MW-69 | URS | Downgradient Boundary | 11/11/2023 | FC-CCR-MW69-1123 | <0.01 | **0.0086** | **0.0061** | <0.005 | <0.001 | <0.01 | <0.005 | **4.7** | <0.005 | **0.33** | <0.0002 | **0.0057** | **0.20** | <0.001 | <0.8 |
| MW-69 | URS | Downgradient Boundary | 05/20/2024 | FC-CCR-MW69-0524 | <0.01 | **0.0077** | **0.028 J** | <0.005 | <0.001 | <0.01 | **0.0096** | **9.4** | <0.005 | **0.42** | <0.0002 | **0.037** | <0.005 | **0.0012** | 1.5 |
| MW-69 | URS | Downgradient Boundary | 10/20/2024 | FC-CCR-MW69-1024 | <0.004 | <0.0025 | **0.0052** | <0.00044 | <0.0004 | <0.01 | <0.0025 | **2.79** | <0.0025 | **0.152** | <0.0002 | **0.004** | **0.104** | <0.0005 | **2.1** |
| MW-70 | URS | Downgradient Boundary | 11/9/2015 | FC-CCR-MW70-110915 | **0.00017** | **0.0094** | **0.015** | **0.00011** | **0.00014** | **0.00060** | **0.0057** | **2.6** | **0.00015** | **0.28** | <0.00020 | **0.0096** | **0.20** | **0.00049** | -- |
| MW-70 | URS | Downgradient Boundary | 11/9/2015 | FC-CCR-MW70-110915 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-70-042716 | <0.0025 | **0.0053** | **0.012** | <0.0010 | <0.00010 | **0.00062** | **0.0057** | **2.3** | <0.00050 | **0.33** | <0.00020 | **0.0062** | **0.20** | **0.00038** | **1.0** |

**Table G-2**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Total Radium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | *0.01* | *0.13* | *2* | *0.004* | *0.005* | *0.1* | *0.016* | *4* | *0.015* | *0.8* | *0.002* | *0.1* | *0.45* | *0.002* | *5.4* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | |
| MW-70 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-MW70-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.9** |
| MW-70 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-MW70-616 | **0.00011** | **0.0048** | **0.012** | <0.0010 | <0.00010 | **0.00063** | **0.0051** | **2.1** | <0.00050 | **0.31** | <0.00020 | **0.0060** | **0.17** | **0.00028** | -- |
| MW-70 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-DUP-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** |
| MW-70 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-DUP-616 | **0.00011** | **0.0044** | **0.013** | <0.0010 | <0.00010 | **0.00084** | **0.0051** | **2.2** | <0.00050 | **0.32** | <0.00020 | **0.0060** | **0.16** | **0.00027** | -- |
| MW-70 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW70-816 | -- | -- | -- | -- | -- | -- | -- | **0.66** | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW70-816 | **0.00026** | **0.0051** | **0.016** | <0.0010 | <0.00020 | **0.0037** | **0.0032** | <0.80 | <0.0010 | **0.35** | <0.00020 | **0.027** | **0.23** | **0.00057** | -- |
| MW-70 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW70-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** |
| MW-70 | URS | Downgradient Boundary | 9/12/2016 | FC-CCR-MW70-916 | -- | -- | -- | -- | -- | -- | -- | **0.69** | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 9/12/2016 | FC-CCR-MW70-916 | <0.0025 | <0.0010 | **0.0073** | <0.0010 | <0.00050 | <0.0025 | **0.0023** | <0.40 | <0.00050 | **0.29** | <0.00020 | **0.0036** | **0.13** | <0.00050 | -- |
| MW-70 | URS | Downgradient Boundary | 9/12/2016 | FC-CCR-MW70-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.6** |
| MW-70 | URS | Downgradient Boundary | 10/19/2016 | FC-CCR-MW70-1016 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 10/19/2016 | FC-CCR-MW70-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.6** |
| MW-70 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW70-117 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW70-117 | <0.0010 | **0.0071** | **0.0089** | <0.0010 | **0.00011** | **0.0016** | **0.0031** | <0.40 | <0.00050 | **0.28** | <0.00020 | **0.0026** | **0.26** | **0.00040** | -- |
| MW-70 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW70-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.3** |
| MW-70 | URS | Downgradient Boundary | 4/16/2017 | FC-CCR-MW70-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.6** |
| MW-70 | URS | Downgradient Boundary | 4/16/2017 | FC-CCR-MW70-41617 | -- | -- | -- | -- | -- | -- | -- | **0.94** | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 4/16/2017 | FC-CCR-MW70-41617 | <0.0040 | **0.0054** | **0.0084** | <0.0010 | <0.00040 | <0.0020 | **0.0035** | **0.85** | <0.0020 | **0.31** | <0.00020 | **0.0035** | **0.18** | **0.00041** | -- |
| MW-70 | URS | Downgradient Boundary | 4/16/2017 | *DUP* FC-CCR-FD01-41617 | -- | -- | -- | -- | -- | -- | -- | **0.95** | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 4/16/2017 | *DUP* FC-CCR-FD01-41617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.1** |
| MW-70 | URS | Downgradient Boundary | 4/16/2017 | *DUP* FC-CCR-FD01-41617 | <0.0040 | **0.0045** | **0.0090** | <0.0010 | <0.00040 | <0.0020 | **0.0038** | **0.85** | <0.0020 | **0.32** | <0.00020 | **0.0037** | **0.20** | **0.00042** | -- |
| MW-70 | URS | Downgradient Boundary | 5/1/2017 | FC-CCR-MW70-5117 | <0.0010 | **0.0070** | **0.0097** | <0.0010 | <0.00010 | <0.0010 | **0.0053** | <5.0 | <0.00050 | **0.32** | <0.00020 | **0.0057** | **0.25** | **0.00039** | -- |
| MW-70 | URS | Downgradient Boundary | 5/1/2017 | FC-CCR-MW70-5117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.4** |
| MW-70 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW70-52917 | <0.010 | <0.0050 | **0.014** | <0.0010 | <0.0010 | <0.0050 | **0.0071** | **2.6** | <0.0050 | **0.31** | <0.00020 | **0.0090** | **0.18** | <0.0010 | -- |
| MW-70 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW70-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** |
| MW-70 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW70-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW70-62117 | <0.0040 | **0.0049** | **0.014** | <0.0010 | <0.00040 | <0.0020 | **0.0075** | **2.9** | <0.0020 | **0.32** | <0.00020 | **0.0088** | **0.18** | <0.00040 | -- |
| MW-70 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW70-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.5** |
| MW-70 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW70-72117 | -- | -- | -- | -- | -- | -- | -- | **2.1** | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW70-72117 | <0.0040 | **0.0042** | **0.0095** | <0.0010 | <0.00040 | <0.0020 | **0.0055** | -- | <0.0020 | <0.80 | <0.00020 | **0.0055** | **0.21** | <0.00040 | -- |
| MW-70 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW70-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-70 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW70-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW70-8917 | <0.010 | **0.0047** | **0.013** | <0.0010 | <0.0010 | <0.0040 | **0.0077** | **3.0** | <0.0050 | **0.34** | <0.00020 | **0.0093** | **0.18** | <0.0010 | -- |
| MW-70 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW70-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.6** |
| MW-70 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW70-81617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.8** |
| MW-70 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW70-81617 | -- | -- | -- | -- | -- | -- | -- | **3.2** | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 9/9/2017 | FC-CCR-MW70-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 9/9/2017 | FC-CCR-MW70-9917 | <0.0040 | **0.0056** | **0.010** | <0.0010 | <0.00040 | <0.0040 | **0.0057** | **2.5** | <0.0020 | **0.31** | <0.00020 | **0.0063** | **0.17** | <0.00040 | -- |
| MW-70 | URS | Downgradient Boundary | 9/9/2017 | FC-CCR-MW70-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.0** |
| MW-70 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW70-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-70 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW70-101317 | <0.010 | **0.0062** | **0.011** | <0.0010 | <0.0010 | <0.010 | <0.0050 | **1.0** | <0.0050 | **0.31** | <0.00020 | <0.0050 | **0.21** | <0.0010 | -- |
| MW-70 | URS | Downgradient Boundary | 11/30/2017 | FC-CCR-MW70-113017 | -- | -- | -- | -- | -- | -- | -- | **2.7** | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 3/16/2018 | FC-CCR-MW70-31618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.6** |
| MW-70 | URS | Downgradient Boundary | 5/31/2018 | FC-CCR-MW-70-53118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.8** |
| MW-70 | URS | Downgradient Boundary | 5/31/2018 | FC-CCR-MW-70-53118 | -- | <0.010 | **0.012** | -- | -- | -- | <0.010 | **1.8** | -- | **0.30** | <0.00020 | <0.010 | **0.18** | <0.0020 | -- |
| MW-70 | URS | Downgradient Boundary | 11/2/2018 | FC-CCR-MW70-11218 | -- | -- | -- | -- | -- | -- | -- | **2.7** | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 11/2/2018 | FC-CCR-MW70-11218 | -- | **0.0043** | **0.010** | -- | -- | -- | **0.0041** | -- | -- | **0.32** | -- | **0.0064** | **0.19** | **0.00029** | **0.7** |
| MW-70 | URS | Downgradient Boundary | 3/18/2019 | FC-CCR-MW70-031819 | <0.0010 | **0.0054** | **0.0099** | <0.0010 | <0.00010 | <0.0010 | **0.0040** | **2.3** | <0.00050 | **0.32** | <0.00020 | **0.0057** | **0.24** | **0.00029** | -- |
| MW-70 | URS | Downgradient Boundary | 3/18/2019 | FC-CCR-MW70-031819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** |
| MW-70 | URS | Downgradient Boundary | 5/7/2019 | FC-CCR-MW70-5719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.4** |
| MW-70 | URS | Downgradient Boundary | 12/3/2019 | FC-CCR-MW70-120319 | <0.0020 | **0.0076** | **0.012** | <0.0010 | <0.00020 | <0.0040 | **0.0036** | **2.1** | <0.0010 | **0.33** | <0.00020 | **0.0075** | **0.19** | **0.00028** | -- |
| MW-70 | URS | Downgradient Boundary | 6/19/2020 | FC-CCR-MW70-0620 | <0.002 | **0.0070** | **0.010** | -- | <0.0002 | <0.002 | **0.0043** | **1.9** | <0.001 | **0.71** | -- | **0.0060** | **0.21** | **0.00023** | **1.9** |
| MW-70 | URS | Downgradient Boundary | 11/5/2020 | FC-CCR-MW70-1120 | <0.002 | **0.0078** | **0.011** | <0.001 | <0.0002U | **0.001 J** | **0.0035** | **2** | <0.001 | **0.36** | <0.0002 | **0.0054** | **0.21** | **0.00034** | **1.8** |
| MW-70 | URS | Downgradient Boundary | 4/21/2021 | FC-CCR-MW70-0421 | <0.004 | <0.002 | **0.012** | <0.001 | <0.0004 | <0.004 | **0.0034** | **1.8** | <0.002 | **0.34** | <0.0002 | **0.0057** | **0.19** | **0.00024 J** | **3.1** |
| MW-70 | URS | Downgradient Boundary | 11/12/2021 | FC-CCR-MW70-1121 | <0.002 | <0.001 | **0.011** | <0.001 | **0.0001 J** | <0.002 | **0.0032** | **1.9** | <0.001 | **0.36** | <0.0002 UJ | **0.0050** | **0.16** | **0.00020** | **1.5** |
| MW-70 | URS | Downgradient Boundary | 5/20/2022 | FC-CCR-MW70-0522 | <0.002 | <0.001 | **0.012** | <0.001 | <0.0002 | <0.002 | **0.0027** | **1.6** | <0.001 | **0.37** | <0.0002 | **0.0051** | **0.17** | **0.00020** | **2.2** |
| MW-70 | URS | Downgradient Boundary | 11/13/2022 | FC-CCR-MW70-1122 | <0.001 | **0.00089** | **0.012** | <0.001 | **0.00029** | **0.0015** | **0.0030** | **1.4** | <0.0005 | **0.32** | <0.0002 | **0.0049** | **0.20** | **0.00019** | **2.4** |

**Table G-2**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Total Radium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | *0.01* | *0.13* | *2* | *0.004* | *0.005* | *0.1* | *0.016* | *4* | *0.015* | *0.8* | *0.002* | *0.1* | *0.45* | *0.002* | *5.4* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | |
| MW-70 | URS | Downgradient Boundary | 5/7/2023 | FC-CCR-MW70-0523 | <0.002 | <0.005 | **0.011** | <0.001 | <0.001 | <0.003 | **0.0017** | <80 | <0.001 | **0.36** | <0.0002 | **0.0044** | **0.14** | <0.001 | **2.1** |
| MW-70 | URS | Downgradient Boundary | 11/06/2023 | FC-CCR-MW70-1123 | <0.001 | **0.0027** | **0.013 J** | <0.001 | **0.0001** | <0.004 | **0.0021** | **1.5** | <0.0005 | **0.34** | <0.0002 | **0.0035** | **0.15** | **0.00039** | **1.4** |
| MW-70 | URS | Downgradient Boundary | 05/22/2024 | FC-CCR-MW70-0524 | <0.01 | **0.0062** | **0.011 J** | <0.001 | <0.001 | <0.01 | **<0.005** | **0.77** | <0.005 | **0.39** | <0.0002 | **<0.005** | **0.14** | <0.001 | **2.0** |
| MW-70 | URS | Downgradient Boundary | 10/23/2024 | FC-CCR-MW70-1024 | <0.0025 | <0.0025 | **0.0094** | <0.00044 | <0.0004 | <0.01 | <0.0025 | **0.735 J** | <0.0025 | **0.295** | <0.0002 | **0.0032** | **0.149** | <0.0005 | **1.1** |
| MW-83 | URS | Downgradient | 3/18/2019 | FC-CCR-MW83-031819 | <0.0010 | **0.0023** | **0.034** | <0.0010 | <0.00010 | <0.0010 | <0.00050 | **1.2** | <0.00050 | <0.20 | <0.00020 | **0.053** | **0.0012** | <0.00010 | -- |
| MW-83 | URS | Downgradient | 3/18/2019 | FC-CCR-MW83-031819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-83 | URS | Downgradient | 5/6/2019 | FC-CCR-MW83-5619 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-83 | URS | Downgradient | 5/6/2019 | *DUP* FC-CCR-FD01-5619 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-83 | URS | Downgradient | 12/2/2019 | FC-CCR-MW83-120319 | <0.0020 | <0.0010 | **0.018** | <0.0010 | <0.00020 | <0.0040 | **0.0023** | **1.8** | <0.0010 | <0.20 | <0.00020 | **0.0096** | **0.0021** | <0.00020 | -- |
| MW-83 | URS | Downgradient | 6/19/2020 | FC-CCR-MW83-0620 | <0.004 | **0.0021** | **0.012 J** | -- | <0.0004 | <0.004 | <0.002 | **1.0** | <0.001 | **0.27** | -- | **0.044** | <0.002 | <0.0002 | <0.8 |
| MW-83 | URS | Downgradient | 6/19/2020 | *DUP* FC-CCR-FD01-0620 | <0.004 | **0.0020** | **0.038 J** | -- | <0.0004 | <0.004 | <0.002 | **1.0** | <0.002 | **0.30** | -- | **0.046** | <0.002 | <0.0004 | <0.6 |
| MW-83 | URS | Downgradient | 11/4/2020 | FC-CCR-MW83-1120 | <0.001U | **0.0029** | **0.017** | <0.001U | **0.0011** | **0.0020** | **0.068** | **0.98** | **0.0016** | **0.20** | <0.0002 | **0.035** | <0.0025U | **0.00026** | <0.8 |
| MW-83 | URS | Downgradient | 4/21/2021 | FC-CCR-MW83-0421 | <0.004 | **0.0026** | **0.038** | <0.001 | <0.0004 | <0.004 | <0.002 | **0.55** | <0.002 | **0.19** | <0.0002 | **0.060** | **0.00042 J** | <0.0004 | **0.5** |
| MW-83 | URS | Downgradient | 11/12/2021 | FC-CCR-MW83-1121 | **0.000096 J** | <0.001 | **0.0095** | <0.001 | **0.00006 J** | <0.002 | **0.0015** | **1.8** | <0.001 | **0.18** | <0.0002 | **0.0081** | **0.002** | **0.000042 J** | **0.7** |
| MW-83 | URS | Downgradient | 5/21/2022 | FC-CCR-MW83-0522 | <0.002 | <0.001 | **0.009** | <0.001 | <0.0002 | <0.002 | **0.0015** | **2.0** | <0.001 | **0.18** | <0.0002 | **0.0073** | **0.0012** | <0.0002 | <0.7 |
| MW-83 | URS | Downgradient | 5/21/2022 | FC-CCR-SS05-0522 | <0.01 | <0.005 | **0.00917 J** | <0.00125 | <0.00125 | <0.01 | **0.00241** | **2.85 J/1.78** | <0.0025 | **0.189 J** | <0.001 | **0.00732** | **0.00101 J** | <0.0025 | -- |
| MW-83 | URS | Downgradient | 11/14/2022 | FC-CCR-MW83-1122 | <0.001 | **0.00069** | **0.012** | <0.001 | <0.0001 | <0.001 | **0.0017** | **2.0** | <0.0005 | **0.16** | <0.0002 | **0.0075** | **0.0022** | <0.0001 | **1.0** |
| MW-83 | URS | Downgradient | 5/7/2023 | FC-CCR-MW83-0523 | <0.002 | <0.005 | **0.0085** | <0.001 | <0.001 | <0.003 | **0.0016** | <8 | <0.001 | **0.19** | <0.0002 | **0.0068** | <0.005 | <0.001 | <0.6 |
| MW-83 | URS | Downgradient | 11/11/2023 | FC-CCR-MW83-1123 | <0.01 | **0.0077** | **0.011** | <0.005 | <0.001 | <0.01 | <0.005 | **2.1** | <0.005 | **0.24** | <0.0002 | **0.0076** | <0.005 | <0.001 | <0.8 |
| MW-83 | URS | Downgradient | 05/18/2024 | FC-CCR-MW83-0524 | <0.01 | **0.0096** | **0.17 J** | <0.005 | <0.001 | <0.01 | **0.025** | **8.7** | <0.005 | **0.47** | **0.00085** | **0.0076** | **0.0065** | **0.0018** | <0.8 |
| MW-83 | URS | Downgradient | 10/20/2024 | FC-CCR-MW83-1024 | <0.004 | <0.0025 | **0.0094** | <0.00044 | **0.00046** | <0.01 | <0.0025 | **1.58** | <0.0025 | **0.156** | <0.0002 | **0.0074** | <0.0025 | <0.0005 | <0.8 |
| MW-84 | URS | Downgradient | 3/17/2019 | FC-CCR-MW84-031719 | <0.0010 | **0.00065** | **0.020** | <0.0010 | **0.00021** | **0.0010** | **0.0071** | <0.80 | <0.00050 | **0.20** | <0.00020 | **0.0091** | **0.0036 J** | **0.00046** | -- |
| MW-84 | URS | Downgradient | 3/17/2019 | FC-CCR-MW84-031719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** |
| MW-84 | URS | Downgradient | 5/7/2019 | FC-CCR-MW84-5719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** |
| MW-84 | URS | Downgradient | 12/3/2019 | FC-CCR-MW84-120319 | <0.0020 | **0.0011** | **0.019** | <0.0010 | **0.00030** | <0.0040 | **0.0086** | <0.80 | <0.0010 | <0.20 | <0.00020 | **0.0051** | **0.0028** | **0.00036** | -- |
| MW-84 | URS | Downgradient | 6/20/2020 | FC-CCR-MW84-0620 | <0.004 | <0.002 | **0.037 J** | -- | <0.0004 | <0.004 | **0.0022** | **0.83** | <0.002 | **0.61** | -- | **0.0027** | **0.024** | **0.00067** | **1.0** |
| MW-84 | URS | Downgradient | 11/4/2020 | FC-CCR-MW84-1120 | <0.001U | **0.0033** | **0.019** | <0.001 | **0.0015** | **0.00058 J** | **0.075** | **0.71** | **0.0024** | **0.35** | <0.0002 | **0.0014** | **0.066** | **0.00028** | <0.8 |
| MW-84 | URS | Downgradient | 4/21/2021 | FC-CCR-MW84-0421 | <0.0004U | **0.0010 J** | **0.017** | <0.001 | **0.00016 J** | <0.004 | **0.001 J** | **0.82** | <0.002 | **0.34** | <0.0002 | **0.0027** | **0.053** | **0.00062** | <0.7 |
| MW-84 | URS | Downgradient | 11/12/2021 | FC-CCR-MW84-1121 | **0.00013 J** | <0.001 | **0.019 J** | <0.001 | **0.00031** | <0.002 | **0.0079** | **0.12 J** | <0.001 | **0.24** | <0.0002 | **0.0014** | **0.030** | **0.00071 J** | **2.1** |
| MW-84 | URS | Downgradient | 11/12/2021 | FC-CCR-FD01-1121 | <0.002 | <0.001 | **0.017 J** | <0.001 | **0.00027** | <0.002 | **0.0078** | **0.12 J** | <0.001 | **0.24** | <0.0002 | **0.0012** | **0.032** | **0.00041 J** | **2.3** |
| MW-84 | URS | Downgradient | 5/21/2022 | FC-CCR-MW84-0522 | <0.002 | <0.001 | **0.015** | <0.001 | **0.00022** | <0.002 | **0.0068** | <0.8 | <0.001 | **0.25** | <0.0002 | **0.0020** | **0.070** | **0.0010 J** | **0.5** |
| MW-84 | URS | Downgradient | 5/21/2022 | *DUP* FC-CCR-FD01-0522 | <0.002 | <0.001 | **0.016** | <0.001 | <0.0002 | <0.002 | **0.0071** | <0.8 | <0.001 | **0.25** | <0.0002 | **0.0020** | **0.074** | **0.00035 J** | **0.9** |
| MW-84 | URS | Downgradient | 11/14/2022 | FC-CCR-MW84-1122 | <0.001 | **0.0010** | **0.018** | <0.001 | **0.00019** | **0.0010** | **0.0080** | <0.8 | <0.0005 | **0.23** | <0.0002 | **0.0012** | **0.12** | **0.00046** | **4.5 J** |
| MW-84 | URS | Downgradient | 11/14/2022 | *DUP* FC-CCR-FD01-1122 | <0.001 | **0.00084** | **0.017** | <0.001 | **0.00019** | <0.001 | **0.0074** | <0.8 | <0.0005 | **0.22** | <0.0002 | **0.0013** | **0.12** | **0.00044** | **2.6 J** |
| MW-84 | URS | Downgradient | 5/9/2023 | FC-CCR-MW84-0523 | <0.002 | <0.005 | **0.0094** | <0.001 | <0.001 | <0.003 | **0.0016** | <2 | <0.001 | **0.31** | <0.0002 | <0.002 | **0.026** | <0.001 | <0.6 |
| MW-84 | URS | Downgradient | 5/9/2023 | *DUP* FC-CCR-FD01-0523 | <0.002 | <0.005 | **0.0099** | <0.001 | <0.001 | <0.003 | **0.0019** | <2 | <0.001 | **0.31** | <0.0002 | <0.002 | **0.028** | <0.001 | **1.0** |
| MW-84 | URS | Downgradient | 11/11/2023 | FC-CCR-MW84-1123 | <0.01 | **0.0077** | **0.017** | <0.005 | <0.001 | <0.01 | **0.0077** | <0.8 | <0.005 | **0.47** | <0.0002 | <0.005 | **0.067** | <0.001 | **1.5 J** |
| MW-84 | URS | Downgradient | 11/11/2023 | *DUP* FC-CCR-FD01-1123 | <0.01 | **0.0075** | **0.018** | <0.005 | <0.001 | <0.01 | **0.0076** | <0.8 | <0.005 | **0.67** | <0.0002 | <0.005 | **0.067** | <0.001 | **4.5 J** |
| MW-84 | URS | Downgradient | 05/18/2024 | FC-CCR-MW84-0524 | <0.01 | **0.0081** | **0.0056 J** | <0.005 | <0.001 | <0.01 | <0.005 | **2.9** | <0.005 | **0.18** | <0.0002 | <0.005 | **0.094** | <0.001 | 3.3 |
| MW-84 | URS | Downgradient | 05/18/2024 | *DUP* FC-CCR-FD01-0524 | <0.01 | **0.0071** | **0.016 J** | <0.005 | <0.001 | <0.01 | <0.005 | **1.7** | <0.005 | **0.19** | <0.0002 | **0.0074** | <0.005 | <0.001 | 0.9 |
| MW-84 | URS | Downgradient | 10/24/2024 | FC-CCR-MW84-1024 | <0.0025 | <0.0025 | **0.0158** | <0.00044 | <0.0004 | <0.01 | **0.0075** | <0.38 | <0.0025 | **0.204** | <0.0002 | <0.0025 | **0.0818** | <0.0005 | **3.7** |
| MW-85 | URS | Downgradient | 3/20/2019 | FC-CCR-MW85-032019 | <0.0010 | **0.0043** | **0.016** | <0.0010 | <0.00010 | **0.0028" J, UJ"** | <0.00050 | <0.80 | <0.00050 | **0.25** | <0.00020 | **0.0052** | **0.16** | **0.00023** | -- |
| MW-85 | URS | Downgradient | 3/20/2019 | FC-CCR-MW85-032019 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** |
| MW-85 | URS | Downgradient | 3/20/2019 | *DUP* FC-CCR-FD01-032019 | <0.0010 | **0.0041** | **0.017** | <0.0010 | <0.00010 | <0.0010" J, UJ" | <0.00050 | <0.80 | <0.00050 | **0.25** | <0.00020 | **0.0045** | **0.16** | **0.00023** | -- |
| MW-85 | URS | Downgradient | 3/20/2019 | *DUP* FC-CCR-FD01-032019 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-85 | URS | Downgradient | 5/7/2019 | FC-CCR-MW85-5719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-85 | URS | Downgradient | 12/3/2019 | FC-CCR-MW85-120319 | <0.0020 | **0.0061** | **0.017** | <0.0010 | <0.00020 | <0.0040 | <0.0010 | <0.80 | <0.0010 | **0.23** | <0.00020 | **0.0021** | **0.13** | **0.00030** | -- |
| MW-85 | URS | Downgradient | 6/19/2020 | FC-CCR-MW85-0620 | <0.004 | **0.0079** | **0.015** | -- | <0.0004 | **0.0044** | <0.002 | <0.8 | <0.002 | **0.44** | -- | **0.049** | **0.22** | <0.0004 | **0.5** |
| MW-85 | URS | Downgradient | 11/4/2020 | FC-CC-MW85-1120 | <0.002 | **0.0097** | **0.016** | <0.001 | <0.0002U | **0.003** | **0.00065 J** | **0.35 J** | <0.001 | **0.29** | <0.0002 | **0.049** | **0.22** | **0.0002** | **0.7** |
| MW-85 | URS | Downgradient | 4/21/2021 | FC-CCR-MW85-0421 | <0.004 | **0.0021** | **0.022** | <0.001 | <0.0004 | **0.0049** | <0.002 | **0.22 J** | <0.002 | **0.25** | <0.0002 | **0.0039** | **0.20** | **0.00022 J** | **1.9** |
| MW-85 | URS | Downgradient | 11/12/2021 | FC-CCR-MW85-1121 | <0.002 | **0.00094 J** | **0.017** | <0.001 | <0.0002 | **0.017** | **0.00020 J** | **0.27 J** | <0.001 | **0.36** | <0.0002 | **0.0019** | **0.30** | **0.00029** | **1.9** |
| MW-85 | URS | Downgradient | 11/16/2022 | FC-CCR-MW85-1122 | <0.001 | **0.0016** | **0.021** | <0.001 | **0.0016** | **0.020** | **0.0042** | <4 | <0.0005 | **0.35** | **0.00029** | **0.0080** | **0.34** | **0.00069** | **1.9** |
| MW-85 | URS | Downgradient | 5/9/2023 | FC-CCR-MW85-0523 | <0.002 | <0.005 | **0.013** | <0.001 | <0.001 | **0.0050** | **0.0010** | <2 | <0.001 | **0.36** | <0.0002 | **0.0071** | **0.19** | <0.001 | **1.6** |
| MW-85 | URS | Downgradient | 11/11/2023 | FC-CCR-MW85-1123 | <0.01 | **0.0084** | **0.017** | <0.005 | <0.001 | <0.01 | <0.005 | **1.9** | <0.005 | **0.50** | <0.0002 | **0.0057** | **0.37** | <0.001 | **2.4** |
| MW-85 | URS | Downgradient | 05/18/2024 | FC-CCR-MW85-0524 | <0.01 | **0.0069** | **0.015 J** | <0.005 | <0.001 | <0.01 | **0.0069** | <0.4 | <0.005 | **0.25** | <0.0002 | <0.005 | **0.068** | <0.001 | 1.1 |
| MW-85 | URS | Downgradient | 10/20/2024 | FC-CCR-MW85-1024 | <0.004 | <0.0025 | **0.0141** | <0.00044 | **0.00068** | <0.01 U | <0.0025 | **0.988 J** | <0.0025 | **0.317** | <0.0002 | **0.005** | **0.316** | <0.0005 | **1.0** |
| MW-86 | URS | Downgradient | 3/18/2019 | FC-CCR-MW86-031819 | <0.0010 | **0.0011** | **0.016** | <0.0010 | **0.00012** | **0.0025** | **0.0043** | <0.80 | <0.00050 | **0.30** | <0.00020 | **0.0028** | **0.0050** | **0.00057** | -- |
| MW-86 | URS | Downgradient | 3/18/2019 | FC-CCR-MW86-031819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |

**Table G-2**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Total Radium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | *0.01* | *0.13* | *2* | *0.004* | *0.005* | *0.1* | *0.016* | *4* | *0.015* | *0.8* | *0.002* | *0.1* | *0.45* | *0.002* | *5.4* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | |
| MW-86 | URS | Downgradient | 5/7/2019 | FC-CCR-MW86-5719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** |
| MW-86 | URS | Downgradient | 5/7/2019 | *DUP* FC-CCR-FD02-5719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** |
| MW-86 | URS | Downgradient | 12/3/2019 | FC-CCR-MW86-120319 | <0.0020 | **0.0014** | **0.018** | <0.0010 | <0.00020 | **0.035** | **0.0055** | <0.80 | <0.0010 | **0.31** | <0.00020 | **0.0015** | **0.0015** | **0.00075** | -- |
| MW-86 | URS | Downgradient | 6/19/2020 | FC-CCR-MW86-0620 | <0.004 | <0.002 | **0.012** | -- | <0.0004 | <0.004 | **0.0056** | <0.8 | <0.002 | <2 | -- | <0.002 | **0.0024** | **0.00072** | **1.8** |
| MW-86 | URS | Downgradient | 6/20/2020 | *DUP* FC-CCR-FD02-0620 | <0.004 | **0.0022** | **0.020 J** | -- | <0.0004 | <0.004 | **0.0022** | **0.83** | <0.002 | **0.46** | -- | **0.0025** | **0.023** | **0.00069** | **0.9** |
| MW-86 | URS | Downgradient | 11/5/2020 | FC-CCR-MW86-1120 | <0.002 | **0.0035** | **0.013** | <0.001 | <0.0002U | **0.0018 J** | **0.0057** | **0.63 J** | <0.001 | **0.33** | <0.0002 | **0.0013** | **0.0053** | **0.00076** | **0.6** |
| MW-86 | URS | Downgradient | 4/21/2021 | FC-CCR-MW86-0421 | <0.0004U | **0.0012 J** | **0.015 J** | <0.001 | **0.00028 J** | <0.004 | **0.0052** | **0.58 J** | <0.002 | **0.30** | <0.0002 | **0.0022** | **0.0046 J** | **0.00080** | **1.6 J** |
| MW-86 | URS | Downgradient | 4/21/2021 | *DUP* FC-CCR-FD02-0421 | <0.004 | **0.0017 J** | **0.014 J** | <0.001 | **0.00016 J** | <0.004 | **0.0049** | **0.6 J** | <0.002 | **0.31** | <0.0002 | **0.0018 J** | **0.0042 J** | **0.00070** | **3.9 J** |
| MW-86 | URS | Downgradient | 11/12/2021 | FC-CCR-MW86-1121 | **0.0001 J** | <0.001 | **0.017** | <0.001 | **0.00020** | **0.0014 J** | **0.0065** | **0.56 J** | **0.00056 J** | **0.35** | <0.0002 | **0.0011** | **0.0013** | **0.00085** | **0.5** |
| MW-86 | URS | Downgradient | 11/12/2021 | FC-CCR-FD02-1121 | **0.00009 J** | <0.001 | **0.017** | <0.001 | **0.00017 J** | **0.0014 J** | **0.0063** | **0.55 J** | <0.001 | **0.36** | <0.0002 | **0.0011** | **0.0021** | **0.00083** | **1.9** |
| MW-86 | URS | Downgradient | 5/20/2022 | FC-CCR-MW86-0522 | <0.002 | <0.001 | **0.014** | <0.001 | <0.0002 | <0.002 | **0.0052** | **0.92** | <0.001 | **0.34** | <0.0002 | **0.0016** | **0.0029 J** | **0.00064** | <0.7 |
| MW-86 | URS | Downgradient | 5/20/2022 | *DUP* FC-CCR-FD02-0522 | <0.002 | <0.001 | **0.016** | <0.001 | <0.0002 | <0.002 | **0.0051** | **0.94** | <0.001 | **0.33** | <0.0002 | **0.0016** | **0.0016 J** | **0.00062** | <0.7 |
| MW-86 | URS | Downgradient | 11/13/2022 | FC-CCR-MW86-1122 | <0.001 | **0.0012** | **0.014** | <0.001 | <0.0001 | <0.001 | **0.0053** | <0.8 | <0.0005 | **0.29** | <0.0002 | **0.0012** | **0.0026 J** | **0.00080** | **0.4 J** |
| MW-86 | URS | Downgradient | 11/13/2022 | *DUP* FC-CCR-FD02-1122 | <0.001 | **0.0011** | **0.014** | <0.001 | <0.0001 | <0.001 | **0.0052** | **1.0** | <0.0005 | **0.30** | <0.0002 | **0.0012** | **0.0032 J** | **0.00082** | **1.9 J** |
| MW-86 | URS | Downgradient | 5/7/2023 | FC-CCR-MW86-0523 | <0.002 | <0.005 | **0.010** | <0.001 | <0.001 | <0.003 | **0.0013** | <80 | <0.001 | **0.25** | <0.0002 | <0.002 | **0.012** | <0.001 | <0.6 |
| MW-86 | URS | Downgradient | 5/7/2023 | *DUP* FC-CCR-FD02-0523 | <0.002 | <0.005 | **0.010** | <0.001 | <0.001 | <0.003 | **0.0012** | <80 | <0.001 | **0.25** | <0.0002 | <0.002 | **0.012** | <0.001 | <0.6 |
| MW-86 | URS | Downgradient | 11/06/2023 | FC-CCR-MW86-1123 | <0.001 | **0.0027** | **0.013 J** | <0.001 | **0.00013** | <0.004 | **0.003** | **0.95** | <0.0005 | **0.25** | <0.0002 | **0.0016** | **0.0078** | **0.0006** | **1.7** |
| MW-86 | URS | Downgradient | 05/22/2024 | FC-CCR-MW86-0524 | <0.01 | **0.0063** | **0.016 J** | <0.001 | <0.001 | <0.01 | <0.005 | <0.4 | <0.005 | **0.31** | <0.0002 | <0.005 | <0.005 | <0.001 | <0.9 |
| MW-86 | URS | Downgradient | 10/23/2024 | FC-CCR-MW86-1024 | <0.0025 | <0.0025 | **0.0127** | <0.00044 | <0.0004 | <0.01 | **0.0051** | **0.816** | <0.0025 | **0.278** | <0.0002 | <0.0025 | <0.0025 | **0.00077** | **2.0** |
| MW-86 | URS | Downgradient | 10/23/2024 | *DUP* FC-CCR-FD03-1024 | <0.0025 | <0.0025 | **0.0125** | <0.00044 | <0.0004 | <0.01 | **0.0052** | **4.74 J** | <0.0025 | **0.275** | <0.0002 | <0.0025 | <0.0025 | **0.00087** | **1.1** |
| CM-01 | URS | Extraction | 11/04/2020 | FC-CCR-CM01-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| CM-01 | URS | Extraction | 05/09/2023 | FC-CCR-CM01-0523 | <0.002 | <0.005 | **0.033** | <0.005 | <0.001 | <0.003 | **0.0081** | <20 | <0.001 | **0.43** | <0.0002 | **0.006** | **0.034** | <0.001 | **0.8** |
| CM-01 | URS | Extraction | 11/13/2023 | FC-CCR-CM01-1123 | <0.01 | **0.0081** | **0.028** | <0.005 | <0.001 | <0.01 | **0.0097** | **3.3** | <0.005 | **0.75** | <0.0002 | **0.005** | **0.071** | <0.001 | **1.0** |
| CM-01 | URS | Extraction | 05/18/2024 | FC-CCR-CM01-0524 | <0.01 | **0.0069** | **0.015 J** | <0.005 | <0.001 | <0.01 | **0.0071** | <0.4 | <0.005 | **0.26** | <0.0002 | <0.005 | **0.070** | <0.001 | **2.7** |
| CM-01 | URS | Extraction | 10/20/2024 | FC-CCR-CM01-1024 | <0.004 | <0.0025 | **0.0137** | <0.00044 | <0.0004 | <0.01 | **0.0084** | **1.74** | <0.0025 | **0.315** | <0.0002 | **0.004** | **0.0775** | **0.00082** | **1.4** |
| CM-02 | URS | Extraction | 11/04/2020 | FC-CCR-CM02-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| CM-02 | URS | Extraction | 05/09/2023 | FC-CCR-CM02-0523 | <0.002 | **<0.005** | **0.014** | <0.005 | <0.001 | <0.003 | **0.0081** | **4.1** | <0.001 | **0.38** | <0.0002 | 0.004 | **0.014** | **0.0011** | **2.3** |
| CM-02 | URS | Extraction | 11/13/2023 | FC-CCR-CM02-1123 | <0.01 | **0.0081** | **0.016** | <0.005 | <0.001 | <0.01 | **0.0084** | **4.2** | <0.005 | **0.61** | <0.0002 | <0.005 | **0.013** | **0.0012** | **2.3** |
| CM-02 | URS | Extraction | 05/18/2024 | FC-CCR-CM02-0524 | <0.01 | **0.0078** | **0.014 J** | <0.005 | <0.001 | **0.012** | <0.005 | **1.1** | <0.005 | **0.37** | <0.0002 | 0.005 | **0.22** | <0.001 | **3.7** |
| CM-02 | URS | Extraction | 10/20/2024 | FC-CCR-CM02-1024 | <0.004 | <0.0025 | **0.0145** | <0.00044 | <0.0004 | <0.01 | **0.0078** | **2.24 J** | <0.0025 | **0.285** | <0.0002 | **0.003** | **0.0208** | **0.0011** | **1.6** |
| CM-03 | URS | Supplementary | 11/04/2020 | FC-CCR-CM03-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| CM-04 | URS | Supplementary | 11/04/2020 | FC-CCR-CM04-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table G-2**
**Groundwater Sampling Results for the URS Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Total Radium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | *0.01* | *0.13* | *2* | *0.004* | *0.005* | *0.1* | *0.016* | *4* | *0.015* | *0.8* | *0.002* | *0.1* | *0.45* | *0.002* | *5.4* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | |
| URS-05 | URS | Supplementary | 05/18/2024 | FC-CCR-URS05-0524 | <0.01 | **0.0068** | **0.019 J** | <0.005 | <0.001 | <0.01 | **0.011** | **4.8** | <0.005 | **0.31** | <0.0002 | **0.081** | **0.0090** | **0.0014** | 2.2 |
| URS-05 | URS | Supplementary | 10/21/2024 | FC-CCR-URS05-1024 | <0.0025 | <0.0025 | **0.0169** | <0.00044 | <0.0004 | <0.01 | **0.0117** | **8.69** | <0.0025 | **0.243** | <0.0002 | **0.013** | <0.0025 | **0.0015** | **2.8 J** |
| URS-05 | URS | Supplementary | 10/21/2024 | *DUP* FC-CCR-FD01-1024 | <0.0025 | <0.0025 | **0.0159** | <0.00044 | <0.0004 | <0.01 | **0.0117** | **8.45** | <0.0025 | **0.235** | <0.0002 | **0.012** | <0.0025 | **0.0015** | **4.7 J** |
| URS-06 | URS | Extraction (Inactive) | 05/18/2024 | FC-CCR-URS06-0524 | <0.01 | **0.0072** | **0.012 J** | <0.005 | <0.001 | <0.01 | **0.0095** | <0.4 | <0.005 | **0.39** | <0.0002 | <0.005 | **0.0083** | **0.0010** | 1.2 |
| URS-06 | URS | Extraction (Inactive) | 05/18/2024 | *DUP* FC-CCR-FD02-0524 | <0.01 | **0.0066** | **0.013 J** | <0.005 | <0.001 | <0.01 | **0.0099** | <0.4 | <0.005 | **0.38** | <0.0002 | <0.005 | **0.012** | <0.001 | 2.4 |
| URS-06 | URS | Extraction (Inactive) | 10/21/2024 | FC-CCR-URS06-1024 | <0.0025 | <0.0025 | **0.0131** | <0.00044 | **0.00046** | <0.01 | **0.0097** | **0.515 J** | <0.0025 | **0.321** | <0.0002 | <0.0025 | <0.0025 | **0.0010** | **2.7** |
| URS-06 | URS | Extraction (Inactive) | 10/21/2024 | *DUP* FC-CCR-FD02-1024 | <0.0025 | <0.0025 | **0.0123** | <0.00044 | <0.0004 | <0.01 | **0.0085** | **0.532 J** | <0.0025 | **0.299** | <0.0002 | <0.0025 | <0.0025 | **0.00096** | **2.4** |
| URS-07 | URS | Extraction (Inactive) | 05/18/2024 | FC-CCR-URS07-0524 | <0.01 | **0.0072** | **0.019 J** | <0.005 | <0.001 | <0.01 | **0.0075** | **1.4** | <0.005 | **0.24** | <0.0002 | **0.026** | **0.0098** | <0.001 | <0.9 |
| URS-07 | URS | Extraction (Inactive) | 10/21/2024 | FC-CCR-URS07-1024 | <0.0025 | <0.0025 | **0.0152** | <0.00044 | <0.0004 | <0.01 | **0.0031** | **4.49 J** | <0.0025 | **0.189** | <0.0002 | **0.011** | <0.0025 | <0.0005 | **1.3** |
| URS-08 | URS | Supplementary | 05/18/2024 | FC-CCR-URS08-0524 | <0.01 | **0.0081** | **0.031 J** | <0.005 | <0.001 | <0.01 | **0.0061** | **8.1** | <0.005 | **0.25** | <0.0002 | **0.072** | **0.0095** | <0.001 | 4.2 |
| URS-08 | URS | Supplementary | 10/21/2024 | FC-CCR-URS08-1024 | <0.0025 | <0.0025 | **0.0161** | <0.00044 | <0.0004 | <0.01 | **0.0058** | **12** | <0.0025 | **0.196** | <0.0002 | **0.015** | <0.0025 | <0.0005 | **4.6** |

*Notes:*

BTV exceedances are shown in grey shaded cells. GWPS exceedences are shown in red text.

*Abbreviations and Data Qualifiers:*

< = less than
BTV = Background Threshold Value
degrees C = degrees Celsius
GWPS = Groundwater Protection Standard
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
NJ = The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
mg/L = milligrams per liter
pCi/L = Picocuries per liter
su = standard units
UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Table G-3**
**Groundwater Sampling Results for the URS Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Magnesium | Nickel | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 3/5/2016 | FC-CCR-MW-71-030516 | **490** | <5.0 | -- | **490** | -- | **1,600** | -- | **23** | -- | -- | **880** |
| MW-71 | URS/CWTP | Background | 3/5/2016 | FC-CCR-MW-71-030516 | -- | -- | -- | -- | -- | -- | -- | -- | **0.656** | **1.2** | -- |
| MW-71 | URS/CWTP | Background | 3/5/2016 | *DUP* FC-CCR-FD-2-030516 | **410** | <5.0 | -- | **410** | -- | **1,700** | -- | **24** | -- | -- | **940** |
| MW-71 | URS/CWTP | Background | 3/5/2016 | *DUP* FC-CCR-FD-2-030516 | -- | -- | -- | -- | -- | -- | -- | -- | **0.717** | **1.26** | -- |
| MW-71 | URS/CWTP | Background | 4/26/2016 | FC-CCR-MW-71-042616 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.5** | -- |
| MW-71 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW71-616 | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** | **2.1** | -- |
| MW-71 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW71-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW71-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW71-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW71-816 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **1.0** | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW101-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW101-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW101-816 | -- | -- | -- | -- | -- | -- | -- | -- | **0.3** | **0.8** | -- |
| MW-71 | URS/CWTP | Background | 9/12/2016 | FC-CCR-MW71-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 9/12/2016 | FC-CCR-MW71-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 9/12/2016 | FC-CCR-MW71-916 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **1.6** | -- |
| MW-71 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW71-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW71-1016 | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | <0.7 | -- |
| MW-71 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW71-117 | **550** | <6.0 | <6.0 | **550** | <6.0 | **2,300** | -- | **32** | -- | -- | **1,200** |
| MW-71 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW71-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW71-117 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.9** | -- |
| MW-71 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW71-41717 | **420** | <6.0 | <6.0 | **420** | <6.0 | **1,800** | -- | **25** | -- | -- | **980** |
| MW-71 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW71-41717 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.2** | -- |
| MW-71 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW71-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW71-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW71-5217 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | <0.6 | -- |
| MW-71 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW71-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW71-52917 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-71 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW71-62217 | **540** | <6.0 | <6.0 | **540** | <6.0 | **2,400** | -- | **31** | -- | -- | **1,200** |
| MW-71 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW71-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW71-62117 | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | **1.5** | -- |
| MW-71 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW71-72117 | **420** | <6.0 | <6.0 | **420** | <6.0 | **1,800** | -- | **27** | -- | -- | **1,100** |
| MW-71 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW71-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW71-72117 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.4 | -- |
| MW-71 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW71-81017 | **420** | <6.0 | <6.0 | **420** | <6.0 | **2,000** | -- | **27** | -- | -- | **1,100** |
| MW-71 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW71-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW71-81017 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-71 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW71-81717 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.0** | -- |
| MW-71 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW71-81717 | **430** | <6.0 | <6.0 | **430** | <6.0 | **1,800** | -- | **30** | -- | -- | **1,100** |
| MW-71 | URS/CWTP | Background | 9/11/2017 | FC-CCR-MW71-91117 | **420** | <6.0 | <6.0 | **420** | <6.0 | **1,800** | -- | **26** | -- | -- | **1,100** |
| MW-71 | URS/CWTP | Background | 9/11/2017 | FC-CCR-MW71-91117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 9/11/2017 | FC-CCR-MW71-91117 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-71 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW71-101317 | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **0.8** | -- |
| MW-71 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW71-101317 | **430** | <6.0 | <6.0 | **430** | <6.0 | **1,700** | -- | **26** | -- | -- | **1,000** |
| MW-71 | URS/CWTP | Background | 11/30/2017 | FC-CCR-MW71-113017 | **430** | <6.0 | <6.0 | **430** | <6.0 | **1,700** | -- | **29** | -- | -- | **1,100** |

**Table G-3**
**Groundwater Sampling Results for the URS Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Magnesium | Nickel | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 3/16/2018 | FC-CCR-MW71-31618 | -- | -- | -- | -- | -- | -- | -- | -- | <1.0 | **0.8** | -- |
| MW-71 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-71-6218 | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **1.5** | -- |
| MW-71 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-71-6218 | **430** | <6.0 | <6.0 | **430** | <6.0 | **2,000** | -- | **27** | -- | -- | **1,000** |
| MW-71 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW71-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW71-11318 | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | <0.7 | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW71-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD01-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD01-11318 | -- | -- | -- | -- | -- | -- | -- | -- | **1.8** | <0.7 | -- |
| MW-71 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW71-031819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW71-031819 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-71 | URS/CWTP | Background | 5/6/2019 | FC-CCR-MW71-5719 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.0** | -- |
| MW-71 | URS/CWTP | Background | 12/2/2019 | FC-CCR-MW71-120219 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 6/20/2020 | FC-CCR-MW71-0620 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.8 | -- |
| MW-71 | URS/CWTP | Background | 11/5/2020 | FC-CCR-MW71-1120 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.8 | -- |
| MW-71 | URS/CWTP | Background | 4/22/2021 | FC-CCR-MW71-0421 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | <0.7 | -- |
| MW-71 | URS/CWTP | Background | 11/12/2021 | FC-CCR-MW71-1121 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | <0.6 | -- |
| MW-71 | URS/CWTP | Background | 5/21/2022 | FC-CCR-MW71-0522 | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **0.8** | -- |
| MW-71 | URS/CWTP | Background | 5/21/2022 | FC-CCR-SS04-0522 | | | | | | | -- | | -- | -- | |
| MW-71 | URS/CWTP | Background | 11/13/2022 | FC-CCR-MW71-1122 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.0** | -- |
| MW-71 | URS/CWTP | Background | 5/8/2023 | FC-CCR-MW71-0523 | -- | -- | -- | -- | -- | -- | **0.0035** | | <0.4 | **1.7** | -- |
| MW-71 | URS/CWTP | Background | 6/27/2023 | FC-CCR-MW71-0623 | -- | -- | -- | -- | -- | -- | -- | -- | < 0.4 | **2.2** | -- |
| MW-71 | URS/CWTP | Background | 11/08/2023 | FC-CCR-MW71-1123 | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **1.0** | -- |
| MW-71 | URS/CWTP | Background | 05/16/2024 | FC-CCR-MW71-0524 | -- | -- | -- | -- | -- | -- | -- | -- | <0.42 | **1.4** | -- |
| MW-71 | URS/CWTP | Background | 10/24/2024 | FC-CCR-MW71-1024 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.7** | -- |
| MW-72 | URS/CWTP | Background | 3/7/2016 | FC-CCR-MW72-030716 | **620** | <5.0 | -- | **620** | -- | **2,300** | -- | **29** | -- | -- | **720** |
| MW-72 | URS/CWTP | Background | 3/7/2016 | FC-CCR-MW72-030716 | -- | -- | -- | -- | -- | -- | -- | -- | **1.06** | **1.85** | -- |
| MW-72 | URS/CWTP | Background | 4/26/2016 | FC-CCR-MW-72-042616 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.8 | -- |
| MW-72 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW72-616 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **0.8** | -- |
| MW-72 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW72-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW72-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW72-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW72-816 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **2.7** | -- |
| MW-72 | URS/CWTP | Background | 9/13/2016 | FC-CCR-MW72-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 9/13/2016 | FC-CCR-MW72-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 9/13/2016 | FC-CCR-MW72-916 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **3.4** | -- |
| MW-72 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW72-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW72-1016 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **3.5** | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW72-117 | **560** | <6.0 | <6.0 | **560** | <6.0 | **2,200** | -- | **27** | -- | -- | **700** |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW72-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW72-117 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **3.3** | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW101-117 | **560** | <6.0 | <6.0 | **560** | <6.0 | **2,300** | -- | **28** | -- | -- | **710** |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW101-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW101-117 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **0.6** | -- |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW-72-41717 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **2.9** | -- |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW72-41717 | **600** | <6.0 | <6.0 | **600** | <6.0 | **2,400** | -- | **29** | -- | -- | **760** |

**Table G-3**
**Groundwater Sampling Results for the URS Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Magnesium | Nickel | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW72-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW-72-5217 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **3.1** | -- |
| MW-72 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW72-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW72-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW72-62217 | **600** | <6.0 | <6.0 | **600** | <6.0 | **2,400** | -- | **29** | -- | -- | **760** |
| MW-72 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW72-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW-72-62117 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **2.2** | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | *DUP* FC-CCR-FD02-62217 | **610** | <6.0 | <6.0 | **610** | <6.0 | **2,500** | -- | **30** | -- | -- | **770** |
| MW-72 | URS/CWTP | Background | 6/22/2017 | *DUP* FC-CCR-FD02-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | *DUP* FC-CCR-FD02-62117 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **2.5** | -- |
| MW-72 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW72-72117 | **600** | <6.0 | <6.0 | **600** | <6.0 | **2,300** | -- | **29** | -- | -- | **760** |
| MW-72 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW72-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW72-72117 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.7** | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW72-81017 | **600** | <6.0 | <6.0 | **600** | <6.0 | **2,500** | -- | **30** | -- | -- | **780** |
| MW-72 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW72-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW72-81017 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.8** | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | *DUP* FC-CCR-FD02-81017 | **610** | <6.0 | <6.0 | **610** | <6.0 | **2,600** | -- | **30** | -- | -- | **800** |
| MW-72 | URS/CWTP | Background | 8/10/2017 | *DUP* FC-CCR-FD02-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | *DUP* FC-CCR-FD02-81017 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.7** | -- |
| MW-72 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW72-81717 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.1** | -- |
| MW-72 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW72-81717 | **610** | <6.0 | <6.0 | **610** | <6.0 | **2,300** | -- | **33** | -- | -- | **790** |
| MW-72 | URS/CWTP | Background | 8/17/2017 | *DUP* FC-CCR-FD02-81717 | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** | **2.1** | -- |
| MW-72 | URS/CWTP | Background | 8/17/2017 | *DUP* FC-CCR-FD02-81717 | **600** | <6.0 | <6.0 | **600** | <6.0 | **2,400** | -- | **32** | -- | -- | **770** |
| MW-72 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW72-91017 | **610** | <6.0 | <6.0 | **610** | <6.0 | **2,300** | -- | **28** | -- | -- | **730** |
| MW-72 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW72-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW72-91017 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.3** | -- |
| MW-72 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW72-101317 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **2.4** | -- |
| MW-72 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW72-101317 | **610** | <6.0 | <6.0 | **610** | <6.0 | **2,300** | -- | **28** | -- | -- | **740** |
| MW-72 | URS/CWTP | Background | 11/29/2017 | FC-CCR-MW72-112917 | **590** | <6.0 | <6.0 | **590** | <6.0 | **2,300** | -- | **28** | -- | -- | **760** |
| MW-72 | URS/CWTP | Background | 3/16/2018 | FC-CCR-MW72-31618 | -- | -- | -- | -- | -- | -- | -- | -- | <1.0 | **1.9** | -- |
| MW-72 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-72-6218 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.8** | -- |
| MW-72 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-72-6218 | **610** | <6.0 | <6.0 | **610** | <6.0 | **2,300** | -- | **26** | -- | -- | **670** |
| MW-72 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW72-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW72-11318 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.0** | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW72-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD02-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD02-11318 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **1.5** | -- |
| MW-72 | URS/CWTP | Background | 3/17/2019 | FC-CCR-MW72-031719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 3/17/2019 | FC-CCR-MW72-031719 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.4** | -- |
| MW-72 | URS/CWTP | Background | 5/7/2019 | FC-CCR-MW72-5719 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **3.4** | -- |
| MW-72 | URS/CWTP | Background | 12/2/2019 | FC-CCR-MW72-120219 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/19/2020 | FC-CCR-MW72-0620 | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** | **2.6** | -- |
| MW-72 | URS/CWTP | Background | 11/5/2020 | FC-CCR-MW72-1120 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.7** | -- |
| MW-72 | URS/CWTP | Background | 4/22/2021 | FC-CCR-MW72-0421 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.5** | -- |
| MW-72 | URS/CWTP | Background | 11/12/2021 | FC-CCR-MW72-1121 | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** | **2.4** | -- |

**Table G-3**
**Groundwater Sampling Results for the URS Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Magnesium | Nickel | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 5/22/2022 | FC-CCR-MW72-0522 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.2** | -- |
| MW-72 | URS/CWTP | Background | 11/13/2022 | FC-CCR-MW72-1122 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.9** | -- |
| MW-72 | URS/CWTP | Background | 5/8/2023 | FC-CCR-MW72-0523 | -- | -- | -- | -- | -- | -- | **0.0047** | | <0.4 | **4** | -- |
| MW-72 | URS/CWTP | Background | 6/27/2023 | FC-CCR-MW72-0623 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **1.4** | -- |
| MW-72 | URS/CWTP | Background | 11/08/2023 | FC-CCR-MW72-1123 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **4.5** | -- |
| MW-72 | URS/CWTP | Background | 05/16/2024 | FC-CCR-MW72-0524 | -- | -- | -- | -- | -- | -- | -- | -- | <0.42 | **3.1** | -- |
| MW-72 | URS/CWTP | Background | 10/24/2024 | FC-CCR-MW72-1024 | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **1.3** | -- |
| MW-73 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW73-117 | **560** | <6.0 | <6.0 | **560** | <6.0 | **580** | -- | **28** | -- | -- | **1,100** |
| MW-73 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW73-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW73-117 | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | **2.2** | -- |
| MW-73 | URS/CWTP | Background | 4/18/2017 | FC-CCR-MW73-41817 | **650** | <6.0 | <6.0 | **650** | <6.0 | **630** | -- | **29** | -- | -- | **1,200** |
| MW-73 | URS/CWTP | Background | 4/18/2017 | FC-CCR-MW73-41817 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.1** | -- |
| MW-73 | URS/CWTP | Background | 4/18/2017 | FC-CCR-MW73-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW73-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW73-5217 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **1.8** | -- |
| MW-73 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW73-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW73-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW73-52917 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-73 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW73-62217 | **780** | <6.0 | <6.0 | **780** | <6.0 | **750** | -- | **34** | -- | -- | **1,600** |
| MW-73 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW73-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW73-62117 | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** | **1.6** | -- |
| MW-73 | URS/CWTP | Background | 7/22/2017 | FC-CCR-MW73-72217 | **800** | <6.0 | <6.0 | **800** | <6.0 | **840** | -- | **37** | -- | -- | **1,800** |
| MW-73 | URS/CWTP | Background | 7/22/2017 | FC-CCR-MW73-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 7/22/2017 | FC-CCR-MW73-72217 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **2.0** | -- |
| MW-73 | URS/CWTP | Background | 7/22/2017 | *DUP* FC-CCR-FD02-72217 | **800** | <6.0 | <6.0 | **800** | <6.0 | **850** | -- | **37** | -- | -- | **1,800** |
| MW-73 | URS/CWTP | Background | 7/22/2017 | *DUP* FC-CCR-FD02-72217 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.1** | -- |
| MW-73 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW73-81017 | **800** | <6.0 | <6.0 | **800** | <6.0 | **820** | -- | **36** | -- | -- | **1,800** |
| MW-73 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW73-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW73-81017 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.1** | -- |
| MW-73 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW73-81717 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.5** | -- |
| MW-73 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW73-81717 | **800** | <6.0 | <6.0 | **800** | <6.0 | **860** | -- | **41** | -- | -- | **1,800** |
| MW-73 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW73-91017 | **730** | <6.0 | <6.0 | **730** | <6.0 | **680** | -- | **30** | -- | -- | **1,300** |
| MW-73 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW73-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW73-91017 | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | **1.3** | -- |
| MW-73 | URS/CWTP | Background | 10/12/2017 | FC-CCR-MW73-101217 | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | **0.9** | -- |
| MW-73 | URS/CWTP | Background | 10/12/2017 | FC-CCR-MW73-101217 | **480** | <6.0 | <6.0 | **480** | <6.0 | **440** | -- | **20** | -- | -- | **600** |
| MW-73 | URS/CWTP | Background | 10/12/2017 | *DUP* FC-CCR-FD01-101217 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.2** | -- |
| MW-73 | URS/CWTP | Background | 10/12/2017 | *DUP* FC-CCR-FD01-101217 | **480** | <6.0 | <6.0 | **480** | <6.0 | **430** | -- | **20** | -- | -- | **590** |
| MW-73 | URS/CWTP | Background | 11/29/2017 | FC-CCR-MW73-112917 | **650** | <6.0 | <6.0 | **650** | <6.0 | **640** | -- | **32** | -- | -- | **1,200** |
| MW-73 | URS/CWTP | Background | 3/16/2018 | FC-CCR-MW73-31618 | -- | -- | -- | -- | -- | -- | -- | -- | <1.0 | **2.6** | -- |
| MW-73 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-73-6218 | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **2.0** | -- |
| MW-73 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-73-6218 | **800** | <6.0 | <6.0 | **800** | <6.0 | **710** | -- | **34** | -- | -- | **1,600** |
| MW-73 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW73-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW73-11318 | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** | **1.4** | -- |
| MW-73 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW73-031819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW73-031819 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.6** | -- |

**Table G-3**
**Groundwater Sampling Results for the URS Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Magnesium | Nickel | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 5/6/2019 | FC-CCR-MW73-5619 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.7** | -- |
| MW-73 | URS/CWTP | Background | 12/2/2019 | FC-CCR-MW73-120219 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 12/2/2019 | *DUP* FC-CCR-FD01-120219 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 6/20/2020 | FC-CCR-MW73-0620 | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** | **1.9** | -- |
| MW-73 | URS/CWTP | Background | 11/5/2020 | FC-CCR-MW73-1120 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **2.2** | -- |
| MW-73 | URS/CWTP | Background | 4/22/2021 | FC-CCR-MW73-0421 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.1** | -- |
| MW-73 | URS/CWTP | Background | 11/13/2021 | FC-CCR-MW73-1121 | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | **1.8** | -- |
| MW-73 | URS/CWTP | Background | 5/22/2022 | FC-CCR-MW73-0522 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.4** | -- |
| MW-73 | URS/CWTP | Background | 11/14/2022 | FC-CCR-MW73-1122 | -- | -- | -- | -- | -- | -- | -- | -- | **2.7** | **2.2** | -- |
| MW-73 | URS/CWTP | Background | 5/7/2023 | FC-CCR-MW73-0523 | -- | -- | -- | -- | -- | -- | **0.013** | | <0.49 | **0.8** | -- |
| MW-73 | URS/CWTP | Background | 6/27/2023 | FC-CCR-MW73-0623 | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** | **1.7** | -- |
| MW-73 | URS/CWTP | Background | 11/08/2023 | FC-CCR-MW73-1123 | -- | -- | -- | -- | -- | -- | -- | -- | <0.44 | **2.3** | -- |
| MW-73 | URS/CWTP | Background | 05/16/2024 | FC-CCR-MW73-0524 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **2.6** | -- |
| MW-73 | URS/CWTP | Background | 10/24/2024 | FC-CCR-MW73-1024 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **3.7** | -- |
| MW-66 | URS | Downgradient Boundary | 11/5/2015 | FC-CCR-MW66-110515 | **250** | <5.0 | -- | **250** | -- | **1,700** | -- | **29** | -- | -- | **310** |
| MW-66 | URS | Downgradient Boundary | 11/5/2015 | FC-CCR-MW66-110515 | -- | -- | -- | -- | -- | -- | -- | -- | **0.722** | **1.06** | -- |
| MW-66 | URS | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-66-042716 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | <0.8 | -- |
| MW-66 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-MW66-616 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **1.1** | -- |
| MW-66 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-MW66-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW66-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW66-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW66-816 | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | <0.7 | -- |
| MW-66 | URS | Downgradient Boundary | 9/12/2016 | FC-CCR-MW66-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 9/12/2016 | FC-CCR-MW66-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 9/12/2016 | FC-CCR-MW66-916 | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** | **2.0** | -- |
| MW-66 | URS | Downgradient Boundary | 10/19/2016 | FC-CCR-MW66-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 10/19/2016 | FC-CCR-MW66-1016 | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** | **2.1** | -- |
| MW-66 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW66-117 | **240** | <6.0 | <6.0 | **240** | <6.0 | **2,300** | -- | **40** | -- | -- | **500** |
| MW-66 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW66-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW66-117 | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | **2.8** | -- |
| MW-66 | URS | Downgradient Boundary | 4/16/2017 | FC-CCR-MW66-41617 | **260** | <6.0 | <6.0 | **260** | <6.0 | **2,700** | -- | **42** | -- | -- | **590** |
| MW-66 | URS | Downgradient Boundary | 4/16/2017 | FC-CCR-MW66-41617 | -- | -- | -- | -- | -- | -- | -- | -- | **1.4** | **2.4** | -- |
| MW-66 | URS | Downgradient Boundary | 4/16/2017 | FC-CCR-MW66-41617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 5/1/2017 | FC-CCR-MW66-5117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 5/1/2017 | FC-CCR-MW66-5117 | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** | **1.6** | -- |
| MW-66 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW66-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW66-52917 | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **2.0** | -- |
| MW-66 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW66-62117 | **270** | <6.0 | <6.0 | **270** | <6.0 | **2,700** | -- | **43** | -- | -- | **600** |
| MW-66 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW66-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW66-62117 | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | **2.5** | -- |
| MW-66 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW66-72117 | **260** | <6.0 | <6.0 | **260** | <6.0 | **2,600** | -- | **44** | -- | -- | **620** |
| MW-66 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW66-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW66-72117 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.2** | -- |
| MW-66 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW66-8917 | **260** | <6.0 | <6.0 | **260** | <6.0 | **2,700** | -- | **44** | -- | -- | **640** |
| MW-66 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW66-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table G-3**
**Groundwater Sampling Results for the URS Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Magnesium | Nickel | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW66-8917 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **2.6** | -- |
| MW-66 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW66-81617 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **1.9** | -- |
| MW-66 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW66-81617 | **260** | <6.0 | <6.0 | **260** | <6.0 | **2,500** | -- | **50** | -- | -- | **690** |
| MW-66 | URS | Downgradient Boundary | 9/9/2017 | FC-CCR-MW66-9917 | **260** | <6.0 | <6.0 | **260** | <6.0 | **2,600** | -- | **43** | -- | -- | **640** |
| MW-66 | URS | Downgradient Boundary | 9/9/2017 | FC-CCR-MW66-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 9/9/2017 | FC-CCR-MW66-9917 | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** | **1.6** | -- |
| MW-66 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW66-101317 | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** | **3.2** | -- |
| MW-66 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW66-101317 | **270** | <6.0 | <6.0 | **270** | <6.0 | **2,600** | -- | **45** | -- | -- | **700** |
| MW-66 | URS | Downgradient Boundary | 11/30/2017 | FC-CCR-MW66-113017 | **270** | <6.0 | <6.0 | **270** | <6.0 | **2,900** | -- | **48** | -- | -- | **770** |
| MW-66 | URS | Downgradient Boundary | 3/16/2018 | FC-CCR-MW66-31618 | -- | -- | -- | -- | -- | -- | -- | -- | <1.5 | <1.5 | -- |
| MW-66 | URS | Downgradient Boundary | 3/16/2018 | *DUP* FC-CCR-FD01-31618 | -- | -- | -- | -- | -- | -- | -- | -- | **1.4** | **2.6** | -- |
| MW-66 | URS | Downgradient Boundary | 5/31/2018 | FC-CCR-MW-66-53118 | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** | **1.0** | -- |
| MW-66 | URS | Downgradient Boundary | 5/31/2018 | FC-CCR-MW-66-53118 | **300** | <6.0 | <6.0 | **300** | <6.0 | **2,800** | -- | **39** | -- | -- | **630** |
| MW-66 | URS | Downgradient Boundary | 11/2/2018 | FC-CCR-MW66-11218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 11/2/2018 | FC-CCR-MW66-11218 | -- | -- | -- | -- | -- | -- | -- | -- | **2.0** | **0.9** | -- |
| MW-66 | URS | Downgradient Boundary | 3/18/2019 | FC-CCR-MW66-031819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 3/18/2019 | FC-CCR-MW66-031819 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.1** | -- |
| MW-66 | URS | Downgradient Boundary | 3/18/2019 | FC-CCR-MW66-031819 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.1** | -- |
| MW-66 | URS | Downgradient Boundary | 5/7/2019 | FC-CCR-MW66-5719 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.5** | -- |
| MW-66 | URS | Downgradient Boundary | 12/3/2019 | FC-CCR-MW66-120319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 12/3/2019 | *DUP* FC-CCR-FD02-120319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-66 | URS | Downgradient Boundary | 6/18/2020 | FC-CCR-MW66-0620 | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** | <0.8 | -- |
| MW-66 | URS | Downgradient Boundary | 11/5/2020 | FC-CCR-MW66-1120 | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | **1.2** | -- |
| MW-66 | URS | Downgradient Boundary | 11/5/2020 | *DUP* FC-CCR-FD02-1120 | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** | **1.1** | -- |
| MW-66 | URS | Downgradient Boundary | 4/21/2021 | FC-CCR-MW66-0421 | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** | **1.6** | -- |
| MW-66 | URS | Downgradient Boundary | 11/12/2021 | FC-CCR-MW66-1121 | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** | **0.9** | -- |
| MW-66 | URS | Downgradient Boundary | 5/20/2022 | FC-CCR-MW66-05222 | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | <0.7 | -- |
| MW-66 | URS | Downgradient Boundary | 11/13/2022 | FC-CCR-MW66-1122 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **2.7** | -- |
| MW-66 | URS | Downgradient Boundary | 5/7/2023 | FC-CCR-MW66-0523 | -- | -- | -- | -- | -- | -- | **0.020** | | **0.4** | **2.1** | -- |
| MW-66 | URS | Downgradient Boundary | 11/06/2023 | FC-CCR-MW66-1123 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.3** | -- |
| MW-66 | URS | Downgradient Boundary | 05/22/2024 | FC-CCR-MW66-0524 | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** | **2.2** | -- |
| MW-66 | URS | Downgradient Boundary | 10/23/2024 | FC-CCR-MW66-1024 | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | **1.8** | -- |
| MW-67 | URS | Downgradient Boundary | 11/4/2015 | FC-CCR-MW67-110415 | **260** | <5.0 | -- | **260** | -- | **1,400** | -- | **23** | -- | -- | **270** |
| MW-67 | URS | Downgradient Boundary | 11/4/2015 | FC-CCR-MW67-110415 | -- | -- | -- | -- | -- | -- | -- | -- | **0.846** | **1.83** | -- |
| MW-67 | URS | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-67-042716 | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **1.7** | -- |
| MW-67 | URS | Downgradient Boundary | 4/27/2016 | FC-CCR-DUP2-042716 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 6/6/2016 | FC-CCR-MW67-616 | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **1.2** | -- |
| MW-67 | URS | Downgradient Boundary | 6/6/2016 | FC-CCR-MW67-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW67-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW67-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW67-816 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.6** | -- |
| MW-67 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW100-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW100-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW100-816 | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** | **2.1** | -- |
| MW-67 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW67-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW67-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table G-3**
**Groundwater Sampling Results for the URS Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Magnesium | Nickel | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW67-916 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.1** | -- |
| MW-67 | URS | Downgradient Boundary | 10/20/2016 | FC-CCR-MW67-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 10/20/2016 | FC-CCR-MW67-1016 | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | **2.9** | -- |
| MW-67 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW67-117 | **350** | <6.0 | <6.0 | **350** | <6.0 | **2,300** | -- | **30** | -- | -- | **470** |
| MW-67 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW67-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW67-117 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **3.0** | -- |
| MW-67 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW67-41717 | **390** | <6.0 | <6.0 | **390** | <6.0 | **2,600** | -- | **33** | -- | -- | **570** |
| MW-67 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW67-41717 | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | **2.2** | -- |
| MW-67 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW67-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 5/1/2017 | FC-CCR-MW67-5117 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **2.7** | -- |
| MW-67 | URS | Downgradient Boundary | 5/2/2017 | FC-CCR-MW67-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW67-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW67-52917 | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **1.4** | -- |
| MW-67 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW67-62117 | **330** | <6.0 | <6.0 | **330** | <6.0 | **2,700** | -- | **39** | -- | -- | **620** |
| MW-67 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW67-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW67-62117 | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** | **2.9** | -- |
| MW-67 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW67-72117 | **370** | <6.0 | <6.0 | **370** | <6.0 | **2,800** | -- | **39** | -- | -- | **690** |
| MW-67 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW67-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW67-72117 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <2.0 | -- |
| MW-67 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW67-8917 | **320** | <6.0 | <6.0 | **320** | <6.0 | **3,000** | -- | **42** | -- | -- | **720** |
| MW-67 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW67-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW67-8917 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.4** | -- |
| MW-67 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW67-81617 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **2.1** | -- |
| MW-67 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW67-81617 | **310** | <6.0 | <6.0 | **310** | <6.0 | **2,900** | -- | **52** | -- | -- | **800** |
| MW-67 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW67-91017 | **340** | <6.0 | <6.0 | **340** | <6.0 | **3,000** | -- | **41** | -- | -- | **720** |
| MW-67 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW67-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW67-91017 | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** | **2.2** | -- |
| MW-67 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW67-101317 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **2.0** | -- |
| MW-67 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW67-101317 | **380** | <6.0 | <6.0 | **380** | <6.0 | **2,900** | -- | **39** | -- | -- | **770** |
| MW-67 | URS | Downgradient Boundary | 11/29/2017 | FC-CCR-MW67-112917 | **320** | <6.0 | <6.0 | **320** | <6.0 | **3,200** | -- | **51** | -- | -- | **910** |
| MW-67 | URS | Downgradient Boundary | 3/16/2018 | FC-CCR-MW67-31618 | -- | -- | -- | -- | -- | -- | -- | -- | <1.2 | **0.9** | -- |
| MW-67 | URS | Downgradient Boundary | 6/2/2018 | FC-CCR-MW-67-6218 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.5** | -- |
| MW-67 | URS | Downgradient Boundary | 6/2/2018 | FC-CCR-MW-67-6218 | **350** | <6.0 | <6.0 | **350** | <6.0 | **3,500** | -- | **43** | -- | -- | **940** |
| MW-67 | URS | Downgradient Boundary | 11/3/2018 | FC-CCR-MW67-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 11/3/2018 | FC-CCR-MW67-11318 | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **0.8** | -- |
| MW-67 | URS | Downgradient Boundary | 3/17/2019 | FC-CCR-MW67-031719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 3/17/2019 | FC-CCR-MW67-031719 | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** | **3.3** | -- |
| MW-67 | URS | Downgradient Boundary | 5/7/2019 | FC-CCR-MW67-5719 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.6** | -- |
| MW-67 | URS | Downgradient Boundary | 12/2/2019 | FC-CCR-MW67-120219 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 6/19/2020 | FC-CCR-MW67-0620 | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **2.4** | -- |
| MW-67 | URS | Downgradient Boundary | 11/4/2020 | FC-CCR-MW67-1120 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **2.9** | -- |
| MW-67 | URS | Downgradient Boundary | 11/4/2020 | *DUP* FC-CCR-FD01-1120 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **3.5** | -- |
| MW-67 | URS | Downgradient Boundary | 4/21/2021 | FC-CCR-MW67-0421 | -- | -- | -- | -- | -- | -- | -- | -- | **1.3 J** | **3.1 J** | -- |
| MW-67 | URS | Downgradient Boundary | 4/21/2021 | *DUP* FC-CCR-FD01-0421 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 UJ | **2.0 J** | -- |
| MW-67 | URS | Downgradient Boundary | 11/12/2021 | FC-CCR-MW67-1121 | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** | **2.7** | -- |

**Table G-3**
**Groundwater Sampling Results for the URS Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Magnesium | Nickel | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-67 | URS | Downgradient Boundary | 5/21/2022 | FC-CCR-MW67-0522 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.1** | -- |
| MW-67 | URS | Downgradient Boundary | 11/16/2022 | FC-CCR-MW67-1122 | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **1.8** | -- |
| MW-67 | URS | Downgradient Boundary | 5/9/2023 | FC-CCR-MW67-0523 | -- | -- | -- | -- | -- | -- | **0.029** | | **0.5** | **0.7** | -- |
| MW-67 | URS | Downgradient Boundary | 11/13/2023 | FC-CCR-MW67-1123 | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | **2.6** | -- |
| MW-67 | URS | Downgradient Boundary | 05/20/2024 | FC-CCR-MW67-0524 | -- | -- | -- | -- | -- | -- | -- | -- | <0.46 | <0.79 | -- |
| MW-67 | URS | Downgradient Boundary | 10/18/2024 | FC-CCR-MW67-1024 | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** | **2.1** | -- |
| MW-68 | URS | Downgradient Boundary | 11/6/2015 | FC-CCR-MW68-110615 | **320** | <5.0 | -- | **320** | -- | **1,700** | -- | **17** | -- | -- | **360** |
| MW-68 | URS | Downgradient Boundary | 11/6/2015 | FC-CCR-MW68-110615 | -- | -- | -- | -- | -- | -- | -- | -- | **0.552** | **0.8** | -- |
| MW-68 | URS | Downgradient Boundary | 4/26/2016 | FC-CCR-MW-68-042616 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **0.9** | -- |
| MW-68 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-MW68-616 | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **2.1** | -- |
| MW-68 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-MW68-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW68-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW68-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW68-816 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **1.4** | -- |
| MW-68 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW68-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW68-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW68-916 | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** | **2.7** | -- |
| MW-68 | URS | Downgradient Boundary | 10/20/2016 | FC-CCR-MW68-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 10/20/2016 | FC-CCR-MW68-1016 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **0.9** | -- |
| MW-68 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW68-117 | **400** | <6.0 | <6.0 | **400** | <6.0 | **2,300** | -- | **21** | -- | -- | **570** |
| MW-68 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW68-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW68-117 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.1** | -- |
| MW-68 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW68-41717 | **450** | <6.0 | <6.0 | **450** | <6.0 | **2,400** | -- | **20** | -- | -- | **620** |
| MW-68 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW68-41717 | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **1.8** | -- |
| MW-68 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW68-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 5/1/2017 | FC-CCR-MW68-5117 | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | **1.2** | -- |
| MW-68 | URS | Downgradient Boundary | 5/2/2017 | FC-CCR-MW68-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW68-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW68-52917 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-68 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW68-62117 | **560** | <6.0 | <6.0 | **560** | <6.0 | **2,400** | -- | **17** | -- | -- | **640** |
| MW-68 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW68-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW68-62117 | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **1.8** | -- |
| MW-68 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW68-72117 | **550** | <6.0 | <6.0 | **550** | <6.0 | **2,300** | -- | **17** | -- | -- | **670** |
| MW-68 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW68-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW68-72117 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **0.9** | -- |
| MW-68 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW68-8917 | **500** | <6.0 | <6.0 | **500** | <6.0 | **2,500** | -- | **20** | -- | -- | **640** |
| MW-68 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW68-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW68-8917 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **2.8** | -- |
| MW-68 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW68-81617 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.2** | -- |
| MW-68 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW68-81617 | **510** | <6.0 | <6.0 | **510** | <6.0 | **2,300** | -- | **23** | -- | -- | **630** |
| MW-68 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW68-91017 | **530** | <6.0 | <6.0 | **530** | <6.0 | **2,300** | -- | **18** | -- | -- | **610** |
| MW-68 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW68-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW68-91017 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **2.4** | -- |
| MW-68 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW68-101317 | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** | **1.6** | -- |
| MW-68 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW68-101317 | **550** | <6.0 | <6.0 | **550** | <6.0 | **2,200** | -- | **18** | -- | -- | **650** |

**Table G-3**
**Groundwater Sampling Results for the URS Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Magnesium | Nickel | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 11/30/2017 | FC-CCR-MW68-113017 | **580** | <6.0 | <6.0 | **580** | <6.0 | **2,200** | -- | **16** | -- | -- | **680** |
| MW-68 | URS | Downgradient Boundary | 11/30/2017 | *DUP* FC-CCR-FD01-113017 | **580** | <6.0 | <6.0 | **580** | <6.0 | **2,200** | -- | **16** | -- | -- | **680** |
| MW-68 | URS | Downgradient Boundary | 3/16/2018 | FC-CCR-MW68-31618 | -- | -- | -- | -- | -- | -- | -- | -- | <1.2 | **1.0** | -- |
| MW-68 | URS | Downgradient Boundary | 6/2/2018 | FC-CCR-MW-68-6218 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | <0.6 | -- |
| MW-68 | URS | Downgradient Boundary | 6/2/2018 | FC-CCR-MW-68-6218 | **570** | <6.0 | <6.0 | **570** | <6.0 | **2,300** | -- | **17** | -- | -- | **650** |
| MW-68 | URS | Downgradient Boundary | 11/3/2018 | FC-CCR-MW68-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 11/3/2018 | FC-CCR-MW68-11318 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **1.3** | -- |
| MW-68 | URS | Downgradient Boundary | 3/17/2019 | FC-CCR-MW68-031719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 3/17/2019 | FC-CCR-MW68-031719 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **2.6** | -- |
| MW-68 | URS | Downgradient Boundary | 5/7/2019 | FC-CCR-MW68-5719 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **2.1** | -- |
| MW-68 | URS | Downgradient Boundary | 12/2/2019 | FC-CCR-MW68-120219 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-68 | URS | Downgradient Boundary | 6/19/2020 | FC-CCR-MW68-0620 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.9** | -- |
| MW-68 | URS | Downgradient Boundary | 11/4/2020 | FC-CCR-MW68-1120 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.1** | -- |
| MW-68 | URS | Downgradient Boundary | 4/22/2021 | FC-CCR-MW68-0421 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.9** | -- |
| MW-68 | URS | Downgradient Boundary | 11/12/2021 | FC-CCR-MW68-1121 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **0.8** | -- |
| MW-68 | URS | Downgradient Boundary | 5/21/2022 | FC-CCR-MW68-0522 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-68 | URS | Downgradient Boundary | 11/13/2022 | FC-CCR-MW68-1122 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.3** | -- |
| MW-68 | URS | Downgradient Boundary | 5/9/2023 | FC-CCR-MW68-0523 | -- | -- | -- | -- | -- | -- | **0.028** | | **1.3** | <0.6 | -- |
| MW-68 | URS | Downgradient Boundary | 11/11/2023 | FC-CCR-MW68-1123 | -- | -- | -- | -- | -- | -- | -- | -- | <0.57 | <0.75 | -- |
| MW-68 | URS | Downgradient Boundary | 05/20/2024 | FC-CCR-MW68-0524 | -- | -- | -- | -- | -- | -- | -- | -- | <0.43 | <0.75 | -- |
| MW-68 | URS | Downgradient Boundary | 10/18/2024 | FC-CCR-MW68-1024 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | <0.8 | -- |
| MW-69 | URS | Downgradient Boundary | 11/4/2015 | FC-CCR-MW69-110415 | **210** | <5.0 | -- | **210** | -- | **1,500** | -- | **32** | -- | -- | **290** |
| MW-69 | URS | Downgradient Boundary | 11/4/2015 | FC-CCR-MW69-110415 | -- | -- | -- | -- | -- | -- | -- | -- | **1.29** | **1.88** | -- |
| MW-69 | URS | Downgradient Boundary | 4/26/2016 | FC-CCR-MW-69-042616 | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **2.3** | -- |
| MW-69 | URS | Downgradient Boundary | 4/26/2016 | FC-CCR-DUP1-042616 | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | **2.0** | -- |
| MW-69 | URS | Downgradient Boundary | 6/6/2016 | FC-CCR-MW69-616 | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **2.4** | -- |
| MW-69 | URS | Downgradient Boundary | 6/6/2016 | FC-CCR-MW69-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 8/21/2016 | FC-CCR-MW69-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 8/21/2016 | FC-CCR-MW69-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 8/21/2016 | FC-CCR-MW69-816 | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | **2.7** | -- |
| MW-69 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW69-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW69-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 9/13/2016 | FC-CCR-MW69-916 | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** | **4.3** | -- |
| MW-69 | URS | Downgradient Boundary | 10/20/2016 | FC-CCR-MW69-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 10/20/2016 | FC-CCR-MW69-1016 | -- | -- | -- | -- | -- | -- | -- | -- | **1.8** | **3.7** | -- |
| MW-69 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW69-117 | **320** | <6.0 | <6.0 | **320** | <6.0 | **2,600** | -- | **40** | -- | -- | **550** |
| MW-69 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW69-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW69-117 | -- | -- | -- | -- | -- | -- | -- | -- | **1.4** | **4.0** | -- |
| MW-69 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW69-41717 | **360** | <6.0 | <6.0 | **360** | <6.0 | **2,800** | -- | **40** | -- | -- | **630** |
| MW-69 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW69-41717 | -- | -- | -- | -- | -- | -- | -- | -- | **1.6** | **4.4** | -- |
| MW-69 | URS | Downgradient Boundary | 4/17/2017 | FC-CCR-MW69-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 4/17/2017 | *DUP* FC-CCR-FD02-41717 | **340** | <6.0 | <6.0 | **340** | <6.0 | **2,700** | -- | **41** | -- | -- | **640** |
| MW-69 | URS | Downgradient Boundary | 4/17/2017 | *DUP* FC-CCR-FD02-41717 | -- | -- | -- | -- | -- | -- | -- | -- | **1.4** | **3.5** | -- |
| MW-69 | URS | Downgradient Boundary | 4/17/2017 | *DUP* FC-CCR-FD02-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 5/2/2017 | FC-CCR-MW69-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table G-3**
**Groundwater Sampling Results for the URS Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Magnesium | Nickel | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 5/2/2017 | FC-CCR-MW69-5217 | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** | **3.5** | -- |
| MW-69 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW69-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW69-52917 | -- | -- | -- | -- | -- | -- | -- | -- | **1.6** | **2.0** | -- |
| MW-69 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW69-62117 | **290** | <6.0 | <6.0 | **290** | <6.0 | **2,400** | -- | **39** | -- | -- | **590** |
| MW-69 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW69-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW69-62117 | -- | -- | -- | -- | -- | -- | -- | -- | **1.7** | **2.6** | -- |
| MW-69 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW69-72117 | **330** | <6.0 | <6.0 | **330** | <6.0 | **2,700** | -- | **46** | -- | -- | **700** |
| MW-69 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW69-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW69-72117 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **3.4** | -- |
| MW-69 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW69-8917 | **310** | <6.0 | <6.0 | **310** | <6.0 | **2,800** | -- | **44** | -- | -- | **690** |
| MW-69 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW69-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW69-8917 | -- | -- | -- | -- | -- | -- | -- | -- | **1.6** | **3.5** | -- |
| MW-69 | URS | Downgradient Boundary | 8/9/2017 | *DUP* FC-CCR-FD01-8917 | **300** | <6.0 | <6.0 | **300** | <6.0 | **2,800** | -- | **43** | -- | -- | **680** |
| MW-69 | URS | Downgradient Boundary | 8/9/2017 | *DUP* FC-CCR-FD01-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 8/9/2017 | *DUP* FC-CCR-FD01-8917 | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** | **2.6** | -- |
| MW-69 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW69-81617 | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | **2.6** | -- |
| MW-69 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW69-81617 | **300** | <6.0 | <6.0 | **300** | <6.0 | **2,500** | -- | **49** | -- | -- | **710** |
| MW-69 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW69-91017 | **340** | <6.0 | <6.0 | **340** | <6.0 | **2,700** | -- | **46** | -- | -- | **720** |
| MW-69 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW69-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 9/10/2017 | FC-CCR-MW69-91017 | -- | -- | -- | -- | -- | -- | -- | -- | **2.2** | **3.7** | -- |
| MW-69 | URS | Downgradient Boundary | 9/10/2017 | *DUP* FC-CCR-FD02-91017 | **340** | <6.0 | <6.0 | **340** | <6.0 | **2,800** | -- | **45** | -- | -- | **720** |
| MW-69 | URS | Downgradient Boundary | 9/10/2017 | *DUP* FC-CCR-FD02-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 9/10/2017 | *DUP* FC-CCR-FD02-91017 | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** | **3.8** | -- |
| MW-69 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW69-101317 | -- | -- | -- | -- | -- | -- | -- | -- | **1.7** | **5.0** | -- |
| MW-69 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW69-101317 | **360** | <6.0 | <6.0 | **360** | <6.0 | **2,600** | -- | **43** | -- | -- | **720** |
| MW-69 | URS | Downgradient Boundary | 11/29/2017 | FC-CCR-MW69-112917 | **330** | <6.0 | <6.0 | **330** | <6.0 | **2,800** | -- | **51** | -- | -- | **830** |
| MW-69 | URS | Downgradient Boundary | 3/16/2018 | FC-CCR-MW69-31618 | -- | -- | -- | -- | -- | -- | -- | -- | **1.6** | **3.8** | -- |
| MW-69 | URS | Downgradient Boundary | 6/2/2018 | FC-CCR-MW-69-6218 | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** | **3.3** | -- |
| MW-69 | URS | Downgradient Boundary | 6/2/2018 | FC-CCR-MW-69-6218 | **360** | <6.0 | <6.0 | **360** | <6.0 | **2,600** | -- | **38** | -- | -- | **680** |
| MW-69 | URS | Downgradient Boundary | 6/2/2018 | *DUP* FC-CCR-FD02-6218 | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** | **2.2** | -- |
| MW-69 | URS | Downgradient Boundary | 6/2/2018 | *DUP* FC-CCR-FD02-6218 | **350** | <6.0 | <6.0 | **350** | <6.0 | **2,500** | -- | **38** | -- | -- | **680** |
| MW-69 | URS | Downgradient Boundary | 11/3/2018 | FC-CCR-MW69-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 11/3/2018 | FC-CCR-MW69-11318 | -- | -- | -- | -- | -- | -- | -- | -- | **1.7** | **1.3** | -- |
| MW-69 | URS | Downgradient Boundary | 3/17/2019 | FC-CCR-MW69-031719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 3/17/2019 | FC-CCR-MW69-031719 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **2.0** | -- |
| MW-69 | URS | Downgradient Boundary | 5/7/2019 | FC-CCR-MW69-5719 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.8** | -- |
| MW-69 | URS | Downgradient Boundary | 12/3/2019 | FC-CCR-MW69-120219 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 6/19/2020 | FC-CCR-MW69-0620 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **1.3** | -- |
| MW-69 | URS | Downgradient Boundary | 11/4/2020 | FC-CCR-MW69-1120 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.3** | -- |
| MW-69 | URS | Downgradient Boundary | 4/21/2021 | FC-CCR-MW69-0421 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | <0.7 | -- |
| MW-69 | URS | Downgradient Boundary | 11/12/2021 | FC-CCR-MW69-1121 | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | **0.9** | -- |
| MW-69 | URS | Downgradient Boundary | 5/21/2022 | FC-CCR-MW69-0522 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.8** | -- |
| MW-69 | URS | Downgradient Boundary | 5/21/2022 | FC-CCR-SS03-0522 | | | | | | | -- | | -- | -- | |
| MW-69 | URS | Downgradient Boundary | 11/14/2022 | FC-CCR-MW69-1122 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.3** | -- |
| MW-69 | URS | Downgradient Boundary | 5/9/2023 | FC-CCR-MW69-0523 | -- | -- | -- | -- | -- | -- | **0.0082** | | **0.6** | **0.8** | -- |

**Table G-3**
**Groundwater Sampling Results for the URS Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Magnesium | Nickel | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-69 | URS | Downgradient Boundary | 11/11/2023 | FC-CCR-MW69-1123 | -- | -- | -- | -- | -- | -- | -- | -- | <0.56 | <0.75 | -- |
| MW-69 | URS | Downgradient Boundary | 05/20/2024 | FC-CCR-MW69-0524 | -- | -- | -- | -- | -- | -- | -- | -- | <0.43 | **1.5** | -- |
| MW-69 | URS | Downgradient Boundary | 10/20/2024 | FC-CCR-MW69-1024 | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **1.3** | -- |
| MW-70 | URS | Downgradient Boundary | 11/9/2015 | FC-CCR-MW70-110915 | **540** | <5.0 | -- | **540** | -- | **1,300** | -- | **19** | -- | -- | **830** |
| MW-70 | URS | Downgradient Boundary | 11/9/2015 | FC-CCR-MW70-110915 | -- | -- | -- | -- | -- | -- | -- | -- | **0.616** | **1.02** | -- |
| MW-70 | URS | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-70-042716 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.0** | -- |
| MW-70 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-MW70-616 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **2.4** | -- |
| MW-70 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-MW70-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-DUP-616 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **1.3** | -- |
| MW-70 | URS | Downgradient Boundary | 6/5/2016 | FC-CCR-DUP-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW70-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW70-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 8/20/2016 | FC-CCR-MW70-816 | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | **1.5** | -- |
| MW-70 | URS | Downgradient Boundary | 9/12/2016 | FC-CCR-MW70-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 9/12/2016 | FC-CCR-MW70-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 9/12/2016 | FC-CCR-MW70-916 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **2.0** | -- |
| MW-70 | URS | Downgradient Boundary | 10/19/2016 | FC-CCR-MW70-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 10/19/2016 | FC-CCR-MW70-1016 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **1.0** | -- |
| MW-70 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW70-117 | **470** | <6.0 | <6.0 | **470** | <6.0 | **1,300** | -- | **17** | -- | -- | **770** |
| MW-70 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW70-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 2/1/2017 | FC-CCR-MW70-117 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **3.3** | -- |
| MW-70 | URS | Downgradient Boundary | 4/16/2017 | FC-CCR-MW70-41717 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.6** | -- |
| MW-70 | URS | Downgradient Boundary | 4/16/2017 | FC-CCR-MW70-41617 | **510** | <6.0 | <6.0 | **510** | <6.0 | **1,300** | -- | **18** | -- | -- | **820** |
| MW-70 | URS | Downgradient Boundary | 4/16/2017 | FC-CCR-MW70-41617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 4/16/2017 | *DUP* FC-CCR-FD01-41617 | **510** | <6.0 | <6.0 | **510** | <6.0 | **1,300** | -- | **18** | -- | -- | **790** |
| MW-70 | URS | Downgradient Boundary | 4/16/2017 | *DUP* FC-CCR-FD01-41617 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.1** | -- |
| MW-70 | URS | Downgradient Boundary | 4/16/2017 | *DUP* FC-CCR-FD01-41617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 5/1/2017 | FC-CCR-MW70-5117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 5/1/2017 | FC-CCR-MW70-5117 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **1.9** | -- |
| MW-70 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW70-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 5/29/2017 | FC-CCR-MW70-52917 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.3** | -- |
| MW-70 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW70-62117 | **510** | <6.0 | <6.0 | **510** | <6.0 | **1,300** | -- | **18** | -- | -- | **850** |
| MW-70 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW70-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 6/21/2017 | FC-CCR-MW70-62117 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.8** | -- |
| MW-70 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW70-72117 | **500** | <6.0 | <6.0 | **500** | <6.0 | **1,300** | -- | **19** | -- | -- | **870** |
| MW-70 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW70-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 7/21/2017 | FC-CCR-MW70-72117 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- |
| MW-70 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW70-8917 | **500** | <6.0 | <6.0 | **500** | <6.0 | **1,300** | -- | **18** | -- | -- | **880** |
| MW-70 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW70-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 8/9/2017 | FC-CCR-MW70-8917 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.6** | -- |
| MW-70 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW70-81617 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.8** | -- |
| MW-70 | URS | Downgradient Boundary | 8/16/2017 | FC-CCR-MW70-81617 | **510** | <6.0 | <6.0 | **510** | <6.0 | **1,300** | -- | **21** | -- | -- | **890** |
| MW-70 | URS | Downgradient Boundary | 9/9/2017 | FC-CCR-MW70-9917 | **510** | <6.0 | <6.0 | **510** | <6.0 | **1,200** | -- | **17** | -- | -- | **820** |
| MW-70 | URS | Downgradient Boundary | 9/9/2017 | FC-CCR-MW70-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 9/9/2017 | FC-CCR-MW70-9917 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.3** | -- |

**Table G-3**
**Groundwater Sampling Results for the URS Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Magnesium | Nickel | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW70-101317 | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.6 | -- |
| MW-70 | URS | Downgradient Boundary | 10/13/2017 | FC-CCR-MW70-101317 | **510** | <6.0 | <6.0 | **510** | <6.0 | **1,200** | -- | **18** | -- | -- | **810** |
| MW-70 | URS | Downgradient Boundary | 11/30/2017 | FC-CCR-MW70-113017 | **510** | <6.0 | <6.0 | **510** | <6.0 | **1,200** | -- | **19** | -- | -- | **880** |
| MW-70 | URS | Downgradient Boundary | 3/16/2018 | FC-CCR-MW70-31618 | -- | -- | -- | -- | -- | -- | -- | -- | <1.1 | **2.6** | -- |
| MW-70 | URS | Downgradient Boundary | 5/31/2018 | FC-CCR-MW-70-53118 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **2.3** | -- |
| MW-70 | URS | Downgradient Boundary | 5/31/2018 | FC-CCR-MW-70-53118 | **520** | <6.0 | <6.0 | **520** | <6.0 | **1,300** | -- | **17** | -- | -- | **780** |
| MW-70 | URS | Downgradient Boundary | 11/2/2018 | FC-CCR-MW70-11218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 11/2/2018 | FC-CCR-MW70-11218 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | <0.7 | -- |
| MW-70 | URS | Downgradient Boundary | 3/18/2019 | FC-CCR-MW70-031819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 3/18/2019 | FC-CCR-MW70-031819 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.2** | -- |
| MW-70 | URS | Downgradient Boundary | 5/7/2019 | FC-CCR-MW70-5719 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **2.4** | -- |
| MW-70 | URS | Downgradient Boundary | 12/3/2019 | FC-CCR-MW70-120319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-70 | URS | Downgradient Boundary | 6/19/2020 | FC-CCR-MW70-0620 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **1.3** | -- |
| MW-70 | URS | Downgradient Boundary | 11/5/2020 | FC-CCR-MW70-1120 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.8** | -- |
| MW-70 | URS | Downgradient Boundary | 4/21/2021 | FC-CCR-MW70-0421 | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **2.3** | -- |
| MW-70 | URS | Downgradient Boundary | 11/12/2021 | FC-CCR-MW70-1121 | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **1.1** | -- |
| MW-70 | URS | Downgradient Boundary | 5/20/2022 | FC-CCR-MW70-0522 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **1.6** | -- |
| MW-70 | URS | Downgradient Boundary | 11/13/2022 | FC-CCR-MW70-1122 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.4** | -- |
| MW-70 | URS | Downgradient Boundary | 5/7/2023 | FC-CCR-MW70-0523 | -- | -- | -- | -- | -- | -- | **0.011** | | **0.5** | **1.6** | -- |
| MW-70 | URS | Downgradient Boundary | 11/06/2023 | FC-CCR-MW70-1123 | -- | -- | -- | -- | -- | -- | -- | -- | <0.46 | **1.4** | -- |
| MW-70 | URS | Downgradient Boundary | 05/22/2024 | FC-CCR-MW70-0524 | -- | -- | -- | -- | -- | -- | -- | -- | <0.42 | **2.0** | -- |
| MW-70 | URS | Downgradient Boundary | 10/23/2024 | FC-CCR-MW70-1024 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.1** | -- |
| MW-83 | URS | Downgradient | 3/18/2019 | FC-CCR-MW83-031819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-83 | URS | Downgradient | 3/18/2019 | FC-CCR-MW83-031819 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-83 | URS | Downgradient | 5/6/2019 | FC-CCR-MW83-5619 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-83 | URS | Downgradient | 5/6/2019 | *DUP* FC-CCR-FD01-5619 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-83 | URS | Downgradient | 12/2/2019 | FC-CCR-MW83-120319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-83 | URS | Downgradient | 6/19/2020 | FC-CCR-MW83-0620 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.8 | -- |
| MW-83 | URS | Downgradient | 6/19/2020 | *DUP* FC-CCR-FD01-0620 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-83 | URS | Downgradient | 11/4/2020 | FC-CCR-MW83-1120 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.8 | -- |
| MW-83 | URS | Downgradient | 4/21/2021 | FC-CCR-MW83-0421 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | <0.7 | -- |
| MW-83 | URS | Downgradient | 11/12/2021 | FC-CCR-MW83-1121 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | <0.6 | -- |
| MW-83 | URS | Downgradient | 5/21/2022 | FC-CCR-MW83-0522 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-83 | URS | Downgradient | 5/21/2022 | FC-CCR-SS05-0522 | | | | | | | -- | | -- | -- | -- |
| MW-83 | URS | Downgradient | 11/14/2022 | FC-CCR-MW83-1122 | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | <0.6 | -- |
| MW-83 | URS | Downgradient | 5/7/2023 | FC-CCR-MW83-0523 | -- | -- | -- | -- | -- | -- | **0.0077** | | <0.48 | <0.6 | -- |
| MW-83 | URS | Downgradient | 11/11/2023 | FC-CCR-MW83-1123 | -- | -- | -- | -- | -- | -- | -- | -- | <0.55 | <0.75 | -- |
| MW-83 | URS | Downgradient | 05/18/2024 | FC-CCR-MW83-0524 | -- | -- | -- | -- | -- | -- | -- | -- | <0.41 | <0.75 | -- |
| MW-83 | URS | Downgradient | 10/20/2024 | FC-CCR-MW83-1024 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.8 | -- |
| MW-84 | URS | Downgradient | 3/17/2019 | FC-CCR-MW84-031719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-84 | URS | Downgradient | 3/17/2019 | FC-CCR-MW84-031719 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.5** | -- |
| MW-84 | URS | Downgradient | 5/7/2019 | FC-CCR-MW84-5719 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.2** | -- |
| MW-84 | URS | Downgradient | 12/3/2019 | FC-CCR-MW84-120319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-84 | URS | Downgradient | 6/20/2020 | FC-CCR-MW84-0620 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.0** | -- |
| MW-84 | URS | Downgradient | 11/4/2020 | FC-CCR-MW84-1120 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.8 | -- |

**Table G-3**
**Groundwater Sampling Results for the URS Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Magnesium | Nickel | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-84 | URS | Downgradient | 4/21/2021 | FC-CCR-MW84-0421 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-84 | URS | Downgradient | 11/12/2021 | FC-CCR-MW84-1121 | -- | -- | -- | -- | -- | -- | -- | -- | **1.4** | **0.7** | -- |
| MW-84 | URS | Downgradient | 11/12/2021 | FC-CCR-FD01-1121 | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | **1.1** | -- |
| MW-84 | URS | Downgradient | 5/21/2022 | FC-CCR-MW84-0522 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | <0.7 | -- |
| MW-84 | URS | Downgradient | 5/21/2022 | *DUP* FC-CCR-FD01-0522 | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** | <0.7 | -- |
| MW-84 | URS | Downgradient | 11/14/2022 | FC-CCR-MW84-1122 | -- | -- | -- | -- | -- | -- | -- | -- | **2.5** | **2.0 J** | -- |
| MW-84 | URS | Downgradient | 11/14/2022 | *DUP* FC-CCR-FD01-1122 | -- | -- | -- | -- | -- | -- | -- | -- | **2.6** | <0.6 UJ | -- |
| MW-84 | URS | Downgradient | 5/9/2023 | FC-CCR-MW84-0523 | -- | -- | -- | -- | -- | -- | **0.0074** | | <0.4 | <0.6 | -- |
| MW-84 | URS | Downgradient | 5/9/2023 | *DUP* FC-CCR-FD01-0523 | -- | -- | -- | -- | -- | -- | **0.0086** | | <0.4 | **1.0** | -- |
| MW-84 | URS | Downgradient | 11/11/2023 | FC-CCR-MW84-1123 | -- | -- | -- | -- | -- | -- | -- | -- | <0.53U J | **1.5 J** | -- |
| MW-84 | URS | Downgradient | 11/11/2023 | *DUP* FC-CCR-FD01-1123 | -- | -- | -- | -- | -- | -- | -- | -- | **1.5 J** | **3.0 J** | -- |
| MW-84 | URS | Downgradient | 05/18/2024 | FC-CCR-MW84-0524 | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** | **2.4** | -- |
| MW-84 | URS | Downgradient | 05/18/2024 | *DUP* FC-CCR-FD01-0524 | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 | **0.9** | -- |
| MW-84 | URS | Downgradient | 10/24/2024 | FC-CCR-MW84-1024 | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** | **2.2** | -- |
| MW-85 | URS | Downgradient | 3/20/2019 | FC-CCR-MW85-032019 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-85 | URS | Downgradient | 3/20/2019 | FC-CCR-MW85-032019 | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **0.8** | -- |
| MW-85 | URS | Downgradient | 3/20/2019 | *DUP* FC-CCR-FD01-032019 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-85 | URS | Downgradient | 3/20/2019 | *DUP* FC-CCR-FD01-032019 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-85 | URS | Downgradient | 5/7/2019 | FC-CCR-MW85-5719 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-85 | URS | Downgradient | 12/3/2019 | FC-CCR-MW85-120319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-85 | URS | Downgradient | 6/19/2020 | FC-CCR-MW85-0620 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | <0.6 | -- |
| MW-85 | URS | Downgradient | 11/4/2020 | FC-CC-MW85-1120 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | <0.8 | -- |
| MW-85 | URS | Downgradient | 4/21/2021 | FC-CCR-MW85-0421 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **1.9** | -- |
| MW-85 | URS | Downgradient | 11/12/2021 | FC-CCR-MW85-1121 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **1.4** | -- |
| MW-85 | URS | Downgradient | 11/16/2022 | FC-CCR-MW85-1122 | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | **0.9** | -- |
| MW-85 | URS | Downgradient | 5/9/2023 | FC-CCR-MW85-0523 | -- | -- | -- | -- | -- | -- | **0.013** | | **0.6** | **1.0** | -- |
| MW-85 | URS | Downgradient | 11/11/2023 | FC-CCR-MW85-1123 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.7** | -- |
| MW-85 | URS | Downgradient | 05/18/2024 | FC-CCR-MW85-0524 | -- | -- | -- | -- | -- | -- | -- | -- | <0.72 | **1.1** | -- |
| MW-85 | URS | Downgradient | 10/20/2024 | FC-CCR-MW85-1024 | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | <0.8 | -- |
| MW-86 | URS | Downgradient | 3/18/2019 | FC-CCR-MW86-031819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-86 | URS | Downgradient | 3/18/2019 | FC-CCR-MW86-031819 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-86 | URS | Downgradient | 5/7/2019 | FC-CCR-MW86-5719 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.1** | -- |
| MW-86 | URS | Downgradient | 5/7/2019 | *DUP* FC-CCR-FD02-5719 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.1** | -- |
| MW-86 | URS | Downgradient | 12/3/2019 | FC-CCR-MW86-120319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-86 | URS | Downgradient | 6/19/2020 | FC-CCR-MW86-0620 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **1.2** | -- |
| MW-86 | URS | Downgradient | 6/20/2020 | *DUP* FC-CCR-FD02-0620 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.9** | -- |
| MW-86 | URS | Downgradient | 11/5/2020 | FC-CCR-MW86-1120 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | <0.8 | -- |
| MW-86 | URS | Downgradient | 4/21/2021 | FC-CCR-MW86-0421 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **1.6 J** | -- |
| MW-86 | URS | Downgradient | 4/21/2021 | *DUP* FC-CCR-FD02-0421 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **3.2 J** | -- |
| MW-86 | URS | Downgradient | 11/12/2021 | FC-CCR-MW86-1121 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | <0.6 | -- |
| MW-86 | URS | Downgradient | 11/12/2021 | FC-CCR-FD02-1121 | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **1.4** | -- |
| MW-86 | URS | Downgradient | 5/20/2022 | FC-CCR-MW86-0522 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-86 | URS | Downgradient | 5/20/2022 | *DUP* FC-CCR-FD02-0522 | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-86 | URS | Downgradient | 11/13/2022 | FC-CCR-MW86-1122 | -- | -- | -- | -- | -- | -- | -- | -- | **0.4 J** | <0.6 | -- |
| MW-86 | URS | Downgradient | 11/13/2022 | *DUP* FC-CCR-FD02-1122 | -- | -- | -- | -- | -- | -- | -- | -- | **1.9 J** | <0.6 | -- |

**Table G-3**
**Groundwater Sampling Results for the URS Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Magnesium | Nickel | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-86 | URS | Downgradient | 5/7/2023 | FC-CCR-MW86-0523 | -- | -- | -- | -- | -- | -- | **0.0097** | | <0.48 | <0.6 | -- |
| MW-86 | URS | Downgradient | 5/7/2023 | *DUP* FC-CCR-FD02-0523 | -- | -- | -- | -- | -- | -- | **0.010** | | <0.47 | <0.6 | -- |
| MW-86 | URS | Downgradient | 11/06/2023 | FC-CCR-MW86-1123 | -- | -- | -- | -- | -- | -- | -- | -- | <0.44 | **1.7** | -- |
| MW-86 | URS | Downgradient | 05/22/2024 | FC-CCR-MW86-0524 | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 | <0.92 | -- |
| MW-86 | URS | Downgradient | 10/23/2024 | FC-CCR-MW86-1024 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **1.4** | -- |
| MW-86 | URS | Downgradient | 10/23/2024 | *DUP* FC-CCR-FD03-1024 | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** | <0.8 | -- |
| CM-01 | URS | Extraction | 11/04/2020 | FC-CCR-CM01-1120 | **400** | <6 | <6 | **400** | <6 | **2,700** | -- | **39** | -- | -- | **700** |
| CM-01 | URS | Extraction | 05/09/2023 | FC-CCR-CM01-0523 | -- | -- | -- | -- | -- | -- | **0.029** | | **0.8** | **<0.61** | -- |
| CM-01 | URS | Extraction | 11/13/2023 | FC-CCR-CM01-1123 | -- | -- | -- | -- | -- | -- | -- | -- | <0.51 | **1** | -- |
| CM-01 | URS | Extraction | 05/18/2024 | FC-CCR-CM01-0524 | -- | -- | -- | -- | -- | -- | -- | -- | <0.67 | **2.7** | -- |
| CM-01 | URS | Extraction | 10/20/2024 | FC-CCR-CM01-1024 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **0.8** | -- |
| CM-02 | URS | Extraction | 11/04/2020 | FC-CCR-CM02-1120 | **280** | <6 | <6 | **280** | <6 | **2,700** | -- | **42** | -- | -- | **700** |
| CM-02 | URS | Extraction | 05/09/2023 | FC-CCR-CM02-0523 | -- | -- | -- | -- | -- | -- | **0.023** | | **0.9** | **1.4** | -- |
| CM-02 | URS | Extraction | 11/13/2023 | FC-CCR-CM02-1123 | -- | -- | -- | -- | -- | -- | -- | -- | <0.55 | **2.3** | -- |
| CM-02 | URS | Extraction | 05/18/2024 | FC-CCR-CM02-0524 | -- | -- | -- | -- | -- | -- | -- | -- | <0.66 | **3.7** | -- |
| CM-02 | URS | Extraction | 10/20/2024 | FC-CCR-CM02-1024 | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **1.0** | -- |
| CM-03 | URS | Supplementary | 11/04/2020 | FC-CCR-CM03-1120 | **490** | <6 | <6 | **490** | <6 | **3,000** | -- | **55** | -- | -- | **780** |
| CM-04 | URS | Supplementary | 11/04/2020 | FC-CCR-CM04-1120 | **300** | <6 | <6 | **300** | <6 | **2,300** | -- | **43** | -- | -- | **850** |

**Table G-3**
**Groundwater Sampling Results for the URS Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Magnesium | Nickel | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *URS BTV (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *URS GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| URS-05 | URS | Supplementary | 05/18/2024 | FC-CCR-URS05-0524 | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.5** | -- |
| URS-05 | URS | Supplementary | 10/21/2024 | FC-CCR-URS05-1024 | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | **1.8** | -- |
| URS-05 | URS | Supplementary | 10/21/2024 | *DUP* FC-CCR-FD01-1024 | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** | **2.8** | -- |
| URS-06 | URS | Extraction (Inactive) | 05/18/2024 | FC-CCR-URS06-0524 | -- | -- | -- | -- | -- | -- | -- | -- | <0.63 | **1.2** | -- |
| URS-06 | URS | Extraction (Inactive) | 05/18/2024 | *DUP* FC-CCR-FD02-0524 | -- | -- | -- | -- | -- | -- | -- | -- | <0.68 | **2.4** | -- |
| URS-06 | URS | Extraction (Inactive) | 10/21/2024 | FC-CCR-URS06-1024 | -- | -- | -- | -- | -- | -- | -- | -- | **2.7 J** | <0.8 | -- |
| URS-06 | URS | Extraction (Inactive) | 10/21/2024 | *DUP* FC-CCR-FD02-1024 | -- | -- | -- | -- | -- | -- | -- | -- | **0.8 J** | **1.6** | -- |
| URS-07 | URS | Extraction (Inactive) | 05/18/2024 | FC-CCR-URS07-0524 | -- | -- | -- | -- | -- | -- | -- | -- | <0.62 | <0.92 | -- |
| URS-07 | URS | Extraction (Inactive) | 10/21/2024 | FC-CCR-URS07-1024 | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** | <0.8 | -- |
| URS-08 | URS | Supplementary | 05/18/2024 | FC-CCR-URS08-0524 | -- | -- | -- | -- | -- | -- | -- | -- | <0.61 | **4.2** | -- |
| URS-08 | URS | Supplementary | 10/21/2024 | FC-CCR-URS08-1024 | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | **3.6** | -- |

*Notes:*

BTV exceedances are shown in grey shaded cells. GWPS exceedences are shown in red text.

*Abbreviations and Data Qualifiers:*

< = less than
BTV = Background Threshold Value
degrees C = degrees Celsius
GWPS = Groundwater Protection Standard
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
NJ = The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
mg/L = milligrams per liter
pCi/L = Picocuries per liter
su = standard units
UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| MW-43 | Multiunit 1 | Background | 11/18/2013 | FC-43-111813 | **1.2** | -- | **530** | -- | **750** | <2.0 | -- | -- | **5,900** | **10,000** |
| MW-43 | Multiunit 1 | Background | 9/8/2014 | FCPP-43-090814 | **1.1** | -- | **520** | -- | **800** | <0.40 | -- | -- | **5,900** | **11,000** |
| MW-43 | Multiunit 1 | Background | 3/16/2015 | FCPP-43-031615 | **1.2** | -- | **490** | -- | **820** | <0.40 | -- | -- | **6,300** | **11,000** |
| MW-43 | Multiunit 1 | Background | 12/1/2015 | FC-CCR-MW43-120115 | **0.91** | -- | **470** | -- | **720** | <0.25 | -- | -- | **6,800** | **7,900** |
| MW-43 | Multiunit 1 | Background | 11/15/2024 | FC-CCR-MW43-1124 | **1.04** | -- | **461** | -- | **840** | <0.38 | **8.23** | **7.96** | **6,920** | **11,400** |
| MW-49A | Multiunit 1 | Background | 9/10/2014 | FCPP-49A-091014 | **0.78** | -- | **180** | -- | **1,100** | <2.0 | -- | -- | **34,000** | **40,000** |
| MW-49A | Multiunit 1 | Background | 3/19/2015 | FCPP-49A-031915 | **0.93** | -- | **420** | -- | **1,400** | <2.0 | -- | -- | **34,000** | **51,000** |
| MW-49A | Multiunit 1 | Background | 7/1/2015 | MW-47A | **1.1** | -- | **450** | -- | **1,500** | <4.0 | -- | **7.42** | **32,000** | **52,000** |
| MW-49A | Multiunit 1 | Background | 8/29/2015 | FCPP-49A-082915 | **0.75** | -- | **440** | -- | **930** | <2.0 | -- | **7.36** | **26,000** | **42,000** |
| MW-49A | Multiunit 1 | Background | 12/1/2015 | FC-CCR-MW49A-120115 | **6.0** | -- | **440** | -- | **340** | <0.25 | -- | -- | **14,000** | **17,000** |
| MW-49A | Multiunit 1 | Background | 12/1/2015 | FC-CCR-MW49A-120115 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 4/26/2016 | FC-CCR-MW-49A-042616 | **2.7** | -- | **440** | -- | **550** | <2.0 | -- | -- | **18,000** | **30,000** |
| MW-49A | Multiunit 1 | Background | 6/7/2016 | FC-CCR-MW49A-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 6/7/2016 | FC-CCR-MW49A-616 | **4.4** | -- | **410** | -- | **430** | **1.1** | -- | **7.44** | **15,000** | **22,000** |
| MW-49A | Multiunit 1 | Background | 8/21/2016 | FC-CCR-MW49A-816 | **2.3** | -- | **390** | -- | **560** | <0.80 | -- | **7.2** | **20,000** | **29,000** |
| MW-49A | Multiunit 1 | Background | 8/21/2016 | FC-CCR-MW49A-816 | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 8/21/2016 | FC-CCR-MW49A-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 9/13/2016 | FC-CCR-MW49A-916 | **2.4** | -- | **400** | -- | **530** | **0.65** | -- | **7.4** | **19,000** | **28,000** |
| MW-49A | Multiunit 1 | Background | 9/13/2016 | FC-CCR-MW49A-916 | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 9/13/2016 | FC-CCR-MW49A-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 10/20/2016 | FC-CCR-MW49A-1016 | **2.2** | -- | **390** | -- | **540** | <0.40 | -- | **7.5** | **19,000** | **28,000** |
| MW-49A | Multiunit 1 | Background | 10/20/2016 | FC-CCR-MW49A-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW49A-117 | **2.0** | -- | **390** | -- | **530** | <0.40 | -- | **7.8** | **19,000** | **29,000** |
| MW-49A | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW49A-117 | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW49A-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 1/5/1900 | FC-CCR-MW49A-41817 | **2.6** | -- | **410** | -- | **1,000** | <2.0 | -- | **7.4** | **20,000** | **29,000** |
| MW-49A | Multiunit 1 | Background | 4/18/2017 | FC-CCR-MW49A-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 4/18/2017 | FC-CCR-MW49A-41817 | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 5/3/2017 | FC-CCR-MW49A-5317 | -- | -- | -- | -- | -- | <13 | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 5/3/2017 | FC-CCR-MW49A-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 5/30/2017 | FC-CCR-MW49A-53017 | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 5/30/2017 | FC-CCR-MW49A-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 6/22/2017 | FC-CCR-MW49A-62217 | **2.1** | -- | **380** | -- | **510** | -- | -- | **7.5** | **22,000** | **24,000** |
| MW-49A | Multiunit 1 | Background | 6/22/2017 | FC-CCR-MW49A-62217 | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 6/22/2017 | FC-CCR-MW49A-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 7/22/2017 | FC-CCR-MW49A-72217 | **2.2** | -- | **390** | -- | **520** | <4.0 | -- | **7.6** | **18,000** | **25,000** |
| MW-49A | Multiunit 1 | Background | 7/22/2017 | FC-CCR-MW49A-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 7/22/2017 | FC-CCR-MW49A-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 8/10/2017 | FC-CCR-MW49A-81017 | **2.7** | -- | **400** | -- | **520** | -- | -- | **7.5** | **18,000** | **23,000** |
| MW-49A | Multiunit 1 | Background | 8/10/2017 | FC-CCR-MW49A-81017 | -- | -- | -- | -- | -- | <4.0 | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 8/10/2017 | FC-CCR-MW49A-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 8/17/2017 | FC-CCR-MW49A-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 8/17/2017 | FC-CCR-MW49A-81717 | **2.9** | -- | **440** | -- | **510** | <4.0 | -- | **7.5** | **16,000** | **22,000** |
| MW-49A | Multiunit 1 | Background | 9/10/2017 | FC-CCR-MW49A-91017 | **3.4** | -- | **410** | -- | **490** | -- | -- | **7.4** | **16,000** | **22,000** |
| MW-49A | Multiunit 1 | Background | 9/10/2017 | FC-CCR-MW49A-91017 | -- | -- | -- | -- | -- | <4.0 | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 9/10/2017 | FC-CCR-MW49A-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 10/12/2017 | FC-CCR-MW49A-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 10/12/2017 | FC-CCR-MW49A-101217 | **3.1** | -- | **370** | -- | **490** | <4.0 | -- | **7.4** | **16,000** | **22,000** |
| MW-49A | Multiunit 1 | Background | 11/30/2017 | FC-CCR-MW49A-113017 | **2.2** | -- | **420** | -- | **560** | <4.0 | -- | **7.4** | **17,000** | **23,000** |
| MW-49A | Multiunit 1 | Background | 3/17/2018 | FC-CCR-MW49A-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 6/1/2018 | FC-CCR-MW-49A-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 6/1/2018 | FC-CCR-MW-49A-6118 | **2.5** | -- | **380** | -- | **560** | <0.80 | -- | **7.4** | **18,000** | **26,000** |
| MW-49A | Multiunit 1 | Background | 11/4/2018 | FC-CCR-MW49A-11418 | **1.8** | -- | **380** | -- | **590** | <0.80 | -- | **7.4** | **19,000** | **27,000** |
| MW-49A | Multiunit 1 | Background | 11/4/2018 | FC-CCR-MW49A-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 11/4/2018 | FC-CCR-MW49A-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 3/19/2019 | FC-CCR-MW49A-031919 | -- | -- | -- | -- | -- | **0.92** | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 3/19/2019 | FC-CCR-MW49A-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 5/14/2019 | FC-CCR-MW49A-51419 | **7.4** | -- | **350** | -- | **420** | **1.2** | -- | **7.6 J** | **11,000** | **15,000** |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| MW-49A | Multiunit 1 | Background | 5/14/2019 | FC-CCR-MW49A-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 11/19/2019 | FC-CCR-MW49A-111919 | **6.2** | -- | **380** | -- | **400** | <0.80 | -- | **7.5 J** | **12,000** | **18,000** |
| MW-49A | Multiunit 1 | Background | 6/23/2020 | FC-CCR-MW49A-0620 | **6.3** | -- | **430** | -- | **720** | <0.8 | **7.01** | **7.6 J** | **13,000** | **17,000** |
| MW-49A | Multiunit 1 | Background | 11/6/2020 | FC-CCR-MW49-1120 | **5.6** | -- | **420** | -- | **430** | **0.66 J** | **7.14** | **7.5 J** | **14,000** | **18,000** |
| MW-49A | Multiunit 1 | Background | 4/27/2021 | FC-CCR-MW49A-0421 | **5.2** | -- | **420** | -- | **440** | **0.47 J** | **7.90** | **7.5 J** | **14,000** | **19,000** |
| MW-49A | Multiunit 1 | Background | 11/15/2021 | FC-CCR-MW49A-1121 | **5.0** | -- | **440** | -- | **510** | **0.51 J** | **6.99** | **7.4 J** | **16,000** | **20,000** |
| MW-49A | Multiunit 1 | Background | 5/26/2022 | FC-CCR-MW49A-0522 | **4.5** | -- | **420** | -- | **460** | <0.8 | **7.42** | **7.53 J** | **14,000** | **16,000** |
| MW-49A | Multiunit 1 | Background | 11/16/2022 | FC-CCR-MW49A-1122 | **4.2** | -- | **420** | -- | **510** | <4 | **7.05** | **7.3 J** | **14,000** | **21,000** |
| MW-49A | Multiunit 1 | Background | 5/8/2023 | FC-CCR-MW49A-0523 | **4.6** | -- | **380** | -- | **510** | <20 | **7.00** | **7.3 J** | **15,000** | **19,000** |
| MW-49A | Multiunit 1 | Background | 11/15/2023 | FC-CCR-MW49A-1124 | **5.8** | -- | **490** | -- | **480** | <0.8 | **7.02** | **7.3 J** | **5,600** | **19,000** |
| MW-49A | Multiunit 1 | Background | 05/23/2024 | FC-CCR-MW49A-0524 | **5.4** | -- | **430** | -- | **470** | <0.4 | **6.99** | **7.5 J** | **2,300** | **20,000** |
| MW-49A | Multiunit 1 | Background | 11/12/2024 | FC-CCR-MW49A-1024 | **5.41** | -- | **318** | -- | **490** | **0.495 J** | **7.11** | **7.74 J** | **13,200** | **20,200** |
| MW-50A | Multiunit 1 | Background | 3/19/2015 | FCPP-50A-031915 | **3.0** | -- | **430** | -- | **460** | <0.40 | -- | -- | **4,800** | **7,700** |
| MW-50A | Multiunit 1 | Background | 12/1/2015 | FC-CCR-MW50-120115 | **2.4** | -- | **440** | -- | **400** | <0.25 | -- | -- | **4,800** | **5,600** |
| MW-50A | Multiunit 1 | Background | 12/1/2015 | FC-CCR-MW50-120115 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-50A | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW50A-117 | **3.1** | -- | **410** | -- | **440** | **0.52** | -- | **7.9** | **4,400** | **7,000** |
| MW-50A | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW50A-117 | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-50A | Multiunit 1 | Background | 11/15/2024 | FC-CCR-MW50A-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW74-117 | **1.7** | -- | **420** | -- | **590** | **1.6** | -- | **8.0** | **7,600** | **12,000** |
| MW-74 | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW74-117 | -- | -- | -- | -- | -- | **1.7** | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW74-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 4/18/2017 | FC-CCR-MW74-41817 | **1.6** | -- | **360** | -- | **430** | **1.8** | -- | **8.0** | **7,700** | **12,000** |
| MW-74 | Multiunit 1 | Background | 4/18/2017 | FC-CCR-MW74-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 4/18/2017 | FC-CCR-MW74-41817 | -- | -- | -- | -- | -- | **1.6** | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 5/2/2017 | FC-CCR-MW74-5217 | -- | -- | -- | -- | -- | <13 | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 5/2/2017 | FC-CCR-MW74-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 5/29/2017 | FC-CCR-MW74-52917 | -- | -- | -- | -- | -- | **1.9** | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 5/29/2017 | FC-CCR-MW74-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 6/22/2017 | FC-CCR-MW74-62217 | **1.6** | -- | **420** | -- | **410** | -- | -- | **7.8** | **7,800** | **12,000** |
| MW-74 | Multiunit 1 | Background | 6/22/2017 | FC-CCR-MW74-62217 | -- | -- | -- | -- | -- | **1.9** | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 6/22/2017 | FC-CCR-MW74-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 7/22/2017 | FC-CCR-MW74-72217 | **1.6** | -- | **420** | -- | **410** | **1.9** | -- | **7.8** | **8,400** | **12,000** |
| MW-74 | Multiunit 1 | Background | 7/22/2017 | FC-CCR-MW74-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 7/22/2017 | FC-CCR-MW74-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 8/10/2017 | FC-CCR-MW74-81017 | **1.5** | -- | **420** | -- | **420** | -- | -- | **7.9** | **10,000** | **13,000** |
| MW-74 | Multiunit 1 | Background | 8/10/2017 | FC-CCR-MW74-81017 | -- | -- | -- | -- | -- | **2.0** | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 8/10/2017 | FC-CCR-MW74-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 9/10/2017 | FC-CCR-MW74-91017 | **1.9** | -- | **420** | -- | **470** | -- | -- | **7.7** | **11,000** | **15,000** |
| MW-74 | Multiunit 1 | Background | 9/10/2017 | FC-CCR-MW74-91017 | -- | -- | -- | -- | -- | **2.0** | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 9/10/2017 | FC-CCR-MW74-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 10/11/2017 | FC-CCR-MW74-101117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 10/11/2017 | FC-CCR-MW74-101117 | **1.3** | -- | **380** | -- | **490** | **2.1** | -- | **7.8** | **13,000** | **18,000** |
| MW-74 | Multiunit 1 | Background | 11/30/2017 | FC-CCR-MW74-113017 | **1.4** | -- | **460** | -- | **470** | **1.9** | -- | **7.6** | **12,000** | **17,000** |
| MW-74 | Multiunit 1 | Background | 3/17/2018 | FC-CCR-MW74-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 6/1/2018 | FC-CCR-MW-74-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 6/1/2018 | FC-CCR-MW-74-6118 | **1.5** | -- | **400** | -- | **460** | **2.1** | -- | **7.7** | **11,000** | **17,000** |
| MW-74 | Multiunit 1 | Background | 3/19/2019 | FC-CCR-MW74-031919 | -- | -- | -- | -- | -- | **2.4** | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 3/19/2019 | FC-CCR-MW74-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 5/13/2019 | FC-CCR-MW74-51319 | **1.6** | -- | **400** | -- | **610** | **1.9** | -- | **7.7 J** | **16,000** | **23,000** |
| MW-74 | Multiunit 1 | Background | 5/13/2019 | FC-CCR-MW74-51319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 6/20/2020 | FC-CCR-MW74-0620 | **2.2** | -- | **430** | -- | **700** | **1.1** | **7.09** | **7.7 J** | **18,000** | **28,000** |
| MW-74 | Multiunit 1 | Background | 4/23/2021 | FC-CCR-MW74-0421 | **2.0** | -- | **460** | -- | **850** | **1.5** | **8.00** | **7.7 J** | **22,000** | **31,000** |
| DMX-3 | Multiunit 1 | Supplementary | 4/21/1992 | DMX-3_4/21/1992 | -- | **0.70** | -- | **459** | **440** | **0.23** | -- | **7.6** | **8,900** | **15,000** |
| DMX-3 | Multiunit 1 | Supplementary | 3/12/2014 | FC-DMX3-031214 | **1.8** | -- | **440** | -- | **520** | <0.80 | -- | -- | **7,500** | **12,000** |
| DMX-3 | Multiunit 1 | Supplementary | 9/11/2014 | FCPP-DMX3-91114 | **1.7** | -- | **450** | -- | **650** | <0.40 | -- | -- | **9,600** | **14,000** |
| DMX-3 | Multiunit 1 | Supplementary | 12/8/2014 | FCPP-DUP1-12914 | **1.7** | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 12/8/2014 | FCPP-DMX03-12914 | **1.7** | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 3/18/2015 | FCPP-DMX3-031815 | **2.0** | -- | **430** | -- | **780** | <0.40 | -- | -- | **11,000** | **16,000** |
| DMX-3 | Multiunit 1 | Supplementary | 6/24/2015 | DMX-3 | **1.5** | -- | **410** | -- | **810** | <8.0 | -- | **7.2** | **5,600** | **17,000** |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| DMX-3 | Multiunit 1 | Supplementary | 11/5/2015 | FC DMX -3-(051115) | **1.4** | -- | **440** | -- | **850** | <2.0 | -- | **7.16** | **11,000** | **17,000** |
| DMX-3 | Multiunit 1 | Supplementary | 6/21/2016 | FC-SEEPS-DMX-3-062116 | **1.0** | -- | **420** | -- | **1,000** | <0.40 | -- | **7.19** | **11,000** | **19,000** |
| DMX-3 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-DMX3-916 | **0.97** | -- | **400** | -- | **970** | <0.40 | -- | **7.2** | **12,000** | **19,000** |
| DMX-3 | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-DMX03-0620 | -- | -- | -- | -- | -- | -- | **6.88** | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-DMX03-1120 | **0.86** | -- | **440** | -- | **1,100** | **0.31 J** | **6.98** | **7.5 J** | **13,000 J** | **19,000** |
| DMX-3 | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-DMX03-0421 | **0.92** | -- | **470** | -- | **1,100 J** | **0.17 J** | **7.64** | **7.4 J** | **13,000** | **20,000** |
| DMX-3 | Multiunit 1 | Supplementary | 11/14/2021 | FC-CCR-DMX03 | **0.93** | -- | **430** | -- | **1,300** | <0.8 | **6.84** | **7.4 J** | **15,000** | **39,000** |
| DMX-3 | Multiunit 1 | Supplementary | 2/1/2022 | FC-CCR-DMX03-0222 | **0.80** | -- | **420** | -- | **1,100** | <0.8 | **6.71** | **7.6 J** | **14,000** | **17,000** |
| DMX-3 | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-DMX03-0522 | **0.77** | -- | **490** | -- | **2,200 J** | <0.8 U J | **6.74** | **7.53 J** | **28,000** | **21,000** |
| DMX-3 | Multiunit 1 | Supplementary | 8/12/2022 | FC-CCR-DMX03-0822 | **0.77** | -- | **450** | -- | **1,100** | <0.8 | **6.35** | **7.2 J** | **13,000** | **20,000** |
| DMX-3 | Multiunit 1 | Supplementary | 11/11/2022 | FC-CCR-DMX03-1122 | **0.82** | -- | **430** | -- | **1,200** | <0.8 | **6.90** | **7.2 J** | **13,000** | **21,000** |
| DMX-3 | Multiunit 1 | Supplementary | 5/3/2023 | FC-CCR-DMX03-0523 | **0.96** | -- | **440** | -- | **1,200** | <80 | **6.82** | **7.2 J** | **13,000** | **21,000** |
| DMX-3 | Multiunit 1 | Supplementary | 11/13/2023 | FC-CCR-DMX03-1124 | **1.2** | -- | **470** | -- | **1,100** | <0.8 | **6.92** | **7.2 J** | **13,000** | **19,000** |
| DMX-3 | Multiunit 1 | Supplementary | 05/20/2024 | FC-CCR-DMX03-0524 | <2.5 | -- | **680** | -- | **1,100** | <0.4 | **6.98** | **7.5 J** | **12,000** | **22,000** |
| DMX-3 | Multiunit 1 | Supplementary | 11/12/2024 | FC-CCR-DMX03-1024 | **0.85** | -- | **408** | -- | **1,060** | <0.38 | **6.98** | **7.64 J** | **12,300** | **21,600** |
| DMX-4 | Multiunit 1 | Supplementary | 4/21/1992 | DMX-4_4/21/1992 | -- | **0.47** | -- | **433** | **550** | **0.93** | -- | **7.8** | **9,400** | **16,000** |
| DMX-4 | Multiunit 1 | Supplementary | 3/18/2015 | FCPP-DMX4-031815 | **1.0** | -- | **430** | -- | **460** | <0.40 | -- | -- | **7,100** | **11,000** |
| DMX-4 | Multiunit 1 | Supplementary | 6/24/2015 | DMX-4 | **0.92** | -- | **390** | -- | **430** | **0.58** | -- | **7.51** | **7,000** | **11,000** |
| DMX-4 | Multiunit 1 | Supplementary | 8/29/2015 | FCPP-DMX4-082915 | **0.93** | -- | **430** | -- | **430** | <2.0 | -- | **7.54** | **6,200** | **10,000** |
| DMX-4 | Multiunit 1 | Supplementary | 11/7/2015 | FC DMX-4-(07115) | **1.2** | -- | **440** | -- | **430** | **0.44** | -- | **7.61** | **6,600** | **11,000** |
| DMX-4 | Multiunit 1 | Supplementary | 11/7/2015 | *DUP* FC FD-3-(071115) | **1.3** | -- | **490** | -- | -- | -- | -- | **7.59** | -- | **10,000** |
| DMX-4 | Multiunit 1 | Supplementary | 6/21/2016 | FC-SEEPS-DMX-4-062116 | **0.93** | -- | **420** | -- | **450** | **0.89** | -- | **7.54** | **6,600** | **11,000** |
| DMX-4 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-DMX4-916 | **0.91** | -- | **380** | -- | **390** | **0.87** | -- | **7.5** | **6,300** | **21,000** |
| DMX-4 | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-DMX4-031919 | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-DMX4-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-DMX4-51419 | **1.2** | -- | **410** | -- | **420** | **0.83** | -- | **7.6 J** | **6,400** | **11,000** |
| DMX-4 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-DMX4-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-DMX4-111919 | **1.3** | -- | **420** | -- | **510** | <0.80 | -- | **7.7 J** | **6,900** | **11,000** |
| DMX-4 | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-DMX04-0620 | **1.3** | -- | **410** | -- | **490** | <0.8 | **7.30** | **7.7 J** | **7,400** | **12,000** |
| DMX-4 | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-DMX04-1120 | **3.1** | -- | **410** | -- | **770** | **0.92** | **7.38** | **7.7 J** | **9,400** | **15,000** |
| DMX-4 | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-DMX04-0421 | **2.7** | -- | **440** | -- | **660 J** | **0.89** | **8.22** | **7.7 J** | **8,500** | **14,000** |
| DMX-4 | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-DMX04-1121 | **1.7** | -- | **420** | -- | **510** | **0.94** | **7.28** | **7.8 J** | **8,000** | **12,000 J** |
| DMX-4 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-DMX04-0222 | **2.2** | -- | **440** | -- | **490** | **0.69** | **7.24** | **7.8 J** | **7,400** | **11,000** |
| DMX-4 | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-DMX04-0522 | **1.4** | -- | **450** | -- | **860** | **0.88** | **7.30** | **7.76 J** | **16,000** | **10,000** |
| DMX-4 | Multiunit 1 | Supplementary | 8/12/2022 | FC-CCR-DMX04-0822 | **1.3** | -- | **430** | -- | **450** | **1.0** | **7.04** | **7.7 J** | **6,700** | **10,000** |
| DMX-4 | Multiunit 1 | Supplementary | 11/14/2022 | FC-CCR-DMX04-1122 | **1.6** | -- | **430** | -- | **540** | <2 | **7.48** | **7.6 J** | **7,400** | **12,000** |
| DMX-4 | Multiunit 1 | Supplementary | 5/4/2023 | FC-CCR-DMX04-0523 | **1.4** | -- | **430** | -- | **450** | <20 | **7.38** | **7.6 J** | **6,800** | **11,000** |
| DMX-4 | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-DMX04-1124 | **1.6** | -- | **450** | -- | **440** | **0.95** | **7.44** | **7.6 J** | **6,500** | **10,000** |
| DMX-4 | Multiunit 1 | Supplementary | 05/21/2024 | FC-CCR-DMX04-0524 | **1.3** | -- | **470** | -- | **380** | **0.7** | **7.52** | **7.7 J** | **5,900** | **11,000** |
| DMX-4 | Multiunit 1 | Supplementary | 11/14/2024 | FC-CCR-DMX04-1124 | **1.26** | -- | **345** | -- | **366** | **0.712 J** | **7.49** | **7.87 J** | **6,300** | **10,500** |
| DMX-05R | Multiunit 1 | Extraction (Inactive) | 11/16/2023 | FC-CCR-DMX05R-1124 | **15** | -- | **470** | -- | **1,300** | <0.8 | **7.22** | **7.5 J** | **9,700** | **15,000 J** |
| DMX-05R | Multiunit 1 | Extraction (Inactive) | 05/23/2024 | FC-CCR-DMX05R-0524 | **11** | -- | **460** | -- | **3,800** | <0.4 | **7.35** | **7.6 J** | **11,000** | **19,000** |
| DMX-05R | Multiunit 1 | Extraction (Inactive) | 11/13/2024 | FC-CCR-DMX05R-1124 | **8.61** | -- | **329** | -- | **2,040** | **0.448 J** | **7.47** | **7.75 J** | **13,500** | **22,600** |
| DMX-6 | Multiunit 1 | Supplementary | 4/21/1992 | DMX-6_4/21/1992 | -- | **5.76** | -- | **496** | **330** | **0.26** | -- | **7.7** | **4,900** | **8,400** |
| DMX-6 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-DMX6-031715 | **9.4** | -- | **440** | -- | **350** | <0.80 | -- | -- | **5,600** | **8,600** |
| DMX-6 | Multiunit 1 | Supplementary | 6/24/2015 | DMX-6 | **4.4** | -- | **400** | -- | **1,800** | <8.0 | -- | **7.12** | **13,000** | **19,000** |
| DMX-6 | Multiunit 1 | Supplementary | 8/29/2015 | FCPP-DMX6-082915 | **7.1** | -- | **430** | -- | **420** | <2.0 | -- | **7.25** | **6,200** | **10,000** |
| DMX-6 | Multiunit 1 | Supplementary | 11/10/2015 | FC DMX-6-(101115) | **7.9** | -- | **450** | -- | -- | -- | -- | **7.26** | -- | **10,000** |
| DMX-6 | Multiunit 1 | Supplementary | 6/22/2016 | FC-SEEPS-DMX6-062216 | **6.7** | -- | **410** | -- | **430** | <0.40 | -- | **7.32** | **6,000** | **10,000** |
| DMX-6 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-DMX6-916 | **6.7** | -- | **390** | -- | **650** | <0.40 | -- | **7.2** | **7,200** | **11,000** |
| DMX-6 | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-DMX6-031919 | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-DMX6-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-DMX6-51419 | **5.5** | -- | **330** | -- | **880** | <0.80 | -- | **7.2 J** | **8,100** | **13,000** |
| DMX-6 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-DMX6-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-DMX6-111919 | **6.1** | -- | **360** | -- | **710** | <0.80 | -- | **7.2 J** | **7,300** | **12,000** |
| DMX-6 | Multiunit 1 | Supplementary | 6/23/2020 | FC-CCR-DMX06-0620 | **6.0** | -- | **350** | -- | **880** | <0.8 | **6.77** | **7.3 J** | **8,000** | **13,000** |
| DMX-6 | Multiunit 1 | Supplementary | 11/6/2020 | FC-CCR-DMX06-1120 | **5.0** | -- | **330** | -- | **1,100** | **0.53** | **6.90** | **7.3 J** | **9,100** | **14,000** |
| DMX-6 | Multiunit 1 | Supplementary | 4/27/2021 | FC-CCR-DMX06-0421 | **6.5** | -- | **410** | -- | **630 J** | **0.36 J** | **7.71** | **7.3 J** | **6,900** | **12,000** |
| DMX-6 | Multiunit 1 | Supplementary | 11/18/2021 | FC-CCR-DMX06-1121 | **5.6** | -- | **380** | -- | **910** | **0.27 J** | **6.87** | **7.5 J** | **9,100** | **12,000** |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| DMX-6 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-DMX06-0222 | **5.7** | -- | **390** | -- | **820** | **0.29** | **6.75** | **7.5 J** | **8,200** | **13,000** |
| DMX-6 | Multiunit 1 | Supplementary | 5/24/2022 | FC-CCR-DMX06-0522 | **5.5** | -- | **350** | -- | **750** | <0.8 | **6.89** | **7.47 J** | **7,500** | **12,000** |
| DMX-6 | Multiunit 1 | Supplementary | 8/13/2022 | FC-CCR-DMX06-0822 | **5.9** | -- | **400** | -- | **670** | <0.8 | **6.94** | **7.2 J** | **7,300** | **11,000** |
| DMX-6 | Multiunit 1 | Supplementary | 11/16/2022 | FC-CCR-DMX06-1122 | **5.6** | -- | **380** | -- | **830** | <4 | **6.95** | **7.1 J** | **7,500** | **12,000** |
| DMX-6 | Multiunit 1 | Supplementary | 5/8/2023 | FC-CCR-DMX06-0523 | **6.0** | -- | **360** | -- | **840** | <2 | **6.89** | **7.4 J** | **7,500** | **12,000** |
| DMX-6 | Multiunit 1 | Supplementary | 11/15/2023 | FC-CCR-DMX06-1124 | **6.3** | -- | **430** | -- | **950** | <0.8 | **6.98** | **7.3 J** | **7,000** | **14,000** |
| DMX-6 | Multiunit 1 | Supplementary | 05/23/2024 | FC-CCR-DMX06-0524 | **6.0** | -- | **400** | -- | **990** | <0.4 | **6.89** | **7.5 J** | **7,600** | **14,000** |
| DMX-6 | Multiunit 1 | Supplementary | 11/12/2024 | FC-CCR-DMX06-1024 | **6.35** | -- | **303** | -- | **882** | **0.503 J** | **7.02** | **7.47 J** | **7,700** | **12,700** |
| MW-05 | Multiunit 1 | Supplementary | 4/1/1987 | MW-5_4/1/1987 | -- | **1.0** | -- | **480** | **1,900** | **0.60** | **7.40** | **7.1** | **15,000** | **20,000** |
| MW-05 | Multiunit 1 | Supplementary | 10/2/1987 | MW-5_10/2/1987 | -- | **0.94** | -- | **460** | **1,800** | <0.5 | **7.32** | **7.4** | **16,000** | **27,000** |
| MW-05 | Multiunit 1 | Supplementary | 6/14/1988 | MW-5-19880614 | -- | -- | **452** | -- | **1,644** | **0.90** | **7.09** | -- | **12,777** | **22,543** |
| MW-05 | Multiunit 1 | Supplementary | 9/21/1988 | MW-5-19880921 | **1.0** | -- | **433** | -- | **1,583** | **1.1** | **7.04** | -- | **12,922** | **25,575** |
| MW-05 | Multiunit 1 | Supplementary | 11/28/1988 | MW-5-19881128 | **1.0** | -- | **429** | -- | **1,727** | **0.80** | **7.06** | -- | **15,345** | **23,120** |
| MW-05 | Multiunit 1 | Supplementary | 2/28/1989 | MW-5-19890228 | **1.0** | -- | **440** | -- | **1,430** | **0.90** | **7.20** | -- | **13,713** | **23,010** |
| MW-05 | Multiunit 1 | Supplementary | 9/11/1989 | MW-5-19890911 | **1.0** | -- | **465** | -- | **1,491** | **1.0** | **7.0** | -- | **13,185** | **23,710** |
| MW-05 | Multiunit 1 | Supplementary | 3/22/1990 | MW-5-19900322 | **1.0** | -- | **500** | -- | **1,261** | **0.80** | **7.10** | -- | **12,903** | **23,200** |
| MW-05 | Multiunit 1 | Supplementary | 10/30/1990 | MW-5-19901030 | **1.0** | -- | **420** | -- | **1,047** | **0.30** | **7.05** | -- | **13,120** | **19,533** |
| MW-05 | Multiunit 1 | Supplementary | 4/4/1991 | MW-5-19910404 | **1.0** | -- | **400** | -- | **1,048** | **0.30** | **6.94** | -- | **13,185** | **19,930** |
| MW-05 | Multiunit 1 | Supplementary | 9/30/1991 | MW-5-19910930 | **1.0** | -- | **390** | -- | **955** | **0.30** | **7.21** | -- | **12,500** | **19,320** |
| MW-05 | Multiunit 1 | Supplementary | 4/15/1992 | MW-5-19920415 | **1.0** | -- | **420** | -- | **1,151** | **0.40** | **7.20** | -- | **12,680** | **21,150** |
| MW-05 | Multiunit 1 | Supplementary | 11/3/1992 | MW-5-19921103 | **1.0** | -- | **400** | -- | **1,803** | **0.30** | **6.96** | -- | **14,184** | **24,840** |
| MW-05 | Multiunit 1 | Supplementary | 6/22/1993 | MW-5-19930622 | **0.60** | -- | **380** | -- | **927** | **0.40** | **6.98** | -- | **11,436** | **19,210** |
| MW-05 | Multiunit 1 | Supplementary | 11/30/1993 | MW-5-19931130 | **1.0** | -- | **400** | -- | **810** | **0.30** | **6.99** | -- | **11,810** | **18,610** |
| MW-05 | Multiunit 1 | Supplementary | 5/10/1994 | MW-5-19940510 | **1.0** | -- | **420** | -- | **931** | **0.40** | **7.08** | -- | **11,670** | **19,240** |
| MW-05 | Multiunit 1 | Supplementary | 11/8/1994 | MW-5-19941108 | **1.0** | -- | **400** | -- | **943** | **0.30** | **7.10** | -- | **10,944** | **18,670** |
| MW-05 | Multiunit 1 | Supplementary | 4/6/1995 | MW-5-19950406 | **1.0** | -- | **420** | -- | **929** | **0.30** | **7.02** | -- | **10,568** | **19,370** |
| MW-05 | Multiunit 1 | Supplementary | 12/13/1995 | MW-5-19951213 | **0.89** | -- | **400** | -- | **900** | **0.30** | **7.07** | -- | **11,068** | **18,090** |
| MW-05 | Multiunit 1 | Supplementary | 8/15/1996 | MW-5-19960815 | **0.67** | -- | **360** | -- | **762** | **0.20** | **7.02** | -- | **9,929** | **17,210** |
| MW-05 | Multiunit 1 | Supplementary | 4/15/1997 | MW-5-19970415 | **0.99** | -- | **360** | -- | **759.8** | **0.20** | **7.37** | -- | **9,614** | **17,380** |
| MW-05 | Multiunit 1 | Supplementary | 10/13/1997 | MW-5-19971013 | <0.05 | -- | **400** | -- | **786.2** | **0.20** | **7.20** | -- | **9,887** | **16,050** |
| MW-05 | Multiunit 1 | Supplementary | 4/14/1998 | MW-5-19980414 | -- | -- | **420** | -- | **774.2** | **0.20** | **6.86** | -- | **9,217** | **16,410** |
| MW-05 | Multiunit 1 | Supplementary | 10/20/1998 | MW-5-19981020 | **1.02** | -- | **380** | -- | **850.6** | **0.20** | **7.16** | -- | **10,063** | **16,600** |
| MW-05 | Multiunit 1 | Supplementary | 6/8/1999 | MW-5-19990608 | **1.8** | -- | **420** | -- | **889.6** | **0.30** | **7.04** | -- | **9,983** | **17,740** |
| MW-05 | Multiunit 1 | Supplementary | 12/1/1999 | MW-5-19991201 | **1.6** | -- | **440** | -- | **747.4** | **0.30** | **7.02** | -- | **8,913** | **18,140** |
| MW-05 | Multiunit 1 | Supplementary | 5/30/2000 | MW-5-20000530 | **1.83** | -- | **430** | -- | **1,220** | **0.30** | **6.96** | -- | **12,493** | **16,900** |
| MW-05 | Multiunit 1 | Supplementary | 11/14/2000 | MW-5-20001114 | **2.02** | -- | **40** | -- | **754.2** | **0.2972** | **7.01** | -- | **8,457** | **16,410** |
| MW-05 | Multiunit 1 | Supplementary | 8/21/2001 | MW-5-20010821 | **1.61** | -- | **400** | -- | **823.8** | **0.30** | **6.94** | -- | **8,732** | **15,320** |
| MW-05 | Multiunit 1 | Supplementary | 12/4/2001 | MW-5-20011204 | **1.4** | -- | **440** | -- | **781** | **0.30** | **6.80** | -- | **9,030** | **15,300** |
| MW-05 | Multiunit 1 | Supplementary | 6/11/2002 | MW-5-20020611 | **1.6** | -- | **400** | -- | **857** | **0.40** | **7.05** | -- | **8,785** | **16,320** |
| MW-05 | Multiunit 1 | Supplementary | 12/18/2002 | MW-5-20021218 | **1.57** | -- | **380** | -- | **809.4** | **0.30** | **7.07** | -- | **8,517** | **16,310** |
| MW-05 | Multiunit 1 | Supplementary | 5/28/2003 | MW-5-20030528 | **1.84** | -- | **400** | -- | **899.2** | **0.20** | **6.92** | -- | **8,022** | **10,180** |
| MW-05 | Multiunit 1 | Supplementary | 12/15/2003 | MW-5-20031215 | **0.90** | -- | **320** | -- | **791.4** | **0.29** | **6.97** | -- | **8,312** | **15,850** |
| MW-05 | Multiunit 1 | Supplementary | 6/18/2004 | MW-5-20040618 | -- | -- | **400** | -- | **862.2** | **0.30** | **6.97** | -- | **8,886** | **47,050** |
| MW-05 | Multiunit 1 | Supplementary | 11/30/2004 | MW-5-20041130 | **1.3** | -- | **440** | -- | **875.6** | **0.30** | **7.10** | -- | **6,119** | **16,360** |
| MW-05 | Multiunit 1 | Supplementary | 5/11/2005 | MW-5-20050511 | **0.952** | -- | **440** | -- | **860.4** | **0.20** | **6.76** | -- | **8,955** | **15,920** |
| MW-05 | Multiunit 1 | Supplementary | 12/12/2005 | MW-5-20051212 | **0.841** | -- | **445** | -- | **958.4** | **0.30** | **7.10** | -- | **9,241** | **16,780** |
| MW-05 | Multiunit 1 | Supplementary | 5/15/2006 | MW-5-20060515 | **0.837** | -- | **444** | -- | **977** | **0.226** | **7.01** | -- | **11,400** | **17,200** |
| MW-05 | Multiunit 1 | Supplementary | 10/13/2006 | MW-5-20061013 | **0.997** | -- | **476** | -- | **852** | **0.219** | **6.96** | -- | **10,000** | **17,300** |
| MW-05 | Multiunit 1 | Supplementary | 4/19/2007 | MW-5-20070419 | **0.97** | -- | **429** | -- | **836** | **0.133** | **7.00** | -- | **9,120** | **16,500** |
| MW-05 | Multiunit 1 | Supplementary | 11/20/2007 | MW-5-20071120 | **0.743** | -- | **348** | -- | **1,040** | **0.30** | **7.00** | -- | **9,800** | **18,100** |
| MW-05 | Multiunit 1 | Supplementary | 5/8/2008 | MW-5-20080508 | **0.50** | -- | **356** | -- | **1,010** | **0.30** | **7.03** | -- | **10,900** | **17,770** |
| MW-05 | Multiunit 1 | Supplementary | 9/27/2012 | MW-5-092712-01 | **1.2** | -- | **420** | -- | **3,300** | <4.0 | -- | -- | **14,000** | **24,000** |
| MW-05 | Multiunit 1 | Supplementary | 9/10/2014 | FCPP-05-091014 | **1.1** | -- | **420** | -- | **3,800** | <0.80 | -- | -- | **17,000** | **25,000** |
| MW-05 | Multiunit 1 | Supplementary | 3/18/2015 | FCPP-05-031815 | **1.2** | -- | **450** | -- | **3,400** | <0.80 | -- | -- | **14,000** | **24,000** |
| MW-05 | Multiunit 1 | Supplementary | 6/30/2015 | MW-5 | **1.2** | -- | **420** | -- | **3,100** | <4.0 | -- | **7.0** | **13,000** | **21,000** |
| MW-05 | Multiunit 1 | Supplementary | 8/25/2015 | FCPP-5-082515 | **1.2** | -- | **450** | -- | **3,400** | <4.0 | -- | **6.98** | **13,000** | **26,000** |
| MW-05 | Multiunit 1 | Supplementary | 11/6/2015 | FC MW-5-(061115) | **1.1** | -- | **450** | -- | **2,300** | <4.0 | -- | **6.93** | **13,000** | **22,000** |
| MW-05 | Multiunit 1 | Supplementary | 6/17/2016 | FC-Seep-MW5-616 | **1.0** | -- | **460** | -- | **3,000** | <0.80 | -- | **7.27** | **14,000** | **23,000** |
| MW-05 | Multiunit 1 | Supplementary | 6/17/2016 | FC-Seep-Dup1-616 | **0.98** | -- | **450** | -- | **3,000** | <0.80 | -- | **7.27** | **14,000** | **25,000** |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| MW-05 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW5-916 | **1.0** | -- | **440** | -- | **2,900** | <2.0 | -- | **7.0** | **14,000** | **25,000** |
| MW-05 | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-MW05-0620 | -- | -- | -- | -- | -- | -- | **6.64** | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-MW05-1120 | **1.2** | -- | -- | -- | -- | -- | **6.71** | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-MW05-0421 | **1.2** | -- | **510** | -- | **4,400 J** | **0.52 J** | **7.33** | **7.2 J** | **15,000** | **26,000** |
| MW-05 | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-MW05-1121 | **1.2** | -- | **510** | -- | **8,100** | **0.51 J** | **6.58** | **7.2 J** | **27,000** | **28,000 J** |
| MW-05 | Multiunit 1 | Supplementary | 2/1/2022 | FC-CCR-MW05-0222 | **1.1** | -- | **460** | -- | **8,200** | <0.8 | **6.54** | **7.5 J** | **13,000** | **22,000** |
| MW-05 | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW05-0522 | **1.1** | -- | **530** | -- | **8,700** | <0.8 | **6.62** | **7.49 J** | **34,000** | **20,000** |
| MW-05 | Multiunit 1 | Supplementary | 8/12/2022 | FC-CCR-MW05-0822 | **1.2** | -- | **520** | -- | **4,200** | **0.85** | **6.32** | **7.0 J** | **14,000** | **27,000** |
| MW-05 | Multiunit 1 | Supplementary | 11/11/2022 | FC-CCR-MW05-1122 | **1.2** | -- | **520** | -- | **4,200** | <4 | **6.79** | **7.0 J** | **15,000** | **27,000** |
| MW-05 | Multiunit 1 | Supplementary | 5/3/2023 | FC-CCR-MW05-0523 | **1.3** | -- | **460** | -- | **4,200** | <80 | **6.73** | **7.1 J** | **14,000** | **28,000** |
| MW-05 | Multiunit 1 | Supplementary | 11/13/2023 | FC-CCR-MW05-1124 | **1.3** | -- | **520** | -- | **4,200** | <0.8 | **6.83** | **7.1 J** | **14,000** | **27,000** |
| MW-05 | Multiunit 1 | Supplementary | 05/20/2024 | FC-CCR-MW05-0524 | <2.5 | -- | **600** | -- | **4,000** | <0.4 | **6.90** | **7.3 J** | **13,000** | **28,000** |
| MW-05 | Multiunit 1 | Supplementary | 11/13/2024 | FC-CCR-MW05-1124 | **1.34** | -- | **368** | -- | **3,900** | **0.591 J** | **6.87** | **7.57 J** | **12,700** | **26,700** |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/1/1987 | MW-6_4/1/1987 | -- | **0.70** | -- | **430** | **420** | <0.5 | **7.60** | **7.4** | **9,000** | **11,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/30/1987 | MW-6_9/30/1987 | -- | **0.60** | -- | **410** | **410** | <0.5 | **7.60** | **7.6** | **8,500** | **13,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/15/1988 | MW-6-19880615 | -- | -- | **396** | -- | **469** | **0.60** | **7.29** | -- | **8,590** | **13,690** |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/21/1988 | MW-6-19880921 | **1.0** | -- | **370** | -- | **374** | **0.50** | **7.03** | -- | **7,922** | **13,885** |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/29/1988 | MW-6-19881129 | **1.0** | -- | **389** | -- | **397** | **0.40** | **7.26** | -- | **8,366** | **13,535** |
| MW-06 | Multiunit 1/EW System | Supplementary | 2/27/1989 | MW-6-19890227 | **1.0** | -- | **397** | -- | **375** | **0.40** | **7.29** | -- | **8,201** | **13,195** |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/12/1989 | MW-6-19890912 | **1.0** | -- | **340** | -- | **369** | **0.30** | **7.25** | -- | **7,022** | **12,370** |
| MW-06 | Multiunit 1/EW System | Supplementary | 3/26/1990 | MW-6-19900326 | **1.0** | -- | **370** | -- | **397** | **0.30** | **7.40** | -- | **7,699** | **12,190** |
| MW-06 | Multiunit 1/EW System | Supplementary | 10/30/1990 | MW-6-19901030 | **1.0** | -- | **380** | -- | **396** | **0.20** | **7.35** | -- | **7,792** | **11,898** |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/2/1991 | MW-6-19910402 | **1.0** | -- | **370** | -- | **394** | **0.20** | **7.37** | -- | **7,532** | **14,600** |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/24/1991 | MW-6-19910924 | **1.0** | -- | **356** | -- | **396** | **0.20** | **7.41** | -- | **7,174** | **11,860** |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/5/1992 | MW-6-19920505 | **1.0** | -- | **350** | -- | **391.1** | **0.20** | **7.54** | -- | **7,040** | **11,550** |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/27/1992 | MW-6-19921127 | **1.0** | -- | **360** | -- | **411.6** | **0.30** | **7.29** | -- | **8,030** | **12,060** |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/21/1993 | MW-6-19930421 | **0.76** | -- | **360** | -- | **495** | **0.30** | **7.20** | -- | **8,506** | **12,960** |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/22/1993 | MW-6-19931122 | **1.0** | -- | **380** | -- | **360** | **0.20** | **7.31** | -- | **6,894** | **11,130** |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/20/1994 | MW-6-19940420 | **1.0** | -- | **390** | -- | **391** | **0.40** | **7.33** | -- | **6,742** | **11,520** |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/20/1994 | MW-6-19940920 | **1.0** | -- | **370** | -- | **389** | **0.20** | **7.35** | -- | **6,754** | **11,260** |
| MW-06 | Multiunit 1/EW System | Supplementary | 12/14/1994 | MW-6-19941214 | -- | -- | **410** | -- | -- | -- | **7.28** | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/5/1995 | MW-6-19950405 | **1.0** | -- | **360** | -- | **421** | **0.20** | **7.30** | -- | **6,826** | **11,120** |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/21/1995 | MW-6-19951121 | **1.78** | -- | **400** | -- | **384** | **0.20** | **7.37** | -- | **6,426** | **10,680** |
| MW-06 | Multiunit 1/EW System | Supplementary | 8/14/1996 | MW-6-19960814 | **1.53** | -- | **310** | -- | **338.3** | **0.20** | **7.37** | -- | **6,500** | **10,830** |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/23/1997 | MW-6-19970423 | **1.97** | -- | **300** | -- | **426.5** | **0.20** | **7.32** | -- | **6,406** | **11,110** |
| MW-06 | Multiunit 1/EW System | Supplementary | 10/14/1997 | MW-6-19971014 | <0.05 | -- | **380** | -- | **393.7** | **0.10** | **7.52** | -- | **6,250** | **9,920** |
| MW-06 | Multiunit 1/EW System | Supplementary | 10/21/1998 | MW-6-19981021 | **3.15** | -- | **370** | -- | **395** | **0.20** | **7.28** | -- | **6,342** | **10,060** |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/9/1999 | MW-6-19990609 | **4.0** | -- | **390** | -- | **374.8** | **0.20** | **7.35** | -- | **6,130** | **10,390** |
| MW-06 | Multiunit 1/EW System | Supplementary | 12/1/1999 | MW-6-19991201 | **4.2** | -- | **480** | -- | **345.3** | **0.20** | **7.51** | -- | **5,662** | **9,570** |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/8/2000 | MW-6-20000608 | **3.83** | -- | **423** | -- | **522** | **0.20** | **7.43** | -- | **6,873** | **9,680** |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/28/2000 | MW-6-20001128 | **4.19** | -- | **490** | -- | **329.9** | **0.1855** | **7.20** | -- | **5,790** | **9,840** |
| MW-06 | Multiunit 1/EW System | Supplementary | 8/21/2001 | MW-6-20010821 | -- | -- | **450** | -- | **376** | **0.20** | **7.24** | -- | **6,090** | **10,110** |
| MW-06 | Multiunit 1/EW System | Supplementary | 12/3/2001 | MW-6-20011203 | **4.4** | -- | **490** | -- | **334.5** | **0.20** | **7.26** | -- | **5,839** | **9,440** |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/24/2002 | MW-6-20020624 | **4.43** | -- | **400** | -- | **323.9** | **0.10** | **7.50** | -- | **5,592** | **9,790** |
| MW-06 | Multiunit 1/EW System | Supplementary | 12/18/2002 | MW-6-20021218 | **6.0** | -- | **380** | -- | **320.3** | **0.20** | **7.56** | -- | **5,507** | **9,520** |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/3/2003 | MW-6-20030603 | -- | -- | **400** | -- | **352.6** | **0.28** | **7.30** | -- | **5,253** | **9,590** |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/24/2003 | MW-6-20030924 | **5.94** | -- | **330** | -- | **311** | **0.22** | **7.27** | -- | **5,505** | **9,500** |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/16/2004 | MW-6-20040616 | -- | -- | **40** | -- | **353.6** | **0.20** | **7.25** | -- | **5,658** | **9,310** |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/9/2004 | MW-6-20041109 | **9.1** | -- | **425** | -- | **304** | <0.2 | **7.38** | -- | **4,870** | **8,810** |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/12/2005 | MW-6-20050512 | **9.47** | -- | **450** | -- | **321.9** | **0.10** | **7.30** | -- | **5,588** | **8,580** |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/1/2005 | MW-6-20051101 | **11.1** | -- | **404** | -- | **316.4** | **0.10** | **7.19** | -- | **4,881** | **8,990** |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/16/2006 | MW-6-20060516 | **12.4** | -- | **419** | -- | **314** | **0.15** | **7.23** | -- | **5,100** | **8,500** |
| MW-06 | Multiunit 1/EW System | Supplementary | 10/13/2006 | MW-6-20061013 | **14.1** | -- | **454** | -- | **318** | **0.149** | **7.33** | -- | **5,590** | **7,920** |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/18/2007 | MW-6-20070418 | **30.9** | -- | **422** | -- | **352** | **0.112** | **7.35** | -- | **5,370** | **8,050** |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/20/2007 | MW-6-20071120 | **13.5** | -- | **378** | -- | **352** | **0.20** | **7.42** | -- | **5,100** | **8,070** |
| MW-06 | Multiunit 1/EW System | Supplementary | 8/1/2008 | MW-6-20080801 | **13.9** | -- | **389** | -- | **400** | <0.2 | **7.45** | -- | **5,450** | **8,120** |
| MW-06 | Multiunit 1/EW System | Supplementary | 12/3/2009 | MW-6-20091203 | **10.1** | -- | **377** | -- | **680** | **0.30** | **7.13** | -- | **7,100** | **11,700** |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/28/2012 | MW-6-092812-01 | **21** | -- | **440** | -- | **650** | <2.0 | -- | -- | **4,200** | **7,700** |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/20/2013 | FC-06-112013 | **9.3** | -- | **480** | -- | **1,100** | <2.0 | -- | -- | **9,400** | **15,000** |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| MW-06 | Multiunit 1/EW System | Supplementary | 3/12/2014 | FC-06-031214 | **8.2** | -- | **430** | -- | **1,100** | <0.80 | -- | -- | **9,300** | **14,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/11/2014 | FCPP-06-91114 | **9.1** | -- | **400** | -- | **1,200** | <0.40 | -- | -- | **9,400** | **15,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 12/8/2014 | FCPP-MW06-12914 | **8.4** | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 3/19/2015 | FCPP-06-031915 | **10** | -- | **430** | -- | **1,300** | <0.40 | -- | -- | **9,700** | **15,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/24/2015 | MW-6 | **9.6** | -- | **410** | -- | **1,400** | <0.40 | -- | **7.17** | **9,400** | **16,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 8/29/2015 | FCPP-06-082915 | **12** | -- | **440** | -- | **1,100** | <2.0 | -- | **7.16** | **8,300** | **14,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/7/2015 | FC MW-6-(07115) | **10** | -- | **470** | -- | **1,300** | <0.40 | -- | **7.21** | **9,400** | **15,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/20/2016 | FC-Seep-MW6-616 | **8.3** | -- | **450** | -- | **1,400** | <0.40 | -- | **7.24** | **9,600** | **16,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/15/2016 | FC-Seep-MW6-916 | **8.1** | -- | **420** | -- | **1,300** | <0.40 | -- | **7.2** | **9,700** | **15,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 3/19/2019 | FC-CCR-MW6-031919 | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 3/19/2019 | FC-CCR-MW6-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/14/2019 | FC-CCR-MW6-51419 | **5.9** | -- | **430** | -- | **1,500** | <0.80 | -- | **7.3 J** | **11,000** | **18,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/14/2019 | FC-CCR-MW6-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/19/2019 | FC-CCR-MW6-111919 | **6.0** | -- | **500** | -- | **1,900** | <0.80 | -- | **7.3 J** | **16,000** | **22,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/23/2020 | FC-CCR-MW06-0620 | **5.9** | -- | **520** | -- | **2,200** | <0.8 | **7.00** | **7.5 J** | **18,000** | **29,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/7/2020 | FC-CCR-MW06-1120 | **5.9** | -- | **460** | -- | **2,700** | -- | **7.13** | **7.5 J** | **23,000** | **31,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/26/2021 | FC-CCR-MW06-0421 | **5.8** | -- | **490** | -- | **2,500** | **0.58 J** | **7.87** | **7.5 J** | **20,000** | **29,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/16/2021 | FC-CCR-MW06-1121 | **6.1** | -- | **480** | -- | **5,500** | **0.58 J** | **7.02** | **7.7 J** | **51,000** | **34,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 2/8/2022 | FC-CCR-MW06-0222 | **6.1** | -- | **500** | -- | **2,900** | **0.34** | **6.94** | **7.5 J** | **21,000** | **35,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/25/2022 | FC-CCR-MW06-0522 | **6.0** | -- | **510** | -- | **5,800** | <0.8 | **7.04** | **7.59 J** | **21,000** | **25,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/1/2022 | FC-CCR-MW06-0922 | **6.2** | | **480** | | **3,200** | <0.8 | **6.97** | **7.4 J** | **23,000** | **33,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/14/2022 | FC-CCR-MW06-1122 | **6.1** | -- | **500** | -- | **2,800** | <4 | **7.07** | **7.3 J** | **21,000** | **34,000** |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/4/2023 | FC-CCR-MW06-0523 | **6.2** | -- | **420** | -- | **2,700** | <80 | **7.01** | **7.3 J** | **20,000** | **31,000** |
| MW-06R | Multiunit 1/EW System | Supplementary | 11/14/2023 | FC-CCR-MW06R-1124 | **1.2** | -- | **290** | -- | **1,200** | <0.8 | **7.19** | **7.4 J** | **8,000** | **13,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/1/1987 | MW-7_4/1/1987 | -- | **4.4** | -- | **500** | **460** | <0.5 | **8.00** | **7.6** | **3,100** | **5.6 *** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/1/1987 | MW-7 dup_4/1/1987 | -- | **4.6** | -- | **510** | **460** | <0.5 | **8.00** | **7.6** | **3,800** | **5,200** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/30/1987 | MW-7_9/30/1987 | -- | **5.8** | -- | **460** | **770** | <0.5 | **6.90** | **7.2** | **4,000** | **7,700** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/16/1988 | MW-7-19880616 | -- | -- | **436** | -- | **408** | **0.50** | **7.40** | -- | **3,678** | **6,167** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/21/1988 | MW-7-19880921 | **7.0** | -- | **424** | -- | **309** | **0.50** | **7.05** | -- | **3,260** | **5,813** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/14/1988 | MW-7-19881114 | **7.0** | -- | **417** | -- | **348** | **0.50** | **7.17** | -- | **3,477** | **6,300** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/6/1989 | MW-7-19890306 | **8.0** | -- | **421** | -- | **317** | **0.50** | **7.28** | -- | **3,480** | **5,840** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/12/1989 | MW-7-19890912 | **9.0** | -- | **430** | -- | **292** | **0.40** | **7.41** | -- | **3,100** | **5,430** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/22/1990 | MW-7-19900322 | **9.0** | -- | **420** | -- | **291** | **0.40** | **7.40** | -- | **3,372** | **5,720** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/24/1990 | MW-7-19900924 | **8.0** | -- | **470** | -- | **309** | **0.30** | **7.55** | -- | **3,378** | **5,590** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/27/1991 | MW-7-19910327 | **9.0** | -- | **410** | -- | **338** | **0.30** | **7.39** | -- | **3,500** | **5,730** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/24/1991 | MW-7-19910924 | **8.0** | -- | **440** | -- | **312** | **0.30** | **7.50** | -- | **3,472** | **5,490** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/30/1992 | MW-7-19920430 | **13** | -- | **500** | -- | **346** | **0.40** | **7.42** | -- | **3,238** | **5,920** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/27/1992 | MW-7-19921027 | **15** | -- | **500** | -- | **285** | **0.40** | **7.25** | -- | **3,274** | **5,230** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/22/1993 | MW-7-19930422 | **14** | -- | **400** | -- | **338.9** | **0.30** | **7.32** | -- | **3,375** | **5,660** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/22/1993 | MW-7-19931122 | **14** | -- | **500** | -- | **299** | **0.30** | **7.30** | -- | **3,074** | **5,370** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/20/1994 | MW-7-19940420 | **13** | -- | **500** | -- | **366** | **0.40** | **7.30** | -- | **3,353** | **6,070** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/21/1994 | MW-7-19940921 | **2.04** | -- | **500** | -- | **326** | **0.30** | **7.35** | -- | **3,319** | **5,880** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 12/14/1994 | MW-7-19941214 | -- | -- | **420** | -- | -- | -- | **7.18** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/4/1995 | MW-7-19950404 | **1.6** | -- | **400** | -- | **360** | **0.30** | **7.33** | -- | **3,352** | **5,780** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/18/1995 | MW-7-19951118 | **10.8** | -- | **500** | -- | **308.6** | **0.30** | **7.27** | -- | **3,045** | **5,410** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/13/1996 | MW-7-19960813 | **16.5** | -- | **500** | -- | **318** | **0.30** | **7.42** | -- | **2,939** | **5,340** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/15/1997 | MW-7-19970415 | **15.8** | -- | **500** | -- | **347.5** | **0.30** | **7.24** | -- | **2,992** | **5,540** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/7/1997 | MW-7-19971007 | <0.05 | -- | **460** | -- | **393.5** | **0.30** | **7.55** | -- | **3,402** | **5,880** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/13/1998 | MW-7-19980413 | -- | -- | **460** | -- | **354.6** | **0.30** | **7.39** | -- | **3,069** | **5,870** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/20/1998 | MW-7-19981020 | **16.9** | -- | **460** | -- | **251.1** | **0.30** | **7.58** | -- | **2,180** | **5,570** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/11/1999 | MW-7-19990511 | **15.4** | -- | **480** | -- | -- | **0.40** | **7.50** | -- | -- | **5,990** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/30/1999 | MW-7-19991130 | **14.5** | -- | **560** | -- | **429.55** | **0.30** | **7.48** | -- | **3,369** | **6,030** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/8/2000 | MW-7-20000608 | **15.5** | -- | **477** | -- | **430.2** | **0.40** | **7.30** | -- | **3,680** | **5,480** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/28/2000 | MW-7-20001128 | **17.4** | -- | **600** | -- | **358.8** | **0.4086** | **7.29** | -- | **2,999** | **5,500** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/22/2001 | MW-7-20010822 | **14.2** | -- | **450** | -- | **485.9** | **0.40** | **7.28** | -- | **3,724** | **6,960** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 12/3/2001 | MW-7-20011203 | **16.1** | -- | **720** | -- | **396.5** | **0.40** | **7.25** | -- | **3,658** | **6,280** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/24/2002 | MW-7-20020624 | **16.1** | -- | **460** | -- | **407.2** | **0.30** | **7.55** | -- | **3,430** | **6,170** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 12/19/2002 | MW-7-20021219 | **33.2** | -- | **460** | -- | **440.5** | **0.40** | **7.35** | -- | **3,462** | **6,310** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/29/2003 | MW-7-20030529 | **18.7** | -- | **460** | -- | -- | **0.40** | **6.81** | -- | -- | **8,100** |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| MW-07 | Multiunit 1 | Downgradient Boundary | 12/24/2003 | MW-7-20031224 | **17** | -- | **320** | -- | **750.8** | **0.24** | **7.08** | -- | **4,017** | **7,820** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/21/2004 | MW-7-20040621 | -- | -- | **440** | -- | **387.45** | **0.40** | **7.13** | -- | **2,039** | **8,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/29/2004 | MW-7-20041129 | **18.6** | -- | **400** | -- | **741** | **0.28** | **7.17** | -- | **2,615** | **7,630** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/13/2005 | MW-7-20050613 | **15.9** | -- | **500** | -- | **584.3** | **0.30** | **7.20** | -- | **3,386** | **6,830** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 12/14/2005 | MW-7-20051214 | **17.2** | -- | **474** | -- | **1,578** | **0.30** | **7.00** | -- | **8,580** | **8,210** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/16/2006 | MW-7-20060516 | **17.7** | -- | **449** | -- | **584** | **0.373** | **7.20** | -- | **3,910** | **7,120** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/11/2006 | MW-7-20061011 | **16.2** | -- | **454** | -- | **772** | **0.327** | **7.13** | -- | **3,510** | **8,320** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/19/2007 | MW-7-20070419 | **18.2** | -- | **459** | -- | **698** | **0.259** | **7.20** | -- | **4,100** | **7,430** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/19/2007 | MW-7-20071119 | **13.2** | -- | **376** | -- | **860** | **0.30** | **7.12** | -- | **5,200** | **8,400** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/7/2008 | MW-7-20080807 | **14.1** | -- | **387** | -- | **830** | **0.30** | **7.14** | -- | **5,260** | **9,040** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 7/10/2012 | MW-7 | **9.8** | -- | **360** | -- | **750** | <0.80 | -- | **7.3** | **5,900** | **10,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/27/2012 | MW-7-092712-01 | **6.5** | -- | **420** | -- | **640** | <2.0 | -- | -- | **8,100** | **13,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/19/2013 | FC-07-111913 | **8.6** | -- | **490** | -- | **290** | <2.0 | -- | -- | **6,100** | **9,600** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/10/2014 | FCPP-07-091014 | **8.5** | -- | **420** | -- | **590** | <0.40 | -- | -- | **6,800** | **10,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/16/2015 | FCPP-07-031615 | **8.9** | -- | **360** | -- | **760** | <0.40 | -- | -- | **6,600** | **11,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/26/2015 | FCPP-7-082615 | **9.0** | -- | **330** | -- | **960** | <0.80 | -- | **7.33** | **6,700** | **11,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/7/2015 | FC-CCR-MW7-110715 | **9.4** | -- | **390** | -- | **580** | **0.35** | -- | **7.25** | **6,400** | **9,800** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/7/2015 | FC-CCR-MW7-110715 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/26/2016 | FC-CCR-MW-7-042616 | **10** | -- | **430** | -- | **740** | <2.0 | -- | -- | **6,000** | **11,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/6/2016 | FC-CCR-MW7-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/6/2016 | FC-CCR-MW7-616 | **10** | -- | **380** | -- | **880** | **0.41** | -- | **7.23** | **6,300** | **11,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW7-816 | **11** | -- | **430** | -- | **450** | <0.40 | -- | **7.1** | **5,900** | **10,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW7-816 | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW7-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW7-916 | **10** | -- | **410** | -- | **530** | <0.40 | -- | **7.3** | **6,200** | **10,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW7-916 | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW7-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/20/2016 | FC-CCR-MW7-1016 | **10** | -- | **390** | -- | **540** | <0.40 | -- | **7.4** | **6,000** | **10,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/20/2016 | FC-CCR-MW7-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW7-117 | **9.0** | -- | **400** | -- | **460** | <0.40 | -- | **7.8** | **6,400** | **9,700** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW7-117 | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW7-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW7-41817 | **8.6** | -- | **430** | -- | **430** | <0.80 | -- | **7.4** | **6,500** | **11,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW7-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW7-41817 | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW7-5317 | -- | -- | -- | -- | -- | **5.1** | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW7-53117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/29/2017 | FC-CCR-MW-72-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW7-53017 | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW7-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW7-62217 | **7.6** | -- | **410** | -- | **430** | -- | -- | **7.5** | **7,300** | **10,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW7-62217 | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW7-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW7-72217 | **7.6** | -- | **400** | -- | **430** | <0.80 | -- | **7.5** | **7,500** | **10,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW7-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW7-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW7-81017 | **7.8** | -- | **420** | -- | **420** | -- | -- | **7.5** | **7,400** | **10,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW7-81017 | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW7-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/17/2017 | FC-CCR-MW7-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/17/2017 | FC-CCR-MW7-81717 | **7.5** | -- | **460** | -- | **320** | <0.80 | -- | **7.6** | **6,500** | **10,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW7-91017 | **8.0** | -- | **430** | -- | **350** | -- | -- | **7.5** | **6,600** | **9,900** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW7-91017 | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW7-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/12/2017 | FC-CCR-MW7-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/12/2017 | FC-CCR-MW7-101217 | **7.2** | -- | **390** | -- | <400 | <0.80 | -- | **7.6** | **7,100** | **10,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/30/2017 | FC-CCR-MW7-113017 | **7.7** | -- | **420** | -- | **440** | <0.80 | -- | **7.5** | **6,600** | **10,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/17/2018 | FC-CCR-MW7-31718 | -- | -- | -- | -- | -- | **0.49** | -- | -- | -- | -- |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/17/2018 | FC-CCR-MW7-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/17/2018 | *DUP* FC-CCR-FD02-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-7-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-7-6118 | **7.6** | -- | **360** | -- | **580** | <0.80 | -- | **7.4** | **6,400** | **10,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/4/2018 | FC-CCR-MW7-11418 | **7.4** | -- | **320** | -- | **680** | <0.80 | -- | **7.4** | **6,100** | **9,900** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/4/2018 | FC-CCR-MW7-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/4/2018 | FC-CCR-MW7-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW7-031919 | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW7-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/14/2019 | FC-CCR-MW7-51419 | **8.3** | -- | **340** | -- | **570** | <0.80 | -- | **7.4 J** | **5,400** | **9,200** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/14/2019 | FC-CCR-MW7-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/19/2019 | FC-CCR-MW7-111919 | **8.2** | -- | **370** | -- | **620** | <0.80 | -- | **7.3 J** | **5,600** | **8,900** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/23/2020 | FC-CCR-MW07-0620 | **9.4** | -- | **360** | -- | **740** | <0.8 | **6.85** | **7.5 J** | **5,600** | **8,600** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/6/2020 | FC-CCR-MW07-1120 | **8.6** | -- | **400** | -- | **600** | **0.33 J** | **6.97** | **7.3 J** | **5,600** | **9,400** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/6/2020 | *DUP* FC-CCR-FD05-1120 | **8.5** | -- | **400** | -- | **540** | **0.37 J** | -- | **7.4 J** | **5,800** | **8,800** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/27/2021 | FC-CCR-MW07-0421 | **8.6** | -- | **470** | -- | **340 J** | **0.25 J** | **7.93** | **7.6 J** | **5,700** | **8,900** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/27/2021 | *DUP* FC-CCR-FD04-0421 | **8.6** | -- | **470** | -- | **320 J** | **0.26 J** | **7.93** | **7.6 J** | **5,700** | **8,900** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/18/2021 | FC-CCR-MW07-1121 | **8.1** | -- | **390** | -- | **850** | **0.25 J** | **6.95** | **7.5 J** | **7,200** | **9,500** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/26/2022 | FC-CCR-MW07-0522 | **7.3** | -- | **370** | -- | **670** | <0.8 | **6.98** | **7.66 J** | **6,000** | **10,000** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/16/2022 | FC-CCR-MW07-1122 | **7.8** | -- | **420** | -- | **580** | <2 | **7.04** | **7.3 J** | **5,700** | **9,500** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/8/2023 | FC-CCR-MW07-0523 | **8.7** | -- | **370** | -- | **520** | <2 | **6.98** | **7.4 J** | **5,500** | **9,300** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/15/2023 | FC-CCR-MW07-1124 | **9.6** | -- | **490** | -- | **480** | <0.8 | **7.09** | **7.5 J** | **5,600** | **9,600** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 05/23/2024 | FC-CCR-MW07-0524 | **8.8** | -- | **420** | -- | **600** | <0.4 | **7.01** | **7.6 J** | **5,400** | **9,700** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/12/2024 | FC-CCR-MW07-1024 | **9.05** | -- | **337** | -- | **581** | **0.394 J** | **7.11** | **7.67 J** | **5,190** | **9,580** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 10/2/1987 | MW-8_10/2/1987 | -- | **13** | -- | **470** | **840** | <0.5 | **7.53** | **7.2** | **6,000** | **10,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/16/1988 | MW-8-19880616 | -- | -- | **448** | -- | **910** | **0.70** | **7.35** | -- | **5,527** | **9,962** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/21/1988 | MW-8-19880921 | **17** | -- | **438** | -- | **787** | **0.70** | **7.25** | -- | **5,171** | **9,833** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/14/1988 | MW-8-19881114 | **17** | -- | **430** | -- | **696** | **0.70** | **7.29** | -- | **5,132** | **9,595** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 3/8/1989 | MW-8-19890308 | **14** | -- | **428** | -- | **782** | **0.60** | **7.29** | -- | **5,529** | **10,195** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/12/1989 | MW-8-19890912 | **21** | -- | **410** | -- | **587** | **0.60** | **7.15** | -- | **4,429** | **8,270** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 3/22/1990 | MW-8-19900322 | **19** | -- | **430** | -- | **622** | **0.40** | **7.20** | -- | **4,394** | **7,940** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 10/29/1990 | MW-8-19901029 | **20** | -- | **430** | -- | **617** | **0.50** | **7.37** | -- | **4,398** | **7,700** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 3/27/1991 | MW-8-19910327 | **22** | -- | **420** | -- | **604** | **0.40** | **7.18** | -- | **4,856** | **7,760** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 10/1/1991 | MW-8-19911001 | **21** | -- | **386** | -- | **639** | **0.40** | **7.41** | -- | **4,218** | **7,890** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/1/1992 | MW-8-19920501 | **24** | -- | **430** | -- | **562** | **0.40** | **7.30** | -- | **4,011** | **6,850** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/3/1992 | MW-8-19921103 | **22** | -- | **330** | -- | **627.8** | **0.50** | **7.28** | -- | **3,803** | **6,990** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/28/1993 | MW-8-19930428 | **23** | -- | **360** | -- | **503.4** | **0.41** | **7.39** | -- | **3,752** | **6,300** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/30/1993 | MW-8-19931130 | **23** | -- | **380** | -- | **510** | **0.50** | **7.30** | -- | **3,708** | **6,600** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/28/1994 | MW-8-19940428 | **26** | -- | **430** | -- | **499** | **0.60** | **7.28** | -- | **3,718** | **6,590** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/16/1994 | MW-8-19941116 | **24** | -- | **370** | -- | **562** | **0.50** | **7.31** | -- | **3,738** | **6,450** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/14/1994 | MW-8-19941214 | -- | -- | **520** | -- | -- | -- | **7.25** | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/5/1995 | MW-8-19950405 | **26** | -- | **410** | -- | **472** | **0.40** | **7.20** | -- | **3,391** | **6,010** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/18/1995 | MW-8-19951118 | **24.6** | -- | **440** | -- | **468.6** | **0.70** | **7.29** | -- | **3,275** | **6,040** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 8/19/1996 | MW-8-19960819 | **24.5** | -- | **330** | -- | **535.7** | **0.50** | **6.99** | -- | **3,315** | **6,240** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/24/1997 | MW-8-19970624 | **21.8** | -- | **410** | -- | **425.7** | **0.50** | **7.04** | -- | **3,023** | **6,050** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 10/7/1997 | MW-8-19971007 | <0.05 | -- | **340** | -- | **524.7** | **0.50** | **7.45** | -- | **3,548** | **6,440** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/14/1998 | MW-8-19980414 | -- | -- | **400** | -- | **503.9** | **0.50** | **6.94** | -- | **3,317** | **6,690** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 10/21/1998 | MW-8-19981021 | -- | -- | **380** | -- | **591.4** | **0.50** | **7.14** | -- | **3,601** | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/11/1999 | MW-8-19990511 | **24.8** | -- | -- | -- | **496.6** | **0.50** | **7.23** | -- | **3,337** | **6,530** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/1/1999 | MW-8-19991201 | **24.5** | -- | **460** | -- | **505.3** | **0.50** | **7.09** | -- | **3,380** | **6,190** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/7/2000 | MW-8-20000607 | **26.4** | -- | **429** | -- | **644.5** | **0.60** | **7.77** | -- | **5,345** | **6,100** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/12/2000 | MW-8-20001212 | **25.2** | -- | **520** | -- | **507.8** | **0.58** | -- | -- | **3,299** | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 8/22/2001 | MW-8-20010822 | **25.8** | -- | **460** | -- | **474.2** | **0.60** | **7.11** | -- | **3,473** | **6,490** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/3/2001 | MW-8-20011203 | **24.1** | -- | **540** | -- | **590.4** | **0.60** | **6.60** | -- | **4,089** | **7,360** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/24/2002 | MW-8-20020624 | **25** | -- | **400** | -- | **508.9** | **0.50** | **7.22** | -- | **3,665** | **7,190** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/18/2002 | MW-8-20021218 | **23.8** | -- | **420** | -- | **547.8** | **0.50** | **7.09** | -- | **3,615** | **7,150** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/3/2003 | MW-8-20030603 | -- | -- | **420** | -- | **465.7** | **0.60** | **6.95** | -- | **3,007** | **6,060** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/23/2003 | MW-8-20030923 | **28** | -- | **330** | -- | **505** | **0.66** | **6.83** | -- | **3,708** | **7,090** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/16/2004 | MW-8-20040616 | -- | -- | **400** | -- | **498.2** | **0.60** | **6.91** | -- | **3,465** | **6,400** |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/9/2004 | MW-8-20041109 | **28.9** | -- | **465** | -- | **502.2** | **0.60** | **6.95** | -- | **3,330** | **6,720** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/12/2005 | MW-8-20050512 | **27.4** | -- | **500** | -- | **590.6** | **0.50** | **6.89** | -- | **3,916** | **7,430** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/1/2005 | MW-8-20051101 | **32.4** | -- | **465** | -- | **577.6** | **0.50** | **6.90** | -- | **3,783** | **7,730** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/16/2006 | MW-8-20060516 | **31.7** | -- | **472** | -- | **572** | **0.649** | **7.01** | -- | **4,540** | **8,230** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 10/11/2006 | MW-8-20061011 | **35.1** | -- | **491** | -- | **565** | **0.627** | **6.98** | -- | **5,230** | **8,640** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/18/2007 | MW-8-20070418 | **31.2** | -- | **473** | -- | **674** | **1.03** | **7.03** | -- | **5,170** | **8,420** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/14/2007 | MW-8-20071114 | **23.4** | -- | **413** | -- | **640** | **0.70** | **6.96** | -- | **5,900** | **9,690** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/7/2008 | MW-8-20080507 | **24.8** | -- | **419** | -- | **660** | **0.70** | **7.05** | -- | **6,110** | **9,750** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/3/2009 | MW-8-20091203 | **22.9** | -- | **455** | -- | **830** | **0.70** | **6.88** | -- | **7,100** | **12,500** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/27/2012 | MW-8-092712-01 | **27** | -- | **400** | -- | **710** | <2.0 | -- | -- | **6,200** | **10,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/19/2013 | FC-08-111913 | **2.2** | -- | **450** | -- | **680** | <4.0 | -- | -- | **5,800** | **9,900** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/10/2014 | FCPP-08-091014 | **27** | -- | **440** | -- | **700** | <0.40 | -- | -- | **6,600** | **10,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 3/17/2015 | FCPP-08-031715 | **24** | -- | **470** | -- | **840** | <0.40 | -- | -- | **8,000** | **13,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/29/2015 | MW-8 | **23** | -- | **460** | -- | **930** | <0.80 | -- | **7.05** | **7,900** | **14,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 8/26/2015 | FCPP-8-082615 | **21** | -- | **480** | -- | **940** | <0.80 | -- | **7.08** | **8,700** | **14,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/1/2015 | FC-CCR-MW8-120115 | **17** | -- | **500** | -- | **880** | <0.25 | -- | -- | **9,100** | **13,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/1/2015 | FC-CCR-MW8-120115 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/26/2016 | FC-CCR-MW-8-042616 | **20** | -- | **480** | -- | **920** | <2.0 | -- | -- | **8,400** | **15,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/7/2016 | FC-CCR-MW8-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/7/2016 | FC-CCR-MW8-616 | **20** | -- | **420** | -- | **1,100** | **0.70** | -- | **7.03** | **8,600** | **15,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW8-816 | **19** | -- | **460** | -- | **980** | **0.61** | -- | **6.9** | **8,600** | **15,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW8-816 | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW8-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW8-916 | **18** | -- | **430** | -- | **970** | **0.77** | -- | **7.2** | **8,600** | **15,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW8-916 | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW8-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW8-41817 | **17** | -- | **440** | -- | **1,100** | <2.0 | -- | **7.4** | **18,000** | **15,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW8-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW8-41817 | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW8-5317 | -- | -- | -- | -- | -- | **5.3** | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW8-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW8-53017 | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW8-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-8-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-8-6118 | **15** | -- | **420** | -- | **1,100** | **0.91** | -- | **7.3** | **9,800** | **15,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/4/2018 | FC-CCR-MW8-11418 | **14** | -- | **390** | -- | **1,200** | <0.80 | -- | **7.3** | **10,000** | **15,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/4/2018 | FC-CCR-MW8-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/4/2018 | FC-CCR-MW8-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW8-031919 | -- | -- | -- | -- | -- | **0.41** | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW8-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/14/2019 | FC-CCR-MW8-51419 | **14** | -- | **430** | -- | **1,100** | <0.80 | -- | **7.4 J** | **10,000** | **15,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/14/2019 | FC-CCR-MW8-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/19/2019 | FC-CCR-MW8-111919 | **15** | -- | **420** | -- | **1,200** | <0.80 | -- | **7.1 J** | **9,600** | **15,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/23/2020 | FC-CCR-MW08-0620 | **18** | -- | **440** | -- | **1,000** | <0.8 U J | -- | **7.4 J** | **9,500** | **15,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/23/2020 | *DUP* FC-CCR-FD04-0620 | **19** | -- | **460** | -- | **970** | <0.8 U J | **6.76** | **7.3 J** | **9,300** | **14,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/6/2020 | FC-CCR-MW08-1120 | **21** | -- | **470** | -- | **830** | **0.58 J** | **6.80** | **7.2 J** | **9,100** | **14,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/27/2021 | FC-CCR-MW08-0421 | **20** | -- | **450** | -- | **860** | **0.42 J** | **7.53** | **7.3 J** | **9,400** | **14,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/18/2021 | FC-CCR-MW08-1121 | **18** | -- | **420** | -- | **970** | **0.56 J** | **6.83** | **7.5 J** | **11,000** | **14,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/24/2022 | FC-CCR-MW08-0522 | **17** | -- | **420** | -- | **1,100** | <0.8 | **6.78** | **7.65 J** | **10,000** | **15,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/24/2022 | FC-CCR-SS06-0522 | **17** | -- | **444** | -- | **1,070** | <50/0.7 | **6.78** | **7.9 J** | **10,600** | **16,100** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/16/2022 | FC-CCR-MW08-1122 | **16** | -- | **460** | -- | **1,000** | <4 | **6.88** | **7.2 J** | **9,900** | **16,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/8/2023 | FC-CCR-MW08-0523 | **17** | -- | **420** | -- | **1,100** | <2 | **6.79** | **7.3 J** | **10,000** | **16,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/15/2023 | FC-CCR-MW08-1124 | **19** | -- | **520** | -- | **1,000** | <0.8 | **6.89** | **7.3 J** | **8,800** | **17,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 05/23/2024 | FC-CCR-MW08-0524 | **18** | -- | **470** | -- | **1,000** | **0.47** | **6.88** | **7.5 J** | **9,200** | **17,000** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/12/2024 | FC-CCR-MW08-1024 | **17** | -- | **358** | -- | **1,120** | **0.512 J** | **6.97** | **7.74 J** | **9,570** | **17,200** |
| MW-15 | Multiunit 1 | Supplementary | 9/30/1987 | MW-15_9/30/1987 | -- | **0.82** | -- | **440** | **370** | <0.5 | **7.30** | **7.3** | **6,200** | **9,500** |
| MW-15 | Multiunit 1 | Supplementary | 6/20/1988 | MW-15-19880620 | -- | -- | **452** | -- | **393** | **2.0** | **7.13** | -- | **5,224** | **8,618** |
| MW-15 | Multiunit 1 | Supplementary | 9/22/1988 | MW-15-19880922 | **1.0** | -- | **411** | -- | **200** | **0.40** | **7.05** | -- | **4,630** | **8,570** |
| MW-15 | Multiunit 1 | Supplementary | 11/14/1988 | MW-15-19881114 | **1.0** | -- | **409** | -- | **338** | **0.60** | **7.13** | -- | **4,808** | **8,760** |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| MW-15 | Multiunit 1 | Supplementary | 3/8/1989 | MW-15-19890308 | **2.0** | -- | **431** | -- | **413** | **0.50** | **7.16** | -- | **4,980** | **8,535** |
| MW-15 | Multiunit 1 | Supplementary | 9/13/1989 | MW-15-19890913 | **2.0** | -- | **380** | -- | **326** | **0.40** | **7.08** | -- | **4,974** | **8,600** |
| MW-15 | Multiunit 1 | Supplementary | 3/22/1990 | MW-15-19900322 | **2.0** | -- | **420** | -- | **301** | **0.30** | **7.20** | -- | **4,616** | **7,870** |
| MW-15 | Multiunit 1 | Supplementary | 9/24/1990 | MW-15-19900924 | **2.0** | -- | **430** | -- | **341** | **0.20** | **7.19** | -- | **4,790** | **8,120** |
| MW-15 | Multiunit 1 | Supplementary | 3/27/1991 | MW-15-19910327 | **3.0** | -- | **436** | -- | **298** | **0.20** | **7.12** | -- | **4,544** | **7,660** |
| MW-15 | Multiunit 1 | Supplementary | 9/27/1991 | MW-15-19910927 | **2.0** | -- | **434** | -- | **313.6** | **0.20** | **7.19** | -- | **4,306** | **7,720** |
| MW-15 | Multiunit 1 | Supplementary | 5/1/1992 | MW-15-19920501 | **5.0** | -- | **460** | -- | **299** | **0.30** | **7.18** | -- | **4,624** | **7,075** |
| MW-15 | Multiunit 1 | Supplementary | 10/28/1992 | MW-15-19921028 | **4.0** | -- | **420** | -- | **289.8** | **0.30** | **7.15** | -- | **4,122** | **7,110** |
| MW-15 | Multiunit 1 | Supplementary | 4/23/1993 | MW-15-19930423 | **3.0** | -- | **340** | -- | **375** | **0.28** | **7.28** | -- | **4,593** | **7,760** |
| MW-15 | Multiunit 1 | Supplementary | 11/22/1993 | MW-15-19931122 | **4.0** | -- | **420** | -- | **338** | **0.30** | **7.05** | -- | **4,192** | **7,430** |
| MW-15 | Multiunit 1 | Supplementary | 4/20/1994 | MW-15-19940420 | **5.0** | -- | **440** | -- | **356** | **0.20** | **7.13** | -- | **4,556** | **7,200** |
| MW-15 | Multiunit 1 | Supplementary | 11/8/1994 | MW-15-19941108 | **6.0** | -- | **480** | -- | **357** | **0.20** | **7.02** | -- | **4,354** | **7,240** |
| MW-15 | Multiunit 1 | Supplementary | 4/5/1995 | MW-15-19950405 | **7.0** | -- | **460** | -- | **322** | **0.20** | **7.10** | -- | **4,012** | **6,820** |
| MW-15 | Multiunit 1 | Supplementary | 11/18/1995 | MW-15-19951118 | **6.48** | -- | **460** | -- | **349.4** | **0.20** | **6.98** | -- | **4,301** | **6,260** |
| MW-15 | Multiunit 1 | Supplementary | 8/14/1996 | MW-15-19960814 | **5.93** | -- | **440** | -- | **347.1** | **0.20** | **7.06** | -- | **4,226** | **7,360** |
| MW-15 | Multiunit 1 | Supplementary | 4/23/1997 | MW-15-19970423 | **7.72** | -- | **440** | -- | **311.95** | **0.20** | **7.22** | -- | **3,776** | **6,780** |
| MW-15 | Multiunit 1 | Supplementary | 10/8/1997 | MW-15-19971008 | <0.05 | -- | **400** | -- | **429.4** | **0.20** | **7.39** | -- | **4,344** | **7,780** |
| MW-15 | Multiunit 1 | Supplementary | 4/14/1998 | MW-15-19980414 | -- | -- | **420** | -- | **348.5** | **0.20** | **7.02** | -- | **3,772** | **7,260** |
| MW-15 | Multiunit 1 | Supplementary | 5/11/1999 | MW-15-19990511 | **1.8** | -- | **460** | -- | **322.5** | **0.20** | **7.23** | -- | **3,712** | **7,040** |
| MW-15 | Multiunit 1 | Supplementary | 12/1/1999 | MW-15-19991201 | **10.1** | -- | **520** | -- | **355.8** | **0.20** | **7.19** | -- | **3,877** | **7,000** |
| MW-15 | Multiunit 1 | Supplementary | 6/8/2000 | MW-15-20000608 | **9.45** | -- | **454** | -- | **519.1** | **0.20** | **7.61** | -- | **5,662** | **6,970** |
| MW-15 | Multiunit 1 | Supplementary | 12/12/2000 | MW-15-20001212 | **9.45** | -- | **480** | -- | **373.7** | **0.2524** | **6.90** | -- | **3,803** | -- |
| MW-15 | Multiunit 1 | Supplementary | 8/22/2001 | MW-15-20010822 | **10.9** | -- | **435** | -- | **328.1** | **0.20** | **7.00** | -- | **3,958** | **7,170** |
| MW-15 | Multiunit 1 | Supplementary | 12/3/2001 | MW-15-20011203 | **11.5** | -- | **600** | -- | **299.8** | **0.20** | **6.86** | -- | **3,944** | **6,910** |
| MW-15 | Multiunit 1 | Supplementary | 6/24/2002 | MW-15-20020624 | **11.7** | -- | **420** | -- | **358.2** | **0.20** | **7.31** | -- | **4,014** | **7,450** |
| MW-15 | Multiunit 1 | Supplementary | 12/18/2002 | MW-15-20021218 | **12.2** | -- | **440** | -- | **317.3** | **0.20** | **7.07** | -- | **3,900** | **7,390** |
| MW-15 | Multiunit 1 | Supplementary | 5/28/2003 | MW-15-20030528 | **13.9** | -- | **460** | -- | **342.8** | **0.20** | **6.88** | -- | **3,640** | **7,150** |
| MW-15 | Multiunit 1 | Supplementary | 12/24/2003 | MW-15-20031224 | **12.6** | -- | **340** | -- | **328** | **0.30** | **6.99** | -- | **3,708** | **7,330** |
| MW-15 | Multiunit 1 | Supplementary | 6/16/2004 | MW-15-20040616 | -- | -- | **420** | -- | **365.6** | **0.20** | **6.95** | -- | **4,043** | **7,680** |
| MW-15 | Multiunit 1 | Supplementary | 11/29/2004 | MW-15-20041129 | **15.2** | -- | **500** | -- | **402.8** | **0.30** | **7.08** | -- | **2,727** | **7,900** |
| MW-15 | Multiunit 1 | Supplementary | 5/13/2005 | MW-15-20050513 | **11.2** | -- | **440** | -- | **368.2** | **0.30** | **7.00** | -- | **4,053** | **7,840** |
| MW-15 | Multiunit 1 | Supplementary | 12/14/2005 | MW-15-20051214 | **14** | -- | **464** | -- | **357** | -- | **6.95** | -- | **3,943** | **7,890** |
| MW-15 | Multiunit 1 | Supplementary | 6/17/2006 | MW-15-20060617 | **13.5** | -- | **454** | -- | **328** | **0.177** | **6.98** | -- | **4,590** | **7,730** |
| MW-15 | Multiunit 1 | Supplementary | 10/11/2006 | MW-15-20061011 | **12.9** | -- | **445** | -- | **366** | **0.221** | **7.00** | -- | **4,980** | **7,940** |
| MW-15 | Multiunit 1 | Supplementary | 4/18/2007 | MW-15-20070418 | **13.9** | -- | **441** | -- | **395** | **0.373** | **7.08** | -- | **4,770** | **7,760** |
| MW-15 | Multiunit 1 | Supplementary | 11/14/2007 | MW-15-20071114 | **11.3** | -- | **377** | -- | **480** | **0.30** | **7.04** | -- | **5,400** | **8,610** |
| MW-15 | Multiunit 1 | Supplementary | 5/7/2008 | MW-15-20080507 | **11.7** | -- | **382** | -- | **320** | **0.20** | **7.08** | -- | **5,440** | **8,160** |
| MW-15 | Multiunit 1 | Supplementary | 11/19/2013 | FC-15MS-111913 | -- | -- | **490** | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/19/2013 | FC-15-111913 | **11** | -- | **480** | -- | **830** | <4.0 | -- | -- | **5,500** | **9,600** |
| MW-15 | Multiunit 1 | Supplementary | 9/9/2014 | FCPP-15-090914 | **9.4** | -- | **450** | -- | **910** | <0.40 | -- | -- | **5,800** | **10,000** |
| MW-15 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-15-031715 | **9.2** | -- | **450** | -- | **1,000** | <0.40 | -- | -- | **6,300** | **11,000** |
| MW-15 | Multiunit 1 | Supplementary | 6/29/2015 | MW-15 | **9.1** | -- | **410** | -- | **1,000** | <0.80 | -- | **7.05** | **5,700** | **11,000** |
| MW-15 | Multiunit 1 | Supplementary | 8/26/2015 | FCPP-15-082615 | **8.8** | -- | **420** | -- | **1,100** | <0.80 | -- | **7.08** | **6,500** | **11,000** |
| MW-15 | Multiunit 1 | Supplementary | 6/18/2016 | FC-Seep-MW15-616 | **8.6** | -- | **470** | -- | **1,100** | <0.40 | -- | **7.19** | **6,100** | **11,000** |
| MW-15 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW15-916 | **8.5** | -- | **430** | -- | **1,200** | <0.40 | -- | **7.0** | **7,400** | **11,000** |
| MW-15 | Multiunit 1 | Supplementary | 3/20/2019 | FC-CCR-MW15-032019 | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 3/20/2019 | FC-CCR-MW15-032019 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW15-51419 | **8.3** | -- | **440** | -- | **940** | <0.80 | -- | **7.0 J** | **6,400** | **11,000** |
| MW-15 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW15-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-MW15-111919 | **8.2** | -- | **440** | -- | **1,000** | <0.80 | -- | **6.9 J** | **6,600** | **11,000** |
| MW-15 | Multiunit 1 | Supplementary | 6/23/2020 | FC-CCR-MW15-0620 | **8.8** | -- | **440** | -- | **990** | <0.8 | **6.62** | **7.0 J** | **6,600** | **12,000** |
| MW-15 | Multiunit 1 | Supplementary | 11/6/2020 | FC-CCR-MW15-1120 | **7.9** | -- | **430** | -- | **1,000** | <0.4 | **6.68** | **7.2 J** | **6,800** | **11,000** |
| MW-15 | Multiunit 1 | Supplementary | 4/27/2021 | FC-CCR-MW15-0421 | **7.8** | -- | **470** | -- | **1,000** | **0.27 J** | **7.38** | **7.2 J** | **6,400** | **11,000** |
| MW-15 | Multiunit 1 | Supplementary | 11/18/2021 | FC-CCR-MW15-1121 | **7.3** | -- | **420** | -- | **1,200** | **0.37 J** | **6.66** | **7.4 J** | **8,400** | **11,000** |
| MW-15 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-MW15-0222 | **8.2** | -- | **480** | -- | **1,100** | **0.18** | **6.51** | **7.3 J** | **7,100** | **11,000** |
| MW-15 | Multiunit 1 | Supplementary | 5/24/2022 | FC-CCR-MW15-0522 | **7.9** | -- | **440** | -- | **1,000** | <0.8 | **6.78** | **7.50 J** | **6,500** | **12,000** |
| MW-15 | Multiunit 1 | Supplementary | 8/13/2022 | FC-CCR-MW15-0822 | **8.1** | -- | **470** | -- | **1,000** | <0.8 | **6.70** | **7.0 J** | **6,700** | **11,000** |
| MW-15 | Multiunit 1 | Supplementary | 11/16/2022 | FC-CCR-MW15-1122 | **7.8** | -- | **470** | -- | **1,000** | <2 | **6.67** | **7.1 J** | **6,600** | **12,000** |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| MW-15 | Multiunit 1 | Supplementary | 5/8/2023 | FC-CCR-MW15-0523 | **8.1** | -- | **450** | -- | **1,100** | <2 | **6.61** | **7.1 J** | **6,800** | **11,000** |
| MW-15 | Multiunit 1 | Supplementary | 11/15/2023 | FC-CCR-MW15-1124 | **8.9** | -- | **520** | -- | **1,100** | <0.8 | **6.71** | **7.1 J** | **6,600** | **13,000** |
| MW-15 | Multiunit 1 | Supplementary | 05/23/2024 | FC-CCR-MW15-0524 | **9.0** | -- | **460** | -- | **2,300** | <0.4 | **6.68** | **7.3 J** | **13,000** | **12,000** |
| MW-15 | Multiunit 1 | Supplementary | 11/14/2024 | FC-CCR-MW15-1124 | **7.1** | -- | **411** | -- | **1,090** | **0.391 J** | **6.76** | **7.40 J** | **7,020** | **12,100** |
| MW-16 | Multiunit 1 | Supplementary | 9/30/1987 | MW-16_9/30/1987 | -- | **1.3** | -- | **410** | **770** | <0.5 | **7.38** | **7.4** | **12,000** | **20,000** |
| MW-16 | Multiunit 1 | Supplementary | 6/20/1988 | MW-16-19880620 | -- | -- | **412** | -- | **685** | **0.50** | **7.41** | -- | **6,063** | **19,249** |
| MW-16 | Multiunit 1 | Supplementary | 9/21/1988 | MW-16-19880921 | **2.0** | -- | **378** | -- | **664** | **0.60** | **7.15** | -- | **11,592** | **20,028** |
| MW-16 | Multiunit 1 | Supplementary | 11/14/1988 | MW-16-19881114 | **2.0** | -- | **358** | -- | **620** | **0.50** | **7.30** | -- | **11,983** | **20,760** |
| MW-16 | Multiunit 1 | Supplementary | 3/8/1989 | MW-16-19890308 | **2.0** | -- | **347** | -- | **683** | **0.60** | **7.30** | -- | **12,519** | **19,880** |
| MW-16 | Multiunit 1 | Supplementary | 9/13/1989 | MW-16-19890913 | **2.0** | -- | **320** | -- | **549** | **0.60** | **7.31** | -- | **11,421** | **18,780** |
| MW-16 | Multiunit 1 | Supplementary | 3/26/1990 | MW-16-19900326 | **2.0** | -- | **340** | -- | **580** | **0.50** | **7.30** | -- | **11,981** | **18,700** |
| MW-16 | Multiunit 1 | Supplementary | 9/24/1990 | MW-16-19900924 | **1.0** | -- | **300** | -- | **592** | **0.30** | **7.32** | -- | **11,738** | **17,890** |
| MW-16 | Multiunit 1 | Supplementary | 4/2/1991 | MW-16-19910402 | **2.0** | -- | **320** | -- | **677** | **0.30** | **7.23** | -- | **11,080** | **17,420** |
| MW-16 | Multiunit 1 | Supplementary | 10/1/1991 | MW-16-19911001 | **2.0** | -- | **261** | -- | **574.4** | **0.30** | **7.52** | -- | **9,634** | **16,260** |
| MW-16 | Multiunit 1 | Supplementary | 5/7/1992 | MW-16-19920507 | **2.0** | -- | **250** | -- | **557.2** | **0.30** | **7.39** | -- | **9,994** | **16,220** |
| MW-16 | Multiunit 1 | Supplementary | 11/5/1992 | MW-16-19921105 | **2.0** | -- | **320** | -- | **556** | **0.30** | **7.32** | -- | **8,898** | **15,100** |
| MW-16 | Multiunit 1 | Supplementary | 4/26/1993 | MW-16-19930426 | **2.0** | -- | **330** | -- | **527.8** | **0.20** | **7.33** | -- | **9,830** | **14,170** |
| MW-16 | Multiunit 1 | Supplementary | 11/23/1993 | MW-16-19931123 | **2.0** | -- | **330** | -- | **523** | **0.30** | **7.30** | -- | **8,832** | **14,780** |
| MW-16 | Multiunit 1 | Supplementary | 4/20/1994 | MW-16-19940420 | **2.0** | -- | **390** | -- | **581** | **0.30** | **7.28** | -- | **9,260** | **15,320** |
| MW-16 | Multiunit 1 | Supplementary | 9/21/1994 | MW-16-19940921 | **2.0** | -- | **350** | -- | **517** | **0.30** | **7.33** | -- | **8,530** | **14,040** |
| MW-16 | Multiunit 1 | Supplementary | 4/4/1995 | MW-16-19950404 | **1.0** | -- | **390** | -- | **531** | **0.30** | **7.34** | -- | **8,186** | **13,220** |
| MW-16 | Multiunit 1 | Supplementary | 11/21/1995 | MW-16-19951121 | **3.06** | -- | **400** | -- | **428.6** | **0.30** | **7.34** | -- | **7,076** | **11,890** |
| MW-16 | Multiunit 1 | Supplementary | 8/15/1996 | MW-16-19960815 | **2.79** | -- | **320** | -- | **424.4** | **0.20** | **7.31** | -- | **7,115** | **11,820** |
| MW-16 | Multiunit 1 | Supplementary | 4/15/1997 | MW-16-19970415 | **3.49** | -- | **340** | -- | **408.5** | **0.30** | **7.59** | -- | **6,336** | **11,240** |
| MW-16 | Multiunit 1 | Supplementary | 10/8/1997 | MW-16-19971008 | <0.05 | -- | **320** | -- | **414.3** | **0.20** | **7.42** | -- | **6,952** | **10,850** |
| MW-16 | Multiunit 1 | Supplementary | 4/15/1998 | MW-16-19980415 | **3.32** | -- | **420** | -- | **385.5** | **0.20** | **7.27** | -- | **6,311** | **11,220** |
| MW-16 | Multiunit 1 | Supplementary | 5/11/1999 | MW-16-19990511 | **3.9** | -- | **440** | -- | **412.6** | **0.30** | **7.38** | -- | **6,520** | **11,790** |
| MW-16 | Multiunit 1 | Supplementary | 11/30/1999 | MW-16-19991130 | **4.0** | -- | **520** | -- | **417.9** | **0.20** | **7.54** | -- | **6,331** | **10,980** |
| MW-16 | Multiunit 1 | Supplementary | 6/8/2000 | MW-16-20000608 | **4.73** | -- | **462** | -- | **618.3** | **0.30** | **7.20** | -- | **7,616** | **11,390** |
| MW-16 | Multiunit 1 | Supplementary | 12/12/2000 | MW-16-20001212 | **4.97** | -- | **540** | -- | **426.7** | **0.2809** | **7.00** | -- | **6,014** | -- |
| MW-16 | Multiunit 1 | Supplementary | 8/22/2001 | MW-16-20010822 | **5.44** | -- | **480** | -- | **434** | **0.27** | **7.28** | -- | **5,883** | **9,990** |
| MW-16 | Multiunit 1 | Supplementary | 12/3/2001 | MW-16-20011203 | **5.7** | -- | **620** | -- | **386.4** | **0.30** | **7.21** | -- | **5,470** | **10,240** |
| MW-16 | Multiunit 1 | Supplementary | 6/12/2002 | MW-16-20020612 | **5.47** | -- | **420** | -- | **493.5** | **0.40** | **7.57** | -- | **6,693** | **11,830** |
| MW-16 | Multiunit 1 | Supplementary | 12/18/2002 | MW-16-20021218 | **64.2** | -- | **440** | -- | **429.8** | **0.20** | **7.52** | -- | **5,924** | **10,780** |
| MW-16 | Multiunit 1 | Supplementary | 5/29/2003 | MW-16-20030529 | **6.55** | -- | **480** | -- | **536.6** | **0.70** | **7.21** | -- | **6,005** | **11,460** |
| MW-16 | Multiunit 1 | Supplementary | 12/24/2003 | MW-16-20031224 | **6.59** | -- | **330** | -- | **415** | **0.34** | **7.22** | -- | **5,816** | **10,330** |
| MW-16 | Multiunit 1 | Supplementary | 6/16/2004 | MW-16-20040616 | -- | -- | **440** | -- | **429.3** | **0.30** | **7.17** | -- | **6,128** | **10,350** |
| MW-16 | Multiunit 1 | Supplementary | 11/29/2004 | MW-16-20041129 | **8.8** | -- | **420** | -- | **411.9** | **0.40** | **7.23** | -- | **3,752** | **10,080** |
| MW-16 | Multiunit 1 | Supplementary | 6/13/2005 | MW-16-20050613 | **7.41** | -- | **470** | -- | **371.6** | **0.30** | **7.25** | -- | **5,373** | **9,900** |
| MW-16 | Multiunit 1 | Supplementary | 10/31/2005 | MW-16-20051031 | -- | -- | -- | -- | **351.2** | **0.20** | **7.10** | -- | **5,078** | **9,410** |
| MW-16 | Multiunit 1 | Supplementary | 5/16/2006 | MW-16-20060516 | **10.3** | -- | **460** | -- | **322** | **0.267** | **7.18** | -- | **5,440** | **9,200** |
| MW-16 | Multiunit 1 | Supplementary | 10/11/2006 | MW-16-20061011 | **9.63** | -- | **463** | -- | **327** | **0.287** | **7.18** | -- | **6,010** | **9,160** |
| MW-16 | Multiunit 1 | Supplementary | 4/18/2007 | MW-16-20070418 | **9.69** | -- | **460** | -- | **380** | **0.59** | **7.22** | -- | **5,860** | **9,040** |
| MW-16 | Multiunit 1 | Supplementary | 11/14/2007 | MW-16-20071114 | **8.78** | -- | **391** | -- | **374** | **0.20** | **7.22** | -- | **5,700** | **9,040** |
| MW-16 | Multiunit 1 | Supplementary | 5/7/2008 | MW-16-20080507 | **9.7** | -- | **400** | -- | **330** | **0.30** | **7.27** | -- | **6,020** | **8,780** |
| MW-16 | Multiunit 1 | Supplementary | 12/4/2009 | MW-16-20091204 | **10.7** | -- | **408** | -- | **360** | **0.30** | **7.21** | -- | **4,900** | **8,250** |
| MW-16 | Multiunit 1 | Supplementary | 9/27/2012 | MW-16-092712-01 | **9.5** | -- | **400** | -- | **450** | <2.0 | -- | -- | **5,400** | **8,900** |
| MW-16 | Multiunit 1 | Supplementary | 11/19/2013 | FC-16-111913 | **7.3** | -- | **490** | -- | **680** | <4.0 | -- | -- | **6,200** | **11,000** |
| MW-16 | Multiunit 1 | Supplementary | 3/12/2014 | FC-16-031214 | **7.6** | -- | **460** | -- | **690** | <0.80 | -- | -- | **6,500** | **11,000** |
| MW-16 | Multiunit 1 | Supplementary | 9/9/2014 | FCPP-16-090914 | **7.7** | -- | **440** | -- | **670** | <0.40 | -- | -- | **6,300** | **10,000** |
| MW-16 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-16-031715 | **8.8** | -- | **460** | -- | **820** | <0.40 | -- | -- | **6,300** | **10,000** |
| MW-16 | Multiunit 1 | Supplementary | 6/29/2015 | MW-16 | **8.7** | -- | **430** | -- | **940** | <0.80 | -- | **7.21** | **6,200** | **12,000** |
| MW-16 | Multiunit 1 | Supplementary | 8/26/2015 | FCPP-16-082615 | **8.3** | -- | **440** | -- | **890** | **2.7** | -- | **7.17** | **7,700** | **12,000** |
| MW-16 | Multiunit 1 | Supplementary | 11/10/2015 | FC MW-16-(111115) | **8.1** | -- | **530** | -- | **1,000** | <4.0 | -- | **7.24** | **9,000** | **17,000** |
| MW-16 | Multiunit 1 | Supplementary | 6/18/2016 | FC-Seep-MW16-616 | **8.0** | -- | **470** | -- | **1,200** | <0.40 | -- | **7.35** | **8,500** | **15,000** |
| MW-16 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW16-916 | **7.5** | -- | **420** | -- | **1,300** | <0.40 | -- | **7.1** | **12,000** | **16,000** |
| MW-16 | Multiunit 1 | Supplementary | 3/20/2019 | FC-CCR-MW16-032019 | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 3/20/2019 | FC-CCR-MW16-032019 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW16-51419 | **6.6** | -- | **410** | -- | **1,300** | <0.80 | -- | **7.2 J** | **11,000** | **17,000** |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| MW-16 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW16-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/14/2019 | *DUP* FC-CCR-FD02-51419 | **6.6** | -- | **410** | -- | **1,000** | <0.80 | -- | **7.2 J** | **10,000** | **17,000** |
| MW-16 | Multiunit 1 | Supplementary | 5/14/2019 | *DUP* FC-CCR-FD02-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-MW16-111919 | **7.1** | -- | **420** | -- | **900** | <0.80 | -- | **7.1 J** | **11,000** | **17,000** |
| MW-16 | Multiunit 1 | Supplementary | 6/23/2020 | FC-CCR-MW16-0620 | **7.8** | -- | **430** | -- | **870** | <0.8 | **6.81** | **7.3 J** | **12,000** | **18,000** |
| MW-16 | Multiunit 1 | Supplementary | 11/6/2020 | FC-CCR-MW16-1120 | **7.3** | -- | **410** | -- | **1,400** | <0.4 | **6.90** | **7.4 J** | **11,000** | **16,000** |
| MW-16 | Multiunit 1 | Supplementary | 4/27/2021 | FC-CCR-MW16-0421 | **7.9** | -- | **420** | -- | **780** | **0.19 J** | **7.67** | **7.3 J** | **11,000** | **18,000** |
| MW-16 | Multiunit 1 | Supplementary | 11/18/2021 | FC-CCR-MW16-1121 | **8.4** | -- | **430** | -- | **1,300** | **0.39 J** | **6.86** | **7.5 J** | **22,000** | **18,000** |
| MW-16 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-MW16-0222 | **9.0** | -- | **470** | -- | **840** | **0.13** | **6.73** | **7.3 J** | **12,000** | **19,000** |
| MW-16 | Multiunit 1 | Supplementary | 5/26/2022 | FC-CCR-MW16-0522 | **8.5** | -- | **480** | -- | **1,200** | <0.8 | **6.97** | **7.48 J** | **22,000** | **19,000** |
| MW-16 | Multiunit 1 | Supplementary | 8/13/2022 | FC-CCR-MW16-0822 | **8.9** | -- | **430** | -- | **770** | <0.8 | **6.90** | **7.1 J** | **12,000** | **18,000** |
| MW-16 | Multiunit 1 | Supplementary | 11/16/2022 | FC-CCR-MW16-1122 | **8.2** | -- | **410** | -- | **1,000** | <8 | **6.90** | **7.2 J** | **16,000** | **19,000** |
| MW-16 | Multiunit 1 | Supplementary | 5/8/2023 | FC-CCR-MW16-0523 | **9.3** | -- | **440** | -- | **980** | <2 | **6.87** | **7.3 J** | **13,000** | **21,000** |
| MW-16 | Multiunit 1 | Supplementary | 11/15/2023 | FC-CCR-MW16-1124 | **11** | -- | **490** | -- | **840** | <0.8 | **6.92** | **7.3 J** | **12,000** | **19,000** |
| MW-16 | Multiunit 1 | Supplementary | 05/23/2024 | FC-CCR-MW16-0524 | **9.6** | -- | **450** | -- | **1,800** | <0.4 | **6.91** | **7.4 J** | **13,000** | **23,000** |
| MW-16 | Multiunit 1 | Supplementary | 11/14/2024 | FC-CCR-MW16-1124 | **9.96** | -- | **341** | -- | **757** | <0.38 | **6.94** | **7.57 J** | **12,900** | **21,500** |
| MW-17R | Multiunit 1 | Supplementary | 3/12/2014 | FC-17R-031214 | **34** | -- | **470** | -- | **400** | **0.43** | -- | -- | **3,900** | **6,100** |
| MW-17R | Multiunit 1 | Supplementary | 9/9/2014 | FCPP-17R-090914 | **33** | -- | **420** | -- | **370** | <0.40 | -- | -- | **3,900** | **6,300** |
| MW-17R | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-17R-031715 | **34** | -- | **450** | -- | **420** | **0.40** | -- | -- | **4,100** | **6,200** |
| MW-17R | Multiunit 1 | Supplementary | 6/30/2015 | MW-17R | **34** | -- | **430** | -- | **410** | <0.80 | -- | **7.41** | **3,600** | **6,300** |
| MW-17R | Multiunit 1 | Supplementary | 8/25/2015 | FCPP-17R-082515 | **33** | -- | **460** | -- | **420** | <0.40 | -- | **7.32** | **4,100** | **6,500** |
| MW-17R | Multiunit 1 | Supplementary | 11/4/2015 | FC MW-17R-(041115) | **30** | -- | **440** | -- | -- | -- | -- | **7.21** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 11/13/2015 | FC MW-17R-(131115) | **36** | -- | **430** | -- | **400** | <2.0 | -- | **7.37** | **4,000** | **6,500** |
| MW-17R | Multiunit 1 | Supplementary | 6/18/2016 | FC-Seep-MW17B-616 | **33** | -- | **470** | -- | **400** | **0.45** | -- | **7.57** | **3,800** | **6,600** |
| MW-17R | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW17R-916 | **36** | -- | **430** | -- | **370** | **0.49** | -- | **7.4** | **4,100** | **6,400** |
| MW-17R | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-MW17R-031919 | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-MW17R-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW17R-51419 | **33** | -- | **440** | -- | **390** | <0.80 | -- | **7.5 J** | **4,000** | **6,200** |
| MW-17R | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW17R-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 5/14/2019 | *DUP* FC-CCR-FD01-51419 | **33** | -- | **430** | -- | **380** | <0.80 | -- | **7.5 J** | **3,900** | **6,300** |
| MW-17R | Multiunit 1 | Supplementary | 5/14/2019 | *DUP* FC-CCR-FD01-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-MW17R-111919 | **36** | -- | **460** | -- | **390** | <0.80 | -- | **7.4 J** | **4,100** | **6,200** |
| MW-17R | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-MW17R-0620 | **36** | -- | **440** | -- | **380** | <0.8 | **7.14** | **7.5 J** | **3,900** | **6,100** |
| MW-17R | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-MW17R-1120 | **36** | -- | **440** | -- | **400** | **0.4** | **7.24** | **7.5 J** | **4,300** | **5,900** |
| MW-17R | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-MW17R-0421 | **36** | -- | **470** | -- | **390** | **0.45** | **8.06** | **7.6 J** | **4,000** | **6,200** |
| MW-17R | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-MW17R-1121 | **39** | -- | **470** | -- | **490** | **0.62 J** | **7.12** | **7.7 J** | **5,700** | **6,300** |
| MW-17R | Multiunit 1 | Supplementary | 2/9/2022 | FC-CCR-MW17R-0222 | **37** | -- | **480** | -- | **450** | **0.48** | **7.22** | **7.5 J** | **4,600** | **6,400** |
| MW-17R | Multiunit 1 | Supplementary | 2/9/2022 | *DUP* FC-CCR-FD01-0222 | **36** | -- | **460** | -- | **440** | **0.50** | **7.22** | **7.5 J** | **4,500** | **6,300** |
| MW-17R | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW17R-0522 | **34** | -- | **440** | -- | **400** | <0.8 | **7.11** | **7.47 J** | **8,500** | **6,500** |
| MW-17R | Multiunit 1 | Supplementary | 8/11/2022 | FC-CCR-MW17R-0822 | **35** | -- | **450** | -- | **430** | <0.8 | **7.11** | **7.4 J** | **4,000** | **6,400** |
| MW-17R | Multiunit 1 | Supplementary | 11/15/2022 | FC-CCR-MW17R-1122 | **37** | -- | **480** | -- | **430** | <2 | **7.19** | **7.4 J** | **4,000** | **6,700** |
| MW-17R | Multiunit 1 | Supplementary | 5/4/2023 | FC-CCR-MW17R-0523 | **38** | -- | **480** | -- | **420** | <8 | **7.19** | **7.4 J** | **4,000** | **6,200** |
| MW-17R | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW17R-1124 | **39** | -- | **490** | -- | **410** | <0.8 | **7.23** | **7.5 J** | **4,100** | **6,300** |
| MW-17R | Multiunit 1 | Supplementary | 05/21/2024 | FC-CCR-MW17R-0524 | **39** | -- | **480** | -- | **800** | <0.4 | **7.33** | **7.4 J** | **7,700** | **6,600** |
| MW-17R | Multiunit 1 | Supplementary | 11/14/2024 | FC-CCR-MW17R-1124 | **41.8** | -- | **413** | -- | **346** | **0.515 J** | **7.26** | **7.65 J** | **3,830** | **6,730** |
| MW-17R | Multiunit 1 | Supplementary | 11/14/2024 | FC-CCR-FD09-1124 | **40.7** | -- | **414** | -- | **353** | **0.495 J** | **7.26** | **7.65 J** | **3,930** | **6,700** |
| MW-18 | Multiunit 1 | Supplementary | 9/29/1987 | MW-18_9/29/1987 | -- | **0.76** | -- | **430** | **480** | <0.5 | **7.45** | **7.5** | **9,500** | **15,000** |
| MW-18 | Multiunit 1 | Supplementary | 6/15/1988 | MW-18-19880615 | -- | -- | **428** | -- | **901** | **0.50** | **7.11** | -- | **9,631** | **18,180** |
| MW-18 | Multiunit 1 | Supplementary | 9/21/1988 | MW-18-19880921 | **1.0** | -- | **377** | -- | **703** | **0.50** | **7.18** | -- | **9,681** | **18,120** |
| MW-18 | Multiunit 1 | Supplementary | 11/28/1988 | MW-18-19881128 | **1.0** | -- | **369** | -- | **626** | **0.40** | **7.18** | -- | **11,222** | **16,320** |
| MW-18 | Multiunit 1 | Supplementary | 2/27/1989 | MW-18-19890227 | **1.0** | -- | **408** | -- | **692** | **0.40** | **7.19** | -- | **10,056** | **16,895** |
| MW-18 | Multiunit 1 | Supplementary | 9/11/1989 | MW-18-19890911 | **1.0** | -- | **340** | -- | **516** | **0.40** | **7.21** | -- | **9,057** | **15,200** |
| MW-18 | Multiunit 1 | Supplementary | 3/26/1990 | MW-18-19900326 | **1.0** | -- | **380** | -- | **667** | **0.30** | **7.20** | -- | **9,976** | **16,490** |
| MW-18 | Multiunit 1 | Supplementary | 9/18/1990 | MW-18-19900918 | **1.0** | -- | **340** | -- | **549** | **0.20** | **7.23** | -- | **9,780** | **16,475** |
| MW-18 | Multiunit 1 | Supplementary | 5/30/1991 | MW-18-19910530 | **1.0** | -- | **350** | -- | **1,147** | **0.30** | **7.10** | -- | **13,240** | **20,660** |
| MW-18 | Multiunit 1 | Supplementary | 9/11/1991 | MW-18-19910911 | **1.0** | -- | **370** | -- | **773** | **0.20** | **7.24** | -- | **10,542** | **17,250** |
| MW-18 | Multiunit 1 | Supplementary | 5/5/1992 | MW-18-19920505 | **1.0** | -- | **210** | -- | **1,772** | **0.20** | **7.32** | -- | **17,150** | **27,820** |
| MW-18 | Multiunit 1 | Supplementary | 10/27/1992 | MW-18-19921027 | **1.0** | -- | **240** | -- | **1,789** | **0.30** | **7.00** | -- | **19,960** | **28,980** |
| MW-18 | Multiunit 1 | Supplementary | 4/26/1993 | MW-18-19930426 | **1.0** | -- | **290** | -- | **1,506** | **0.20** | **7.08** | -- | **18,415** | **22,480** |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| MW-18 | Multiunit 1 | Supplementary | 11/23/1993 | MW-18-19931123 | **1.0** | -- | **320** | -- | **1,330** | **0.20** | **7.06** | -- | **19,000** | **19,210** |
| MW-18 | Multiunit 1 | Supplementary | 4/21/1994 | MW-18-19940421 | **1.0** | -- | **380** | -- | **699** | **0.20** | **7.22** | -- | **12,560** | **18,170** |
| MW-18 | Multiunit 1 | Supplementary | 9/20/1994 | MW-18-19940920 | **1.0** | -- | **370** | -- | **846** | **0.20** | **7.13** | -- | **10,340** | **18,330** |
| MW-18 | Multiunit 1 | Supplementary | 12/14/1994 | MW-18-19941214 | -- | -- | **400** | -- | -- | -- | **7.32** | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 4/5/1995 | MW-18-19950405 | **1.0** | -- | **300** | -- | **1,134** | **0.20** | **7.09** | -- | **14,220** | **23,650** |
| MW-18 | Multiunit 1 | Supplementary | 12/13/1995 | MW-18-19951213 | **0.74** | -- | **350** | -- | **921.5** | **0.20** | **7.16** | -- | **11,850** | **18,500** |
| MW-18 | Multiunit 1 | Supplementary | 8/12/1996 | MW-18-19960812 | **0.50** | -- | **220** | -- | **884.5** | **0.20** | **7.19** | -- | **11,253** | **19,330** |
| MW-18 | Multiunit 1 | Supplementary | 4/23/1997 | MW-18-19970423 | **0.94** | -- | **180** | -- | **1,586** | **0.20** | **7.14** | -- | **13,940** | **25,750** |
| MW-18 | Multiunit 1 | Supplementary | 10/20/1997 | MW-18-19971020 | <0.05 | -- | **200** | -- | **605.6** | **0.20** | **7.47** | -- | **8,757** | **15,120** |
| MW-18 | Multiunit 1 | Supplementary | 4/14/1998 | MW-18-19980414 | -- | -- | **400** | -- | **547.6** | **0.20** | **7.24** | -- | **8,297** | **15,840** |
| MW-18 | Multiunit 1 | Supplementary | 6/8/1999 | MW-18-19990608 | **1.6** | -- | -- | -- | -- | **0.20** | **7.76** | -- | **9,699** | **16,510** |
| MW-18 | Multiunit 1 | Supplementary | 12/8/1999 | MW-18-19991208 | -- | -- | **420** | -- | **601.8** | **0.20** | **7.29** | -- | **8,860** | **15,460** |
| MW-18 | Multiunit 1 | Supplementary | 6/8/2000 | MW-18-20000608 | **1.57** | -- | **425** | -- | **866.6** | **0.20** | **7.26** | -- | **11,148** | **12,960** |
| MW-18 | Multiunit 1 | Supplementary | 11/28/2000 | MW-18-20001128 | **1.67** | -- | **450** | -- | **441.2** | **0.2462** | **7.15** | -- | **7,021** | **13,380** |
| MW-18 | Multiunit 1 | Supplementary | 8/21/2001 | MW-18-20010821 | **1.29** | -- | **460** | -- | **490** | **0.23** | **7.11** | -- | **5,668** | **25,800** |
| MW-18 | Multiunit 1 | Supplementary | 12/5/2001 | MW-18-20011205 | **1.3** | -- | **420** | -- | **598.8** | **0.30** | **7.16** | -- | **8,647** | **14,750** |
| MW-18 | Multiunit 1 | Supplementary | 6/12/2002 | MW-18-20020612 | **1.29** | -- | **360** | -- | **435** | **0.40** | **7.42** | -- | **6,795** | **11,830** |
| MW-18 | Multiunit 1 | Supplementary | 12/18/2002 | MW-18-20021218 | **1.35** | -- | **390** | -- | **584.6** | **0.20** | **7.45** | -- | **8,137** | **14,690** |
| MW-18 | Multiunit 1 | Supplementary | 6/3/2003 | MW-18-20030603 | -- | -- | **370** | -- | **430** | **0.30** | **7.23** | -- | **5,332** | **14,490** |
| MW-18 | Multiunit 1 | Supplementary | 9/24/2003 | MW-18-20030924 | **0.76** | -- | **315** | -- | **444** | **0.36** | **7.19** | -- | **7,104** | **12,560** |
| MW-18 | Multiunit 1 | Supplementary | 6/16/2004 | MW-18-20040616 | -- | -- | **350** | -- | **494.2** | **0.30** | **7.22** | -- | **7,197** | **12,750** |
| MW-18 | Multiunit 1 | Supplementary | 11/9/2004 | MW-18-20041109 | **1.0** | -- | **435** | -- | **445.4** | **0.30** | **7.29** | -- | **6,620** | **12,680** |
| MW-18 | Multiunit 1 | Supplementary | 5/12/2005 | MW-18-20050512 | **0.787** | -- | **420** | -- | **594.8** | **0.30** | **7.13** | -- | **7,685** | **13,980** |
| MW-18 | Multiunit 1 | Supplementary | 11/1/2005 | MW-18-20051101 | **0.784** | -- | **401** | -- | **752** | **0.30** | **6.98** | -- | **8,431** | **16,100** |
| MW-18 | Multiunit 1 | Supplementary | 5/15/2006 | MW-18-20060515 | **0.792** | -- | **418** | -- | **595** | **0.213** | **7.17** | -- | **8,560** | **14,500** |
| MW-18 | Multiunit 1 | Supplementary | 10/13/2006 | MW-18-20061013 | **0.775** | -- | **449** | -- | **522** | **0.21** | **7.15** | -- | **8,640** | **11,700** |
| MW-18 | Multiunit 1 | Supplementary | 4/18/2007 | MW-18-20070418 | **0.96** | -- | **416** | -- | **723** | **0.629** | **7.16** | -- | **9,600** | **14,600** |
| MW-18 | Multiunit 1 | Supplementary | 11/20/2007 | MW-18-20071120 | **0.781** | -- | **359** | -- | **600** | **0.20** | **7.22** | -- | **7,500** | **13,700** |
| MW-18 | Multiunit 1 | Supplementary | 4/30/2008 | MW-18-20080430 | **0.80** | -- | **379** | -- | **550** | **0.20** | **7.26** | -- | **8,630** | **12,900** |
| MW-18 | Multiunit 1 | Supplementary | 12/3/2009 | MW-18-20091203 | **1.0** | -- | **376** | -- | **1,460** | **0.30** | **7.05** | -- | **12,200** | **20,900** |
| MW-18 | Multiunit 1 | Supplementary | 9/27/2012 | MW-18-092712-01 | **1.0** | -- | **400** | -- | **2,200** | <4.0 | -- | -- | **13,000** | **21,000** |
| MW-18 | Multiunit 1 | Supplementary | 11/19/2013 | FC-18-111913 | **1.1** | -- | **480** | -- | **2,100** | <4.0 | -- | -- | **12,000** | **20,000** |
| MW-18 | Multiunit 1 | Supplementary | 3/12/2014 | FC-18-031214 | **1.0** | -- | **430** | -- | **2,400** | <2.0 | -- | -- | **12,000** | **19,000** |
| MW-18 | Multiunit 1 | Supplementary | 9/10/2014 | FCPP-18-091014 | **1.1** | -- | **390** | -- | **2,300** | <0.80 | -- | -- | **13,000** | **22,000** |
| MW-18 | Multiunit 1 | Supplementary | 3/18/2015 | FCPP-18-031815 | **1.1** | -- | **450** | -- | **2,900** | <0.80 | -- | -- | **14,000** | **24,000** |
| MW-18 | Multiunit 1 | Supplementary | 6/30/2015 | MW-18 | **1.1** | -- | **400** | -- | **2,400** | <4.0 | -- | **7.09** | **12,000** | **22,000** |
| MW-18 | Multiunit 1 | Supplementary | 8/25/2015 | FCPP-18-082515 | **1.1** | -- | **430** | -- | **3,300** | <2.0 | -- | **7.01** | **14,000** | **23,000** |
| MW-18 | Multiunit 1 | Supplementary | 11/6/2015 | FC MW-18-(061115) | **1.3** | -- | **460** | -- | **2,700** | <4.0 | -- | **7.02** | **13,000** | **22,000** |
| MW-18 | Multiunit 1 | Supplementary | 6/17/2016 | FC-Seep-MW18-616 | **1.0** | -- | **440** | -- | **3,300** | <0.80 | -- | **7.28** | **13,000** | **24,000** |
| MW-18 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW18-916 | **1.3** | -- | **430** | -- | **660** | <0.40 | -- | **7.2** | **8,800** | **13,000** |
| MW-18 | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-MW18-0620 | -- | -- | -- | -- | -- | -- | **6.65** | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-MW18-1120 | **1.1** | -- | -- | -- | -- | -- | **6.74** | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-MW18-0421 | **1.3** | -- | **510** | -- | **4,800** | <0.8 | **7.37** | **7.2 J** | **16,000** | **5,900** |
| MW-18 | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-MW18-1121 | **1.2** | -- | **510** | -- | **5,100** | <0.8 | **6.65** | **7.6 J** | **16,000** | **28,000 J** |
| MW-18 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-MW18-0222 | **1.3** | -- | **520** | -- | **9,800** | **0.58** | **6.59** | **7.3 J** | **15,000** | **26,000** |
| MW-18 | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW18-0522 | **1.2** | -- | **470** | -- | **9,200** | <0.8 | **6.67** | **7.38 J** | **37,000** | **25,000** |
| MW-18 | Multiunit 1 | Supplementary | 8/12/2022 | FC-CCR-MW18-0822 | **1.3** | -- | **520** | -- | **4,600** | <0.8 | **6.34** | **7.0 J** | **15,000** | **28,000** |
| MW-18 | Multiunit 1 | Supplementary | 11/14/2022 | FC-CCR-MW18-1122 | **1.2** | -- | **490** | -- | **4,700** | <4 | **6.79** | **7.0 J** | **16,000** | **32,000** |
| MW-18 | Multiunit 1 | Supplementary | 5/4/2023 | FC-CCR-MW18-0523 | **1.5** | -- | **440** | -- | **5,100** | <80 | **6.71** | **7.1 J** | **16,000** | **29,000** |
| MW-18 | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW18-1124 | **1.4** | -- | **490** | -- | **4,700** | <0.8 | **6.76** | **7.0 J** | **15,000** | **29,000** |
| MW-18 | Multiunit 1 | Supplementary | 05/20/2024 | FC-CCR-MW18-0524 | <2.5 | -- | **550** | -- | **4,400** | <0.4 | **6.80** | **7.2 J** | **14,000** | **29,000** |
| MW-18 | Multiunit 1 | Supplementary | 11/14/2024 | FC-CCR-MW18-1124 | **1.3** | -- | **412** | -- | **4,460** | **0.399 J** | **6.78** | **7.45 J** | **14,900** | **30,000** |
| MW-23R | Multiunit 1 | Supplementary | 3/11/2014 | FC-23RMS-031114 | **1.7** | -- | **450** | -- | -- | -- | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 3/11/2014 | FC-23R-031114 | **1.7** | -- | **440** | -- | **470** | <0.80 | -- | -- | **7,200** | **5,800** |
| MW-23R | Multiunit 1 | Supplementary | 9/11/2014 | FCPP-23R-91114 | **9.0** | -- | **1,700** | -- | **520** | <0.40 | -- | -- | **7,900** | **12,000** |
| MW-23R | Multiunit 1 | Supplementary | 12/8/2014 | FCPP-MW23R-12914 | **1.9** | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 3/18/2015 | FCPP-23R-031815 | **3.5** | -- | **450** | -- | **530** | <0.40 | -- | -- | **7,100** | **12,000** |
| MW-23R | Multiunit 1 | Supplementary | 6/30/2015 | MW-23R | **6.9** | -- | **420** | -- | **580** | <2.0 | -- | **7.24** | **6,400** | **11,000** |
| MW-23R | Multiunit 1 | Supplementary | 11/3/2015 | FC MW-23R-(031115) | **9.9** | -- | **490** | -- | -- | -- | -- | **7.29** | -- | **11,000** |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| MW-23R | Multiunit 1 | Supplementary | 11/13/2015 | FC MW-23R-(131115) | **2.8** | -- | **410** | -- | **500** | <2.0 | -- | **7.25** | **7,100** | **11,000** |
| MW-23R | Multiunit 1 | Supplementary | 6/21/2016 | FC-SEEPS-MW-23R-062116 | **14** | -- | **450** | -- | **590** | <0.40 | -- | **7.23** | **6,100** | **11,000** |
| MW-23R | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW23R-916 | **6.6** | -- | **420** | -- | **530** | **0.45** | -- | **7.2** | **7,000** | **11,000** |
| MW-23R | Multiunit 1 | Supplementary | 6/21/2020 | FC-CCR-MW23R-0620 | -- | -- | -- | -- | -- | -- | **6.76** | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-MW23R-1120 | **13** | -- | -- | -- | -- | -- | **6.94** | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-MW23R-0421 | **15** | -- | **480** | -- | **730** | **0.27 J** | **7.64** | **7.4 J** | **8,700** | **13,000** |
| MW-23R | Multiunit 1 | Supplementary | 11/14/2021 | FC-CCR-MW23R | **14** | -- | **470** | -- | **900** | **0.28 J** | **6.83** | **7.4 J** | **11,000** | **17,000** |
| MW-23R | Multiunit 1 | Supplementary | 2/9/2022 | FC-CCR-MW23R-0222 | **14** | -- | **490** | -- | **830** | **0.30** | **6.88** | **7.4 J** | **10,000** | **15,000** |
| MW-23R | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW23R-0522 | **13** | -- | **470** | -- | **770** | <0.8 | **6.70** | **7.44 J** | **9,400** | **15,000** |
| MW-23R | Multiunit 1 | Supplementary | 8/12/2022 | FC-CCR-MW23R-0822 | **13** | -- | **500** | -- | **720** | <0.8 | **6.40** | **7.1 J** | **9,100** | **14,000** |
| MW-23R | Multiunit 1 | Supplementary | 11/11/2022 | FC-CCR-MW23R-1122 | **12** | -- | **500** | -- | **850** | <4 | **6.92** | **7.2 J** | **9,400** | **16,000** |
| MW-23R | Multiunit 1 | Supplementary | 5/3/2023 | FC-CCR-MW23R-0523 | **16** | -- | **520** | -- | **750** | <80 | **6.84** | **7.2 J** | **8,800** | **14,000** |
| MW-23R | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW23R-1124 | **11** | -- | **480** | -- | **900** | <0.8 | **6.93** | **7.2 J** | **11,000** | **17,000** |
| MW-23R | Multiunit 1 | Supplementary | 05/20/2024 | FC-CCR-MW23R-0524 | **15** | -- | **670** | -- | **820** | <0.4 | **6.97** | **7.3 J** | **9,800** | **18,000** |
| MW-24 | Multiunit 1 | Supplementary | 3/19/2015 | FCPP-24-031915 | **1.1** | -- | **400** | -- | **4,100** | <0.80 | -- | -- | **10,000** | **21,000** |
| MW-24 | Multiunit 1 | Supplementary | 6/29/2015 | MW-24 | **1.1** | -- | **350** | -- | **3,700** | <4.0 | -- | **7.92** | **10,000** | **20,000** |
| MW-24 | Multiunit 1 | Supplementary | 8/26/2015 | FCPP-24-082615 | **0.99** | -- | **410** | -- | **5,100** | <4.0 | -- | **7.62** | **12,000** | **23,000** |
| MW-24 | Multiunit 1 | Supplementary | 6/20/2016 | FC-Seep-MW24-616 | **1.0** | -- | **490** | -- | **4,500** | <0.80 | -- | **7.38** | **11,000** | **23,000** |
| MW-24 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW24-916 | **0.96** | -- | **420** | -- | **4,200** | <2.0 | -- | **7.3** | **11,000** | **23,000** |
| MW-24 | Multiunit 1 | Supplementary | 4/26/2021 | FC-CCR-MW24-0421 | **1.0** | -- | **510** | -- | **5,600** | **0.66 J** | **8.07** | **7.6 J** | **14,000** | **23,000** |
| MW-24 | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-MW24-1121 | **1.0** | -- | **490** | -- | **5,200** | **0.21 J** | **7.18** | **7.7 J** | **13,000** | **23,000 J** |
| MW-24 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-MW24-0222 | **1.0** | -- | **510** | -- | **4,800** | **0.23** | **7.11** | **7.6 J** | **12,000** | **24,000** |
| MW-24 | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW24-0522 | **0.94** | -- | **460** | -- | **5,000** | <0.8 | **7.21** | **7.68 J** | **12,000** | **19,000** |
| MW-24 | Multiunit 1 | Supplementary | 8/12/2022 | FC-CCR-MW24-0822 | **1.0** | -- | **510** | -- | **4,600** | <0.8 | **7.12** | **7.4 J** | **11,000** | **22,000** |
| MW-24 | Multiunit 1 | Supplementary | 11/14/2022 | FC-CCR-MW24-1122 | **0.98** | -- | **490** | -- | **4,800** | <2 | **7.29** | **7.4 J** | **12,000** | **23,000** |
| MW-24 | Multiunit 1 | Supplementary | 5/4/2023 | FC-CCR-MW24-0523 | **1.1** | -- | **460** | -- | **4,800** | <4 | **7.19** | **7.4 J** | **11,000** | **24,000** |
| MW-24 | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW24-1124 | **1.1** | -- | **470** | -- | **4,600** | <0.8 | **7.33** | **7.5 J** | **11,000** | **22,000 J** |
| MW-24 | Multiunit 1 | Supplementary | 05/21/2024 | FC-CCR-MW24-0524 | **1.1** | -- | **490** | -- | **9,500** | **0.52** | **7.38** | **7.5 J** | **10,000** | **24,000** |
| MW-24 | Multiunit 1 | Supplementary | 11/13/2024 | FC-CCR-MW24-1124 | **1.11** | -- | **374** | -- | **4,390** | **0.818** | **7.36** | **7.88 J** | **11,200** | **22,900** |
| MW-34 | Multiunit 1 | Supplementary | 6/23/2020 | FC-CCR-MW34-0620 | **11** | -- | **410** | -- | **350** | <0.8 | -- | **7.7 J** | **5,000** | **7,700** |
| MW-34 | Multiunit 1 | Supplementary | 11/16/2023 | FC-CCR-MW34-1124 | **11** | -- | -- | -- | **18** | <0.8 | **7.40** | -- | **5,100** | **7600 J** |
| MW-34 | Multiunit 1 | Supplementary | 05/21/2024 | FC-CCR-MW34-0524 | **10** | -- | -- | -- | **670** | **0.65** | **7.50** | -- | **9,900** | **8,400** |
| MW-34 | Multiunit 1 | Supplementary | 11/13/2024 | FC-CCR-MW34-1124 | **10.4** | -- | -- | -- | **345** | -- | **7.48** | -- | -- | **8,450** |
| MW-36R | Multiunit 1 | Supplementary | 9/9/2014 | FCPP-36R-090914 | **32** | -- | **450** | -- | **560** | <0.40 | -- | -- | **4,200** | **7,100** |
| MW-36R | Multiunit 1 | Supplementary | 3/19/2015 | FCPP-36R-031915 | **27** | -- | **460** | -- | **620** | <0.40 | -- | -- | **5,200** | **8,400** |
| MW-36R | Multiunit 1 | Supplementary | 6/30/2015 | MW-36R | **37** | -- | **440** | -- | **620** | <0.80 | -- | **7.24** | **4,100** | **7,600** |
| MW-36R | Multiunit 1 | Supplementary | 8/25/2015 | FCPP-36R-082515 | **21** | -- | **440** | -- | **650** | <0.80 | -- | **7.16** | **5,500** | **8,900** |
| MW-36R | Multiunit 1 | Supplementary | 11/3/2015 | FC MW-36R-(031115) | **28** | -- | **480** | -- | -- | -- | -- | **7.14** | -- | **8,400** |
| MW-36R | Multiunit 1 | Supplementary | 11/13/2015 | FC MW-36R-(131115) | **23** | -- | **390** | -- | **610** | <2.0 | -- | **7.21** | **4,700** | **8,300** |
| MW-36R | Multiunit 1 | Supplementary | 6/17/2016 | FC-Seep-MW36R-616 | **28** | -- | **460** | -- | **640** | <0.40 | -- | **7.32** | **4,800** | **7,900** |
| MW-36R | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW36R-916 | **50** | -- | **430** | -- | **540** | <0.40 | -- | **7.3** | **4,100** | **6,600** |
| MW-36R | Multiunit 1 | Supplementary | 6/21/2020 | FC-CCR-MW36R-0620 | -- | -- | -- | -- | -- | -- | b | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-MW36R-1120 | **53** | -- | -- | -- | -- | -- | **7.21** | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 11/7/2020 | *DUP* FC-CCR-FD04-1120 | **55** | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-MW36R-0421 | **53** | -- | **500** | -- | **510** | **0.29 J** | **8.04** | **7.6 J** | **4,300** | **6,800** |
| MW-36R | Multiunit 1 | Supplementary | 11/14/2021 | FC-CCR-MW36R | **57** | -- | -- | -- | -- | -- | **7.16** | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 2/9/2022 | FC-CCR-MW36R-0222 | **1.6** | -- | **490** | -- | **500** | **0.32** | **7.21** | **7.6 J** | **4,300** | **7,500** |
| MW-36R | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW36R-0522 | **51** | -- | **460** | -- | **460** | <0.8 | **7.06** | **7.50 J** | **3,900** | **7,200** |
| MW-36R | Multiunit 1 | Supplementary | 8/11/2022 | FC-CCR-MW36R-0822 | **52** | -- | **470** | -- | **490** | <0.8 | **7.34** | **7.5 J** | **4,100** | **6,600** |
| MW-36R | Multiunit 1 | Supplementary | 11/11/2022 | FC-CCR-MW36R-1122 | **55** | -- | **500** | -- | **520** | <2 | **7.25** | **7.4 J** | **4,000** | **7,200** |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| MW-36R | Multiunit 1 | Supplementary | 5/4/2023 | FC-CCR-MW36R-0523 | **58** | -- | **530** | -- | **510** | <8 | **7.23** | **7.4 J** | **3,900** | **6,800** |
| MW-36R | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW36R-1124 | **59** | -- | **480** | -- | **480** | <0.8 | **7.27** | **7.4 J** | **4,100** | **6,500** |
| MW-36R | Multiunit 1 | Supplementary | 05/20/2024 | FC-CCR-MW36R-0524 | **67** | -- | **620** | -- | **460** | <0.4 | **7.31** | **7.6 J** | **3,700** | **1,400** |
| MW-36R | Multiunit 1 | Supplementary | 11/15/2024 | FC-CCR-MW36R-1124 | **52.7** | -- | **476** | -- | **473** | **0.188** | **7.34** | **7.67 J** | **4,530** | **6,740** |
| MW-38R | Multiunit 1 | Supplementary | 3/12/2014 | FC-38R-031214 | **39** | -- | **440** | -- | **1,300** | <0.80 | -- | -- | **12,000** | **18,000** |
| MW-38R | Multiunit 1 | Supplementary | 9/11/2014 | FCPP-38R-91114 | **43** | -- | **420** | -- | **1,400** | <0.80 | -- | -- | **20,000** | **32,000** |
| MW-38R | Multiunit 1 | Supplementary | 3/19/2015 | FCPP-38R-031915 | **34** | -- | **410** | -- | **1,200** | <0.80 | -- | -- | **18,000** | **29,000** |
| MW-38R | Multiunit 1 | Supplementary | 6/30/2015 | MW-38R | **35** | -- | **390** | -- | **710** | <2.0 | -- | **7.51** | **9,500** | **16,000** |
| MW-38R | Multiunit 1 | Supplementary | 8/29/2015 | FCPP-38R-082915 | **33** | -- | **420** | -- | **560** | <2.0 | -- | **7.47** | **8,800** | **14,000** |
| MW-38R | Multiunit 1 | Supplementary | 11/10/2015 | FC MW-38R-(101115) | **34** | -- | **490** | -- | **810** | <2.0 | -- | **7.25** | **16,000** | **20,000** |
| MW-38R | Multiunit 1 | Supplementary | 6/21/2016 | FC-SEEPS-MW-38R-DUP 06211 | **27** | -- | **400** | -- | **520** | <0.40 | -- | **7.37** | **8,200** | **12,000** |
| MW-38R | Multiunit 1 | Supplementary | 6/21/2016 | FC-SEEPS-MW-38R-062116 | **25** | -- | **400** | -- | **590** | <0.40 | -- | **7.32** | **9,400** | **15,000** |
| MW-38R | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW38R-916 | **26** | -- | **380** | -- | **420** | <0.40 | -- | **7.4** | **7,700** | **12,000** |
| MW-38R | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW106-916 | **27** | -- | **390** | -- | **470** | <0.40 | -- | **7.4** | **8,600** | **13,000** |
| MW-38R | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-MW38R-031919 | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-MW38R-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW38R-51419 | **24** | -- | **400** | -- | **300** | <0.80 | -- | **7.7 J** | **4,900** | **8,200** |
| MW-38R | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW38R-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-MW38R-111919 | **26** | -- | **450** | -- | **270** | <0.80 | -- | **7.5 J** | **4,000** | **6,100** |
| MW-38R | Multiunit 1 | Supplementary | 11/19/2019 | *DUP* FC-CCR-FD01-111919 | **27** | -- | **450** | -- | **270** | <0.80 | -- | **7.5 J** | **4,000** | **5,900** |
| MW-38R | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-MW38R-0620 | **29** | -- | **450** | -- | **290** | <0.8 | **6.96** | **7.2 J** | **3,700** | **5,600** |
| MW-38R | Multiunit 1 | Supplementary | 6/22/2020 | *DUP* FC-CCR-FD05-0620 | **30** | -- | **440** | -- | **290** | <0.8 | -- | **7.4 J** | **3,800** | **5,400** |
| MW-38R | Multiunit 1 | Supplementary | 11/6/2020 | FC-CCR-MW38R-1120 | **27** | -- | **490/430** | -- | **280** | **0.36 J** | **7.03** | **7.4 J** | **4,000** | **5,800** |
| MW-38R | Multiunit 1 | Supplementary | 4/27/2021 | FC-CCR-MW384R-0421 | **29** | -- | **490** | -- | **310 J** | **0.33 J** | **7.79** | **7.3 J** | **4,100** | **5,900** |
| MW-38R | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-MW38R-1121 | **27** | -- | **460** | -- | **320** | **0.4 J** | **6.94** | **7.6 J** | **4,500** | **6,000** |
| MW-38R | Multiunit 1 | Supplementary | 2/9/2022 | FC-CCR-MW38R-0222 | **27** | -- | **470** | -- | **320** | **0.45** | **7.01** | **7.5 J** | **4,400** | **6,000** |
| MW-38R | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW38R-0522 | **27** | -- | **440** | -- | **310** | <0.8 | **6.97** | **7.45 J** | **4,600** | **6,200** |
| MW-38R | Multiunit 1 | Supplementary | 8/11/2022 | FC-CCR-MW38R-0822 | **26** | -- | **430** | -- | **330** | <0.8 | **7.41** | **7.4 J** | **4,400** | **6,600** |
| MW-38R | Multiunit 1 | Supplementary | 11/15/2022 | FC-CCR-MW38R-1122 | **24** | -- | **460** | -- | **370** | <2 | **7.03** | **7.4 J** | **5,300** | **8,500** |
| MW-38R | Multiunit 1 | Supplementary | 5/5/2023 | FC-CCR-MW38R-0523 | **27** | -- | **480** | -- | **350** | <8 | **7.02** | **7.4 J** | **5,400** | **8,900** |
| MW-38R | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW38R-1124 | **14** | -- | **440** | -- | **530** | <0.8 | **7.09** | **7.3 J** | **12,000** | **18,000** |
| MW-38R | Multiunit 1 | Supplementary | 05/22/2024 | FC-CCR-MW38R-0524 | **8.6** | -- | **440** | -- | **2,200** | <0.4 | **7.16** | **7.5 J** | **13,000** | **21,000** |
| MW-38R | Multiunit 1 | Supplementary | 11/16/2024 | FC-CCR-MW38R-1124 | **5.04** | -- | **397** | -- | **562** | <0.0761 | **7.13** | **7.54 J** | **16,400** | **24,300** |
| MW-40R | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW40R-117 | **18** | -- | **410** | -- | **1,900** | <0.40 | -- | **7.8** | **12,000** | **18,000** |
| MW-40R | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW40R-117 | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-40R | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW40R-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-40R | Multiunit 1 | Downgradient Boundary | 4/26/2021 | FC-CCR-MW40R-0421 | 9.0 | | 440 | | 2,900 | 0.28 J | 7.43 | 7.0 J | 18,000 | 27,000 |
| MW-46 | Multiunit 1 | Supplementary | 6/30/2015 | MW-46 | **0.37** | -- | **400** | -- | **2,400** | <4.0 | -- | **7.44** | **18,000** | **28,000** |
| MW-46 | Multiunit 1 | Supplementary | 11/7/2015 | FC MW-46-(07115) | **0.50** | -- | **460** | -- | **2,200** | <4.0 | -- | **7.51** | **17,000** | **29,000** |
| MW-52 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-MSD02-031715 | **5.4** | -- | **450** | -- | **470** | <0.40 | -- | -- | **5,300** | **8,100** |
| MW-52 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-52-031715 | **5.3** | -- | **450** | -- | **470** | <0.40 | -- | -- | **5,400** | **8,500** |
| MW-52 | Multiunit 1 | Supplementary | 8/26/2015 | FCPP-52-082615 | **6.1** | -- | **430** | -- | **500** | <0.80 | -- | **7.48** | **5,600** | **8,300** |
| MW-52 | Multiunit 1 | Supplementary | 11/3/2015 | FC MW-52-(031115) | **6.0** | -- | **460** | -- | **470** | <0.80 | -- | **7.47** | **5,400** | **8,400** |
| MW-52 | Multiunit 1 | Supplementary | 6/18/2016 | FC-Seep-MW52-616 | **5.7** | -- | **450** | -- | **480** | <0.40 | -- | **7.64** | **5,000** | **8,400** |
| MW-52 | Multiunit 1 | Supplementary | 9/16/2016 | FC-Seep-MW52-916 | **5.9** | -- | **420** | -- | **440** | <0.40 | -- | **7.5** | **5,000** | **8,300** |
| MW-52 | Multiunit 1 | Supplementary | 6/20/2020 | FC-CCR-MW52-0620 | -- | -- | -- | -- | -- | -- | **7.17** | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/8/2020 | FC-CCR-MW52-1120 | **7.8** | -- | -- | -- | -- | -- | **7.32** | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 4/23/2021 | FC-CCR-MW52-0421 | **7.6** | -- | -- | -- | -- | -- | **8.11** | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/13/2021 | FC-CCR-MW52-1121 | **11** | -- | **450** | -- | -- | -- | **7.24** | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/13/2021 | FC-CCR-FD03-1121 | **9.7** | -- | **420** | -- | -- | -- | **7.24** | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 5/22/2022 | FC-CCR-MW52-0522 | **16** | -- | -- | -- | -- | -- | **7.24** | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 5/22/2022 | *DUP* FC-CCR-FD03-0522 | **15** | -- | -- | -- | -- | -- | **7.24** | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/10/2022 | FC-CCR-MW52-1122 | **9.3** | -- | -- | -- | -- | -- | **7.38** | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/10/2022 | *DUP* FC-CCR-FD03-1122 | **11** | -- | -- | -- | -- | -- | **7.38** | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 5/2/2023 | FC-CCR-MW52-0523 | **11** | -- | -- | -- | -- | -- | **7.33** | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 5/2/2023 | *DUP* FC-CCR-FD03-0523 | **9.3** | -- | -- | -- | -- | -- | **7.33** | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/08/2023 | FC-CCR-MW52-1124 | **11 J** | -- | -- | -- | -- | -- | **7.42** | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/08/2023 | *DUP* FC-CCR-FD03-1124 | **10 J** | -- | -- | -- | -- | -- | **7.42** | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 05/16/2024 | FC-CCR-MW52-0524 | **14** | -- | -- | -- | -- | -- | **7.38** | -- | -- | -- |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| MW-52 | Multiunit 1 | Supplementary | 05/16/2024 | FC-CCR-FD03-0524 | **15** | -- | -- | -- | -- | -- | **7.38** | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/12/2024 | FC-CCR-MW52-1024 | **11.5** | -- | -- | -- | -- | -- | **7.38** | -- | -- | -- |
| MW-54 | Multiunit 1 | Supplementary | 9/10/2014 | FCPP-54-091014 | **3.1** | -- | **440** | -- | **13,000** | <4.0 | -- | -- | **190,000** | **28,000** |
| MW-54 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-54-031715 | **1.6** | -- | **420** | -- | **1,100** | <4.0 | -- | -- | **17,000** | **24,000** |
| MW-54 | Multiunit 1 | Supplementary | 8/26/2015 | FCPP-54-082615 | **1.4** | -- | **410** | -- | **1,100** | <0.80 | -- | **7.58** | **35,000** | **25,000** |
| MW-54 | Multiunit 1 | Supplementary | 11/3/2015 | FC MW-54-(031115) | **2.7** | -- | **860** | -- | **980** | <0.80 | -- | **7.56** | **19,000** | **27,000** |
| MW-54 | Multiunit 1 | Supplementary | 6/20/2016 | FC-Seep-MW54-616 | **1.6** | -- | **420** | -- | **910** | **0.86** | -- | **7.66** | **15,000** | **21,000** |
| MW-54 | Multiunit 1 | Supplementary | 9/16/2016 | FC-Seep-MW54-916 | **1.8** | -- | **400** | -- | **730** | **0.85** | -- | **7.8** | **13,000** | **19,000** |
| MW-56 | Multiunit 1 | Supplementary | 3/12/2014 | FC-56-031214 | **3.4** | -- | **460** | -- | **1,300** | <0.80 | -- | -- | **12,000** | **20,000** |
| MW-56 | Multiunit 1 | Supplementary | 9/10/2014 | FCPP-56-091014 | **3.5** | -- | **320** | -- | **1,000** | <0.40 | -- | -- | **11,000** | **16,000** |
| MW-56 | Multiunit 1 | Supplementary | 3/19/2015 | FCPP-56-031915 | **2.4** | -- | **450** | -- | **1,500** | <0.40 | -- | -- | **14,000** | **21,000** |
| MW-56 | Multiunit 1 | Supplementary | 6/30/2015 | MW-56 | **2.2** | -- | **410** | -- | **1,600** | <4.0 | -- | **7.01** | **14,000** | **24,000** |
| MW-56 | Multiunit 1 | Supplementary | 8/25/2015 | FCPP-56-082515 | **1.9** | -- | **430** | -- | **2,300** | <2.0 | -- | **7.3** | **18,000** | **29,000** |
| MW-56 | Multiunit 1 | Supplementary | 11/5/2015 | FC MW-56-(051115) | **2.2** | -- | **480** | -- | **2,100** | <2.0 | -- | **6.88** | **17,000** | **25,000** |
| MW-56 | Multiunit 1 | Supplementary | 6/18/2016 | FC-Seep-MW56-616 | **2.5** | -- | **450** | -- | **1,600** | <0.40 | -- | **7.27** | **12,000** | **21,000** |
| MW-56 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW56-916 | **5.4** | -- | **390** | -- | **670** | <0.40 | -- | **7.3** | **7,600** | **13,000** |
| MW-56 | Multiunit 1 | Supplementary | 3/20/2019 | FC-CCR-MW56-032019 | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 3/20/2019 | FC-CCR-MW56-032019 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW56-51419 | **2.7** | -- | **440** | -- | **1,700** | <0.80 | -- | **7.1 J** | **13,000** | **22,000** |
| MW-56 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW56-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-MW56-111919 | **2.4** | -- | **460** | -- | **1,900** | <0.80 | -- | **7.2 J** | **15,000** | **24,000** |
| MW-56 | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-MW56-0620 | **2.2** | -- | **460** | -- | **2,000** | <0.8 | **7.00** | **7.1 J** | **16,000** | **28,000** |
| MW-56 | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-MW56-1120 | **2.0** | -- | **460** | -- | **2,100** | <0.8 | **6.84** | **7.4 J** | **16,000** | **27,000** |
| MW-56 | Multiunit 1 | Supplementary | 4/26/2021 | FC-CCR-MW56-0421 | **1.8** | -- | **490** | -- | **2,300** | <0.8 | **7.43** | **7.4 J** | **19,000** | **28,000** |
| MW-56 | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-MW56-1121 | **1.8** | -- | **470** | -- | **2,400** | <0.8 | **6.83** | **7.8 J** | **20,000** | **30,000 J** |
| MW-56 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-MW56-0222 | **53** | -- | **490** | -- | **2,400** | <0.8 | **6.98** | **7.5 J** | **19,000** | **29,000** |
| MW-56 | Multiunit 1 | Supplementary | 8/11/2022 | FC-CCR-MW56-0822 | **1.6** | -- | **500** | -- | **2,200** | <0.8 | **7.24** | **7.3 J** | **18,000** | **30,000** |
| MW-56 | Multiunit 1 | Supplementary | 11/15/2022 | FC-CCR-MW56-1122 | **1.5** | -- | **470** | -- | **3,300** | <8 | **7.00** | **7.4 J** | **19,000** | **32,000** |
| MW-56 | Multiunit 1 | Supplementary | 5/4/2023 | FC-CCR-MW56-0523 | **1.7** | -- | **440** | -- | **2,300** | <80 | **7.02** | **7.3 J** | **19,000** | **30,000** |
| MW-56 | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW56-1124 | **1.6** | -- | **470** | -- | **2,300** | <0.8 | **7.01** | **7.3 J** | **19,000** | **30,000** |
| MW-56 | Multiunit 1 | Supplementary | 05/21/2024 | FC-CCR-MW56-0524 | **1.6** | -- | **490** | -- | **8,600** | <0.4 | **7.07** | **7.4 J** | **18,000** | **34,000** |
| MW-56 | Multiunit 1 | Supplementary | 11/15/2024 | FC-CCR-MW56-1124 | **1.26** | -- | **433** | -- | **2,420** | <0.38 | **7.10** | **7.73 J** | **20,800** | **33,900** |
| MW-57 | Multiunit 1 | Supplementary | 3/12/2014 | FC-57-031214 | **4.9** | -- | **450** | -- | **360** | <0.80 | -- | -- | **5,800** | **8,900** |
| MW-57 | Multiunit 1 | Supplementary | 9/9/2014 | FCPP-57MS-090914 | **7.8** | -- | **440** | -- | -- | -- | -- | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 9/9/2014 | FCPP-57-090914 | **10** | -- | **440** | -- | **330** | <0.40 | -- | -- | **5,400** | **8,700** |
| MW-57 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-57-031715 | **9.3** | -- | **440** | -- | **360** | <0.40 | -- | -- | **5,800** | **8,500** |
| MW-57 | Multiunit 1 | Supplementary | 6/29/2015 | MW-57 | **9.4** | -- | **410** | -- | **370** | <0.80 | -- | **7.54** | **5,300** | **8,800** |
| MW-57 | Multiunit 1 | Supplementary | 8/26/2015 | FCPP-57-082615 | **6.4** | -- | **420** | -- | **370** | <0.80 | -- | **7.46** | **6,100** | **9,600** |
| MW-57 | Multiunit 1 | Supplementary | 11/10/2015 | FC MW-57-(101115)-MSD | **4.3** | -- | **450** | -- | -- | -- | -- | **7.55** | -- | **9,500** |
| MW-57 | Multiunit 1 | Supplementary | 11/10/2015 | FC MW-57-(101115)-MS | **4.4** | -- | **480** | -- | -- | -- | -- | **7.54** | -- | **9,300** |
| MW-57 | Multiunit 1 | Supplementary | 11/10/2015 | FC MW-57-(101115) | **4.4** | -- | **430** | -- | **190** | <0.80 | -- | **7.53** | **6,700** | **9,400** |
| MW-57 | Multiunit 1 | Supplementary | 11/11/2015 | *DUP* FC FD-4-(101115) | **4.2** | -- | **430** | -- | -- | -- | -- | **7.54** | -- | **9,200** |
| MW-57 | Multiunit 1 | Supplementary | 6/18/2016 | FC-Seep-MW57-616 | **3.5** | -- | **430** | -- | **370** | <0.40 | -- | **7.59** | **5,900** | **9,700** |
| MW-57 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW57-916 | **8.7** | -- | **410** | -- | **330** | <0.40 | -- | **7.6** | **5,700** | **8,400** |
| MW-57 | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-MW57-031919 | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-MW57-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW57-51419 | **1.8** | -- | **420** | -- | **470** | <0.80 | -- | **7.4 J** | **7,300** | **12,000** |
| MW-57 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW57-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-MW57-111919 | **1.4** | -- | **410** | -- | **410** | <0.80 | -- | **7.3 J** | **7,100** | **11,000** |
| MW-57 | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-MW57-0620 | **1.3** | -- | **410** | -- | **430** | <0.8 | **6.85** | **7.5 J** | **7,500** | **11,000** |
| MW-57 | Multiunit 1 | Supplementary | 11/6/2020 | FC-CCR-MW57-1120 | **1.6** | -- | **440** | -- | **540** | <0.4 | **6.96** | **7.5 J** | **8,300** | **12,000** |
| MW-57 | Multiunit 1 | Supplementary | 4/27/2021 | FC-CCR-MW57-0421 | **0.96** | -- | **460** | -- | **420** | <0.4 | **7.57** | **7.5 J** | **7,400** | **12,000** |
| MW-57 | Multiunit 1 | Supplementary | 11/17/2021 | FC-CCR-MW57-1121 | **1.1** | -- | **470** | -- | **480** | **0.19 J** | **6.96** | **7.9 J** | **8,400** | **11,000** |
| MW-57 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-MW57-0222 | **1.4** | -- | **450** | -- | **560** | **0.25** | **6.86** | **7.6 J** | **8,700** | **20,000** |
| MW-57 | Multiunit 1 | Supplementary | 5/24/2022 | FC-CCR-MW57-0522 | **1.0** | -- | **400** | -- | **520** | <0.8 | **6.88** | **7.77 J** | **7,500** | **12,000** |
| MW-57 | Multiunit 1 | Supplementary | 5/24/2022 | FC-CCR-SS09-0522 | **1.25** | -- | **442** | -- | **484** | <50/0.19 J | **6.88** | **8.0 J** | **8,420** | **11,800** |
| MW-57 | Multiunit 1 | Supplementary | 8/11/2022 | FC-CCR-MW57-0822 | **1.3** | -- | **480** | -- | **510** | <0.8 | **7.25** | **7.4 J** | **8,500** | **12,000** |
| MW-57 | Multiunit 1 | Supplementary | 11/15/2022 | FC-CCR-MW571122 | **1.3** | -- | **460** | -- | **670** | <4 | **7.05** | **7.3 J** | **9,600** | **17,000** |
| MW-57 | Multiunit 1 | Supplementary | 5/5/2023 | FC-CCR-MW57-0523 | **1.5** | -- | **480** | -- | **590** | <40 | **7.01** | **7.4 J** | **9,100** | **14,000** |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| MW-57 | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW57-1124 | **2.4** | -- | **480** | -- | **1,600** | <0.8 | **7.15** | **7.3 J** | **20,000** | **34,000** |
| MW-57 | Multiunit 1 | Supplementary | 05/21/2024 | FC-CCR-MW57-0524 | **2.4** | -- | **530** | -- | **5,600** | <0.4 | **7.20** | **7.5 J** | **18,000** | **32,000** |
| MW-57 | Multiunit 1 | Supplementary | 11/15/2024 | FC-CCR-MW57-1124 | **2.51** | -- | **451** | -- | **2,180** | <0.38 | **7.32** | **7.54 J** | **35,600** | **46,000 J** |
| MW-60 | Multiunit 1 | Supplementary | 11/8/2015 | FC-CCR-MW60-110815 | **46** | -- | **430** | -- | **700** | **4.5** | -- | **7.35** | **7,500** | **11,000** |
| MW-60 | Multiunit 1 | Supplementary | 11/8/2015 | FC-CCR-MW60-110815 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 4/26/2016 | FC-CCR-MW-60-042616 | **51** | -- | **460** | -- | **560** | **2.7** | -- | -- | **6,000** | **11,000** |
| MW-60 | Multiunit 1 | Supplementary | 6/6/2016 | FC-CCR-MW60-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 6/6/2016 | FC-CCR-MW60-616 | **49** | -- | **410** | -- | **730** | **2.4** | -- | **7.12** | **6,500** | **11,000** |
| MW-60 | Multiunit 1 | Supplementary | 8/21/2016 | FC-CCR-MW60-816 | **64** | -- | **440** | -- | **430** | **6.5** | -- | **7.4** | **4,900** | **8,500** |
| MW-60 | Multiunit 1 | Supplementary | 8/21/2016 | FC-CCR-MW60-816 | -- | -- | -- | -- | -- | **15** | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 8/21/2016 | FC-CCR-MW60-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/13/2016 | FC-CCR-MW60-916 | **64** | -- | **450** | -- | **440** | **7.2** | -- | **7.6** | **5,100** | **8,500** |
| MW-60 | Multiunit 1 | Supplementary | 9/13/2016 | FC-CCR-MW60-916 | -- | -- | -- | -- | -- | **6.2** | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/13/2016 | FC-CCR-MW60-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/13/2016 | FC-CCR-MW100-916 | **65** | -- | **440** | -- | **440** | **6.0** | -- | **7.6** | **5,100** | **8,400** |
| MW-60 | Multiunit 1 | Supplementary | 9/13/2016 | FC-CCR-MW100-916 | -- | -- | -- | -- | -- | **6.4** | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/13/2016 | FC-CCR-MW100-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 10/20/2016 | FC-CCR-MW60-1016 | **61** | -- | **410** | -- | **460** | -- | -- | **7.6** | **5,000** | **8,300** |
| MW-60 | Multiunit 1 | Supplementary | 10/20/2016 | FC-CCR-MW60-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 10/20/2016 | FC-CCR-MW60-1016 | -- | -- | -- | -- | -- | **5.5** | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 2/2/2017 | FC-CCR-MW60-117 | **66** | -- | **450** | -- | **440** | **7.2** | -- | **7.8** | **5,200** | **8,200** |
| MW-60 | Multiunit 1 | Supplementary | 2/2/2017 | FC-CCR-MW60-117 | -- | -- | -- | -- | -- | **7.2** | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 2/2/2017 | FC-CCR-MW60-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 4/18/2017 | FC-CCR-MW60-41817 | **63** | -- | **440** | -- | **430** | **6.4** | -- | **7.7** | **5,000** | **8,400** |
| MW-60 | Multiunit 1 | Supplementary | 4/18/2017 | FC-CCR-MW60-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 4/18/2017 | FC-CCR-MW60-41817 | -- | -- | -- | -- | -- | **6.5** | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 5/3/2017 | FC-CCR-MW60-5317 | -- | -- | -- | -- | -- | **10** | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 5/3/2017 | FC-CCR-MW60-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 5/30/2017 | FC-CCR-MW60-53017 | -- | -- | -- | -- | -- | **7.0** | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 5/30/2017 | FC-CCR-MW60-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 6/22/2017 | FC-CCR-MW60-62217 | **63** | -- | **440** | -- | **450** | -- | -- | **7.7** | **5,400** | **8,100** |
| MW-60 | Multiunit 1 | Supplementary | 6/22/2017 | FC-CCR-MW60-62217 | -- | -- | -- | -- | -- | **7.1** | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 6/22/2017 | FC-CCR-MW60-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 7/22/2017 | FC-CCR-MW60-72217 | **64** | -- | **450** | -- | **900** | **7.0** | -- | **7.6** | **10,000** | **8,300** |
| MW-60 | Multiunit 1 | Supplementary | 7/22/2017 | FC-CCR-MW60-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 7/22/2017 | FC-CCR-MW60-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 8/10/2017 | FC-CCR-MW60-81017 | **66** | -- | **470** | -- | **920** | -- | -- | **7.7** | **11,000** | **8,100** |
| MW-60 | Multiunit 1 | Supplementary | 8/10/2017 | FC-CCR-MW60-81017 | -- | -- | -- | -- | -- | **7.1** | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 8/10/2017 | FC-CCR-MW60-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 8/17/2017 | FC-CCR-MW60-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 8/17/2017 | FC-CCR-MW60-81717 | **63** | -- | **490** | -- | **440** | **7.4** | -- | **7.7** | **5,100** | **8,200** |
| MW-60 | Multiunit 1 | Supplementary | 9/10/2017 | FC-CCR-MW60-91017 | **67** | -- | **470** | -- | **450** | -- | -- | **7.6** | **5,200** | **7,900** |
| MW-60 | Multiunit 1 | Supplementary | 9/10/2017 | FC-CCR-MW60-91017 | -- | -- | -- | -- | -- | **7.4** | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/10/2017 | FC-CCR-MW60-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 10/12/2017 | FC-CCR-MW60-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 10/12/2017 | FC-CCR-MW60-101217 | **64** | -- | **440** | -- | **480** | **7.0** | -- | **7.5** | **5,100** | **8,300** |
| MW-60 | Multiunit 1 | Supplementary | 6/21/2020 | FC-CCR-MW60-0620 | -- | -- | -- | -- | -- | -- | **7.44** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 11/8/2020 | FC-CCR-MW60-1120 | **61** | -- | -- | -- | -- | -- | **7.87** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 4/24/2021 | FC-CCR-MW60-0421 | **60** | -- | -- | -- | -- | -- | **8.53** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 11/13/2021 | FC-CCR-MW60 | **65** | -- | -- | -- | -- | -- | **7.68** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 5/23/2022 | FC-CCR-MW60-0522 | **57** | -- | -- | -- | -- | -- | **7.60** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 11/10/2022 | FC-CCR-MW60-1122 | **60** | -- | -- | -- | -- | -- | **7.76** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 5/2/2023 | FC-CCR-MW60-0523 | **62** | -- | -- | -- | -- | -- | **7.53** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 11/09/2023 | FC-CCR-MW60-1124 | **78** | -- | -- | -- | -- | -- | **7.81** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 05/16/2024 | FC-CCR-MW60-0524 | **78** | -- | -- | -- | -- | -- | **7.56** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 10/28/2024 | FC-CCR-MW60-1024 | **58.4** | -- | -- | -- | -- | -- | **7.78** | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/6/2015 | FC-CCR-MW61-110615 | **35** | -- | **460** | -- | **320** | **1.2** | -- | **8.81** | **3,700** | **5,400** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/6/2015 | FC-CCR-MW61-110615 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/6/2015 | *DUP* FC-CCR-FD-1-110615 | **42** | -- | **490** | -- | **330** | **1.2** | -- | -- | **3,700** | **5,000** |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/6/2015 | *DUP* FC-CCR-FD-1-110615 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 4/26/2016 | FC-CCR-MW-61-042616 | **39** | -- | **510** | -- | **280** | **1.3** | -- | -- | **3,400** | **5,700** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/6/2016 | FC-CCR-MW61-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/6/2016 | FC-CCR-MW61-616 | **38** | -- | **460** | -- | **650** | **1.2** | -- | **8.62** | **3,500** | **5,500** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW61-816 | **38** | -- | **470** | -- | **300** | **1.2** | -- | **8.5** | **3,400** | **5,700** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW61-816 | -- | -- | -- | -- | -- | **0.91** | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW61-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW61-916 | **40** | -- | **480** | -- | **330** | **1.3** | -- | **8.6** | **3,500** | **5,700** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW61-916 | -- | -- | -- | -- | -- | **1.1** | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW61-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/19/2016 | FC-CCR-MW101-1016 | **38** | -- | **440** | -- | **310** | **0.84** | -- | **8.6** | **3,700** | **5,700** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/19/2016 | FC-CCR-MW101-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/20/2016 | FC-CCR-MW61-1016 | **37** | -- | **420** | -- | **300** | **0.95** | -- | **8.6** | **3,500** | **5,600** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/20/2016 | FC-CCR-MW61-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW61-117 | **37** | -- | **470** | -- | **300** | **1.2** | -- | **8.6** | **3,500** | **5,300** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW61-117 | -- | -- | -- | -- | -- | **1.1** | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW61-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW61-41817 | **39** | -- | **480** | -- | **300** | **1.1** | -- | **8.6** | **3,500** | **5,600** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW61-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW61-41817 | -- | -- | -- | -- | -- | **1.1** | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW61-5317 | -- | -- | -- | -- | -- | **2.8** | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW61-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW61-53017 | -- | -- | -- | -- | -- | **1.2** | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW61-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW61-62217 | **38** | -- | **480** | -- | **310** | -- | -- | **8.6** | **3,700** | **5,400** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW61-62217 | -- | -- | -- | -- | -- | **1.3** | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW61-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW61-72217 | **39** | -- | **490** | -- | **310** | **1.3** | -- | **8.5** | **3,700** | **5,600** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW61-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW61-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW61-81017 | **40** | -- | **500** | -- | **310** | -- | -- | **8.7** | **3,700** | **5,500** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW61-81017 | -- | -- | -- | -- | -- | **1.2** | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW61-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/17/2017 | FC-CCR-MW61-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/17/2017 | FC-CCR-MW61-81717 | **39** | -- | **520** | -- | **300** | **1.4** | -- | **8.7** | **3,600** | **5,500** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW61-91017 | **41** | -- | **510** | -- | **310** | -- | -- | **8.7** | **3,600** | **5,600** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW61-91017 | -- | -- | -- | -- | -- | **1.2** | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW61-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/12/2017 | FC-CCR-MW61-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/12/2017 | FC-CCR-MW61-101217 | **38** | -- | **470** | -- | **320** | **1.2** | -- | **8.6** | **3,500** | **5,600** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/30/2017 | FC-CCR-MW61-113017 | **39** | -- | **520** | -- | **310** | **1.2** | -- | **8.5** | **3,500** | **5,500** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 3/17/2018 | FC-CCR-MW61-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-61-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-61-6118 | **38** | -- | **470** | -- | **330** | **1.3** | -- | **8.5** | **3,500** | **5,600** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | *DUP* FC-CCR-FD01-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | *DUP* FC-CCR-FD01-6118 | **39** | -- | **480** | -- | **330** | **1.3** | -- | **8.5** | **3,500** | **5,400** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/3/2018 | FC-CCR-MW61-11318 | **37** | -- | **470** | -- | **340** | **1.3** | -- | **8.6** | **3,600** | **5,300** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/3/2018 | FC-CCR-MW61-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/3/2018 | FC-CCR-MW61-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW61-031919 | -- | -- | -- | -- | -- | **1.1** | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW61-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/13/2019 | FC-CCR-MW61-51319 | **39** | -- | **500** | -- | **310** | **0.56** | -- | **8.6 J** | **3,500** | **5,600** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/13/2019 | FC-CCR-MW61-51319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/19/2019 | FC-CCR-MW61-111919 | **39** | -- | **500** | -- | **320** | **1.4** | -- | **8.6 J** | **3,500** | **5,200** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/21/2020 | FC-CCR-MW61-0620 | **41** | -- | **540** | -- | **310** | **1.2** | **8.21** | **8.6 J** | **3,500** | **5,700** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/8/2020 | FC-CCR-MW61-1120 | **41** | -- | **540** | -- | **340 J** | **1.3** | **8.63** | **8.6 J** | **3,700** | **5,100** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 4/23/2021 | FC-CCR-MW61-0421 | **40** | -- | **520** | -- | **330** | **1.1** | **9.64** | **8.7 J** | **3,600** | **6,500** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/13/2021 | FC-CCR-MW61-1121 | **41** | -- | **520** | -- | **420** | **1.1** | **8.45** | **8.3 J** | **4,000** | **4,500** |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/22/2022 | FC-CCR-MW61-0522 | **39** | -- | **480** | -- | **340** | **1.3** | **8.34** | **8.46 J** | **3,800** | **5,300** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/11/2022 | FC-CCR-MW61-1122 | **41** | -- | **540** | -- | **340** | **1.3** | **8.58** | **8.6 J** | **3,700** | **5,900** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/4/2023 | FC-CCR-MW61-0523 | **45** | -- | **560** | -- | **380** | <4 | **8.52** | **8.6 J** | **3,400** | **5,800** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/09/2023 | FC-CCR-MW61-1124 | **49 J** | -- | **620 J** | -- | **360** | **1.3** | **8.51** | **8.5 J** | **3,700** | **6,000** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 05/16/2024 | FC-CCR-MW61-0524 | **50** | -- | **480** | -- | **340** | **0.97** | **8.46** | **8.5 J** | **3,400** | **5,800** |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/25/2024 | FC-CCR-MW61-1024 | **44.7** | | **438** | | **354** | **4.47 J** | **8.51** | **8.43 J** | **3,660** | **6,110** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW-75-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW75-41817 | **24** | -- | **410** | -- | **280** | <2.0 | -- | **8.3** | **4,400** | **6,100** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW75-41817 | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW-75-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW75-5317 | -- | -- | -- | -- | -- | **2.8** | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW-75-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW75-53017 | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW75-62217 | **25** | -- | **450** | -- | **300** | -- | -- | **8.3** | **4,300** | **6,500** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW75-62217 | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW-75-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW75-72217 | **25** | -- | **460** | -- | **300** | <2.0 | -- | **8.3** | **4,500** | **6,700** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW75-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW75-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW75-81017 | **25** | -- | **460** | -- | **300** | -- | -- | **8.4** | **5,200** | **6,600** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW75-81017 | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW75-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 8/17/2017 | FC-CCR-MW75-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 8/17/2017 | FC-CCR-MW75-81717 | **25** | -- | **490** | -- | **300** | <2.0 | -- | **8.4** | **4,600** | **6,400** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW75-91017 | **24** | -- | **470** | -- | **300** | -- | -- | **8.4** | **4,500** | **6,500** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW75-91017 | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW75-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 10/12/2017 | FC-CCR-MW75-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 10/12/2017 | FC-CCR-MW75-101217 | **24** | -- | **430** | -- | **310** | <2.0 | -- | **8.4** | **4,400** | **6,600** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/30/2017 | FC-CCR-MW75-113017 | **26** | -- | **490** | -- | **300** | <2.0 | -- | **8.3** | **4,400** | **6,500** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/30/2017 | *DUP* FC-CCR-FD02-113017 | **25** | -- | **480** | -- | **300** | <2.0 | -- | **8.3** | **4,300** | **6,300** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 3/17/2018 | FC-CCR-MW75-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-75-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-75-6118 | **24** | -- | **430** | -- | **290** | **1.2** | -- | **8.2** | **4,300** | **6,400** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/3/2018 | FC-CCR-MW75-11318 | **24** | -- | **430** | -- | **310** | **1.2** | -- | **8.3** | **4,300** | **6,200** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/3/2018 | FC-CCR-MW75-11318 | -- | -- | -- | -- | -- | **1.2** | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/3/2018 | FC-CCR-MW75-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW75-031919 | -- | -- | -- | -- | -- | **1.1** | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW75-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/13/2019 | FC-CCR-MW75-51319 | **25** | -- | **450** | -- | **300** | **1.2** | -- | **8.4 J** | **4,200** | **6,600** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/13/2019 | FC-CCR-MW75-51319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/19/2019 | FC-CCR-MW75-111919 | **24** | -- | **450** | -- | **290** | **1.2** | -- | **8.3 J** | **4,400** | **6,600** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 6/21/2020 | FC-CCR-MW75-0620 | **24** | -- | **470** | -- | **270** | **1.1** | **8.16** | **8.4 J** | **4,300** | **6,700** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/8/2020 | FC-CCR-MW75-1120 | **25** | -- | **470** | -- | **290** | **1.3** | **8.39** | **8.4 J** | **4,800** | **6,600** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 4/23/2021 | FC-CCR-MW75-0421 | **24** | -- | **460** | -- | **290** | **1.0** | **9.34** | **8.4 J** | **4,400** | **6,500** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/13/2021 | FC-CCR-MW75-1121 | **24** | -- | **440** | -- | **360** | **1.0** | **8.25** | **8.3 J** | **5,100** | **6,200** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/22/2022 | FC-CCR-MW75-0522 | **24** | -- | **440** | -- | **310** | **1.2** | **8.16** | **8.20 J** | **4,400** | **6,300** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/11/2022 | FC-CCR-MW75-1122 | **24** | -- | **480** | -- | **310** | **1.3** | **8.33** | **8.3 J** | **4,700** | **7,000** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/4/2023 | FC-CCR-MW75-0523 | **26** | -- | **490** | -- | **330** | <4 | **8.28** | **8.4 J** | **4,500** | **6,800** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/08/2023 | FC-CCR-MW75-1124 | **27 J** | -- | **530 J** | -- | <400 | **1.2** | **8.39** | **8.3 J** | **4,600** | **7,100** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 05/16/2024 | FC-CCR-MW75-0524 | **34** | -- | **550** | -- | **400** | **0.85** | **8.31** | **8.3 J** | **4,200** | **6,900** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 10/25/2024 | FC-CCR-MW75-1024 | **26.2** | | **388** | | **309** | **0.967** | **8.30** | **8.23 J** | **4,420** | **7,200** |
| MW-76 | Multiunit 1 | Downgradient Boundary | 4/26/2021 | FC-CCR-MW76-0421 | **41** | -- | **470** | -- | **480** | **0.44 J** | **7.61** | **7.3 J** | **3,400** | **6,000** |
| MW-87 | Multiunit 1 | Downgradient | 3/19/2019 | FC-CCR-MW87-031919 | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 3/19/2019 | FC-CCR-MW87-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 5/14/2019 | FC-CCR-MW87-51419 | **1.2** | -- | **410** | -- | **2,100** | <0.80 | -- | **7.4 J** | **17,000** | **29,000** |
| MW-87 | Multiunit 1 | Downgradient | 5/14/2019 | FC-CCR-MW87-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 6/22/2019 | FC-NIT-MW87-62219 | **1.2** | -- | **410** | -- | **2,000** | <0.80 | -- | -- | **18,000** | **28,000** |
| MW-87 | Multiunit 1 | Downgradient | 11/19/2019 | FC-CCR-MW87-111919 | **2.4** | -- | **420** | -- | **1,600** | <0.80 | -- | **7.3 J** | **18,000** | **27,000** |

**Table G-4**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | *3.95* | *3.95* | *454.1* | *454.1* | *604.7* | *2.1* | *6.52-7.88* | *6.52-7.88* | *22,000* | *34,397* |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | |
| MW-87 | Multiunit 1 | Downgradient | 11/19/2019 | *DUP* FC-CCR-FD02-111919 | **2.4** | -- | **440** | -- | **1,700** | <0.80 | -- | **7.4 J** | **18,000** | **26,000** |
| MW-87 | Multiunit 1 | Downgradient | 6/23/2020 | FC-CCR-MW87-0620 | **1.4** | -- | **440** | -- | **2,200** | <0.8 | **6.87** | **7.7 J** | **19,000** | **30,000** |
| MW-87 | Multiunit 1 | Downgradient | 11/6/2020 | FC-CCR-MW87-1120 | **1.2** | -- | **480** | -- | **2,400** | **0.56 J** | **7.01** | **7.4 J** | **23,000** | **38,000** |
| MW-87 | Multiunit 1 | Downgradient | 4/27/2021 | FC-CCR-MW87-0421 | **1.4** | -- | **490** | -- | **2,700** | **0.42 J** | **7.92** | **7.6 J** | **25,000** | **34,000** |
| MW-87 | Multiunit 1 | Downgradient | 11/17/2021 | FC-CCR-MW87-1121 | **1.6** | -- | **520** | -- | **4,100** | **0.17 J** | **7.02** | **7.7 J** | **34,000** | **40,000** |
| MW-87 | Multiunit 1 | Downgradient | 11/17/2021 | FC-CCR-FD04-1121 | **1.6** | -- | **520** | -- | **4,100** | **0.16 J** | **7.02** | **7.7 J** | **34,000** | **40,000** |
| MW-87 | Multiunit 1 | Downgradient | 2/8/2022 | FC-CCR-MW87-0222 | **1.5** | -- | **490** | -- | **3,000** | <0.8 | **6.97** | **7.6 J** | **31,000** | **190,000** |
| MW-87 | Multiunit 1 | Downgradient | 5/24/2022 | FC-CCR-MW87-0522 | **1.5** | -- | **450** | -- | **3,300** | <0.8 | **7.00** | **7.75 J** | **31,000** | **36,000** |
| MW-87 | Multiunit 1 | Downgradient | 5/24/2022 | *DUP* FC-CCR-FD04-0522 | **1.5** | -- | **470** | -- | **3,200** | <0.8 | **7.00** | **7.77 J** | **31,000** | **30,000** |
| MW-87 | Multiunit 1 | Downgradient | 5/24/2022 | FC-CCR-SS07-0522 | **2.5 J** | -- | **472** | -- | **3,040** | <125/0.51 | **7.00** | **8.0 J** | **31,900** | **50,100** |
| MW-87 | Multiunit 1 | Downgradient | 8/11/2022 | FC-CCR-MW87-0822 | **1.4 J** | -- | **480** | -- | **3,600** | **2.2** | **7.00** | **7.3 J** | **36,000** | **54,000** |
| MW-87 | Multiunit 1 | Downgradient | 8/11/2022 | *DUP* FC-CCR-FD01-0822 | **1.4** | -- | **480** | -- | **3,500** | <2 | **7.00** | **7.4 J** | **35,000** | **56,000** |
| MW-87 | Multiunit 1 | Downgradient | 11/15/2022 | FC-CCR-MW87-1122 | **1.5** | -- | **500** | -- | **3,500** | <8 | **7.07** | **7.4 J** | **36,000** | **43000 J** |
| MW-87 | Multiunit 1 | Downgradient | 5/5/2023 | FC-CCR-MW87-0523 | **2.1** | -- | **400** | -- | **2,800** | <80 | **7.13** | **7.5 J** | **33,000** | **54,000 J** |
| MW-87 | Multiunit 1 | Downgradient | 05/23/2024 | FC-CCR-MW87-0524 | **2.4** | -- | **610** | -- | **3,300** | <0.4 | **7.16** | **7.5 J** | **3,800 *** | **50,000** |
| MW-87 | Multiunit 1 | Downgradient | 05/23/2024 | Be re-run | **--** | -- | **--** | -- | **--** | -- | **--** | **--** | **--** | **--** |
| MW-87 | Multiunit 1 | Downgradient | 11/12/2024 | FC-CCR-MW87-1024 | **1.83** | -- | **390** | -- | **3,710** | <0.38 | **7.16** | **7.69 J** | **45,100** | **66,100** |
| EW-14 | Extraction Monitor | Supplementary | 6/23/2020 | FC-CCR-EW14-0620 | **19** | -- | **470** | -- | **360** | <0.8 | -- | **7.6 J** | **4,900** | **7,600** |
| EW-14 | Extraction Monitor | Supplementary | 11/16/2023 | FC-CCR-EW14-1124 | **15** | -- | -- | -- | **260** | <0.8 | **7.57** | -- | **4,300** | **6,600 J** |
| EW-14 | Extraction Monitor | Supplementary | 05/23/2024 | FC-CCR-EW14-0524 | **14** | -- | -- | -- | **520** | <0.4 | **7.57** | -- | **8,300** | **7,000** |
| EW-14 | Extraction Monitor | Supplementary | 11/13/2024 | FC-CCR-EW14-1124 | **13.9** | -- | -- | -- | **256** | -- | **7.61** | -- | **--** | **6,830** |
| EW-15 | Extraction Monitor | Supplementary | 11/16/2023 | FC-CCR-EW15-1124 | **13** | -- | -- | -- | **420** | <0.8 | **7.57** | -- | **4,800** | **7,700 J** |
| EW-15 | Extraction Monitor | Supplementary | 6/23/2020 | FC-CCR-EW15-0620 | **19** | -- | **430** | -- | **670** | <0.8 | -- | **7.6 J** | **4,400** | **7,400** |
| EW-15 | Extraction Monitor | Supplementary | 05/21/2024 | FC-CCR-EW15-0524 | **12** | -- | -- | -- | **880** | **0.70** | **7.64** | -- | **9,800** | **8,400** |
| EW-15 | Extraction Monitor | Supplementary | 11/14/2024 | FC-CCR-EW15-1124 | **12.5** | -- | -- | -- | **394** | **--** | **7.63** | -- | **--** | **8,340** |
| MW-50B | Multiunit 1 | -- | 3/17/2015 | FCPP-50B-031715 | <5.0 | -- | **310** | -- | **4,400** | <2.0 | -- | -- | **3,900** | **4,900** |

*Notes:*

BTV exceedances are shown in grey shaded cells. GWPS exceedences are shown in red text.

*Abbreviations and Data Qualifiers:*

* data appears anomalous
< = less than
BTV = Background Threshold Value
degrees C = degrees Celsius
GWPS = Groundwater Protection Standard
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
mg/L = milligrams per liter
pCi/L = Picocuries per liter
su = standard units
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.
UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Table G-5**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Selenium | Selenium | Thallium | Total Radium |
| **Filtered:** | | | | | N | N | Y | N | Y | N | Y | N | Y | N | N | N | Y | N | N | Y | N | N | Y | N | N | Y | N | N |
| **Units:** | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| *Multiunit 1 BTV* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *Multiunit 1 GWPS* | | | | | *0.01* | *0.01* | *0.01* | *2* | *2* | *0.004* | *0.004* | *0.005* | *0.005* | *0.1* | *0.1* | *0.01* | *0.01* | *5* | *0.015* | *0.015* | *1.8* | *0.002* | *0.002* | *0.1* | *0.092* | -- | *0.017* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-43 | Multiunit 1 | Background | 11/18/2013 | FC-43-111813 | -- | **0.0027** | -- | -- | -- | -- | -- | -- | -- | **0.0099** | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | **0.0041** | -- | -- | -- |
| MW-43 | Multiunit 1 | Background | 9/8/2014 | FCPP-43-090814 | -- | **0.0020** | -- | -- | -- | -- | -- | -- | -- | **0.0085** | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- |
| MW-43 | Multiunit 1 | Background | 3/16/2015 | FCPP-43-031615 | -- | **0.0030** | -- | -- | -- | -- | -- | -- | -- | **0.013** | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | **0.0032** | -- | -- | -- |
| MW-43 | Multiunit 1 | Background | 12/1/2015 | FC-CCR-MW43-120115 | **0.00075** | **0.0027** | -- | **0.15** | -- | **0.00095** | -- | **0.00029** | -- | **0.0086** | -- | **0.0022** | -- | <0.25 | **0.0059** | -- | **0.29** | <0.00020 | -- | **0.0049** | **0.0045** | -- | **0.00019** | -- |
| MW-43 | Multiunit 1 | Background | 11/15/2024 | FC-CCR-MW43-1124 | <0.005 | <0.001 | -- | **0.0181** | -- | <0.002 | -- | **0.00255** | -- | <0.02 | -- | <0.002 | -- | <0.38 | <0.002 | -- | **0.324** | <0.0002 | -- | **0.007** | **0.00309** | -- | <0.001 | -- |
| MW-49A | Multiunit 1 | Background | 9/10/2014 | FCPP-49A-091014 | -- | **0.0013** | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | **0.0041** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 3/19/2015 | FCPP-49A-031915 | -- | <0.0020 | -- | -- | -- | -- | -- | -- | -- | <0.0050 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | <0.0060 | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 7/1/2015 | MW-47A | -- | <0.060 | -- | -- | -- | -- | -- | -- | -- | <0.060 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | <0.060 | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 8/29/2015 | FCPP-49A-082915 | -- | <0.030 | -- | -- | -- | -- | -- | <0.010 | -- | <0.030 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | <0.030 | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 12/1/2015 | FC-CCR-MW49A-120115 | **0.00033** | **0.0016** | -- | **0.042** | -- | **0.00075** | -- | **0.00018** | -- | **0.0035** | -- | **0.0022** | -- | <0.25 | <0.010 | -- | **0.75** | **0.00010** | -- | **0.096** | **0.0021** | -- | **0.0014** | -- |
| MW-49A | Multiunit 1 | Background | 12/1/2015 | FC-CCR-MW49A-120115 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 4/26/2016 | FC-CCR-MW-49A-042616 | <0.0050 | <0.0010 | -- | **0.025** | -- | <0.0010 | -- | <0.00020 | -- | <0.0010 | -- | **0.0023** | -- | <2.0 | <0.0010 | -- | **1.4** | <0.00020 | -- | **0.027** | **0.0020** | -- | **0.0013** | **2.3** |
| MW-49A | Multiunit 1 | Background | 6/7/2016 | FC-CCR-MW49A-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.4** |
| MW-49A | Multiunit 1 | Background | 6/7/2016 | FC-CCR-MW49A-616 | **0.00035** | **0.0013** | -- | **0.028** | -- | <0.0010 | -- | **0.00012** | -- | **0.00091** | -- | **0.0019** | -- | **1.1** | <0.00050 | -- | **0.90** | <0.00020 | -- | **0.069** | **0.0018** | -- | **0.0012** | -- |
| MW-49A | Multiunit 1 | Background | 8/21/2016 | FC-CCR-MW49A-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 8/21/2016 | FC-CCR-MW49A-816 | **0.00035** | **0.0011** | -- | **0.022** | -- | <0.0010 | -- | **0.00030** | -- | **0.00079** | -- | **0.0030** | -- | <0.80 | <0.00050 | -- | **1.8** | <0.00020 | -- | **0.028** | **0.0018** | -- | **0.0015** | -- |
| MW-49A | Multiunit 1 | Background | 8/21/2016 | FC-CCR-MW49A-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.5** |
| MW-49A | Multiunit 1 | Background | 9/13/2016 | FC-CCR-MW49A-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.65** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 9/13/2016 | FC-CCR-MW49A-916 | <0.0050 | <0.0040 | -- | **0.029** | -- | <0.0010 | -- | <0.0020 | -- | <0.010 | -- | <0.0040 | -- | <0.40 | <0.0020 | -- | **1.2** | <0.00020 | -- | **0.027** | <0.012 | -- | **0.0020** | -- |
| MW-49A | Multiunit 1 | Background | 9/13/2016 | FC-CCR-MW49A-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** |
| MW-49A | Multiunit 1 | Background | 10/20/2016 | FC-CCR-MW49A-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 10/20/2016 | FC-CCR-MW49A-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.1** |
| MW-49A | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW49A-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW49A-117 | <0.0010 | **0.00092** | -- | **0.020** | -- | <0.0010 | -- | **0.00031** | -- | **0.00079** | -- | **0.0040** | -- | <0.40 | <0.00050 | -- | **1.4** | <0.00020 | -- | **0.042** | **0.0018** | -- | **0.0015** | -- |
| MW-49A | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW49A-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.4** |
| MW-49A | Multiunit 1 | Background | 1/5/1900 | FC-CCR-MW49A-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 4/18/2017 | FC-CCR-MW49A-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.0** |
| MW-49A | Multiunit 1 | Background | 4/18/2017 | FC-CCR-MW49A-41817 | <0.0040 | <0.0020 | -- | **0.022** | -- | <0.0010 | -- | <0.00040 | -- | <0.0020 | -- | **0.0045** | -- | <2.0 | <0.0020 | -- | **1.3** | <0.00020 | -- | **0.028** | <0.0020 | -- | **0.0017** | -- |
| MW-49A | Multiunit 1 | Background | 5/3/2017 | FC-CCR-MW49A-5317 | <0.0010 | **0.00088** | -- | **0.022** | -- | <0.0010 | -- | **0.00023** | -- | **0.00065** | -- | **0.0037** | -- | <13 | <0.00050 | -- | **1.1** | <0.00020 | -- | **0.025** | **0.0018** | -- | **0.0014** | -- |
| MW-49A | Multiunit 1 | Background | 5/3/2017 | FC-CCR-MW49A-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** |
| MW-49A | Multiunit 1 | Background | 5/30/2017 | FC-CCR-MW49A-53017 | <0.0010 | **0.0011** | -- | **0.022** | -- | <0.0010 | -- | **0.00024** | -- | **0.00069** | -- | **0.0036** | -- | <2.0 | <0.00050 | -- | **1.1** | <0.00020 | -- | **0.028** | **0.0017** | -- | **0.0015** | -- |
| MW-49A | Multiunit 1 | Background | 5/30/2017 | FC-CCR-MW49A-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.1** |
| MW-49A | Multiunit 1 | Background | 6/22/2017 | FC-CCR-MW49A-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 6/22/2017 | FC-CCR-MW49A-62217 | <0.0010 | **0.0011** | -- | **0.021** | -- | <0.0010 | -- | **0.00024** | -- | **0.00088** | -- | **0.0039** | -- | <2.0 | <0.00050 | -- | **1.1** | <0.00020 | -- | **0.025** | **0.0017** | -- | **0.0014** | -- |
| MW-49A | Multiunit 1 | Background | 6/22/2017 | FC-CCR-MW49A-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.7** |
| MW-49A | Multiunit 1 | Background | 7/22/2017 | FC-CCR-MW49A-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 7/22/2017 | FC-CCR-MW49A-72217 | **0.0020** | <0.0049 | -- | **0.021** | -- | <0.0010 | -- | <0.00023 | -- | <0.0087 | -- | **0.0035** | -- | -- | <0.0022 | -- | **1.1** | <0.00020 | -- | **0.025** | **0.0032** | -- | **0.0013** | -- |
| MW-49A | Multiunit 1 | Background | 7/22/2017 | FC-CCR-MW49A-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.6** |
| MW-49A | Multiunit 1 | Background | 8/10/2017 | FC-CCR-MW49A-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 8/10/2017 | FC-CCR-MW49A-81017 | <0.010 | <0.0020 | -- | **0.020** | -- | <0.0010 | -- | <0.0010 | -- | <0.0040 | -- | **0.0029** | -- | <4.0 | <0.0050 | -- | **1.1** | <0.00020 | -- | **0.029** | <0.0020 | -- | **0.0014** | -- |
| MW-49A | Multiunit 1 | Background | 8/10/2017 | FC-CCR-MW49A-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.7** |
| MW-49A | Multiunit 1 | Background | 8/17/2017 | FC-CCR-MW49A-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.0** |
| MW-49A | Multiunit 1 | Background | 8/17/2017 | FC-CCR-MW49A-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 9/10/2017 | FC-CCR-MW49A-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 9/10/2017 | FC-CCR-MW49A-91017 | <0.0040 | <0.0020 | -- | **0.020** | -- | <0.0010 | -- | <0.00040 | -- | <0.0040 | -- | **0.0026** | -- | <4.0 | <0.0020 | -- | **0.90** | <0.00020 | -- | **0.034** | <0.0020 | -- | **0.0013** | -- |
| MW-49A | Multiunit 1 | Background | 9/10/2017 | FC-CCR-MW49A-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.3** |
| MW-49A | Multiunit 1 | Background | 10/12/2017 | FC-CCR-MW49A-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.5** |
| MW-49A | Multiunit 1 | Background | 10/12/2017 | FC-CCR-MW49A-101217 | <0.0040 | <0.0050 | -- | **0.019** | -- | <0.0010 | -- | <0.00040 | -- | <0.010 | -- | <0.0050 | -- | <4.0 | <0.0050 | -- | **0.92** | <0.00020 | -- | **0.032** | <0.0020 | -- | **0.0013** | -- |
| MW-49A | Multiunit 1 | Background | 11/30/2017 | FC-CCR-MW49A-113017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 3/17/2018 | FC-CCR-MW49A-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.8 |
| MW-49A | Multiunit 1 | Background | 6/1/2018 | FC-CCR-MW-49A-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** |
| MW-49A | Multiunit 1 | Background | 6/1/2018 | FC-CCR-MW-49A-6118 | -- | <0.010 | -- | **0.022** | -- | -- | -- | <0.0020 | -- | -- | -- | <0.010 | -- | <0.80 | <0.010 | -- | **1.1** | -- | -- | **0.018** | <0.010 | -- | <0.0020 | -- |
| MW-49A | Multiunit 1 | Background | 11/4/2018 | FC-CCR-MW49A-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 11/4/2018 | FC-CCR-MW49A-11418 | -- | **0.0012** | -- | **0.020** | -- | -- | -- | **0.00027** | -- | -- | -- | **0.0020** | -- | -- | <0.00050 | -- | **1.2** | -- | -- | **0.014** | **0.0016** | -- | **0.0016** | -- |
| MW-49A | Multiunit 1 | Background | 11/4/2018 | FC-CCR-MW49A-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.4** |
| MW-49A | Multiunit 1 | Background | 3/19/2019 | FC-CCR-MW49A-031919 | <0.0010 | **0.0011** | -- | **0.027 J** | -- | <0.0010 | -- | <0.00010 | -- | **0.0036** | -- | <0.00050 | -- | **0.92** | <0.00050 | -- | **0.56** | <0.00020 | -- | **0.15** | **0.0018 J** | -- | **0.00083** | -- |
| MW-49A | Multiunit 1 | Background | 3/19/2019 | FC-CCR-MW49A-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** |
| MW-49A | Multiunit 1 | Background | 5/14/2019 | FC-CCR-MW49A-51419 | -- | **0.00068** | -- | **0.025** | -- | -- | -- | **0.00011** | -- | -- | -- | <0.00050 | -- | **1.2** | <0.00050 | -- | **0.71** | -- | -- | **0.10** | **0.0015** | -- | **0.0011** | -- |
| MW-49A | Multiunit 1 | Background | 5/14/2019 | FC-CCR-MW49A-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-49A | Multiunit 1 | Background | 11/19/2019 | FC-CCR-MW49A-111919 | <0.0010 | **0.0011** | -- | **0.022** | -- | <0.0010 | -- | **0.00025** | -- | **0.0020** | -- | **0.0010** | -- | <0.80 | <0.00050 | -- | **0.77** | <0.00020 | -- | **0.082** | **0.0010 J** | -- | **0.0013** | -- |
| MW-49A | Multiunit 1 | Background | 6/23/2020 | FC-CCR-MW49A-0620 | <0.001 | **0.0012** | -- | **0.022** | -- | -- | -- | **0.00015** | -- | <0.001 | -- | **0.00077** | -- | <0.8 | <0.0005 | -- | **1.5** | -- | -- | **0.066** | **0.0017** | -- | **0.0013** | **1.8** |
| MW-49A | Multiunit 1 | Background | 11/6/2020 | FC-CCR-MW49-1120 | **0.00064 J** | **0.0025** | -- | <0.02 | -- | <0.001 | -- | **0.00023 J** | -- | <0.002 | -- | **0.0014** | -- | **0.66 J** | <0.001 | -- | **0.83** | <0.0002 | -- | **0.058** | **0.0056** | -- | **0.0013** | <0.8 |
| MW-49A | Multiunit 1 | Background | 4/27/2021 | FC-CCR-MW49A-0421 | <0.001 | <0.002 | -- | **0.023** | -- | <0.001 | -- | <0.0001 | -- | **0.00082 J** | -- | **0.00089** | -- | **0.47 J** | <0.0005 | -- | **0.90** | <0.0002 | -- | **0.051** | **0.0022** | -- | **0.0011** | <0.8 |
| MW-49A | Multiunit 1 | Background | 11/15/2021 | FC-CCR-MW49A-1121 | **0.00018 J** | <0.001 | -- | **0.025** | -- | <0.001 | -- | **0.00027** | -- | **0.0038** | -- | **0.0014** | -- | **0.51 J** | <0.001 | -- | **1.0** | <0.0002 | -- | **0.049** | **0.0024** | -- | **0.0014** | **1.3** |
| MW-49A | Multiunit 1 | Background | 5/26/2022 | FC-CCR-MW49A-0522 | <0.001 | <0.0005 | -- | **0.023** | -- | <0.001 | -- | **0.00030** | -- | **0.0040** | -- | **0.0016** | -- | <0.8 | <0.0005 | -- | **0.82** | <0.0002 | -- | **0.037** | <0.001 | -- | **0.0016** | **0.6 J** |
| MW-49A | Multiunit 1 | Background | 11/16/2022 | FC-CCR-MW49A-1122 | <0.002 | **0.0019** | -- | **0.025** | -- | <0.001 | -- | <0.0002 | -- | **0.0038** | -- | **0.0014** | -- | <4 | <0.001 | -- | **1.0** | <0.0002 | -- | **0.034** | <0.001 | -- | **0.0014** | **0.4** |
| MW-49A | Multiunit 1 | Background | 5/8/2023 | FC-CCR-MW49A-0523 | <0.002 | <0.005 | -- | **0.021** | -- | <0.001 | -- | <0.001 | -- | <0.003 | -- | **0.0020** | -- | <20 | <0.001 | -- | **1.1** | <0.0002 | -- | **0.029** | <0.005 | -- | **0.0014** | **0.9** |
| MW-49A | Multiunit 1 | Background | 11/15/2023 | FC-CCR-MW49A-1124 | <0.01 | **0.0076** | -- | **0.028 J** | -- | <0.001 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | <0.8 | <0.005 | -- | **0.96** | <0.0002 | -- | **0.045** | <0.005 | -- | **0.0021** | **2.1** |
| MW-49A | Multiunit 1 | Background | 05/23/2024 | FC-CCR-MW49A-0524 | <0.01 | **0.0053 J** | -- | **0.022 J** | -- | <0.001 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | <0.4 | <0.005 | -- | **1.1** | <0.0002 | -- | **0.03** | <0.005 | -- | **0.0013** | **1.3** |
| MW-49A | Multiunit 1 | Background | 11/12/2024 | FC-CCR-MW49A-1024 | <0.0025 | <0.0025 | -- | **0.0216** | -- | <0.00044 | -- | <0.0004 | -- | <0.01 | -- | <0.0025 | -- | **0.495 J** | <0.0025 | -- | **0.932** | <0.0002 | -- | **0.028** | <0.0025 | -- | **0.0014** | **2.5** |
| MW-50A | Multiunit 1 | Background | 3/19/2015 | FCPP-50A-031915 | -- | **0.0010** | -- | -- | -- | -- | -- | -- | -- | **0.018** | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- |
| MW-50A | Multiunit 1 | Background | 12/1/2015 | FC-CCR-MW50-120115 | **0.0012** | **0.0093** | -- | **0.50** | -- | **0.0025** | -- | **0.00086** | -- | **0.11** | -- | **0.016** | -- | <0.25 | **0.026** | -- | **0.40** | **0.00017** | -- | **0.0078** | **0.013** | -- | **0.00054** | -- |
| MW-50A | Multiunit 1 | Background | 12/1/2015 | FC-CCR-MW50-120115 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-50A | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW50A-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.52** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-50A | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW50A-117 | <0.0010 | **0.0020** | -- | **0.11** | -- | <0.0010 | -- | **0.00074** | -- | **0.014** | -- | **0.0060** | -- | <0.40 | **0.0048** | -- | **0.36** | <0.00020 | -- | **0.0024** | **0.0018** | -- | **0.00018** | -- |
| MW-50A | Multiunit 1 | Background | 11/15/2024 | FC-CCR-MW50A-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0038** | -- | -- | -- | -- | -- | -- | -- | **0.0118** | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW74-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.6** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW74-117 | <0.0020 | **0.0035** | -- | **0.036** | -- | <0.0010 | -- | <0.00020 | -- | **0.0026** | -- | <0.0010 | -- | **1.7** | <0.00050 | -- | **0.39** | <0.00020 | -- | **0.075** | **0.089** | -- | <0.00010 | -- |
| MW-74 | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW74-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.6** |
| MW-74 | Multiunit 1 | Background | 4/18/2017 | FC-CCR-MW74-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.8** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 4/18/2017 | FC-CCR-MW74-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** |
| MW-74 | Multiunit 1 | Background | 4/18/2017 | FC-CCR-MW74-41817 | <0.0040 | **0.0029** | -- | **0.018** | -- | <0.0010 | -- | <0.00040 | -- | <0.0020 | -- | <0.0020 | -- | **1.6** | <0.0020 | -- | **0.40** | <0.00020 | -- | **0.013** | **0.069** | -- | <0.00040 | -- |
| MW-74 | Multiunit 1 | Background | 5/2/2017 | FC-CCR-MW74-5217 | <0.0020 | **0.0028** | -- | **0.018** | -- | <0.0010 | -- | <0.00020 | -- | <0.0010 | -- | <0.0010 | -- | <13 | <0.0010 | -- | **0.38** | <0.00020 | -- | **0.019** | **0.067** | -- | <0.00020 | -- |
| MW-74 | Multiunit 1 | Background | 5/2/2017 | FC-CCR-MW74-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** |

**Table G-5**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Selenium | Selenium | Thallium | Total Radium |
| **Filtered:** | | | | | N | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | N | Y | N | N | Y | N | N | Y | N | N |
| **Units:** | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| *Multiunit 1 BTV* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *Multiunit 1 GWPS* | | | | | *0.01* | *0.01* | *0.01* | *2* | *2* | *0.004* | *0.004* | *0.005* | *0.005* | *0.1* | *0.1* | *0.01* | *0.01* | *5* | *0.015* | *0.015* | *1.8* | *0.002* | *0.002* | *0.1* | *0.092* | -- | *0.017* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-74 | Multiunit 1 | Background | 5/29/2017 | FC-CCR-MW74-52917 | <0.010 | <0.0050 | -- | **0.022** | -- | <0.0010 | -- | <0.0010 | -- | <0.0050 | -- | <0.0050 | -- | **1.9** | <0.0050 | -- | **0.37** | <0.00020 | -- | **0.028** | **0.062** | -- | <0.0010 | -- |
| MW-74 | Multiunit 1 | Background | 5/29/2017 | FC-CCR-MW74-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** |
| MW-74 | Multiunit 1 | Background | 6/22/2017 | FC-CCR-MW74-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 6/22/2017 | FC-CCR-MW74-62217 | <0.0040 | **0.0032** | -- | **0.020** | -- | <0.0010 | -- | <0.00040 | -- | <0.0020 | -- | <0.0020 | -- | **1.9** | <0.0020 | -- | **0.38** | <0.00020 | -- | **0.020** | **0.060** | -- | <0.00040 | -- |
| MW-74 | Multiunit 1 | Background | 6/22/2017 | FC-CCR-MW74-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-74 | Multiunit 1 | Background | 7/22/2017 | FC-CCR-MW74-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 7/22/2017 | FC-CCR-MW74-72217 | <0.0040 | **0.0028** | -- | **0.018** | -- | <0.0010 | -- | <0.00040 | -- | <0.0020 | -- | <0.0010 | -- | -- | <0.0020 | -- | **0.41** | <0.00020 | -- | **0.016** | **0.071** | -- | <0.00040 | -- |
| MW-74 | Multiunit 1 | Background | 7/22/2017 | FC-CCR-MW74-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-74 | Multiunit 1 | Background | 8/10/2017 | FC-CCR-MW74-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 8/10/2017 | FC-CCR-MW74-81017 | <0.010 | **0.0022** | -- | **0.019** | -- | <0.0010 | -- | <0.0010 | -- | <0.0040 | -- | <0.0020 | -- | **2.0** | <0.0050 | -- | **0.43** | <0.00020 | -- | **0.018** | **0.060** | -- | <0.0010 | -- |
| MW-74 | Multiunit 1 | Background | 8/10/2017 | FC-CCR-MW74-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** |
| MW-74 | Multiunit 1 | Background | 9/10/2017 | FC-CCR-MW74-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 9/10/2017 | FC-CCR-MW74-91017 | <0.0040 | **0.0043** | -- | **0.023** | -- | <0.0010 | -- | <0.00040 | -- | <0.0040 | -- | <0.0020 | -- | **2.0** | <0.0020 | -- | **0.48** | <0.00020 | -- | **0.024** | **0.092** | -- | <0.00040 | -- |
| MW-74 | Multiunit 1 | Background | 9/10/2017 | FC-CCR-MW74-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.7** |
| MW-74 | Multiunit 1 | Background | 10/11/2017 | FC-CCR-MW74-101117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-74 | Multiunit 1 | Background | 10/11/2017 | FC-CCR-MW74-101117 | <0.010 | <0.0050 | -- | **0.023** | -- | <0.0010 | -- | <0.0010 | -- | <0.010 | -- | <0.0050 | -- | **2.1** | <0.0050 | -- | **0.48** | <0.00020 | -- | **0.023** | **0.081** | -- | <0.0010 | -- |
| MW-74 | Multiunit 1 | Background | 11/30/2017 | FC-CCR-MW74-113017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 3/17/2018 | FC-CCR-MW74-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.9 |
| MW-74 | Multiunit 1 | Background | 6/1/2018 | FC-CCR-MW-74-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-74 | Multiunit 1 | Background | 6/1/2018 | FC-CCR-MW-74-6118 | -- | <0.010 | -- | **0.019** | -- | -- | -- | <0.0020 | -- | -- | -- | <0.010 | -- | **2.1** | <0.010 | -- | **0.49** | -- | -- | **0.015** | **0.089** | -- | <0.0020 | -- |
| MW-74 | Multiunit 1 | Background | 3/19/2019 | FC-CCR-MW74-031919 | <0.0010 | **0.0049** | -- | **0.014** | -- | <0.0010 | -- | <0.00010 | -- | **0.0063** | -- | <0.00050 | -- | **2.4** | <0.00050 | -- | **0.65** | <0.00020 | -- | **0.012** | **0.14** | -- | <0.00010 | -- |
| MW-74 | Multiunit 1 | Background | 3/19/2019 | FC-CCR-MW74-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-74 | Multiunit 1 | Background | 5/13/2019 | FC-CCR-MW74-51319 | -- | **0.0044** | -- | **0.016** | -- | -- | -- | <0.00010 | -- | -- | -- | <0.00050 | -- | **1.9** | <0.00050 | -- | **0.73** | -- | -- | **0.017** | **0.14** | -- | **0.00017** | -- |
| MW-74 | Multiunit 1 | Background | 5/13/2019 | FC-CCR-MW74-51319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-74 | Multiunit 1 | Background | 6/20/2020 | FC-CCR-MW74-0620 | <0.001 | **0.0049** | -- | **0.014** | -- | -- | -- | **0.00029** | -- | **0.0019** | -- | <0.0005 | -- | **1.1** | <0.0005 | -- | **1.7** | -- | -- | **0.012** | **0.049** | -- | **0.00022** | <0.6 |
| MW-74 | Multiunit 1 | Background | 4/23/2021 | FC-CCR-MW74-0421 | <0.002 | <0.00035 | -- | **0.015** | -- | <0.001 | -- | <0.0002 | -- | **0.0050** | -- | **0.00056 J** | -- | **1.5** | <0.002 | -- | **0.9** | <0.0002 | -- | **0.021** | **0.12** | -- | <0.0004 | <0.8 |
| DMX-3 | Multiunit 1 | Supplementary | 4/21/1992 | DMX-3_4/21/1992 | -- | -- | <0.005 | -- | **0.013** | -- | <0.005 | -- | <0.005 | -- | <0.010 | -- | <0.010 | **0.23** | -- | <0.010 | -- | -- | <0.0002 | -- | -- | <0.005 | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 3/12/2014 | FC-DMX3-031214 | -- | **0.00020** | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | **0.0018** | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 9/11/2014 | FCPP-DMX3-91114 | -- | <0.0020 | -- | -- | -- | -- | -- | -- | -- | <0.0050 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | <0.0060 | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 12/8/2014 | FCPP-DUP1-12914 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 12/8/2014 | FCPP-DMX03-12914 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 3/18/2015 | FCPP-DMX3-031815 | -- | <0.0050 | -- | -- | -- | -- | -- | -- | -- | <0.013 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | <0.015 | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 6/24/2015 | DMX-3 | -- | <0.15 | -- | -- | -- | -- | -- | -- | -- | <0.15 | -- | -- | -- | <8.0 | -- | -- | -- | -- | -- | -- | <0.15 | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 11/5/2015 | FC DMX -3-(051115) | -- | **0.00048** | -- | -- | -- | -- | -- | <0.00020 | -- | <0.0010 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | **0.0055** | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 6/21/2016 | FC-SEEPS-DMX-3-062116 | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-DMX3-916 | -- | <0.0020 | -- | -- | -- | -- | -- | -- | -- | <0.0050 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-DMX03-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | -- | -- | **0.0043** | -- | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-DMX03-1120 | **0.000097 J** | **0.0033** | -- | **0.018** | -- | <0.001 | -- | **0.000078 J** | -- | **0.0019** | -- | **0.011** | -- | **0.31 J** | <0.001 | -- | **1.3** | -- | -- | **0.019** | **0.014** | -- | **0.00035** | <0.8 |
| DMX-3 | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-DMX03-0421 | <0.004 | <0.002 | -- | **0.018** | -- | <0.001 | -- | **0.00012 J** | -- | <0.004 | -- | **0.0015 J** | -- | **0.17 J** | **0.0022** | -- | **1.2** | -- | -- | **0.0011 J** | **0.012** | -- | **0.00048** | <0.8 |
| DMX-3 | Multiunit 1 | Supplementary | 11/14/2021 | FC-CCR-DMX03 | <0.002 | <0.001 | -- | **0.018** | -- | <0.001 | -- | **0.00024** | -- | **0.0015 J** | -- | **0.0013** | -- | <0.8 | <0.001 | -- | **1.3** | -- | -- | **0.00095 J** | **0.0084** | -- | **0.00051** | **1.4** |
| DMX-3 | Multiunit 1 | Supplementary | 2/1/2022 | FC-CCR-DMX03-0222 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0012** | -- | <0.8 | -- | -- | **1.3** | -- | -- | **0.00094** | -- | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-DMX03-0522 | <0.002 | <0.001 | -- | **0.016** | -- | <0.001 | -- | **0.00026** | -- | <0.002 | -- | **0.0015** | -- | <0.8 UJ | <0.001 | -- | **1.2** | -- | -- | <0.001 | **0.0075** | -- | **0.00048** | **1.4** |
| DMX-3 | Multiunit 1 | Supplementary | 8/12/2022 | FC-CCR-DMX03-0822 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0012** | -- | <0.8 | -- | -- | **1.2** | -- | -- | **0.0011** | -- | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 11/11/2022 | FC-CCR-DMX03-1122 | <0.001 | <0.0005 | -- | **0.017** | -- | <0.001 | -- | **0.00026** | -- | <0.001 | -- | **0.0015** | -- | <0.8 | <0.0005 | -- | **1.3** | -- | -- | **0.00092** | **0.0076** | -- | **0.00046** | **1.3** |
| DMX-3 | Multiunit 1 | Supplementary | 5/3/2023 | FC-CCR-DMX03-0523 | <0.002 | <0.005 | -- | **0.016** | -- | <0.001 | -- | <0.001 | -- | <0.003 | -- | **0.0013** | -- | <80 | <0.001 | -- | **1.3** | -- | -- | <0.002 | <0.005 | -- | <0.001 | **1.6** |
| DMX-3 | Multiunit 1 | Supplementary | 11/13/2023 | FC-CCR-DMX03-1124 | <0.01 | **0.0088** | -- | **0.016** | -- | <0.005 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | <0.8 | <0.005 | -- | **0.97** | -- | -- | <0.005 | **0.0072** | -- | <0.001 | <0.8 |
| DMX-3 | Multiunit 1 | Supplementary | 05/20/2024 | FC-CCR-DMX03-0524 | <0.01 | **0.0083** | -- | **0.017** | -- | <0.05 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | <0.4 | <0.005 | -- | **1.3** | -- | -- | <0.005 | **0.012** | -- | <0.001 | **3.0** |
| DMX-3 | Multiunit 1 | Supplementary | 11/12/2024 | FC-CCR-DMX03-1024 | <0.0025 | <0.0025 | -- | **0.014** | -- | <0.00044 | -- | <0.0004 | -- | **<0.01** | -- | <0.0025 | -- | <0.38 | <0.0025 | -- | **1.22** | -- | -- | <0.0025 | **0.0042** | -- | <0.0005 | **1.5** |
| DMX-4 | Multiunit 1 | Supplementary | 4/21/1992 | DMX-4_4/21/1992 | -- | -- | <0.05 | -- | **0.011** | -- | <0.005 | -- | <0.005 | -- | <0.010 | -- | <0.010 | **0.93** | -- | <0.010 | -- | -- | <0.0002 | -- | -- | <0.005 | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 3/18/2015 | FCPP-DMX4-031815 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 6/24/2015 | DMX-4 | -- | <0.030 | -- | -- | -- | -- | -- | -- | -- | <0.030 | -- | -- | -- | **0.58** | -- | -- | -- | -- | -- | -- | <0.030 | -- | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 8/29/2015 | FCPP-DMX4-082915 | -- | <0.0030 | -- | -- | -- | -- | -- | <0.0010 | -- | <0.0030 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | **0.0048** | -- | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 11/7/2015 | FC DMX-4-(07115) | -- | <0.0010 | -- | -- | -- | -- | -- | <0.00050 | -- | <0.0025 | -- | -- | -- | **0.44** | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 11/7/2015 | *DUP* FC FD-3-(071115) | -- | <0.0010 | -- | -- | -- | -- | -- | <0.00050 | -- | <0.0025 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 6/21/2016 | FC-SEEPS-DMX-4-062116 | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | **0.89** | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-DMX4-916 | -- | <0.0020 | -- | -- | -- | -- | -- | -- | -- | <0.0050 | -- | -- | -- | **0.87** | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-DMX4-031919 | <0.0010 | **0.00084** | -- | **0.0097** | -- | <0.0010 | -- | <0.00010 | -- | <0.0010 | -- | **0.0028** | -- | <0.80 | <0.00050 | -- | **0.66** | <0.00020 | -- | **0.016** | **0.0033** | -- | **0.00028** | -- |
| DMX-4 | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-DMX4-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| DMX-4 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-DMX4-51419 | -- | <0.00050 | -- | **0.0089** | -- | -- | -- | <0.00010 | -- | -- | -- | **0.00074** | -- | **0.83** | <0.00050 | -- | **0.65** | -- | -- | **0.0094** | **0.00069** | -- | **0.00018** | -- |
| DMX-4 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-DMX4-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| DMX-4 | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-DMX4-111919 | <0.0010 | **0.00069** | -- | **0.0088** | -- | <0.0010 | -- | <0.00010 | -- | <0.0010 | -- | **0.00093** | -- | <0.80 | <0.00050 | -- | **0.65** | <0.00020 | -- | **0.0077** | **0.0016** | -- | **0.00015** | -- |
| DMX-4 | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-DMX04-0620 | <0.002 | <0.001 | -- | **0.0088** | -- | -- | -- | <0.0002 | -- | <0.002 | -- | <0.001 | -- | <0.8 | <0.001 | -- | **0.89** | -- | -- | **0.0080** | **0.0036** | -- | **0.00023** | **0.6** |
| DMX-4 | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-DMX04-1120 | **0.00028** | **0.0032** | -- | **0.0084** | -- | <0.001 | -- | **0.00018** | -- | <0.004 | -- | **0.0070** | -- | **0.92** | <0.001 | -- | **0.67** | -- | -- | **0.011** | **0.018** | -- | **0.00031** | <0.8 |
| DMX-4 | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-DMX04-0421 | <0.004 | <0.002 | -- | **0.0078** | -- | <0.001 | -- | **0.0002 J** | -- | <0.004 | -- | **0.00058 J** | -- | **0.89** | **0.0019 J** | -- | **0.66** | -- | -- | **0.010** | **0.016** | -- | <0.0004 | <0.8 |
| DMX-4 | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-DMX04-1121 | **0.00034 J** | **0.00099 J** | -- | **0.010** | -- | <0.001 | -- | <0.0002 | -- | **0.0011 J** | -- | **0.00055 J** | -- | **0.94** | <0.0005 | -- | **0.62** | -- | -- | **0.0064** | **0.0035** | -- | **0.00014** | **0.7** |
| DMX-4 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-DMX04-0222 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.00083** | -- | **0.69** | -- | -- | **0.67** | -- | -- | **0.0047** | -- | -- | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-DMX04-0522 | <0.002 | <0.001 | -- | **0.0087** | -- | <0.001 | -- | <0.0002 | -- | <0.002 | -- | <0.001 | -- | **0.88** | <0.001 | -- | **0.67** | -- | -- | **0.0061** | <0.001 | -- | <0.0004 | <0.6 |
| DMX-4 | Multiunit 1 | Supplementary | 8/12/2022 | FC-CCR-DMX04-0822 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0005** | -- | **1.0** | -- | -- | **0.66** | -- | -- | **0.0059** | -- | -- | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 11/14/2022 | FC-CCR-DMX04-1122 | <0.001 | **0.00059** | -- | **0.0086** | -- | <0.001 | -- | <0.0001 | -- | <0.001 | -- | **0.0013** | -- | <2 | <0.0005 | -- | **0.67** | -- | -- | **0.0089** | **0.0015** | -- | **0.00015** | <0.6 |
| DMX-4 | Multiunit 1 | Supplementary | 5/4/2023 | FC-CCR-DMX04-0523 | <0.002 | <0.005 | -- | **0.0088** | -- | <0.001 | -- | <0.001 | -- | <0.003 | -- | **0.0023** | -- | <20 | <0.001 | -- | **0.69** | -- | -- | **0.009** | <0.005 | -- | <0.001 | <0.6 |
| DMX-4 | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-DMX04-1124 | <0.01 | **0.0078** | -- | **0.011** | -- | <0.005 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | **0.95** | <0.005 | -- | **0.73** | -- | -- | **0.0072** | <0.005 | -- | <0.001 | <0.8 |
| DMX-4 | Multiunit 1 | Supplementary | 05/21/2024 | FC-CCR-DMX04-0524 | <0.01 | **0.0059** | -- | **0.014 J** | -- | <0.001 | -- | <0.001 | -- | <0.01 | -- | **0.011** | -- | **0.7** | <0.005 | -- | **0.69** | -- | -- | **0.012** | <0.005 | -- | <0.001 | <0.9 |
| DMX-4 | Multiunit 1 | Supplementary | 11/14/2024 | FC-CCR-DMX04-1124 | <0.0025 | <0.0025 | -- | **0.007** | -- | <0.00044 | -- | <0.0004 | -- | <0.01 | -- | <0.0025 | -- | **0.712 J** | <0.0025 | -- | **0.632** | -- | -- | **0.0074** | <0.0025 | -- | <0.0005 | <0.7 |
| DMX-05R | Multiunit 1 | Extraction (Inactive) | 11/16/2023 | FC-CCR-DMX05R-1124 | <0.01 | <0.01 | -- | **0.021** | -- | <0.001 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | <0.8 | <0.005 | -- | **0.80** | -- | -- | **0.045** | <0.005 | -- | <0.001 | **5.4** |
| DMX-05R | Multiunit 1 | Extraction (Inactive) | 05/23/2024 | FC-CCR-DMX05R-0524 | <0.01 | **0.0097** | -- | **0.017 J** | -- | <0.001 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | <0.4 | <0.005 | -- | **1.00** | -- | -- | **0.016** | <0.005 | -- | <0.001 | **5.3** |
| DMX-05R | Multiunit 1 | Extraction (Inactive) | 11/13/2024 | FC-CCR-DMX05R-1124 | <0.0025 | **0.0041** | -- | **0.0145** | -- | <0.00044 | -- | <0.0004 | -- | <0.01 | -- | <0.0025 | -- | **0.448 J** | <0.0025 | -- | **0.98** | -- | -- | **0.0124** | <0.0025 | -- | <0.0005 | **6.9** |
| DMX-6 | Multiunit 1 | Supplementary | 4/21/1992 | DMX-6_4/21/1992 | -- | -- | <0.005 | -- | **0.015** | -- | <0.005 | -- | <0.005 | -- | <0.010 | -- | <0.010 | **0.26** | -- | <0.010 | -- | -- | <0.0002 | -- | -- | <0.005 | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-DMX6-031715 | -- | **0.00024** | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | **0.00063** | -- | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 6/24/2015 | DMX-6 | -- | <0.060 | -- | -- | -- | -- | -- | -- | -- | <0.060 | -- | -- | -- | <8.0 | -- | -- | -- | -- | -- | -- | <0.060 | -- | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 8/29/2015 | FCPP-DMX6-082915 | -- | <0.0030 | -- | -- | -- | -- | -- | <0.0010 | -- | <0.0030 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | **0.0042** | -- | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 11/10/2015 | FC DMX-6-(101115) | -- | <0.0010 | -- | -- | -- | -- | -- | <0.00050 | -- | <0.0025 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 6/22/2016 | FC-SEEPS-DMX6-062216 | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | **0.0049** | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-DMX6-916 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-DMX6-031919 | <0.0010 | <0.00050 | -- | **0.011** | -- | <0.0010 | -- | **0.00015** | -- | <0.0010 | -- | **0.0011** | -- | <0.80 | <0.00050 | -- | **1.0** | <0.00020 | -- | **0.051** | **0.00050** | -- | <0.00010 | -- |
| DMX-6 | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-DMX6-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |

**Table G-5**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Selenium | Selenium | Thallium | Total Radium |
| **Filtered:** | | | | | N | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | N | Y | N | N | Y | N | N | Y | N | N |
| **Units:** | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| *Multiunit 1 BTV* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *Multiunit 1 GWPS* | | | | | *0.01* | *0.01* | *0.01* | *2* | *2* | *0.004* | *0.004* | *0.005* | *0.005* | *0.1* | *0.1* | *0.01* | *0.01* | *5* | *0.015* | *0.015* | *1.8* | *0.002* | *0.002* | *0.1* | *0.092* | -- | *0.017* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | | | | | | | | |
| DMX-6 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-DMX6-51419 | -- | <0.00050 | -- | **0.0097** | -- | -- | -- | **0.00011** | -- | -- | -- | **0.00088** | -- | <0.80 | <0.00050 | -- | **0.90** | -- | -- | **0.020** | <0.00050 | -- | <0.00010 | -- |
| DMX-6 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-DMX6-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| DMX-6 | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-DMX6-111919 | <0.0010 | <0.0010 | -- | **0.0090** | -- | <0.0010 | -- | **0.00031** | -- | <0.0010 | -- | **0.00094** | -- | <0.80 | <0.00050 | -- | **0.81** | <0.00020 | -- | **0.017** | <0.00050 | -- | <0.00010 | -- |
| DMX-6 | Multiunit 1 | Supplementary | 6/23/2020 | FC-CCR-DMX06-0620 | <0.002 | <0.001 | -- | **0.010** | -- | -- | -- | **0.00027** | -- | <0.002 | -- | <0.001 | -- | <0.8 | <0.001 | -- | **1.2** | -- | -- | **0.0080** | <0.001 | -- | <0.0002 | **0.6** |
| DMX-6 | Multiunit 1 | Supplementary | 11/6/2020 | FC-CCR-DMX06-1120 | **0.0001** | **0.0023** | -- | **0.012** | -- | <0.001 | -- | **0.000076** | -- | **0.0026** | -- | **0.0067** | -- | **0.53** | <0.001 | -- | **1.0** | -- | -- | **0.0045** | **0.0029** | -- | **0.000044** | <0.8 |
| DMX-6 | Multiunit 1 | Supplementary | 4/27/2021 | FC-CCR-DMX06-0421 | <0.004 | <0.002 | -- | **0.013** | -- | <0.001 | -- | **0.00022 J** | -- | <0.004 | -- | **0.00046 J** | -- | **0.36 J** | **0.0018 J** | -- | **0.76** | -- | -- | **0.0032** | **0.0029** | -- | <0.0004 | <0.8 |
| DMX-6 | Multiunit 1 | Supplementary | 11/18/2021 | FC-CCR-DMX06-1121 | <0.002 | **0.00062 J** | -- | **0.011** | -- | <0.001 | -- | **0.00019 J** | -- | **0.0019 J** | -- | **0.00054 J** | -- | **0.27 J** | <0.0005 | -- | **0.89** | -- | -- | **0.0047** | **0.0034** | -- | **0.000073 J** | <0.6 |
| DMX-6 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-DMX06-0222 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.00065** | -- | **0.29** | -- | -- | **0.93** | -- | -- | **0.0035** | -- | -- | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 5/24/2022 | FC-CCR-DMX06-0522 | <0.001 | <0.001 | -- | **0.010** | -- | <0.001 | -- | **0.00015** | -- | **0.0021** | -- | **0.00062** | -- | <0.8 | <0.001 | -- | **0.87** | -- | -- | **0.0038** | **0.0025** | -- | <0.0004 | <0.6 |
| DMX-6 | Multiunit 1 | Supplementary | 8/13/2022 | FC-CCR-DMX06-0822 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.00056** | -- | <0.8 | -- | -- | **0.79** | -- | -- | **0.0028** | -- | -- | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 11/16/2022 | FC-CCR-DMX06-1122 | <0.001 | <0.0005 | -- | **0.011** | -- | <0.001 | -- | <0.0001 | -- | **0.0030** | -- | **0.00063** | -- | <4 | <0.0005 | -- | **0.88** | -- | -- | **0.0042** | **0.0016** | -- | <0.0001 | **0.8** |
| DMX-6 | Multiunit 1 | Supplementary | 5/8/2023 | FC-CCR-DMX06-0523 | <0.002 | <0.005 | -- | **0.012** | -- | <0.005 | -- | <0.001 | -- | <0.003 | -- | <0.001 | -- | <2 | <0.001 | -- | **0.89** | -- | -- | **0.0038** | <0.005 | -- | <0.001 | <0.6 |
| DMX-6 | Multiunit 1 | Supplementary | 11/15/2023 | FC-CCR-DMX06-1124 | <0.01 | <0.01 | -- | **0.014** | -- | <0.001 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | <0.8 | <0.005 | -- | **1.1** | -- | -- | <0.005 | <0.005 | -- | <0.001 | <0.8 |
| DMX-6 | Multiunit 1 | Supplementary | 05/23/2024 | FC-CCR-DMX06-0524 | <0.01 | **0.0054** | -- | **0.014 J** | -- | <0.001 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | <0.4 | <0.005 | -- | **1.1** | -- | -- | <0.005 | <0.005 | -- | <0.001 | <0.9 |
| DMX-6 | Multiunit 1 | Supplementary | 11/12/2024 | FC-CCR-DMX06-1024 | <0.0025 | <0.0025 | -- | **0.0102** | -- | <0.00044 | -- | <0.0004 | -- | <0.01 | -- | <0.0025 | -- | **0.503 J** | <0.0025 | -- | **0.843** | -- | -- | **0.0032** | <0.0025 | -- | <0.0005 | **1.8** |
| MW-05 | Multiunit 1 | Supplementary | 4/1/1987 | MW-5_4/1/1987 | -- | -- | <0.05 | -- | <0.005 | -- | -- | -- | <0.005 | -- | <0.005 | -- | -- | **0.60** | -- | <0.05 | -- | -- | <0.0001 | -- | -- | <0.05 | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 10/2/1987 | MW-5_10/2/1987 | -- | -- | <0.05 | -- | **0.29** | -- | -- | -- | <0.005 | -- | <0.005 | -- | -- | <0.5 | -- | **0.080** | -- | -- | <0.0001 | -- | -- | <0.05 | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 6/14/1988 | MW-5-19880614 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.90** | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 9/21/1988 | MW-5-19880921 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/28/1988 | MW-5-19881128 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.80** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 2/28/1989 | MW-5-19890228 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.90** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 9/11/1989 | MW-5-19890911 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 3/22/1990 | MW-5-19900322 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.80** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 10/30/1990 | MW-5-19901030 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 4/4/1991 | MW-5-19910404 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 9/30/1991 | MW-5-19910930 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 4/15/1992 | MW-5-19920415 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/3/1992 | MW-5-19921103 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 6/22/1993 | MW-5-19930622 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/30/1993 | MW-5-19931130 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 5/10/1994 | MW-5-19940510 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/8/1994 | MW-5-19941108 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 4/6/1995 | MW-5-19950406 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 12/13/1995 | MW-5-19951213 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 8/15/1996 | MW-5-19960815 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 4/15/1997 | MW-5-19970415 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 10/13/1997 | MW-5-19971013 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 4/14/1998 | MW-5-19980414 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 10/20/1998 | MW-5-19981020 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 6/8/1999 | MW-5-19990608 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 12/1/1999 | MW-5-19991201 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 5/30/2000 | MW-5-20000530 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/14/2000 | MW-5-20001114 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.2972** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 8/21/2001 | MW-5-20010821 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 12/4/2001 | MW-5-20011204 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 6/11/2002 | MW-5-20020611 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 12/18/2002 | MW-5-20021218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 5/28/2003 | MW-5-20030528 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 12/15/2003 | MW-5-20031215 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.29** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 6/18/2004 | MW-5-20040618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/30/2004 | MW-5-20041130 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 5/11/2005 | MW-5-20050511 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 12/12/2005 | MW-5-20051212 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 5/15/2006 | MW-5-20060515 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.226** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 10/13/2006 | MW-5-20061013 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.219** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 4/19/2007 | MW-5-20070419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.133** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/20/2007 | MW-5-20071120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 5/8/2008 | MW-5-20080508 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 9/27/2012 | MW-5-092712-01 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0010 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | **0.0015** | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 9/10/2014 | FCPP-05-091014 | -- | <0.00040 | -- | -- | -- | -- | -- | -- | -- | <0.0010 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | <0.0012 | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 3/18/2015 | FCPP-05-031815 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 6/30/2015 | MW-5 | -- | <0.012 | -- | -- | -- | -- | -- | -- | -- | <0.012 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | <0.012 | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 8/25/2015 | FCPP-5-082515 | -- | <0.030 | -- | -- | -- | -- | -- | -- | -- | <0.030 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | <0.030 | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/6/2015 | FC MW-5-(061115) | -- | <0.0050 | -- | -- | -- | -- | -- | <0.0025 | -- | <0.013 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | <0.015 | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 6/17/2016 | FC-Seep-MW5-616 | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | <0.80 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 6/17/2016 | FC-Seep-Dup1-616 | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | <0.80 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW5-916 | -- | **0.0022** | -- | -- | -- | -- | -- | -- | -- | **0.0034** | -- | -- | -- | <2.0 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-MW05-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0069** | -- | -- | -- | -- | -- | -- | -- | -- | **0.0042** | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-MW05-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0037** | -- | -- | -- | -- | -- | -- | -- | -- | **0.0024** | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-MW05-0421 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0094** | -- | **0.52 J** | -- | -- | **2.2** | -- | -- | **0.0024** | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-MW05-1121 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0082** | -- | **0.51 J** | -- | -- | **2.1** | -- | -- | **0.0017** | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 2/1/2022 | FC-CCR-MW05-0222 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0071** | -- | <0.8 | -- | -- | **2.3** | -- | -- | **0.0013** | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW05-0522 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0068** | -- | <0.8 | -- | -- | **2.2** | -- | -- | **0.0017** | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 8/12/2022 | FC-CCR-MW05-0822 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0058** | -- | **0.85** | -- | -- | **2.2** | -- | -- | **0.0018** | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/11/2022 | FC-CCR-MW05-1122 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0048** | -- | <4 | -- | -- | **2.2** | -- | -- | **0.0018** | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 5/3/2023 | FC-CCR-MW05-0523 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0035** | -- | <80 | -- | -- | **2.3** | -- | -- | <0.002 | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/13/2023 | FC-CCR-MW05-1124 | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | <0.005 | -- | <0.8 | -- | -- | **2.3** | -- | -- | <0.005 | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 05/20/2024 | FC-CCR-MW05-0524 | -- | -- | -- | -- | -- | <0.05 | -- | -- | -- | -- | -- | <0.005 | -- | <0.4 | -- | -- | **2.3** | -- | -- | <0.005 | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/13/2024 | FC-CCR-MW05-1124 | -- | -- | -- | -- | -- | <0.00044 | -- | -- | -- | -- | -- | <0.0025 | -- | **0.591 J** | -- | -- | **1.97** | -- | -- | <0.0025 | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/1/1987 | MW-6_4/1/1987 | -- | -- | <0.05 | -- | <0.005 | -- | -- | -- | <0.005 | -- | <0.005 | -- | -- | <0.5 | -- | <0.05 | -- | -- | <0.0001 | -- | -- | <0.05 | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/30/1987 | MW-6_9/30/1987 | -- | -- | <0.05 | -- | **0.17** | -- | -- | -- | <0.005 | -- | **0.0060** | -- | -- | <0.5 | -- | **0.080** | -- | -- | <0.0001 | -- | -- | <0.05 | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/15/1988 | MW-6-19880615 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.60** | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/21/1988 | MW-6-19880921 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/29/1988 | MW-6-19881129 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table G-5**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Selenium | Selenium | Thallium | Total Radium |
| **Filtered:** | | | | | N | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | N | Y | N | N | Y | N | N | Y | N | N |
| **Units:** | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| *Multiunit 1 BTV* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *Multiunit 1 GWPS* | | | | | *0.01* | *0.01* | *0.01* | *2* | *2* | *0.004* | *0.004* | *0.005* | *0.005* | *0.1* | *0.1* | *0.01* | *0.01* | *5* | *0.015* | *0.015* | *1.8* | *0.002* | *0.002* | *0.1* | *0.092* | -- | *0.017* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-06 | Multiunit 1/EW System | Supplementary | 2/27/1989 | MW-6-19890227 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/12/1989 | MW-6-19890912 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 3/26/1990 | MW-6-19900326 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 10/30/1990 | MW-6-19901030 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/2/1991 | MW-6-19910402 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/24/1991 | MW-6-19910924 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/5/1992 | MW-6-19920505 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/27/1992 | MW-6-19921127 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/21/1993 | MW-6-19930421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/22/1993 | MW-6-19931122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/20/1994 | MW-6-19940420 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/20/1994 | MW-6-19940920 | -- | **0.050** | -- | <0.5 | -- | -- | -- | <0.005 | -- | <0.02 | -- | -- | -- | **0.20** | <0.1 | -- | -- | -- | -- | <0.01 | <0.1 | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 12/14/1994 | MW-6-19941214 | <0.3 | <0.05 | -- | <1 | -- | <0.025 | -- | <0.025 | -- | <0.05 | -- | <0.25 | -- | -- | <0.015 | -- | -- | <0.0002 | -- | -- | <0.025 | -- | <0.05 | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/5/1995 | MW-6-19950405 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/21/1995 | MW-6-19951121 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 8/14/1996 | MW-6-19960814 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/23/1997 | MW-6-19970423 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 10/14/1997 | MW-6-19971014 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.10** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 10/21/1998 | MW-6-19981021 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/9/1999 | MW-6-19990609 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 12/1/1999 | MW-6-19991201 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/8/2000 | MW-6-20000608 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/28/2000 | MW-6-20001128 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.1855** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 8/21/2001 | MW-6-20010821 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 12/3/2001 | MW-6-20011203 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/24/2002 | MW-6-20020624 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.10** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 12/18/2002 | MW-6-20021218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/3/2003 | MW-6-20030603 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.28** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/24/2003 | MW-6-20030924 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.22** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/16/2004 | MW-6-20040616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/9/2004 | MW-6-20041109 | -- | <0.0005 | -- | **0.0108** | -- | -- | -- | <0.0005 | -- | **0.0070** | -- | -- | -- | <0.2 | **0.00020** | -- | -- | -- | -- | **0.00276** | **0.0060** | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/12/2005 | MW-6-20050512 | -- | **0.0030** | -- | **0.0080** | -- | <0.005 | -- | <0.001 | -- | <0.01 | -- | **0.0012** | -- | **0.10** | <0.001 | -- | -- | <0.0002 | -- | -- | **0.010** | -- | **0.0012** | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/1/2005 | MW-6-20051101 | -- | | -- | **0.011** | -- | | -- | -- | -- | | -- | **0.0030** | -- | **0.10** | | -- | -- | | -- | -- | | -- | | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/16/2006 | MW-6-20060516 | -- | **0.043** | -- | **0.011** | -- | **0.0010** | -- | <0.006 | -- | <0.004 | -- | **0.0040** | -- | **0.15** | <0.012 | -- | -- | -- | -- | <0.006 | <0.038 | -- | **0.012** | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 10/13/2006 | MW-6-20061013 | -- | <0.024 | -- | **0.013** | -- | <0.003 | -- | <0.002 | -- | <0.002 | -- | <0.008 | -- | **0.149** | <0.009 | -- | -- | -- | -- | <0.012 | <0.029 | -- | <0.025 | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/18/2007 | MW-6-20070418 | -- | **0.040** | -- | **0.015** | -- | <0.003 | -- | <0.002 | -- | <0.002 | -- | <0.008 | -- | **0.112** | <0.009 | -- | -- | <0.0022 | -- | **0.0040** | **0.020** | -- | <0.025 | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/20/2007 | MW-6-20071120 | -- | **0.0037** | -- | **0.0085** | -- | <0.0005 | -- | <0.05 | -- | **0.0060** | -- | **0.00418** | -- | **0.20** | <0.0001 | -- | -- | -- | -- | **0.00090** | **0.011** | -- | <0.0005 | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 8/1/2008 | MW-6-20080801 | -- | **0.0050** | -- | **0.0135** | -- | <0.0005 | -- | <0.00005 | -- | **0.0060** | -- | **0.00489** | -- | <0.2 | **0.00020** | -- | -- | -- | -- | <0.0005 | **0.023** | -- | <0.00005 | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 12/3/2009 | MW-6-20091203 | -- | **0.0024** | -- | **0.0114** | -- | <0.0005 | -- | <0.00005 | -- | **0.0080** | -- | **0.00288** | -- | **0.30** | **0.00040** | -- | -- | <0.0002 | -- | **0.0010** | **0.011** | -- | <0.00005 | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/28/2012 | MW-6-092812-01 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | **0.0042** | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | <0.0010 | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/20/2013 | FC-06-112013 | -- | **0.00028** | -- | -- | -- | -- | -- | -- | -- | **0.0044** | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 3/12/2014 | FC-06-031214 | -- | **0.00052** | -- | -- | -- | -- | -- | -- | -- | **0.021** | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | **0.00093** | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/11/2014 | FCPP-06-91114 | -- | <0.0020 | -- | -- | -- | -- | -- | -- | -- | <0.0050 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | <0.0060 | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 12/8/2014 | FCPP-MW06-12914 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 3/19/2015 | FCPP-06-031915 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/24/2015 | MW-6 | -- | <0.030 | -- | -- | -- | -- | -- | -- | -- | <0.030 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | <0.030 | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 8/29/2015 | FCPP-06-082915 | -- | <0.0030 | -- | -- | -- | -- | -- | <0.0010 | -- | <0.0030 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | **0.0094** | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/7/2015 | FC MW-6-(07115) | -- | <0.0010 | -- | -- | -- | -- | -- | <0.00050 | -- | **0.0043** | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/20/2016 | FC-Seep-MW6-616 | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/15/2016 | FC-Seep-MW6-916 | -- | <0.0020 | -- | -- | -- | -- | -- | -- | -- | <0.0050 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 3/19/2019 | FC-CCR-MW6-031919 | <0.0010 | **0.00069** | -- | **0.019** | -- | <0.0010 | -- | <0.00010 | -- | <0.0010 | -- | **0.0050** | -- | <0.80 | **0.0010** | -- | **1.2** | <0.00020 | -- | **0.017** | **0.00054** | -- | <0.00010 | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 3/19/2019 | FC-CCR-MW6-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/14/2019 | FC-CCR-MW6-51419 | -- | <0.00050 | -- | **0.016** | -- | -- | -- | <0.00010 | -- | -- | -- | **0.0047** | -- | <0.80 | <0.00050 | -- | **1.3** | -- | -- | **0.0074** | **0.00066** | -- | <0.00010 | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/14/2019 | FC-CCR-MW6-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.4** |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/19/2019 | FC-CCR-MW6-111919 | <0.0010 | **0.0014** | -- | **0.015** | -- | <0.0010 | -- | **0.00016** | -- | <0.0010 | -- | **0.0010** | -- | <0.80 | <0.00050 | -- | **1.6** | <0.00020 | -- | **0.0040** | **0.0010** | -- | <0.00010 | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/23/2020 | FC-CCR-MW06-0620 | <0.002 | **0.0025** | -- | **0.019** | -- | -- | -- | <0.0002 | -- | <0.002 | -- | **0.0025** | -- | <0.8 | <0.001 | -- | **2.7** | -- | -- | **0.0042** | <0.001 | -- | <0.0002 | **2.8** |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/7/2020 | FC-CCR-MW06-1120 | **0.00031** | **0.003** | -- | **0.017** | -- | <0.001 | -- | **0.00011** | -- | **0.0025** | -- | **0.00036 J** | -- | -- | <0.002 | -- | **2.2** | -- | -- | **0.0048** | **0.0049** | -- | <0.0004 | **2.1** |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/26/2021 | FC-CCR-MW06-0421 | <0.004 | **0.0014 J** | -- | **0.028** | -- | <0.001 | -- | <0.0004 | -- | <0.004 | -- | **0.0086** | -- | **0.58 J** | **0.0019 J** | -- | **2.1** | -- | -- | **0.0036** | **0.0043** | -- | <0.0004 | <0.8 |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/16/2021 | FC-CCR-MW06-1121 | **0.00029 J** | **0.0018** | -- | **0.017** | -- | <0.001 | -- | **0.00013 J** | -- | <0.002 | -- | **0.00056 J** | -- | **0.58 J** | **0.00057 J** | -- | **2.4** | -- | -- | **0.004** | **0.0040** | -- | **0.00004 J** | **0.4** |
| MW-06 | Multiunit 1/EW System | Supplementary | 2/8/2022 | FC-CCR-MW06-0222 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0016** | -- | **0.34** | -- | -- | **2.3** | -- | -- | **0.0035** | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/25/2022 | FC-CCR-MW06-0522 | <0.002 | <0.001 | -- | **0.014** | -- | <0.001 | -- | <0.0002 | -- | <0.002 | -- | <0.001 | -- | <0.8 | <0.001 | -- | **2.1** | -- | -- | **0.0035** | **0.0024** | -- | <0.0002 | <0.6 |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/1/2022 | FC-CCR-MW06-0922 | -- | -- | -- | -- | -- | **0.0022** | -- | -- | -- | -- | -- | **0.0012** | -- | <0.8 | -- | -- | **2.3** | -- | -- | **0.0056** | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/14/2022 | FC-CCR-MW06-1122 | <0.001 | **0.0005** | -- | **0.014** | -- | <0.001 | -- | <0.0001 | -- | <0.001 | -- | **0.00095** | -- | <4 | <0.0005 | -- | **2.4** | -- | -- | **0.0038** | **0.0021** | -- | <0.0001 | <0.6 |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/4/2023 | FC-CCR-MW06-0523 | <0.002 | <0.005 | -- | **0.017** | -- | <0.001 | -- | <0.001 | -- | <0.003 | -- | **0.0036** | -- | <80 | <0.001 | -- | **2.5** | -- | -- | **0.0046** | <0.005 | -- | <0.001 | **1.4** |
| MW-06R | Multiunit 1/EW System | Supplementary | 11/14/2023 | FC-CCR-MW06R-1124 | <0.01 | **0.0080** | -- | **0.026** | -- | <0.005 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | <0.8 | <0.005 | -- | **0.90** | -- | -- | **0.025** | <0.005 | -- | <0.001 | **3.0** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/1/1987 | MW-7_4/1/1987 | -- | -- | <0.05 | -- | <0.005 | -- | -- | -- | <0.005 | -- | <0.005 | -- | -- | <0.5 | -- | <0.05 | -- | -- | <0.0001 | -- | -- | <0.05 | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/1/1987 | MW-7 dup_4/1/1987 | -- | -- | <0.1 | -- | <0.005 | -- | -- | -- | <0.005 | -- | <0.005 | -- | -- | <0.5 | -- | <0.05 | -- | -- | <0.0001 | -- | -- | <0.05 | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/30/1987 | MW-7_9/30/1987 | -- | -- | <0.05 | -- | **0.12** | -- | -- | -- | <0.005 | -- | <0.005 | -- | -- | <0.5 | -- | **0.060** | -- | -- | <0.0001 | -- | -- | <0.05 | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/16/1988 | MW-7-19880616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/21/1988 | MW-7-19880921 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/14/1988 | MW-7-19881114 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/6/1989 | MW-7-19890306 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/12/1989 | MW-7-19890912 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/22/1990 | MW-7-19900322 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/24/1990 | MW-7-19900924 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/27/1991 | MW-7-19910327 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/24/1991 | MW-7-19910924 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/30/1992 | MW-7-19920430 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/27/1992 | MW-7-19921027 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/22/1993 | MW-7-19930422 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/22/1993 | MW-7-19931122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.02 | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | **0.040** | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/20/1994 | MW-7-19940420 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/21/1994 | MW-7-19940921 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 12/14/1994 | MW-7-19941214 | <0.3 | <0.05 | -- | <1 | -- | <0.025 | -- | <0.025 | -- | <0.05 | -- | <0.25 | -- | -- | <0.015 | -- | -- | <0.0002 | -- | -- | <0.025 | -- | <0.05 | -- |

**Table G-5**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Selenium | Selenium | Thallium | Total Radium |
| | | | | Filtered: | N | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | N | Y | N | N | N | Y | N | N | Y | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| | | | | *Multiunit 1 BTV* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *Multiunit 1 GWPS* | *0.01* | *0.01* | *0.01* | *2* | *2* | *0.004* | *0.004* | *0.005* | *0.005* | *0.1* | *0.1* | *0.01* | *0.01* | *5* | *0.015* | *0.015* | *1.8* | *0.002* | *0.002* | *0.1* | *0.092* | *--* | *0.017* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/4/1995 | MW-7-19950404 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/18/1995 | MW-7-19951118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/13/1996 | MW-7-19960813 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/15/1997 | MW-7-19970415 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/7/1997 | MW-7-19971007 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/13/1998 | MW-7-19980413 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/20/1998 | MW-7-19981020 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/11/1999 | MW-7-19990511 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/30/1999 | MW-7-19991130 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/8/2000 | MW-7-20000608 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/28/2000 | MW-7-20001128 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4086** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/22/2001 | MW-7-20010822 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 12/3/2001 | MW-7-20011203 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/24/2002 | MW-7-20020624 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 12/19/2002 | MW-7-20021219 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/29/2003 | MW-7-20030529 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 12/24/2003 | MW-7-20031224 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.24** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/21/2004 | MW-7-20040621 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/29/2004 | MW-7-20041129 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.28** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/13/2005 | MW-7-20050613 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 12/14/2005 | MW-7-20051214 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/16/2006 | MW-7-20060516 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.373** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/11/2006 | MW-7-20061011 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.327** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/19/2007 | MW-7-20070419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.259** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/19/2007 | MW-7-20071119 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/7/2008 | MW-7-20080807 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 7/10/2012 | MW-7 | -- | <0.0030 | -- | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | **0.0071** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/27/2012 | MW-7-092712-01 | -- | <0.0050 | -- | -- | -- | -- | -- | -- | -- | <0.0050 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | **0.031** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/19/2013 | FC-07-111913 | -- | **0.00025** | -- | -- | -- | -- | -- | -- | -- | <0.0010 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | **0.011** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/10/2014 | FCPP-07-091014 | -- | **0.00032** | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | **0.0052** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/16/2015 | FCPP-07-031615 | -- | **0.00050** | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | **0.0032** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/26/2015 | FCPP-7-082615 | -- | <0.0060 | -- | -- | -- | -- | -- | -- | -- | <0.0060 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | **0.0064** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/7/2015 | FC-CCR-MW7-110715 | **0.00027** | **0.00060** | -- | **0.017** | -- | **0.00015** | -- | **0.00014** | -- | **0.00041** | -- | **0.0028** | -- | **0.35** | **0.00045** | -- | **0.75** | <0.00020 | -- | **0.0055** | **0.0038** | -- | **0.000093** | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/7/2015 | FC-CCR-MW7-110715 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/26/2016 | FC-CCR-MW-7-042616 | <0.0025 | **0.00065** | -- | **0.014** | -- | <0.0010 | -- | <0.00010 | -- | <0.00050 | -- | **0.0015** | -- | <2.0 | <0.00050 | -- | **1.0** | <0.00020 | -- | **0.0039** | **0.0028** | -- | <0.00010 | **1.9** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/6/2016 | FC-CCR-MW7-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.3** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/6/2016 | FC-CCR-MW7-616 | **0.00031** | **0.00075** | -- | **0.017** | -- | <0.0010 | -- | <0.00010 | -- | <0.00050 | -- | **0.0020** | -- | **0.41** | **0.00082** | -- | **0.94** | <0.00020 | -- | **0.0046** | **0.0026** | -- | **0.00022** | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW7-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW7-816 | **0.00016** | **0.00055** | -- | **0.017** | -- | <0.0010 | -- | <0.00010 | -- | <0.00050 | -- | **0.0015** | -- | <0.40 | <0.00050 | -- | **1.2** | <0.00020 | -- | **0.033** | **0.011** | -- | **0.00016** | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW7-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW7-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW7-916 | <0.0025 | <0.0010 | -- | **0.017** | -- | <0.0010 | -- | **0.0014** | -- | <0.0025 | -- | **0.0020** | -- | <0.40 | <0.00050 | -- | **0.90** | <0.00020 | -- | **0.041** | **0.0064** | -- | **0.00053** | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW7-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.6** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/20/2016 | FC-CCR-MW7-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/20/2016 | FC-CCR-MW7-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW7-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW7-117 | <0.0010 | <0.00050 | -- | **0.016** | -- | <0.0010 | -- | <0.00010 | -- | **0.00093** | -- | **0.00065** | -- | <0.40 | <0.00050 | -- | **0.92** | <0.00020 | -- | **0.0048** | **0.0063** | -- | **0.00017** | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW7-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW7-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW7-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW7-41817 | <0.0010 | **0.00072** | -- | **0.016** | -- | <0.0010 | -- | <0.00010 | -- | **0.0023** | -- | <0.00050 | -- | <0.80 | <0.00050 | -- | **0.85** | <0.00020 | -- | **0.0039** | **0.0080** | -- | **0.00011** | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW7-5317 | <0.0010 | <0.00050 | -- | **0.015** | -- | <0.0010 | -- | <0.00010 | -- | **0.0024** | -- | <0.00050 | -- | **5.1** | <0.00050 | -- | **0.90** | <0.00020 | -- | **0.0035** | **0.011** | -- | **0.00010** | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW7-53117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/29/2017 | FC-CCR-MW-72-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.2** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW7-53017 | <0.0010 | **0.00050** | -- | **0.015** | -- | <0.0010 | -- | <0.00010 | -- | **0.0025** | -- | <0.00050 | -- | <0.80 | <0.00050 | -- | **0.79** | <0.00020 | -- | **0.0041** | **0.0098** | -- | **0.00015** | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW7-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW7-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW7-62217 | -- | -- | -- | -- | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | **0.86** | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW7-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW7-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW7-72217 | <0.0040 | <0.0020 | -- | **0.014** | -- | <0.0010 | -- | <0.00040 | -- | <0.0020 | -- | <0.0020 | -- | -- | <0.0020 | -- | **0.89** | <0.00020 | -- | **0.0031** | **0.011** | -- | <0.00040 | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW7-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW7-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW7-81017 | <0.010 | **0.00066** | -- | **0.016** | -- | <0.0010 | -- | <0.0010 | -- | **0.0017** | -- | <0.00050 | -- | <0.80 | <0.0050 | -- | **0.90** | <0.00020 | -- | <0.0050 | **0.015** | -- | <0.0010 | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW7-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/17/2017 | FC-CCR-MW7-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/17/2017 | FC-CCR-MW7-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW7-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW7-91017 | <0.0040 | **0.0021** | -- | **0.014** | -- | <0.0010 | -- | <0.00040 | -- | <0.0040 | -- | <0.0020 | -- | <0.80 | <0.0020 | -- | **0.83** | <0.00020 | -- | **0.0035** | **0.013** | -- | <0.00040 | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW7-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/12/2017 | FC-CCR-MW7-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.6** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/12/2017 | FC-CCR-MW7-101217 | <0.0010 | **0.00079** | -- | **0.013** | -- | <0.0010 | -- | <0.00010 | -- | <0.0010 | -- | <0.00050 | -- | <0.80 | <0.00050 | -- | **0.81** | <0.00020 | -- | **0.0031** | **0.015** | -- | **0.00010** | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/30/2017 | FC-CCR-MW7-113017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/17/2018 | FC-CCR-MW7-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.49** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/17/2018 | FC-CCR-MW7-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.9 |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/17/2018 | *DUP* FC-CCR-FD02-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.9 |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-7-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-7-6118 | -- | <0.010 | -- | **0.017** | -- | -- | -- | <0.0020 | -- | -- | -- | <0.010 | -- | <0.80 | <0.010 | -- | **0.83** | -- | -- | <0.010 | <0.010 | -- | <0.0020 | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/4/2018 | FC-CCR-MW7-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/4/2018 | FC-CCR-MW7-11418 | -- | <0.00050 | -- | **0.014** | -- | -- | -- | <0.00010 | -- | -- | -- | **0.00056** | -- | -- | <0.00050 | -- | **0.83** | -- | -- | **0.0070** | **0.0035** | -- | **0.00010** | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/4/2018 | FC-CCR-MW7-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW7-031919 | <0.0010 | **0.00051** | -- | **0.016** | -- | <0.0010 | -- | <0.00010 | -- | <0.0010 | -- | <0.00050 | -- | <0.40 | <0.00050 | -- | **0.79** | <0.00020 | -- | **0.0054** | **0.0054** | -- | <0.00010 | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW7-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/14/2019 | FC-CCR-MW7-51419 | -- | **0.00054** | -- | **0.014** | -- | -- | -- | <0.00010 | -- | -- | -- | <0.00050 | -- | <0.80 | <0.00050 | -- | **0.87** | -- | -- | **0.0037** | **0.0041** | -- | <0.00010 | -- |

**Table G-5**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Selenium | Selenium | Thallium | Total Radium |
| | | | | Filtered: | N | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | N | Y | N | N | Y | N | N | Y | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| | | | | *Multiunit 1 BTV* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *Multiunit 1 GWPS* | *0.01* | *0.01* | *0.01* | *2* | *2* | *0.004* | *0.004* | *0.005* | *0.005* | *0.1* | *0.1* | *0.01* | *0.01* | *5* | *0.015* | *0.015* | *1.8* | *0.002* | *0.002* | *0.1* | *0.092* | *--* | *0.017* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/14/2019 | FC-CCR-MW7-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/19/2019 | FC-CCR-MW7-111919 | <0.0010 | **0.00086** | -- | **0.015** | -- | <0.0010 | -- | **0.00031** | -- | <0.0010 | -- | **0.00062** | -- | <0.80 | <0.00050 | -- | **0.85** | <0.00020 | -- | **0.0057** | **0.0043** | -- | **0.00010** | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/23/2020 | FC-CCR-MW07-0620 | <0.004 | <0.002 | -- | **0.0072** | -- | -- | -- | <0.0004 | -- | <0.004 | -- | <0.002 | -- | <0.8 | <0.002 | -- | **1.3** | -- | -- | **0.0073** | **0.0041** | -- | <0.0004 | **1.5** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/6/2020 | FC-CCR-MW07-1120 | **0.00024 J** | **0.0017 J** | -- | <0.02/0.014 | -- | <0.001 | -- | **0.000069 J** | -- | **0.00055 J** | -- | **0.00050** | -- | **0.33 J** | <0.0005 | -- | **0.90** | <0.0002 | -- | **0.0052** | **0.0076 J** | -- | **0.00010** | **1.4** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/6/2020 | *DUP* FC-CCR-FD05-1120 | <0.001 | **0.0025 J** | -- | **0.0060 J** | -- | <0.001 | -- | **0.000062 J** | -- | **0.00062 J** | -- | **0.00059** | -- | **0.37 J** | <0.001 | -- | **0.92** | <0.0002 | -- | **0.0052** | **0.011 J** | -- | **0.00012 J** | **1.4** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/27/2021 | FC-CCR-MW07-0421 | <0.001 | <0.0013 | -- | **0.019** | -- | <0.001 | -- | <0.0001 | -- | **0.00073 J** | -- | **0.000094 J** | -- | **0.25 J** | <0.0005 | -- | **0.87** | <0.0002 | -- | **0.0022** | **0.027** | -- | <0.0001 | **2.4 J** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/27/2021 | *DUP* FC-CCR-FD04-0421 | <0.001 | <0.0018 | -- | **0.017** | -- | <0.001 | -- | <0.0001 | -- | **0.00055 J** | -- | <0.0005 | -- | **0.26 J** | <0.0005 | -- | **0.86** | <0.0002 | -- | **0.0022** | **0.025** | -- | <0.0001 | **0.9 J** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/18/2021 | FC-CCR-MW07-1121 | **0.00031 J** | <0.001 | -- | **0.015** | -- | <0.001 | -- | **0.00012 J** | -- | **0.0011 J** | -- | **0.00055 J** | -- | **0.25 J** | <0.0005 | -- | **1.00** | <0.0002 | -- | **0.0061** | **0.0031** | -- | **0.00034** | **1.6** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/26/2022 | FC-CCR-MW07-0522 | <0.001 | **0.00052** | -- | **0.015** | -- | <0.001 | -- | <0.0001 | -- | <0.001 | -- | <0.0005 | -- | <0.8 | <0.0005 | -- | **0.95** | <0.0002 | -- | **0.0046** | **0.0095** | -- | <0.0002 | **0.7 J** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/16/2022 | FC-CCR-MW07-1122 | <0.002 | <0.001 | -- | **0.017** | -- | <0.001 | -- | <0.0002 | -- | <0.002 | -- | <0.001 | -- | <2 | <0.001 | -- | **1.0** | <0.0002 | -- | **0.0034** | **0.0082** | -- | <0.0002 | **1.5** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/8/2023 | FC-CCR-MW07-0523 | <0.002 | <0.005 | -- | **0.015** | -- | <0.001 | -- | <0.001 | -- | <0.003 | -- | <0.001 | -- | <2 | <0.001 | -- | **1.1** | <0.0002 | -- | **0.0024** | **0.023** | -- | <0.001 | **0.7** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/15/2023 | FC-CCR-MW07-1124 | <0.01 | **0.0092** | -- | **0.016 J** | -- | <0.001 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | <0.8 | <0.005 | -- | **1.0** | <0.0002 | -- | <0.005 | **0.019** | -- | <0.001 | **2.1** |
| MW-07 | Multiunit 1 | Downgradient Boundary | 05/23/2024 | FC-CCR-MW07-0524 | <0.01 | **0.0056 J** | -- | **0.015 J** | -- | <0.001 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | <0.4 | <0.005 | -- | **1.1** | <0.0002 | -- | <0.005 | **0.0073** | -- | <0.001 | <0.8 |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/12/2024 | FC-CCR-MW07-1024 | <0.0025 | <0.0025 | -- | **0.0138** | -- | <0.00044 | -- | <0.0004 | -- | <0.01 | -- | <0.0025 | -- | **0.394 J** | <0.0025 | -- | **0.93** | <0.0002 | -- | **0.0033** | **0.0079** | -- | <0.0005 | **3.0** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 10/2/1987 | MW-8_10/2/1987 | -- | -- | <0.05 | -- | **0.20** | -- | -- | -- | <0.005 | -- | <0.005 | -- | -- | <0.5 | -- | <0.05 | -- | -- | <0.0001 | -- | -- | <0.05 | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/16/1988 | MW-8-19880616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.70** | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/21/1988 | MW-8-19880921 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.70** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/14/1988 | MW-8-19881114 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.70** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 3/8/1989 | MW-8-19890308 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.60** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/12/1989 | MW-8-19890912 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.60** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 3/22/1990 | MW-8-19900322 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 10/29/1990 | MW-8-19901029 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 3/27/1991 | MW-8-19910327 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 10/1/1991 | MW-8-19911001 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/1/1992 | MW-8-19920501 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/3/1992 | MW-8-19921103 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/28/1993 | MW-8-19930428 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.41** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/30/1993 | MW-8-19931130 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/28/1994 | MW-8-19940428 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.60** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/16/1994 | MW-8-19941116 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/14/1994 | MW-8-19941214 | <0.3 | <0.05 | -- | <1 | -- | <0.025 | -- | <0.025 | -- | <0.05 | -- | <0.25 | -- | -- | <0.015 | -- | -- | <0.0002 | -- | <0.025 | -- | <0.05 | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/5/1995 | MW-8-19950405 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/18/1995 | MW-8-19951118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.70** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 8/19/1996 | MW-8-19960819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/24/1997 | MW-8-19970624 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 10/7/1997 | MW-8-19971007 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/14/1998 | MW-8-19980414 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 10/21/1998 | MW-8-19981021 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/11/1999 | MW-8-19990511 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/1/1999 | MW-8-19991201 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/7/2000 | MW-8-20000607 | -- | <0.005 | -- | **0.020** | -- | -- | -- | <0.005 | -- | <0.01 | -- | -- | -- | **0.60** | <0.005 | -- | -- | -- | -- | **0.060** | <0.005 | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/12/2000 | MW-8-20001212 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.58** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 8/22/2001 | MW-8-20010822 | -- | <0.005 | -- | **0.020** | -- | -- | -- | <0.001 | -- | <0.01 | -- | -- | -- | **0.60** | <0.005 | -- | -- | -- | -- | **0.060** | <0.005 | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/3/2001 | MW-8-20011203 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.60** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/24/2002 | MW-8-20020624 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/18/2002 | MW-8-20021218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/3/2003 | MW-8-20030603 | -- | -- | -- | **0.010** | -- | **0.12** | **0.010** | -- | -- | -- | -- | -- | -- | **0.60** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/23/2003 | MW-8-20030923 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.66** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/16/2004 | MW-8-20040616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.60** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/9/2004 | MW-8-20041109 | -- | <0.0005 | -- | **0.0181** | -- | -- | -- | <0.00005 | -- | **0.0060** | -- | -- | -- | **0.60** | **0.0013** | -- | -- | -- | -- | **0.05259** | **0.0040** | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/12/2005 | MW-8-20050512 | -- | **0.0019** | -- | **0.0138** | -- | <0.0005 | -- | <0.001 | -- | **0.0010** | -- | **0.00259** | -- | **0.50** | **0.0011** | -- | -- | <0.0002 | -- | -- | **0.0080** | -- | <0.00005 | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/1/2005 | MW-8-20051101 | -- | -- | -- | **0.016** | -- | -- | -- | -- | -- | <0 | -- | **0.0030** | -- | **0.50** | -- | -- | -- | -- | -- | **0.045** | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/16/2006 | MW-8-20060516 | -- | <0.032 | -- | **0.010** | -- | <0.001 | -- | <0.006 | -- | <0.004 | -- | **0.0030** | -- | **0.649** | <0.012 | -- | -- | -- | -- | **0.056** | <0.038 | -- | <0.005 | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 10/11/2006 | MW-8-20061011 | -- | <0.024 | -- | **0.013** | -- | <0.003 | -- | <0.002 | -- | <0.002 | -- | <0.008 | -- | **0.627** | <0.009 | -- | -- | -- | -- | **0.060** | <0.029 | -- | <0.025 | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/18/2007 | MW-8-20070418 | <0.028 | <0.024 | -- | **0.011** | -- | <0.003 | -- | <0.002 | -- | <0.002 | -- | <0.008 | -- | **1.03** | <0.009 | -- | -- | <0.0022 | -- | **0.068** | **0.022** | -- | <0.025 | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/14/2007 | MW-8-20071114 | **0.0013** | **0.0014** | -- | **0.0109** | -- | <0.0005 | -- | <0.00005 | -- | **0.017** | -- | **0.00233** | -- | **0.70** | <0.1 | -- | -- | -- | -- | **0.0652** | **0.022** | -- | <0.00005 | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/7/2008 | MW-8-20080507 | **0.0008** | **0.0030** | -- | **0.0101** | -- | <0.0005 | -- | <0.00005 | -- | **0.0040** | -- | **0.0031** | -- | **0.70** | **0.00030** | -- | -- | -- | -- | **0.0784** | **0.0090** | -- | <0.00005 | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/3/2009 | MW-8-20091203 | <0.0005 | **0.0033** | -- | **0.0127** | -- | <0.0005 | -- | **0.00013** | -- | **0.011** | -- | **0.00207** | -- | **0.70** | <0.0001 | -- | -- | <0.0002 | -- | **0.0518** | **0.011** | -- | <0.00005 | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/27/2012 | MW-8-092712-01 | -- | **0.0017** | -- | -- | -- | -- | -- | -- | -- | <0.0010 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | **0.0012** | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/19/2013 | FC-08-111913 | -- | **0.0016** | -- | -- | -- | -- | -- | -- | -- | **0.00051** | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | <0.0005 | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/10/2014 | FCPP-08-091014 | -- | **0.0012** | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | <0.00060 | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 3/17/2015 | FCPP-08-031715 | -- | **0.00064** | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | <0.00060 | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/29/2015 | MW-8 | -- | <0.0030 | -- | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | **0.0047** | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 8/26/2015 | FCPP-8-082615 | -- | <0.0060 | -- | -- | -- | -- | -- | -- | -- | <0.0060 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | <0.0060 | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/1/2015 | FC-CCR-MW8-120115 | **0.0014** | **0.0091** | -- | **0.15** | -- | **0.0020** | -- | **0.00096** | -- | **0.020** | -- | **0.019** | -- | <0.25 | **0.033** | -- | **1.1** | **0.00019** | -- | **0.033** | **0.013** | -- | **0.00054** | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/1/2015 | FC-CCR-MW8-120115 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/26/2016 | FC-CCR-MW-8-042616 | <0.0050 | <0.0010 | -- | **0.014** | -- | <0.0010 | -- | **0.00025** | -- | <0.0010 | -- | **0.0018** | -- | <2.0 | <0.0010 | -- | **1.2** | <0.00020 | -- | **0.018** | **0.0015** | -- | <0.00020 | **1.4** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/7/2016 | FC-CCR-MW8-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/7/2016 | FC-CCR-MW8-616 | **0.00054** | **0.00058** | -- | **0.038** | -- | <0.0010 | -- | **0.00020** | -- | **0.0016** | -- | **0.0023** | -- | **0.70** | **0.0014** | -- | **1.1** | <0.00020 | -- | **0.018** | **0.0013** | -- | **0.00014** | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW8-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.61** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW8-816 | **0.00048** | <0.00050 | -- | **0.014** | -- | <0.0010 | -- | **0.00022** | -- | **0.00082** | -- | **0.00093** | -- | <0.40 | <0.00050 | -- | **1.5** | <0.00020 | -- | **0.049** | **0.0016** | -- | <0.00010 | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW8-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW8-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.77** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW8-916 | <0.0025 | <0.0010 | -- | **0.013** | -- | <0.0010 | -- | **0.00074** | -- | <0.0025 | -- | **0.0013** | -- | <0.40 | <0.00050 | -- | **1.1** | <0.00020 | -- | **0.044** | <0.0030 | -- | <0.00050 | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW8-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW8-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW8-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW8-41817 | <0.0010 | **0.00053** | -- | **0.017** | -- | <0.0010 | -- | **0.00018** | -- | **0.00075** | -- | **0.00053** | -- | <0.80 | <0.00050 | -- | **1.1** | <0.00020 | -- | **0.014** | **0.00084** | -- | <0.00010 | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW8-5317 | <0.0010 | <0.00050 | -- | **0.012** | -- | <0.0010 | -- | **0.00011** | -- | **0.00060** | -- | <0.00050 | -- | **5.3** | <0.00050 | -- | **1.2** | <0.00020 | -- | **0.014** | **0.0015** | -- | <0.00010 | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW8-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW8-53017 | <0.0010 | **0.00070** | -- | **0.013** | -- | <0.0010 | -- | **0.00013** | -- | **0.00077** | -- | <0.00050 | -- | <2.0 | <0.00050 | -- | **1.1** | <0.00020 | -- | **0.016** | **0.0016** | -- | <0.00010 | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW8-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-8-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-8-6118 | -- | <0.010 | -- | **0.011** | -- | -- | -- | <0.0020 | -- | -- | -- | <0.010 | -- | **0.91** | <0.010 | -- | **1.2** | -- | -- | **0.011** | <0.010 | -- | <0.0020 | -- |

**Table G-5**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Selenium | Selenium | Thallium | Total Radium |
| **Filtered:** | | | | | N | N | Y | N | Y | N | Y | N | Y | N | N | Y | N | N | N | Y | N | N | Y | N | N | Y | N | N |
| **Units:** | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| *Multiunit 1 BTV* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *Multiunit 1 GWPS* | | | | | *0.01* | *0.01* | *0.01* | *2* | *2* | *0.004* | *0.004* | *0.005* | *0.005* | *0.1* | *0.1* | *0.01* | *0.01* | *5* | *0.015* | *0.015* | *1.8* | *0.002* | *0.002* | *0.1* | *0.092* | -- | *0.017* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/4/2018 | FC-CCR-MW8-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/4/2018 | FC-CCR-MW8-11418 | -- | **0.00064** | -- | **0.0090** | -- | -- | -- | **0.00015** | -- | -- | -- | <0.00050 | -- | -- | <0.00050 | -- | **1.1** | -- | -- | **0.011** | **0.0014** | -- | <0.00010 | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/4/2018 | FC-CCR-MW8-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-08 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW8-031919 | <0.0010 | <0.00050 | -- | **0.011** | -- | <0.0010 | -- | **0.00029** | -- | <0.0010 | -- | <0.00050 | -- | **0.41** | <0.00050 | -- | **1.1** | <0.00020 | -- | **0.011** | **0.0013** | -- | <0.00010 | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW8-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/14/2019 | FC-CCR-MW8-51419 | -- | <0.00050 | -- | **0.010** | -- | -- | -- | <0.00010 | -- | -- | -- | <0.00050 | -- | <0.80 | <0.00050 | -- | **1.2** | -- | -- | **0.013** | **0.0012** | -- | <0.00010 | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/14/2019 | FC-CCR-MW8-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/19/2019 | FC-CCR-MW8-111919 | <0.0010 | <0.0010 | -- | **0.011** | -- | <0.0010 | -- | **0.00012** | -- | <0.0010 | -- | <0.00050 | -- | <0.80 | <0.00050 | -- | **1.2** | <0.00020 | -- | **0.011** | **0.0014** | -- | <0.00010 | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/23/2020 | FC-CCR-MW08-0620 | <0.004 | <0.002 | -- | **0.0050 J** | -- | -- | -- | <0.0004 | -- | <0.004 | -- | <0.002 | -- | <0.8 UJ | <0.002 | -- | -- | -- | -- | **0.014 J** | <0.002 | -- | <0.0004 | **0.7** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/23/2020 | *DUP* FC-CCR-FD04-0620 | <0.001 | **0.00077** | -- | **0.0097 J** | -- | -- | -- | **0.00021** | -- | <0.001 | -- | <0.0005 | -- | <0.8 UJ | **0.00074** | -- | -- | -- | -- | **0.011 J** | **0.00080** | -- | <0.0001 | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/6/2020 | FC-CCR-MW08-1120 | **0.00034 J** | **0.0025** | -- | <0.02/0.011 | -- | <0.001 | -- | **0.00029** | -- | <0.001 | -- | **0.00070 J** | -- | **0.58 J** | <0.001 | -- | **1.1** | <0.0002 | -- | **0.013** | **0.0048** | -- | **0.00016 J** | <0.8 |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/27/2021 | FC-CCR-MW08-0421 | <0.001 | <0.0015 | -- | **0.011** | -- | <0.001 | -- | <0.0001 | -- | <0.001 | -- | **0.0012** | -- | **0.42 J** | <0.0005 | -- | **1.1** | <0.0002 | -- | **0.017** | <0.001 | -- | <0.0001 | <0.8 |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/18/2021 | FC-CCR-MW08-1121 | **0.00033 J** | <0.001 | -- | **0.0097** | -- | <0.001 | -- | **0.0012** | -- | <0.002 | -- | **0.00062 J** | -- | **0.56 J** | <0.0005 | -- | **1.2** | <0.0002 | -- | **0.018** | **0.0005** | -- | **0.00014** | **1.3** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/24/2022 | FC-CCR-MW08-0522 | <0.001 | **0.00056** | -- | **0.011** | -- | <0.001 | -- | **0.00014** | -- | <0.001 | -- | <0.0005 | -- | <0.8 | <0.0005 | -- | **1.2** | <0.0002 | -- | **0.015** | **0.0015** | -- | <0.0002 | **1.1** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/24/2022 | FC-CCR-SS06-0522 | <0.02 | <0.01 | -- | **0.0102 J** | -- | <0.0025 | -- | <0.0025 | -- | <0.02 | -- | **0.00144 J** | -- | <50/0.7 | <0.005 | -- | **1.21** | <0.001 | -- | **0.0154** | <0.0025 | -- | <0.005 | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/16/2022 | FC-CCR-MW08-1122 | <0.002 | <0.001 | -- | **0.011** | -- | <0.001 | -- | <0.0002 | -- | <0.002 | -- | <0.001 | -- | <4 | <0.001 | -- | **1.3** | <0.0002 | -- | **0.013** | <0.001 | -- | <0.0002 | **3.0** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/8/2023 | FC-CCR-MW08-0523 | <0.002 | <0.005 | -- | **0.0088** | -- | <0.005 | -- | <0.001 | -- | <0.003 | -- | <0.001 | -- | <2 | <0.001 | -- | **1.3** | <0.0002 | -- | **0.013** | <0.005 | -- | <0.001 | **1.0** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/15/2023 | FC-CCR-MW08-1124 | <0.01 | **0.0083** | -- | **0.010 J** | -- | <0.001 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | <0.8 | <0.005 | -- | **1.2** | <0.0002 | -- | **0.014** | <0.005 | -- | <0.001 | **1.7** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 05/23/2024 | FC-CCR-MW08-0524 | <0.01 | **0.0055 J** | -- | **0.010 J** | -- | <0.001 | -- | <0.001 | -- | <0.001 | -- | <0.005 | -- | **0.47** | <0.005 | -- | **1.4** | <0.0002 | -- | **0.015** | <0.005 | -- | <0.001 | **2.0** |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/12/2024 | FC-CCR-MW08-1024 | <0.0025 | <0.0025 | -- | **0.0095** | -- | **0.00045 J** | -- | <0.0004 | -- | <0.01 | -- | <0.0025 | -- | **0.512 J** | <0.0025 | -- | **1.2** | <0.0002 | -- | **0.0131** | <0.0025 | -- | <0.0005 | **3.6** |
| MW-15 | Multiunit 1 | Supplementary | 9/30/1987 | MW-15_9/30/1987 | -- | -- | <0.05 | -- | **0.18** | -- | -- | -- | <0.005 | -- | <0.005 | -- | -- | <0.5 | -- | **0.070** | -- | -- | <0.0001 | -- | -- | <0.05 | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 6/20/1988 | MW-15-19880620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.0** | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 9/22/1988 | MW-15-19880922 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/14/1988 | MW-15-19881114 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.60** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 3/8/1989 | MW-15-19890308 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 9/13/1989 | MW-15-19890913 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 3/22/1990 | MW-15-19900322 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 9/24/1990 | MW-15-19900924 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 3/27/1991 | MW-15-19910327 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 9/27/1991 | MW-15-19910927 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 5/1/1992 | MW-15-19920501 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 10/28/1992 | MW-15-19921028 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 4/23/1993 | MW-15-19930423 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.28** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/22/1993 | MW-15-19931122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 4/20/1994 | MW-15-19940420 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/8/1994 | MW-15-19941108 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 4/5/1995 | MW-15-19950405 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/18/1995 | MW-15-19951118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 8/14/1996 | MW-15-19960814 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 4/23/1997 | MW-15-19970423 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 10/8/1997 | MW-15-19971008 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 4/14/1998 | MW-15-19980414 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 5/11/1999 | MW-15-19990511 | -- | <0.005 | -- | **0.020** | -- | -- | -- | <0.001 | -- | <0.01 | -- | -- | -- | **0.20** | <0.005 | -- | -- | -- | -- | <0.01 | <0.005 | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 12/1/1999 | MW-15-19991201 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 6/8/2000 | MW-15-20000608 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 12/12/2000 | MW-15-20001212 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.2524** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 8/22/2001 | MW-15-20010822 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 12/3/2001 | MW-15-20011203 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 6/24/2002 | MW-15-20020624 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 12/18/2002 | MW-15-20021218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 5/28/2003 | MW-15-20030528 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 12/24/2003 | MW-15-20031224 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 6/16/2004 | MW-15-20040616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/29/2004 | MW-15-20041129 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 5/13/2005 | MW-15-20050513 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 12/14/2005 | MW-15-20051214 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 6/17/2006 | MW-15-20060617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.177** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 10/11/2006 | MW-15-20061011 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.221** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 4/18/2007 | MW-15-20070418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.373** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/14/2007 | MW-15-20071114 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 5/7/2008 | MW-15-20080507 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/19/2013 | FC-15MS-111913 | -- | <0.0020 | -- | -- | -- | -- | -- | -- | -- | **0.0020** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.0020 | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/19/2013 | FC-15-111913 | -- | **0.00051** | -- | -- | -- | -- | -- | -- | -- | **0.00054** | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | <0.0005 | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 9/9/2014 | FCPP-15-090914 | -- | **0.00031** | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | <0.00060 | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-15-031715 | -- | **0.00037** | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | <0.00060 | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 6/29/2015 | MW-15 | -- | <0.0030 | -- | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | **0.0062** | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 8/26/2015 | FCPP-15-082615 | -- | <0.0060 | -- | -- | -- | -- | -- | -- | -- | <0.0060 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | <0.0060 | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 6/18/2016 | FC-Seep-MW15-616 | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW15-916 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 3/20/2019 | FC-CCR-MW15-032019 | <0.0010 | <0.00050 | -- | **0.020** | -- | <0.0010 | -- | **0.00015** | -- | <0.0010 | -- | **0.0020** | -- | <0.80 | <0.00050 | -- | **0.92** | <0.00020 | -- | **0.036** | **0.00071** | -- | **0.00018** | -- |
| MW-15 | Multiunit 1 | Supplementary | 3/20/2019 | FC-CCR-MW15-032019 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-15 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW15-51419 | -- | <0.00050 | -- | **0.019** | -- | -- | -- | <0.00010 | -- | -- | -- | **0.0022** | -- | <0.80 | **0.00062** | -- | **0.91** | -- | -- | **0.0096** | <0.00050 | -- | <0.00010 | -- |
| MW-15 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW15-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-15 | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-MW15-111919 | <0.0010 | <0.0010 | -- | **0.018** | -- | <0.0010 | -- | <0.00010 | -- | <0.0010 | -- | **0.0022** | -- | <0.80 | <0.00050 | -- | **0.91** | <0.00020 | -- | **0.0034** | <0.00050 | -- | **0.00012** | -- |
| MW-15 | Multiunit 1 | Supplementary | 6/23/2020 | FC-CCR-MW15-0620 | <0.002 | **0.0010** | -- | **0.019** | -- | -- | -- | <0.0002 | -- | <0.002 | -- | **0.0016** | -- | <0.8 | <0.001 | -- | **1.2** | -- | -- | **0.0018** | <0.001 | -- | <0.0002 | <0.8 |
| MW-15 | Multiunit 1 | Supplementary | 11/6/2020 | FC-CCR-MW15-1120 | **0.00041** | **0.0014** | -- | **0.019** | -- | <0.001 | -- | **0.000092** | -- | **0.0016** | -- | **0.0030** | -- | <0.4 | <0.001 | -- | **1.0** | -- | -- | **0.0020** | **0.0030** | -- | **0.00014** | <0.8 |
| MW-15 | Multiunit 1 | Supplementary | 4/27/2021 | FC-CCR-MW15-0421 | <0.004 | <0.002 | -- | **0.021** | -- | <0.001 | -- | <0.0004 | -- | <0.004 | -- | **0.0017 J** | -- | **0.27 J** | **0.0019 J** | -- | **0.96** | -- | -- | **0.0016 J** | **0.0037** | -- | <0.0004 | <0.8 |
| MW-15 | Multiunit 1 | Supplementary | 11/18/2021 | FC-CCR-MW15-1121 | <0.002 | **0.0012** | -- | **0.020** | -- | <0.001 | -- | **0.000076 J** | -- | <0.002 | -- | **0.0016** | -- | **0.37 J** | <0.0005 | -- | **0.97** | -- | -- | **0.0014** | **0.0005** | -- | **0.00013** | **0.6** |
| MW-15 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-MW15-0222 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0019** | -- | **0.18** | -- | -- | **1.0** | -- | -- | **0.0010** | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 5/24/2022 | FC-CCR-MW15-0522 | <0.001 | <0.001 | -- | **0.019** | -- | <0.001 | -- | **0.00011** | -- | <0.001 | -- | **0.0018** | -- | <0.8 | <0.001 | -- | **1.0** | -- | -- | **0.0012** | **0.0021** | -- | <0.0004 | <0.6 |
| MW-15 | Multiunit 1 | Supplementary | 8/13/2022 | FC-CCR-MW15-0822 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0015** | -- | <0.8 | -- | -- | **0.99** | -- | -- | **0.0013** | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/16/2022 | FC-CCR-MW15-1122 | <0.002 | <0.001 | -- | **0.019** | -- | <0.001 | -- | <0.0002 | -- | <0.002 | -- | <0.001 | -- | <2 | <0.001 | -- | **1.0** | -- | -- | **0.0013** | <0.001 | -- | <0.0002 | <0.7 |
| MW-15 | Multiunit 1 | Supplementary | 5/8/2023 | FC-CCR-MW15-0523 | <0.002 | <0.005 | -- | **0.022** | -- | <0.005 | -- | <0.001 | -- | <0.003 | -- | **0.0021** | -- | <2 | <0.001 | -- | **1.0** | -- | -- | <0.002 | <0.005 | -- | <0.001 | **1.5** |
| MW-15 | Multiunit 1 | Supplementary | 11/15/2023 | FC-CCR-MW15-1124 | <0.01 | <0.01 | -- | **0.020** | -- | <0.001 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | <0.8 | <0.005 | -- | **1.0** | -- | -- | <0.005 | <0.005 | -- | <0.001 | **1.3** |

**Table G-5**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Selenium | Selenium | Thallium | Total Radium |
| **Filtered:** | | | | | N | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | N | Y | N | N | Y | N | N | Y | N | N |
| **Units:** | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| *Multiunit 1 BTV* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *Multiunit 1 GWPS* | | | | | *0.01* | *0.01* | *0.01* | *2* | *2* | *0.004* | *0.004* | *0.005* | *0.005* | *0.1* | *0.1* | *0.01* | *0.01* | *5* | *0.015* | *0.015* | *1.8* | *0.002* | *0.002* | *0.1* | *0.092* | -- | *0.017* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-15 | Multiunit 1 | Supplementary | 05/23/2024 | FC-CCR-MW15-0524 | <0.01 | 0.0058 | -- | **0.018 J** | -- | <0.001 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | <0.4 | <0.005 | -- | 1.0 | -- | -- | <0.005 | <0.005 | -- | <0.001 | <0.9 |
| MW-15 | Multiunit 1 | Supplementary | 11/14/2024 | FC-CCR-MW15-1124 | <0.0025 | <0.0025 | -- | 0.018 | -- | <0.00044 | -- | <0.0004 | -- | <0.01 | -- | <0.0025 | -- | 0.391 J | <0.0025 | -- | 1.0 | -- | -- | <0.0025 | <0.0025 | -- | <0.0005 | 1.0 |
| MW-16 | Multiunit 1 | Supplementary | 9/30/1987 | MW-16_9/30/1987 | -- | -- | <0.05 | -- | 0.22 | -- | -- | -- | <0.005 | -- | <0.005 | -- | -- | <0.5 | -- | 0.060 | -- | -- | <0.0001 | -- | -- | <0.05 | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 6/20/1988 | MW-16-19880620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.50 | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 9/21/1988 | MW-16-19880921 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/14/1988 | MW-16-19881114 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 3/8/1989 | MW-16-19890308 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 9/13/1989 | MW-16-19890913 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 3/26/1990 | MW-16-19900326 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 9/24/1990 | MW-16-19900924 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 4/2/1991 | MW-16-19910402 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 10/1/1991 | MW-16-19911001 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/7/1992 | MW-16-19920507 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/5/1992 | MW-16-19921105 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 4/26/1993 | MW-16-19930426 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/23/1993 | MW-16-19931123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 4/20/1994 | MW-16-19940420 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 9/21/1994 | MW-16-19940921 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 4/4/1995 | MW-16-19950404 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/21/1995 | MW-16-19951121 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 8/15/1996 | MW-16-19960815 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 4/15/1997 | MW-16-19970415 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 10/8/1997 | MW-16-19971008 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 4/15/1998 | MW-16-19980415 | -- | <0.005 | -- | 0.020 | -- | -- | -- | <0.001 | -- | <0.01 | -- | -- | -- | 0.20 | <0.005 | -- | -- | -- | -- | 0.030 | 0.23 | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/11/1999 | MW-16-19990511 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/30/1999 | MW-16-19991130 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 6/8/2000 | MW-16-20000608 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 12/12/2000 | MW-16-20001212 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.2809 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 8/22/2001 | MW-16-20010822 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.27 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 12/3/2001 | MW-16-20011203 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 6/12/2002 | MW-16-20020612 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 12/18/2002 | MW-16-20021218 | -- | 0.0070 | -- | <0.01 | -- | -- | -- | 0.0020 | -- | <0.01 | -- | -- | -- | 0.20 | <0.005 | -- | -- | -- | -- | <0.01 | 0.036 | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/29/2003 | MW-16-20030529 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 12/24/2003 | MW-16-20031224 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 6/16/2004 | MW-16-20040616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/29/2004 | MW-16-20041129 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 6/13/2005 | MW-16-20050613 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 10/31/2005 | MW-16-20051031 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/16/2006 | MW-16-20060516 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.267 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 10/11/2006 | MW-16-20061011 | -- | <0.024 | -- | 0.017 | -- | -- | -- | <0.002 | -- | <0.002 | -- | -- | -- | 0.287 | <0.009 | -- | -- | -- | -- | <0.012 | <0.029 | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 4/18/2007 | MW-16-20070418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.59 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/14/2007 | MW-16-20071114 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/7/2008 | MW-16-20080507 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 12/4/2009 | MW-16-20091204 | -- | 0.0037 | -- | 0.0164 | -- | -- | -- | <0.00025 | -- | 0.020 | -- | -- | -- | 0.30 | <0.0005 | -- | -- | <0.0002 | -- | <0.0025 | 0.016 | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 9/27/2012 | MW-16-092712-01 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0010 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | 0.0016 | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/19/2013 | FC-16-111913 | -- | 0.00031 | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | 0.0050 | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 3/12/2014 | FC-16-031214 | -- | 0.00077 | -- | -- | -- | -- | -- | -- | -- | 0.0018 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | 0.0030 | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 9/9/2014 | FCPP-16-090914 | -- | 0.00065 | -- | -- | -- | -- | -- | -- | -- | 0.00083 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | 0.0021 | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-16-031715 | -- | 0.00027 | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | 0.014 | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 6/29/2015 | MW-16 | -- | <0.0030 | -- | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | 0.034 | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 8/26/2015 | FCPP-16-082615 | -- | <0.0060 | -- | -- | -- | -- | -- | -- | -- | <0.0060 | -- | -- | -- | 2.7 | -- | -- | -- | -- | -- | -- | 0.038 | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/10/2015 | FC MW-16-(111115) | -- | 0.0039 | -- | -- | -- | -- | -- | <0.00050 | -- | 0.014 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | 0.049 | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 6/18/2016 | FC-Seep-MW16-616 | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW16-916 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 3/20/2019 | FC-CCR-MW16-032019 | <0.0010 | 0.0018 | -- | 0.021 | -- | <0.0010 | -- | 0.00015 | -- | <0.0010 | -- | 0.0062 | -- | <0.80 | <0.00050 | -- | 1.2 | <0.00020 | -- | 0.0033 | 0.045 | -- | 0.00041 | -- |
| MW-16 | Multiunit 1 | Supplementary | 3/20/2019 | FC-CCR-MW16-032019 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.9 |
| MW-16 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW16-51419 | -- | 0.0017 | -- | 0.021 | -- | -- | -- | 0.00013 | -- | -- | -- | 0.0054 | -- | <0.80 | <0.00050 | -- | 1.3 | -- | -- | 0.0018 | 0.050 | -- | 0.00040 | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW16-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.9 |
| MW-16 | Multiunit 1 | Supplementary | 5/14/2019 | *DUP* FC-CCR-FD02-51419 | -- | 0.0012 | -- | 0.021 | -- | -- | -- | 0.00015 | -- | -- | -- | 0.0052 | -- | <0.80 | <0.00050 | -- | 1.3 | -- | -- | 0.0018 | 0.048 | -- | 0.00041 | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/14/2019 | *DUP* FC-CCR-FD02-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.7 |
| MW-16 | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-MW16-111919 | <0.0010 | 0.0011 | -- | 0.020 | -- | <0.0010 | -- | 0.00015 | -- | <0.0010 | -- | 0.0072 | -- | <0.80 | <0.00050 | -- | 1.2 | <0.00020 | -- | 0.00073 | 0.032 | -- | 0.00041 | -- |
| MW-16 | Multiunit 1 | Supplementary | 6/23/2020 | FC-CCR-MW16-0620 | <0.002 | 0.0026 | -- | 0.019 | -- | -- | -- | <0.0002 | -- | <0.002 | -- | 0.0068 | -- | <0.8 | <0.001 | -- | 1.8 | -- | -- | <0.001 | 0.037 | -- | 0.00051 | 3.1 |
| MW-16 | Multiunit 1 | Supplementary | 11/6/2020 | FC-CCR-MW16-1120 | 0.00022 | <0.002 | -- | 0.023 | -- | <0.001 | -- | 0.00018 | -- | 0.0016 | -- | 0.0058 | -- | <0.4 | <0.002 | -- | 1.3 | -- | -- | <0.002 | 0.034 | -- | 0.00054 | 3.6 |
| MW-16 | Multiunit 1 | Supplementary | 4/27/2021 | FC-CCR-MW16-0421 | <0.004 | <0.002 | -- | 0.022 | -- | <0.001 | -- | 0.0002 J | -- | <0.004 | -- | 0.0071 | -- | 0.19 J | 0.0021 | -- | 1.3 | -- | -- | 0.00088 J | 0.033 | -- | 0.00051 | 2.0 |
| MW-16 | Multiunit 1 | Supplementary | 11/18/2021 | FC-CCR-MW16-1121 | <0.002 | 0.00085 J | -- | 0.021 | -- | <0.001 | -- | 0.00018 J | -- | <0.002 | -- | 0.0074 | -- | 0.39 J | <0.0005 | -- | 1.4 | -- | -- | 0.00079 J | 0.0041 | -- | 0.00045 | 2.5 |
| MW-16 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-MW16-0222 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | 0.0062 | -- | 0.13 | -- | -- | 1.4 | -- | -- | 0.00057 | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/26/2022 | FC-CCR-MW16-0522 | <0.002 | <0.001 | -- | 0.019 | -- | <0.001 | -- | <0.0002 | -- | <0.002 | -- | 0.0067 | -- | <0.8 | <0.002 | -- | 1.2 | -- | -- | <0.001 | 0.032 | -- | 0.00041 | 3.4 J |
| MW-16 | Multiunit 1 | Supplementary | 8/13/2022 | FC-CCR-MW16-0822 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | 0.0062 | -- | <0.8 | -- | -- | 1.4 | -- | -- | 0.00056 | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/16/2022 | FC-CCR-MW16-1122 | <0.002 | <0.001 | -- | 0.022 | -- | <0.001 | -- | <0.0002 | -- | <0.002 | -- | 0.0069 | -- | <8 | <0.001 | -- | 1.4 | -- | -- | <0.001 | 0.031 | -- | 0.00048 | 5.1 |
| MW-16 | Multiunit 1 | Supplementary | 5/8/2023 | FC-CCR-MW16-0523 | <0.002 | <0.005 | -- | 0.021 | -- | <0.005 | -- | <0.001 | -- | <0.003 | -- | 0.0075 | -- | <2 | <0.001 | -- | 1.5 | -- | -- | <0.002 | 0.028 | -- | <0.001 | 4.3 |
| MW-16 | Multiunit 1 | Supplementary | 11/15/2023 | FC-CCR-MW16-1124 | <0.01 | <0.01 | -- | 0.021 | -- | <0.001 | -- | <0.001 | -- | <0.01 | -- | 0.010 | -- | <0.8 | <0.005 | -- | 1.6 | -- | -- | <0.005 | 0.03 | -- | <0.001 | 3.5 |
| MW-16 | Multiunit 1 | Supplementary | 05/23/2024 | FC-CCR-MW16-0524 | <0.01 | 0.0056 | -- | **0.021 J** | -- | <0.001 | -- | <0.001 | -- | <0.01 | -- | 0.010 | -- | <0.4 | <0.005 | -- | 1.6 | -- | -- | <0.005 | 0.030 | -- | <0.001 | 4.9 |
| MW-16 | Multiunit 1 | Supplementary | 11/14/2024 | FC-CCR-MW16-1124 | <0.0025 | <0.0025 | -- | 0.0188 | -- | <0.00044 | -- | <0.0004 | -- | <0.01 | -- | 0.0091 | -- | <0.38 | <0.0025 | -- | 1.32 | -- | -- | <0.0025 | 0.028 | -- | <0.0005 | 5.1 |
| MW-17R | Multiunit 1 | Supplementary | 3/12/2014 | FC-17R-031214 | -- | 0.00027 | -- | -- | -- | -- | -- | -- | -- | 0.00071 | -- | -- | -- | 0.43 | -- | -- | -- | -- | -- | -- | 0.00067 | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 9/9/2014 | FCPP-17R-090914 | -- | 0.00027 | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | <0.00060 | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-17R-031715 | -- | 0.00029 | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | 0.40 | -- | -- | -- | -- | -- | -- | <0.00060 | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 6/30/2015 | MW-17R | -- | <0.0030 | -- | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | 0.0038 | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 8/25/2015 | FCPP-17R-082515 | -- | <0.0060 | -- | -- | -- | -- | -- | -- | -- | <0.0060 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | <0.0060 | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 11/4/2015 | FC MW-17R-(041115) | -- | 0.0057 | -- | -- | -- | -- | -- | <0.0025 | -- | <0.013 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.015 | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 11/13/2015 | FC MW-17R-(131115) | -- | 0.00051 | -- | -- | -- | -- | -- | -- | -- | <0.0010 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | <0.0012 | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 6/18/2016 | FC-Seep-MW17B-616 | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | 0.45 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW17R-916 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | 0.49 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-MW17R-031919 | <0.0010 | <0.00050 | -- | 0.017 | -- | <0.0010 | -- | 0.0013 | -- | 0.0017 | -- | 0.065 | -- | <0.40 | 0.0027 | -- | 0.41 | <0.00020 | -- | 0.0014 | 0.00055 | -- | 0.00021 | -- |
| MW-17R | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-MW17R-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.4 |

**Table G-5**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Selenium | Selenium | Thallium | Total Radium |
| **Filtered:** | | | | | N | N | Y | N | Y | N | Y | N | Y | N | N | Y | N | N | N | Y | N | N | Y | N | N | Y | N | N |
| **Units:** | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| *Multiunit 1 BTV* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *Multiunit 1 GWPS* | | | | | *0.01* | *0.01* | *0.01* | *2* | *2* | *0.004* | *0.004* | *0.005* | *0.005* | *0.1* | *0.1* | *0.01* | *0.01* | *5* | *0.015* | *0.015* | *1.8* | *0.002* | *0.002* | *0.1* | *0.092* | *--* | *0.017* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-17R | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW17R-51419 | -- | <0.00050 | -- | **0.017** | -- | -- | -- | **0.0013** | -- | -- | -- | **0.064** | -- | <0.80 | **0.0022** | -- | **0.42** | -- | -- | **0.0014** | <0.00050 | -- | **0.00022** | -- |
| MW-17R | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW17R-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.7** |
| MW-17R | Multiunit 1 | Supplementary | 5/14/2019 | *DUP* FC-CCR-FD01-51419 | -- | <0.00050 | -- | **0.018** | -- | -- | -- | **0.0014** | -- | -- | -- | **0.064** | -- | <0.80 | **0.0022** | -- | **0.41** | -- | -- | **0.0013** | <0.00050 | -- | **0.00022** | -- |
| MW-17R | Multiunit 1 | Supplementary | 5/14/2019 | *DUP* FC-CCR-FD01-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** |
| MW-17R | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-MW17R-111919 | <0.0010 | <0.0010 | -- | **0.019** | -- | <0.0010 | -- | **0.0015** | -- | <0.0010 | -- | **0.071** | -- | <0.80 | **0.0024** | -- | **0.42** | <0.00020 | -- | **0.0014** | **0.00055** | -- | **0.00026** | -- |
| MW-17R | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-MW17R-0620 | <0.002 | <0.001 | -- | **0.016** | -- | -- | -- | **0.0014** | -- | <0.002 | -- | **0.062** | -- | <0.8 | **0.0025** | -- | **0.55** | -- | -- | **0.0069** | <0.001 | -- | **0.00036** | **1.9** |
| MW-17R | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-MW17R-1120 | <0.004 | **0.002** | -- | **0.017** | -- | <0.001 | -- | **0.0011** | -- | **0.0029** | -- | **0.072** | -- | **0.40** | **0.0019** | -- | **0.47** | -- | -- | **0.034** | **0.0025** | -- | **0.00029** | **2.0** |
| MW-17R | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-MW17R-0421 | <0.004 | <0.002 | -- | **0.019** | -- | <0.001 | -- | **0.0017** | -- | <0.004 | -- | **0.066** | -- | **0.45** | **0.0043** | -- | **0.42** | -- | -- | **0.0014 J** | **0.0012 J** | -- | <0.0004 | **2.2** |
| MW-17R | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-MW17R-1121 | <0.002 | **0.00051 J** | -- | **0.019** | -- | <0.001 | -- | **0.0016** | -- | <0.002 | -- | **0.072** | -- | **0.62 J** | **0.0025** | -- | **0.47** | -- | -- | **0.0013** | **0.026** | -- | **0.00026** | **3.2** |
| MW-17R | Multiunit 1 | Supplementary | 2/9/2022 | FC-CCR-MW17R-0222 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.061** | -- | **0.48** | -- | -- | **0.47** | -- | -- | **0.0012** | -- | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 2/9/2022 | *DUP* FC-CCR-FD01-0222 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.061** | -- | **0.50** | -- | -- | **0.47** | -- | -- | **0.0011** | -- | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW17R-0522 | <0.002 | <0.001 | -- | **0.016** | -- | <0.001 | -- | **0.0014** | -- | <0.002 | -- | **0.057** | -- | <0.8 | **0.0014** | -- | **0.42** | -- | -- | **0.0011** | <0.001 | -- | <0.0002 | **2.0** |
| MW-17R | Multiunit 1 | Supplementary | 8/11/2022 | FC-CCR-MW17R-0822 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.063** | -- | <0.8 | -- | -- | **0.45** | -- | -- | **0.00095** | -- | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 11/15/2022 | FC-CCR-MW17R-1122 | <0.001 | <0.0005 | -- | **0.018** | -- | <0.001 | -- | **0.0014** | -- | <0.001 | -- | **0.065** | -- | <2 | **0.0026** | -- | **0.47** | -- | -- | **0.0013** | **0.0012** | -- | **0.00031** | **2.4** |
| MW-17R | Multiunit 1 | Supplementary | 5/4/2023 | FC-CCR-MW17R-0523 | <0.002 | <0.005 | -- | **0.017** | -- | <0.001 | -- | **0.0012** | -- | <0.003 | -- | **0.059** | -- | <8 | **0.0023** | -- | **0.46** | -- | -- | <0.002 | <0.005 | -- | <0.001 | **2.0** |
| MW-17R | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW17R-1124 | <0.01 | **0.0080** | -- | **0.019** | -- | <0.005 | -- | **0.0014** | -- | <0.01 | -- | **0.068** | -- | <0.8 | <0.005 | -- | **0.49** | -- | -- | <0.005 | <0.005 | -- | <0.001 | **1.6** |
| MW-17R | Multiunit 1 | Supplementary | 05/21/2024 | FC-CCR-MW17R-0524 | <0.01 | **0.0057** | -- | **0.016 J** | -- | <0.001 | -- | **0.0013** | -- | <0.01 | -- | **0.060** | -- | <0.4 | <0.005 | -- | **0.47** | -- | -- | <0.005 | <0.005 | -- | <0.001 | **1.4** |
| MW-17R | Multiunit 1 | Supplementary | 11/14/2024 | FC-CCR-MW17R-1124 | <0.0025 | <0.0025 | -- | **0.0172** | -- | <0.00044 | -- | **0.0013** | -- | <0.01 | -- | **0.063** | -- | **0.515 J** | <0.0025 | -- | **0.416** | -- | -- | <0.0025 | <0.0025 | -- | <0.0005 | **3.0** |
| MW-17R | Multiunit 1 | Supplementary | 11/14/2024 | FC-CCR-FD09-1124 | <0.0025 | <0.0025 | -- | **0.0172** | -- | <0.00044 | -- | **0.0012** | -- | <0.01 | -- | **0.063** | -- | **0.495 J** | <0.0025 | -- | **0.432** | -- | -- | <0.0025 | <0.0025 | -- | <0.0005 | **3.7** |
| MW-18 | Multiunit 1 | Supplementary | 9/29/1987 | MW-18_9/29/1987 | -- | -- | <0.05 | -- | **0.23** | -- | -- | -- | <0.005 | -- | <0.005 | -- | -- | <0.5 | -- | **0.070** | -- | -- | <0.0001 | -- | -- | <0.05 | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 6/15/1988 | MW-18-19880615 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/21/1988 | MW-18-19880921 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/28/1988 | MW-18-19881128 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 2/27/1989 | MW-18-19890227 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/11/1989 | MW-18-19890911 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 3/26/1990 | MW-18-19900326 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/18/1990 | MW-18-19900918 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 5/30/1991 | MW-18-19910530 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/11/1991 | MW-18-19910911 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 5/5/1992 | MW-18-19920505 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 10/27/1992 | MW-18-19921027 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 4/26/1993 | MW-18-19930426 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/23/1993 | MW-18-19931123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 4/21/1994 | MW-18-19940421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/20/1994 | MW-18-19940920 | -- | <0.05 | -- | <0.5 | -- | -- | -- | <0.005 | -- | -- | -- | <0.02 | -- | **0.20** | <0.1 | -- | -- | -- | -- | <0.01 | <0.1 | -- | <0.01 | -- |
| MW-18 | Multiunit 1 | Supplementary | 12/14/1994 | MW-18-19941214 | <0.3 | <0.05 | -- | <1 | -- | <0.025 | -- | <0.025 | -- | <0.05 | -- | <0.25 | -- | -- | <0.015 | -- | -- | <0.0002 | -- | -- | <0.025 | -- | <0.05 | -- |
| MW-18 | Multiunit 1 | Supplementary | 4/5/1995 | MW-18-19950405 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 12/13/1995 | MW-18-19951213 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 8/12/1996 | MW-18-19960812 | -- | <0.005 | -- | **0.010** | -- | -- | -- | <0.001 | -- | -- | -- | **0.050** | -- | **0.20** | <0.005 | -- | -- | -- | -- | <0.01 | **0.090** | -- | <0.01 | -- |
| MW-18 | Multiunit 1 | Supplementary | 4/23/1997 | MW-18-19970423 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 10/20/1997 | MW-18-19971020 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 4/14/1998 | MW-18-19980414 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 6/8/1999 | MW-18-19990608 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 12/8/1999 | MW-18-19991208 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 6/8/2000 | MW-18-20000608 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/28/2000 | MW-18-20001128 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.2462** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 8/21/2001 | MW-18-20010821 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.23** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 12/5/2001 | MW-18-20011205 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 6/12/2002 | MW-18-20020612 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 12/18/2002 | MW-18-20021218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 6/3/2003 | MW-18-20030603 | -- | -- | -- | -- | -- | **0.010** | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | **0.071** | **0.067** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/24/2003 | MW-18-20030924 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.36** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 6/16/2004 | MW-18-20040616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/9/2004 | MW-18-20041109 | -- | <0.0005 | -- | **0.0124** | -- | -- | -- | <0.00005 | -- | -- | -- | **0.0060** | -- | **0.30** | **0.00050** | -- | -- | -- | -- | **0.00122** | **0.021** | -- | <0.00005 | -- |
| MW-18 | Multiunit 1 | Supplementary | 5/12/2005 | MW-18-20050512 | -- | **0.0033** | -- | **0.0115** | -- | <0.0005 | -- | <0.001 | -- | **0.00188** | -- | **0.0020** | -- | **0.30** | <0.0001 | -- | -- | <0.0002 | -- | -- | **0.049** | -- | **0.00014** | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/1/2005 | MW-18-20051101 | -- | **0.010** | -- | **0.017** | -- | -- | -- | -- | -- | **0.0030** | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | **0.032** | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 5/15/2006 | MW-18-20060515 | -- | **0.037** | -- | **0.011** | -- | <0.001 | -- | <0.006 | -- | <0.003 | -- | <0.004 | -- | **0.213** | <0.12 | -- | -- | -- | -- | <0.006 | <0.038 | -- | **0.023** | -- |
| MW-18 | Multiunit 1 | Supplementary | 10/13/2006 | MW-18-20061013 | -- | <0.024 | -- | **0.028** | -- | <0.003 | -- | <0.002 | -- | <0.008 | -- | <0.002 | -- | **0.21** | <0.009 | -- | -- | -- | -- | <0.012 | <0.029 | -- | <0.025 | -- |
| MW-18 | Multiunit 1 | Supplementary | 4/18/2007 | MW-18-20070418 | <0.028 | <0.024 | -- | **0.017** | -- | <0.003 | -- | <0.002 | -- | <0.002 | -- | <0.008 | -- | **0.629** | <0.009 | -- | -- | <0.0022 | -- | <0.12 | **0.051** | -- | <0.025 | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/20/2007 | MW-18-20071120 | **0.0010** | **0.0038** | -- | **0.0127** | -- | <0.005 | -- | <0.0005 | -- | **0.014** | -- | **0.00138** | -- | **0.20** | <0.001 | -- | -- | -- | -- | **0.0012** | **0.042** | -- | <0.00005 | -- |
| MW-18 | Multiunit 1 | Supplementary | 4/30/2008 | MW-18-20080430 | <0.0005 | **0.0035** | -- | **0.0117** | -- | <0.0005 | -- | <0.00005 | -- | **0.0012** | -- | **0.00247** | -- | **0.20** | **0.00080** | -- | -- | -- | -- | <0.0005 | **0.027** | -- | <0.00005 | -- |
| MW-18 | Multiunit 1 | Supplementary | 12/3/2009 | MW-18-20091203 | <0.0005 | **0.0051** | -- | **0.0106** | -- | <0.0005 | -- | **0.00013** | -- | **0.015** | -- | **0.00247** | -- | **0.30** | <0.0001 | -- | -- | <0.0002 | -- | **0.0012** | **0.057** | -- | **0.00012** | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/27/2012 | MW-18-092712-01 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0010 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | **0.0033** | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/19/2013 | FC-18-111913 | -- | **0.00057** | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | **0.0018** | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 3/12/2014 | FC-18-031214 | -- | **0.00058** | -- | -- | -- | -- | -- | -- | -- | **0.00059** | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | **0.0020** | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/10/2014 | FCPP-18-091014 | -- | <0.00040 | -- | -- | -- | -- | -- | -- | -- | <0.0010 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | <0.0012 | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 3/18/2015 | FCPP-18-031815 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 6/30/2015 | MW-18 | -- | <0.012 | -- | -- | -- | -- | -- | -- | -- | <0.012 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | <0.012 | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 8/25/2015 | FCPP-18-082515 | -- | <0.030 | -- | -- | -- | -- | -- | -- | -- | <0.030 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | <0.030 | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/6/2015 | FC MW-18-(061115) | -- | <0.0010 | -- | -- | -- | -- | -- | <0.00050 | -- | <0.0025 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 6/17/2016 | FC-Seep-MW18-616 | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | <0.80 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW18-916 | -- | **0.0015** | -- | -- | -- | -- | -- | -- | -- | **0.0038** | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-MW18-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.011** | -- | -- | -- | -- | -- | -- | -- | **0.0022** | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-MW18-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.076** | -- | -- | -- | -- | -- | -- | -- | **0.0024** | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-MW18-0421 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.012** | -- | <0.8 | -- | -- | **2.2** | -- | -- | **0.0023** | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-MW18-1121 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.012** | -- | <0.8 | -- | -- | **2.4** | -- | -- | **0.0017** | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-MW18-0222 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.010** | -- | **0.58** | -- | -- | **2.3** | -- | -- | **0.0014** | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW18-0522 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0098** | -- | <0.8 | -- | -- | **2.3** | -- | -- | **0.0017** | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 8/12/2022 | FC-CCR-MW18-0822 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0094** | -- | <0.8 | -- | -- | **2.3** | -- | -- | **0.0016** | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/14/2022 | FC-CCR-MW18-1122 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0095** | -- | <4 | -- | -- | **2.4** | -- | -- | **0.0015** | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 5/4/2023 | FC-CCR-MW18-0523 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0094** | -- | <80 | -- | -- | **2.5** | -- | -- | **0.0023** | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW18-1124 | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | **0.0098** | -- | <0.8 | -- | -- | **2.5** | -- | -- | <0.005 | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 05/20/2024 | FC-CCR-MW18-0524 | -- | -- | -- | -- | -- | <0.05 | -- | -- | -- | -- | -- | **0.013** | -- | <0.4 | -- | -- | **2.5** | -- | -- | <0.005 | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/14/2024 | FC-CCR-MW18-1124 | -- | -- | -- | -- | -- | <0.0022 | -- | -- | -- | -- | -- | **0.010** | -- | **0.399 J** | -- | -- | **2.15** | -- | -- | <0.0025 | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 3/11/2014 | FC-23RMS-031114 | -- | **0.00065** | -- | -- | -- | -- | -- | -- | -- | **0.0038** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0017** | -- | -- | -- |

**Table G-5**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Selenium | Selenium | Thallium | Total Radium |
| **Filtered:** | | | | | N | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | N | Y | N | N | Y | N | N | Y | N | N |
| **Units:** | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| *Multiunit 1 BTV* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *Multiunit 1 GWPS* | | | | | *0.01* | *0.01* | *0.01* | *2* | *2* | *0.004* | *0.004* | *0.005* | *0.005* | *0.1* | *0.1* | *0.01* | *0.01* | *5* | *0.015* | *0.015* | *1.8* | *0.002* | *0.002* | *0.1* | *0.092* | -- | *0.017* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-23R | Multiunit 1 | Supplementary | 3/11/2014 | FC-23R-031114 | -- | **0.00079** | -- | -- | -- | -- | -- | -- | -- | **0.0035** | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | **0.0015** | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 9/11/2014 | FCPP-23R-91114 | -- | <0.0040 | -- | -- | -- | -- | -- | -- | -- | **0.015** | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | <0.012 | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 12/8/2014 | FCPP-MW23R-12914 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 3/18/2015 | FCPP-23R-031815 | -- | <0.0050 | -- | -- | -- | -- | -- | -- | -- | <0.013 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | <0.015 | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 6/30/2015 | MW-23R | -- | <0.012 | -- | -- | -- | -- | -- | -- | -- | <0.012 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | <0.012 | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 11/3/2015 | FC MW-23R-(031115) | -- | <0.0010 | -- | -- | -- | -- | -- | <0.00050 | -- | <0.0025 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 11/13/2015 | FC MW-23R-(131115) | -- | **0.0020** | -- | -- | -- | -- | -- | -- | -- | **0.0047** | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | <0.0012 | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 6/21/2016 | FC-SEEPS-MW-23R-062116 | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW23R-916 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | **0.45** | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 6/21/2020 | FC-CCR-MW23R-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | -- | **0.019** | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-MW23R-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.00068** | -- | -- | -- | -- | -- | -- | **0.0075** | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-MW23R-0421 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.00092 J** | -- | **0.27 J** | -- | -- | **0.91** | -- | -- | **0.0052** | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 11/14/2021 | FC-CCR-MW23R | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.00068 J** | -- | **0.28 J** | -- | -- | **1.1** | -- | -- | **0.0035** | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 2/9/2022 | FC-CCR-MW23R-0222 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0012** | -- | **0.30** | -- | -- | **1.0** | -- | -- | **0.0039** | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW23R-0522 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | <0.001 | -- | <0.8 | -- | -- | **1.0** | -- | -- | **0.0036** | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 8/12/2022 | FC-CCR-MW23R-0822 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.00056** | -- | <0.8 | -- | -- | **1.1** | -- | -- | **0.003** | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 11/11/2022 | FC-CCR-MW23R-1122 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.00059** | -- | <4 | -- | -- | **1.1** | -- | -- | **0.0033** | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 5/3/2023 | FC-CCR-MW23R-0523 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | <0.001 | -- | <80 | -- | -- | **1.2** | -- | -- | **0.0035** | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW23R-1124 | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | <0.005 | -- | <0.8 | -- | -- | **1.3** | -- | -- | <0.005 | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 05/20/2024 | FC-CCR-MW23R-0524 | -- | -- | -- | -- | -- | <0.05 | -- | -- | -- | -- | -- | <0.005 | -- | <0.4 | -- | -- | **1.2** | -- | -- | <0.005 | -- | -- | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 3/19/2015 | FCPP-24-031915 | -- | **0.0011** | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 6/29/2015 | MW-24 | -- | **0.0036** | -- | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | **0.013** | -- | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 8/26/2015 | FCPP-24-082615 | -- | <0.0060 | -- | -- | -- | -- | -- | -- | -- | <0.0060 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | **0.0095** | -- | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 6/20/2016 | FC-Seep-MW24-616 | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | <0.80 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW24-916 | -- | **0.0010** | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <2.0 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 4/26/2021 | FC-CCR-MW24-0421 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0021** | -- | **0.66 J** | -- | -- | **1.5** | -- | -- | **0.15** | -- | -- | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-MW24-1121 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0042** | -- | **0.21 J** | -- | -- | **1.5** | -- | -- | **0.034** | -- | -- | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-MW24-0222 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0026** | -- | **0.23** | -- | -- | **1.5** | -- | -- | **0.029** | -- | -- | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW24-0522 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0023** | -- | <0.8 | -- | -- | **1.5** | -- | -- | **0.028** | -- | -- | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 8/12/2022 | FC-CCR-MW24-0822 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0029** | -- | <0.8 | -- | -- | **1.5** | -- | -- | **0.026** | -- | -- | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 11/14/2022 | FC-CCR-MW24-1122 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0035** | -- | <2 | -- | -- | **1.5** | -- | -- | **0.030** | -- | -- | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 5/4/2023 | FC-CCR-MW24-0523 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0027** | -- | <4 | -- | -- | **1.5** | -- | -- | **0.030** | -- | -- | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW24-1124 | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | <0.005 | -- | <0.8 | -- | -- | **1.6** | -- | -- | **0.029** | -- | -- | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 05/21/2024 | FC-CCR-MW24-0524 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | <0.005 | -- | **0.52** | -- | -- | **1.6** | -- | -- | **0.027** | -- | -- | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 11/13/2024 | FC-CCR-MW24-1124 | -- | -- | -- | -- | -- | <0.00044 | -- | -- | -- | -- | -- | <0.0025 | -- | **0.818** | -- | -- | **1.48** | -- | -- | **0.0244** | -- | -- | -- | -- |
| MW-34 | Multiunit 1 | Supplementary | 6/23/2020 | FC-CCR-MW34-0620 | <0.001 | **0.00065** | -- | **0.018** | -- | -- | -- | **0.00029** | -- | **0.0022** | -- | **0.029** | -- | <0.8 | <0.0005 | -- | -- | -- | -- | **0.0084** | **0.00086** | -- | **0.00022** | **0.6** |
| MW-34 | Multiunit 1 | Supplementary | 11/16/2023 | FC-CCR-MW34-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | <0.8 | -- | -- | -- | -- | -- | **0.064** | -- | -- | -- | -- |
| MW-34 | Multiunit 1 | Supplementary | 05/21/2024 | FC-CCR-MW34-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | **0.65** | -- | -- | -- | -- | -- | **0.014** | -- | -- | -- | -- |
| MW-34 | Multiunit 1 | Supplementary | 11/13/2024 | FC-CCR-MW34-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0032** | -- | -- | -- | -- | -- | -- | -- | **0.0109** | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 9/9/2014 | FCPP-36R-090914 | -- | **0.00022** | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | **0.00069** | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 3/19/2015 | FCPP-36R-031915 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 6/30/2015 | MW-36R | -- | <0.0030 | -- | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | **0.0047** | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 8/25/2015 | FCPP-36R-082515 | -- | <0.0030 | -- | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | **0.0082** | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 11/3/2015 | FC MW-36R-(031115) | -- | <0.0010 | -- | -- | -- | -- | -- | **0.0031** | -- | <0.0025 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 11/13/2015 | FC MW-36R-(131115) | -- | <0.00040 | -- | -- | -- | -- | -- | -- | -- | <0.0010 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | <0.0012 | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 6/17/2016 | FC-Seep-MW36R-616 | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW36R-916 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 6/21/2020 | FC-CCR-MW36R-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.26** | -- | -- | -- | -- | -- | -- | **0.0013** | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-MW36R-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.26** | -- | -- | -- | -- | -- | -- | **0.0010** | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 11/7/2020 | *DUP* FC-CCR-FD04-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.29** | -- | -- | -- | -- | -- | -- | **0.0018** | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-MW36R-0421 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.26** | -- | **0.29 J** | -- | -- | **0.61** | -- | -- | **0.0012 J** | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 11/14/2021 | FC-CCR-MW36R | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.26** | -- | -- | -- | -- | -- | -- | **0.00056 J** | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 2/9/2022 | FC-CCR-MW36R-0222 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.00059** | -- | **0.32** | -- | -- | **1.8** | -- | -- | **0.0049** | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW36R-0522 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.21** | -- | <0.8 | -- | -- | **0.62** | -- | -- | <0.001 | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 8/11/2022 | FC-CCR-MW36R-0822 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.21** | -- | <0.8 | -- | -- | **0.63** | -- | -- | **0.00074** | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 11/11/2022 | FC-CCR-MW36R-1122 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.23** | -- | <2 | -- | -- | **0.66** | -- | -- | **0.00084** | -- | -- | -- | -- |

**Table G-5**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Selenium | Selenium | Thallium | Total Radium |
| **Filtered:** | | | | | N | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | N | Y | N | N | Y | N | N | Y | N | N |
| **Units:** | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| *Multiunit 1 BTV* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *Multiunit 1 GWPS* | | | | | *0.01* | *0.01* | *0.01* | *2* | *2* | *0.004* | *0.004* | *0.005* | *0.005* | *0.1* | *0.1* | *0.01* | *0.01* | *5* | *0.015* | *0.015* | *1.8* | *0.002* | *0.002* | *0.1* | *0.092* | -- | *0.017* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-36R | Multiunit 1 | Supplementary | 5/4/2023 | FC-CCR-MW36R-0523 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.21** | -- | <8 | -- | -- | **0.69** | -- | -- | <0.002 | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW36R-1124 | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | **0.22** | -- | <0.8 | -- | -- | **0.70** | -- | -- | <0.005 | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 05/20/2024 | FC-CCR-MW36R-0524 | -- | -- | -- | -- | -- | <0.05 | -- | -- | -- | -- | -- | **0.21** | -- | <0.4 | -- | -- | **0.63** | -- | -- | <0.005 | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 11/15/2024 | FC-CCR-MW36R-1124 | -- | -- | -- | -- | -- | <0.002 | -- | -- | -- | -- | -- | **0.184** | -- | **0.188** | -- | -- | **0.62** | -- | -- | <0.005 | -- | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 3/12/2014 | FC-38R-031214 | -- | **0.0016** | -- | -- | -- | -- | -- | -- | -- | **0.0015** | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | **0.0023** | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 9/11/2014 | FCPP-38R-91114 | -- | <0.0040 | -- | -- | -- | -- | -- | -- | -- | <0.010 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | <0.012 | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 3/19/2015 | FCPP-38R-031915 | -- | **0.0010** | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | **0.0044** | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 6/30/2015 | MW-38R | -- | <0.012 | -- | -- | -- | -- | -- | -- | -- | <0.012 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | <0.012 | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 8/29/2015 | FCPP-38R-082915 | -- | <0.0030 | -- | -- | -- | -- | -- | <0.0010 | -- | <0.0030 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | **0.015** | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 11/10/2015 | FC MW-38R-(101115) | -- | **0.0020** | -- | -- | -- | -- | -- | <0.00050 | -- | **0.0071** | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | **0.011** | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 6/21/2016 | FC-SEEPS-MW-38R-DUP 062 | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 6/21/2016 | FC-SEEPS-MW-38R-062116 | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW38R-916 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW106-916 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-MW38R-031919 | <0.0010 | **0.00051** | -- | **0.018** | -- | <0.0010 | -- | **0.00011** | -- | <0.0010 | -- | **0.17** | -- | <0.40 | **0.00053** | -- | **0.45** | <0.00020 | -- | **0.016** | **0.0037** | -- | <0.00010 | -- |
| MW-38R | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-MW38R-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** |
| MW-38R | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW38R-51419 | -- | **0.00060** | -- | **0.017** | -- | -- | -- | **0.00013** | -- | -- | -- | **0.16** | -- | <0.80 | **0.00085** | -- | **0.50** | -- | -- | **0.083** | **0.0033** | -- | <0.00010 | -- |
| MW-38R | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW38R-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-38R | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-MW38R-111919 | <0.0010 | <0.00050 | -- | **0.020** | -- | <0.0010 | -- | **0.00013** | -- | **0.0011** | -- | **0.23** | -- | <0.80 | <0.00050 | -- | **0.37** | <0.00020 | -- | **0.0050** | **0.0010** | -- | <0.00010 | -- |
| MW-38R | Multiunit 1 | Supplementary | 11/19/2019 | DUP* FC-CCR-FD01-111919 | <0.0010 | **0.00064** | -- | **0.019** | -- | <0.0010 | -- | **0.00015** | -- | **0.0011** | -- | **0.23** | -- | <0.80 | <0.00050 | -- | **0.37** | <0.00020 | -- | **0.0049** | **0.00080** | -- | <0.00010 | -- |
| MW-38R | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-MW38R-0620 | <0.002 | <0.001 | -- | **0.014** | -- | -- | -- | <0.0002 | -- | <0.002 | -- | **0.24** | -- | <0.8 | <0.001 | -- | **0.49** | -- | -- | **0.0057** | <0.001 | -- | <0.0002 | **0.4** |
| MW-38R | Multiunit 1 | Supplementary | 6/22/2020 | *DUP* FC-CCR-FD05-0620 | <0.004 | <0.002 | -- | **0.016** | -- | -- | -- | <0.0004 | -- | <0.004 | -- | **0.28** | -- | <0.8 | <0.002 | -- | **0.49** | -- | -- | **0.0063** | <0.002 | -- | <0.0004 | **1.1** |
| MW-38R | Multiunit 1 | Supplementary | 11/6/2020 | FC-CCR-MW38R-1120 | <0.004 | **0.0013** | -- | **0.014** | -- | <0.001 | -- | **0.00032** | -- | **0.0022** | -- | **0.28** | -- | **0.36 J** | <0.002 | -- | **0.41** | -- | -- | **0.0073** | **0.0026** | -- | <0.0004 | <0.8 |
| MW-38R | Multiunit 1 | Supplementary | 4/27/2021 | FC-CCR-MW384R-0421 | <0.004 | <0.002 | -- | **0.013** | -- | <0.001 | -- | **0.00013 J** | -- | <0.004 | -- | **0.25** | -- | **0.33 J** | **0.0020** | -- | **0.39** | -- | -- | **0.0065** | **0.0016 J** | -- | <0.0004 | <0.8 |
| MW-38R | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-MW38R-1121 | <0.002 | **0.00072 J** | -- | **0.013** | -- | <0.001 | -- | <0.0002 | -- | **0.0012 J** | -- | **0.25** | -- | **0.4 J** | <0.0005 | -- | **0.40** | -- | -- | **0.0060** | **0.0012 J** | -- | **0.000049 J** | **0.4** |
| MW-38R | Multiunit 1 | Supplementary | 2/9/2022 | FC-CCR-MW38R-0222 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.22** | -- | **0.45** | -- | -- | **0.42** | -- | -- | **0.0048** | -- | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW38R-0522 | <0.002 | <0.001 | -- | **0.016** | -- | <0.001 | -- | <0.0002 | -- | <0.002 | -- | **0.26** | -- | <0.8 | <0.001 | -- | **0.39** | -- | -- | **0.019** | **0.0027** | -- | <0.0002 | <0.6 |
| MW-38R | Multiunit 1 | Supplementary | 8/11/2022 | FC-CCR-MW38R-0822 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.20** | -- | <0.8 | -- | -- | **0.44** | -- | -- | **0.028** | -- | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 11/15/2022 | FC-CCR-MW38R-1122 | <0.001 | <0.0005 | -- | **0.014** | -- | <0.001 | -- | <0.0001 | -- | <0.001 | -- | **0.17** | -- | <2 | <0.0005 | -- | **0.55** | -- | -- | **0.0044** | **0.011** | -- | <0.0001 | <0.6 |
| MW-38R | Multiunit 1 | Supplementary | 5/5/2023 | FC-CCR-MW38R-0523 | <0.002 | <0.005 | -- | **0.014** | -- | <0.001 | -- | <0.001 | -- | <0.003 | -- | **0.17** | -- | <8 | <0.001 | -- | **0.60** | -- | -- | **0.0037** | **0.0096** | -- | <0.001 | **1.9** |
| MW-38R | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW38R-1124 | <0.01 | **0.0078** | -- | **0.018** | -- | <0.005 | -- | <0.001 | -- | <0.01 | -- | **0.062** | -- | <0.8 | <0.005 | -- | **1.3** | -- | -- | <0.005 | **0.058** | -- | <0.001 | **1.2** |
| MW-38R | Multiunit 1 | Supplementary | 05/22/2024 | FC-CCR-MW38R-0524 | <0.01 | **0.0060** | -- | **0.016 J** | -- | <0.001 | -- | <0.001 | -- | <0.01 | -- | **0.028** | -- | <0.4 | <0.005 | -- | **1.4** | -- | -- | <0.005 | **0.061** | -- | <0.001 | **2.5** |
| MW-38R | Multiunit 1 | Supplementary | 11/16/2024 | FC-CCR-MW38R-1124 | <0.01 | <0.002 | -- | **0.0145** | -- | <0.002 | -- | <0.002 | -- | <0.04 | -- | **0.012** | -- | <0.0761 | <0.004 | -- | **1.26** | -- | -- | <0.01 | **0.0594** | -- | <0.002 | **2.7** |
| MW-40R | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW40R-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-40R | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW40R-117 | <0.0020 | <0.0010 | -- | **0.023** | -- | <0.0010 | -- | **0.00058** | -- | **0.028** | -- | **0.034** | -- | <0.40 | <0.00050 | -- | **1.1** | <0.00020 | -- | **0.026** | **0.0018** | -- | **0.00021** | -- |
| MW-40R | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW40R-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** |
| MW-40R | Multiunit 1 | Downgradient Boundary | 4/26/2021 | FC-CCR-MW40R-0421 | <0.001 | 0.0030 | | 0.019 | | <0.001 | | <0.0001 | | 0.012 | | 0.012 | | 0.28 J | <0.0005 | | 1.9 | <0.0002 | | 0.062 | 0.0016 | | <0.0001 | 2.2 |
| MW-46 | Multiunit 1 | Supplementary | 6/30/2015 | MW-46 | -- | <0.012 | -- | -- | -- | -- | -- | -- | -- | <0.012 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | **0.012** | -- | -- | -- |
| MW-46 | Multiunit 1 | Supplementary | 11/7/2015 | FC MW-46-(07115) | -- | **0.0062** | -- | -- | -- | -- | -- | <0.00050 | -- | **0.048** | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-MSD02-031715 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0020 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | **0.0029** | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-52-031715 | -- | **0.00030** | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | **0.00074** | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 8/26/2015 | FCPP-52-082615 | -- | <0.0060 | -- | -- | -- | -- | -- | -- | -- | <0.0060 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | <0.0060 | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/3/2015 | FC MW-52-(031115) | <0.0050 | <0.0010 | -- | **0.018** | -- | <0.0010 | -- | <0.00050 | -- | <0.0025 | -- | **0.068** | -- | <0.80 | **0.00070** | -- | <5.0 | <0.00020 | -- | **0.0040** | <0.0030 | -- | <0.00050 | -- |
| MW-52 | Multiunit 1 | Supplementary | 6/18/2016 | FC-Seep-MW52-616 | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 9/16/2016 | FC-Seep-MW52-916 | -- | <0.0020 | -- | -- | -- | -- | -- | -- | -- | <0.0050 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 6/20/2020 | FC-CCR-MW52-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.12** | -- | -- | -- | -- | -- | -- | -- | **0.0035** | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/8/2020 | FC-CCR-MW52-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.11** | -- | -- | -- | -- | -- | -- | -- | **0.0024** | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 4/23/2021 | FC-CCR-MW52-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.089** | -- | -- | -- | -- | -- | -- | -- | **0.0026** | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/13/2021 | FC-CCR-MW52-1121 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.12** | -- | -- | -- | -- | **0.65** | -- | -- | **0.0031** | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/13/2021 | FC-CCR-FD03-1121 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.12** | -- | -- | -- | -- | **0.65** | -- | -- | **0.0031** | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 5/22/2022 | FC-CCR-MW52-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.088** | -- | -- | -- | -- | -- | -- | -- | **0.0047** | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 5/22/2022 | *DUP* FC-CCR-FD03-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.092** | -- | -- | -- | -- | -- | -- | -- | **0.0053** | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/10/2022 | FC-CCR-MW52-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.13** | -- | -- | -- | -- | -- | -- | -- | **0.0030** | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/10/2022 | *DUP* FC-CCR-FD03-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.13** | -- | -- | -- | -- | -- | -- | -- | **0.0028** | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 5/2/2023 | FC-CCR-MW52-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.11** | -- | -- | -- | -- | -- | -- | -- | **0.0021** | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 5/2/2023 | *DUP* FC-CCR-FD03-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.096** | -- | -- | -- | -- | -- | -- | -- | **0.0027** | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/08/2023 | FC-CCR-MW52-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.10** | -- | -- | -- | -- | -- | -- | -- | **0.0022** | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/08/2023 | *DUP* FC-CCR-FD03-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.099** | -- | -- | -- | -- | -- | -- | -- | **0.0027** | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 05/16/2024 | FC-CCR-MW52-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.11** | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 05/16/2024 | FC-CCR-FD03-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.11** | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/12/2024 | FC-CCR-MW52-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.11** | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- |
| MW-54 | Multiunit 1 | Supplementary | 9/10/2014 | FCPP-54-091014 | -- | **0.0078** | -- | -- | -- | -- | -- | -- | -- | **0.0082** | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | **0.0068** | -- | -- | -- |
| MW-54 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-54-031715 | -- | **0.0041** | -- | -- | -- | -- | -- | -- | -- | **0.0032** | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | **0.0041** | -- | -- | -- |
| MW-54 | Multiunit 1 | Supplementary | 8/26/2015 | FCPP-54-082615 | -- | <0.0060 | -- | -- | -- | -- | -- | -- | -- | <0.0060 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | **0.018** | -- | -- | -- |
| MW-54 | Multiunit 1 | Supplementary | 11/3/2015 | FC MW-54-(031115) | **0.0030** | **0.0041** | -- | **0.27** | -- | **0.00087** | -- | **0.00029** | -- | **0.0027** | -- | **0.0055** | -- | <0.80 | **0.012** | -- | <10 | <0.00020 | -- | **0.039** | **0.0055** | -- | **0.00083** | -- |
| MW-54 | Multiunit 1 | Supplementary | 6/20/2016 | FC-Seep-MW54-616 | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | **0.0054** | -- | -- | -- | **0.86** | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-54 | Multiunit 1 | Supplementary | 9/16/2016 | FC-Seep-MW54-916 | -- | **0.0025** | -- | -- | -- | -- | -- | -- | -- | <0.0050 | -- | -- | -- | **0.85** | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 3/12/2014 | FC-56-031214 | -- | **0.00060** | -- | -- | -- | -- | -- | -- | -- | **0.00067** | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | **0.19** | -- | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 9/10/2014 | FCPP-56-091014 | -- | **0.00054** | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | **0.10** | -- | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 3/19/2015 | FCPP-56-031915 | -- | <0.0040 | -- | -- | -- | -- | -- | -- | -- | <0.010 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | **0.63** | -- | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 6/30/2015 | MW-56 | -- | <0.012 | -- | -- | -- | -- | -- | -- | -- | <0.012 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 8/25/2015 | FCPP-56-082515 | -- | <0.030 | -- | -- | -- | -- | -- | -- | -- | <0.030 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | **0.19** | -- | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 11/5/2015 | FC MW-56-(051115) | <0.0025 | <0.0010 | -- | **0.021** | -- | <0.0010 | -- | <0.00050 | -- | <0.0025 | -- | **0.0041** | -- | <2.0 | <0.00050 | -- | <5.0 | <0.00020 | -- | **0.0046** | **0.16** | -- | **0.0012** | -- |
| MW-56 | Multiunit 1 | Supplementary | 6/18/2016 | FC-Seep-MW56-616 | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW56-916 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 3/20/2019 | FC-CCR-MW56-032019 | <0.0010 | **0.0084** | -- | **0.021** | -- | <0.0010 | -- | **0.00011** | -- | <0.0010 | -- | **0.00075** | -- | <0.80 | <0.00050 | -- | **1.2** | <0.00020 | -- | **0.089** | **0.21** | -- | **0.00075** | -- |
| MW-56 | Multiunit 1 | Supplementary | 3/20/2019 | FC-CCR-MW56-032019 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.3** |
| MW-56 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW56-51419 | -- | **0.0043** | -- | **0.020** | -- | -- | -- | <0.00010 | -- | -- | -- | **0.00054** | -- | <0.80 | <0.00050 | -- | **1.4** | -- | -- | **0.019** | **0.26** | -- | **0.00080** | -- |
| MW-56 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW56-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.7** |
| MW-56 | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-MW56-111919 | <0.0010 | **0.0096** | -- | **0.018** | -- | <0.0010 | -- | **0.00016** | -- | <0.0010 | -- | **0.00056** | -- | <0.80 | <0.00050 | -- | **1.5** | <0.00020 | -- | **0.0053** | **0.26** | -- | **0.00085** | -- |
| MW-56 | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-MW56-0620 | <0.004 | **0.0053** | -- | **0.017** | -- | -- | -- | <0.0004 | -- | <0.004 | -- | <0.002 | -- | <0.8 | <0.002 | -- | <2 | -- | -- | **0.0045** | **0.30** | -- | **0.0011** | **3.4** |
| MW-56 | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-MW56-1120 | **0.0002** | **0.015** | -- | **0.02** | -- | <0.001 | -- | **0.00068** | -- | **0.0023** | -- | **0.00074** | -- | <0.8 | <0.002 | -- | **1.7** | -- | -- | **0.0047** | **0.31** | -- | **0.0011** | **2.2** |
| MW-56 | Multiunit 1 | Supplementary | 4/26/2021 | FC-CCR-MW56-0421 | <0.004 | **0.0013 J** | -- | **0.02** | -- | <0.001 | -- | **0.00029 J** | -- | <0.004 | -- | **0.00051 J** | -- | <0.8 | **0.0019 J** | -- | **1.7** | -- | -- | **0.0043** | **0.28** | -- | **0.0011** | **2.2** |
| MW-56 | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-MW56-1121 | <0.002 | **0.0018** | -- | **0.018** | -- | <0.001 | -- | **0.00020** | -- | **0.0017 J** | -- | **0.00062 J** | -- | <0.8 | <0.001 | -- | **1.8** | -- | -- | **0.0045** | **0.39** | -- | **0.0011** | **3.1** |
| MW-56 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-MW56-0222 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.25** | -- | <0.8 | -- | -- | **0.67** | -- | -- | **0.00097** | -- | -- | -- | -- |

**Table G-5**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Selenium | Selenium | Thallium | Total Radium |
| **Filtered:** | | | | | N | N | Y | N | Y | N | Y | N | Y | N | N | N | Y | N | N | Y | N | N | Y | N | N | Y | N | N |
| **Units:** | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| *Multiunit 1 BTV* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *Multiunit 1 GWPS* | | | | | *0.01* | *0.01* | *0.01* | *2* | *2* | *0.004* | *0.004* | *0.005* | *0.005* | *0.1* | *0.1* | *0.01* | *0.01* | *5* | *0.015* | *0.015* | *1.8* | *0.002* | *0.002* | *0.1* | *0.092* | -- | *0.017* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-56 | Multiunit 1 | Supplementary | 8/11/2022 | FC-CCR-MW56-0822 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.00081** | -- | <0.8 | -- | -- | **1.8** | -- | -- | **0.0043** | -- | -- | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 11/15/2022 | FC-CCR-MW56-1122 | <0.001 | <0.001 | -- | **0.019** | -- | <0.001 | -- | **0.00022** | -- | <0.002 | -- | <0.001 | -- | <8 | <0.0005 | -- | **1.9** | -- | -- | **0.0050** | **0.30** | -- | **0.0011** | **3.7** |
| MW-56 | Multiunit 1 | Supplementary | 5/4/2023 | FC-CCR-MW56-0523 | <0.002 | <0.005 | -- | **0.016** | -- | <0.001 | -- | <0.001 | -- | <0.003 | -- | <0.001 | -- | <80 | <0.001 | -- | **2.0** | -- | -- | **0.0048** | **0.22** | -- | **0.0011** | **4.4** |
| MW-56 | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW56-1124 | <0.01 | **0.0074** | -- | **0.017** | -- | <0.005 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | <0.8 | <0.005 | -- | **2.0** | -- | -- | <0.005 | **0.24** | -- | **0.0011** | **6.4** |
| MW-56 | Multiunit 1 | Supplementary | 05/21/2024 | FC-CCR-MW56-0524 | <0.01 | **0.0058** | -- | **0.016 J** | -- | <0.001 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | <0.4 | <0.005 | -- | **2.0** | -- | -- | <0.005 | **0.23** | -- | <0.001 | **3.2** |
| MW-56 | Multiunit 1 | Supplementary | 11/15/2024 | FC-CCR-MW56-1124 | <0.01 | <0.002 | -- | **0.0178** | -- | <0.002 | -- | <0.002 | -- | <0.04 | -- | <0.004 | -- | <0.38 | <0.004 | -- | **1.8** | -- | -- | <0.01 | **0.203** | -- | <0.002 | **3.2** |
| MW-57 | Multiunit 1 | Supplementary | 3/12/2014 | FC-57-031214 | -- | **0.0010** | -- | -- | -- | -- | -- | -- | -- | **0.0016** | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | **0.0010** | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 9/9/2014 | FCPP-57MS-090914 | -- | **0.0012** | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.00060** | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 9/9/2014 | FCPP-57-090914 | -- | **0.0012** | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | **0.00061** | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-57-031715 | -- | **0.0011** | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | **0.00072** | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 6/29/2015 | MW-57 | -- | <0.0030 | -- | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 8/26/2015 | FCPP-57-082615 | -- | <0.0060 | -- | -- | -- | -- | -- | -- | -- | <0.0060 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | <0.0060 | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 11/10/2015 | FC MW-57-(101115)-MSD | <0.0025 | <0.0010 | -- | **0.021** | -- | <0.0010 | -- | <0.00050 | -- | **0.023** | -- | **0.0038** | -- | -- | <0.00050 | -- | <0.50 | <0.00020 | -- | **0.0044** | <0.0030 | -- | <0.00050 | -- |
| MW-57 | Multiunit 1 | Supplementary | 11/10/2015 | FC MW-57-(101115)-MS | <0.0025 | <0.0010 | -- | **0.021** | -- | <0.0010 | -- | <0.00050 | -- | <0.0025 | -- | **0.0046** | -- | -- | <0.00050 | -- | **0.51** | <0.00020 | -- | **0.0050** | <0.0030 | -- | <0.00050 | -- |
| MW-57 | Multiunit 1 | Supplementary | 11/10/2015 | FC MW-57-(101115) | <0.0025 | **0.0010** | -- | **0.022** | -- | <0.0010 | -- | <0.00050 | -- | **0.0041** | -- | **0.0051** | -- | <0.80 | **0.00053** | -- | **0.54** | <0.00020 | -- | **0.0059** | <0.0030 | -- | **0.00060** | -- |
| MW-57 | Multiunit 1 | Supplementary | 11/11/2015 | *DUP* FC FD-4-(101115) | <0.0025 | <0.0010 | -- | **0.021** | -- | <0.0010 | -- | <0.00050 | -- | <0.0025 | -- | **0.0043** | -- | -- | <0.00050 | -- | <0.50 | <0.00020 | -- | **0.0046** | <0.0030 | -- | <0.00050 | -- |
| MW-57 | Multiunit 1 | Supplementary | 6/18/2016 | FC-Seep-MW57-616 | -- | **0.00050** | -- | -- | -- | -- | -- | -- | -- | <0.0005 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW57-916 | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-MW57-031919 | <0.0010 | <0.00050 | -- | **0.018** | -- | <0.0010 | -- | <0.00010 | -- | <0.0010 | -- | **0.0021** | -- | <0.40 | <0.00050 | -- | **0.66** | <0.00020 | -- | **0.011** | <0.00050 | -- | <0.00010 | -- |
| MW-57 | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-MW57-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** |
| MW-57 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW57-51419 | -- | **0.0017** | -- | **0.018** | -- | -- | -- | <0.00010 | -- | -- | -- | **0.0039** | -- | <0.80 | <0.00050 | -- | **0.76** | -- | -- | **0.15** | **0.00054** | -- | <0.00010 | -- |
| MW-57 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW57-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-57 | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-MW57-111919 | <0.0010 | <0.0010 | -- | **0.017** | -- | <0.0010 | -- | **0.00020** | -- | <0.0010 | -- | **0.0024** | -- | <0.80 | <0.00050 | -- | **0.70** | <0.00020 | -- | **0.0067** | <0.00050 | -- | <0.00010 | -- |
| MW-57 | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-MW57-0620 | <0.004 | <0.002 | -- | **0.016** | -- | -- | -- | <0.0004 | -- | <0.004 | -- | **0.0020** | -- | <0.8 | <0.002 | -- | **0.97** | -- | -- | **0.0064** | <0.002 | -- | <0.0004 | **2.4** |
| MW-57 | Multiunit 1 | Supplementary | 11/6/2020 | FC-CCR-MW57-1120 | **0.00022** | **0.0012** | -- | **0.02** | -- | <0.001 | -- | **0.00081** | -- | **0.0020** | -- | **0.0043** | -- | <0.4 | <0.002 | -- | **0.87** | -- | -- | **0.027** | **0.0030** | -- | **0.00018** | **2.2** |
| MW-57 | Multiunit 1 | Supplementary | 4/27/2021 | FC-CCR-MW57-0421 | <0.004 | <0.002 | -- | **0.018** | -- | **0.00013 J** | -- | **0.00012 J** | -- | <0.004 | -- | **0.0019 J** | -- | <0.4 | **0.0019 J** | -- | **0.77** | -- | -- | **0.006** | **0.0033** | -- | <0.0004 | **2.7** |
| MW-57 | Multiunit 1 | Supplementary | 11/17/2021 | FC-CCR-MW57-1121 | **0.00041 J** | **0.0014** | -- | **0.018** | -- | <0.001 | -- | **0.000078 J** | -- | **0.0015 J** | -- | **0.0035** | -- | **0.19 J** | <0.0005 | -- | **0.81** | -- | -- | **0.0028** | **0.0015** | -- | **0.000068 J** | **1.4** |
| MW-57 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-MW57-0222 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.0038** | -- | **0.25** | -- | -- | **0.90** | -- | -- | **0.012** | -- | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 5/24/2022 | FC-CCR-MW57-0522 | <0.002 | <0.001 | -- | **0.017** | -- | <0.001 | -- | <0.0002 | -- | <0.002 | -- | **0.0029** | -- | <0.8 | <0.001 | -- | **0.8** | -- | -- | **0.0058** | **0.0020** | -- | <0.0004 | **1.5** |
| MW-57 | Multiunit 1 | Supplementary | 5/24/2022 | FC-CCR-SS09-0522 | <0.02 | <0.01 | -- | **0.0164 J** | -- | <0.0025 | -- | <0.0025 | -- | <0.02 | -- | **0.00362** | -- | <50/0.19 J | <0.005 | -- | **0.809** | -- | -- | **0.00544** | <0.0025 | -- | <0.005 | -- |
| MW-57 | Multiunit 1 | Supplementary | 8/11/2022 | FC-CCR-MW57-0822 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | <0.0005 | -- | <0.8 | -- | -- | **0.94** | -- | -- | **0.0015** | -- | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 11/15/2022 | FC-CCR-MW571122 | <0.002 | **0.006** | -- | **0.018** | -- | <0.001 | -- | <0.0002 | -- | <0.002 | -- | <0.001 | -- | <4 | <0.0005 | -- | **0.51 J** | -- | -- | **0.0024** | **0.0018** | -- | <0.0001 | **1.4** |
| MW-57 | Multiunit 1 | Supplementary | 5/5/2023 | FC-CCR-MW57-0523 | <0.002 | <0.005 | -- | **0.016** | -- | <0.001 | -- | <0.001 | -- | <0.003 | -- | **0.0015** | -- | <40 | <0.001 | -- | **1.1** | -- | -- | <0.002 | <0.005 | -- | <0.001 | **3.1** |
| MW-57 | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW57-1124 | <0.01 | **0.0093** | -- | **0.032** | -- | <0.005 | -- | <0.001 | -- | <0.01 | -- | **0.019** | -- | <0.8 | <0.005 | -- | **2.8** | -- | -- | **0.0064** | **0.006** | -- | <0.001 | **1.2** |
| MW-57 | Multiunit 1 | Supplementary | 05/21/2024 | FC-CCR-MW57-0524 | <0.01 | **0.0061** | -- | **0.021 J** | -- | <0.001 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | <0.4 | <0.005 | -- | **2.6** | -- | -- | <0.005 | <0.005 | -- | <0.001 | **1.7** |
| MW-57 | Multiunit 1 | Supplementary | 11/15/2024 | FC-CCR-MW57-1124 | <0.01 | <0.002 | -- | **0.0153** | -- | <0.002 | -- | <0.002 | -- | <0.04 | -- | **0.00631** | -- | <0.38 | <0.004 | -- | **3.78** | -- | -- | <0.01 | <0.004 | -- | <0.002 | **2.5** |
| MW-60 | Multiunit 1 | Supplementary | 11/8/2015 | FC-CCR-MW60-110815 | **0.00043** | **0.0011** | -- | **0.037** | -- | **0.00021** | -- | **0.0012** | -- | **0.0033** | -- | **0.24** | -- | **4.5** | **0.0038** | -- | **0.60** | <0.00020 | -- | **0.078** | **0.0028** | -- | **0.00011** | -- |
| MW-60 | Multiunit 1 | Supplementary | 11/8/2015 | FC-CCR-MW60-110815 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 4/26/2016 | FC-CCR-MW-60-042616 | <0.0025 | **0.0011** | -- | **0.021** | -- | <0.0010 | -- | **0.0018** | -- | **0.0011** | -- | **0.16** | -- | **2.7** | **0.0018** | -- | **0.78** | <0.00020 | -- | **0.049** | **0.0011** | -- | **0.00020** | <0.8 |
| MW-60 | Multiunit 1 | Supplementary | 6/6/2016 | FC-CCR-MW60-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** |
| MW-60 | Multiunit 1 | Supplementary | 6/6/2016 | FC-CCR-MW60-616 | **0.00016** | **0.00099** | -- | **0.024** | -- | <0.0010 | -- | **0.00055** | -- | **0.0014** | -- | **0.14** | -- | **2.4** | **0.0021** | -- | **0.76** | <0.00020 | -- | **0.041** | **0.00067** | -- | **0.00012** | -- |
| MW-60 | Multiunit 1 | Supplementary | 8/21/2016 | FC-CCR-MW60-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **6.5** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 8/21/2016 | FC-CCR-MW60-816 | **0.00023** | **0.00072** | -- | **0.018** | -- | <0.0010 | -- | **0.0016** | -- | **0.0023** | -- | **0.29** | -- | **15** | **0.00060** | -- | **0.90** | <0.00020 | -- | **0.16** | **0.0011** | -- | **0.00025** | -- |
| MW-60 | Multiunit 1 | Supplementary | 8/21/2016 | FC-CCR-MW60-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-60 | Multiunit 1 | Supplementary | 9/13/2016 | FC-CCR-MW60-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **7.2** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/13/2016 | FC-CCR-MW60-916 | <0.0025 | <0.0010 | -- | **0.019** | -- | <0.0010 | -- | **0.0021** | -- | <0.0025 | -- | **0.32** | -- | **6.2** | **0.0014** | -- | **0.76** | <0.00020 | -- | **0.16** | <0.0030 | -- | <0.00050 | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/13/2016 | FC-CCR-MW60-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** |
| MW-60 | Multiunit 1 | Supplementary | 9/13/2016 | FC-CCR-MW100-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **6.0** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/13/2016 | FC-CCR-MW100-916 | <0.0025 | <0.0010 | -- | **0.020** | -- | <0.0010 | -- | **0.0022** | -- | <0.0025 | -- | **0.33** | -- | **6.4** | **0.0015** | -- | **0.77** | <0.00020 | -- | **0.17** | <0.0030 | -- | <0.00050 | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/13/2016 | FC-CCR-MW100-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.6** |
| MW-60 | Multiunit 1 | Supplementary | 10/20/2016 | FC-CCR-MW60-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 10/20/2016 | FC-CCR-MW60-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** |
| MW-60 | Multiunit 1 | Supplementary | 10/20/2016 | FC-CCR-MW60-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **5.5** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 2/2/2017 | FC-CCR-MW60-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **7.2** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 2/2/2017 | FC-CCR-MW60-117 | <0.0010 | **0.00060** | -- | **0.018** | -- | <0.0010 | -- | **0.0016** | -- | **0.0021** | -- | **0.29** | -- | **7.2** | **0.00086** | -- | **0.82** | <0.00020 | -- | **0.18** | **0.00084** | -- | **0.00025** | -- |
| MW-60 | Multiunit 1 | Supplementary | 2/2/2017 | FC-CCR-MW60-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.4** |
| MW-60 | Multiunit 1 | Supplementary | 4/18/2017 | FC-CCR-MW60-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **6.4** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 4/18/2017 | FC-CCR-MW60-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** |
| MW-60 | Multiunit 1 | Supplementary | 4/18/2017 | FC-CCR-MW60-41817 | <0.0040 | <0.0020 | -- | **0.017** | -- | <0.0010 | -- | **0.00086** | -- | **0.0040** | -- | **0.28** | -- | **6.5** | <0.0020 | -- | **0.84** | <0.00020 | -- | **0.17** | <0.0020 | -- | <0.00040 | -- |
| MW-60 | Multiunit 1 | Supplementary | 5/3/2017 | FC-CCR-MW60-5317 | <0.0010 | **0.00056** | -- | **0.017** | -- | <0.0010 | -- | **0.00070** | -- | **0.0025** | -- | **0.27** | -- | **10** | <0.00050 | -- | **0.75** | <0.00020 | -- | **0.17** | **0.00078** | -- | **0.00024** | -- |
| MW-60 | Multiunit 1 | Supplementary | 5/3/2017 | FC-CCR-MW60-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-60 | Multiunit 1 | Supplementary | 5/30/2017 | FC-CCR-MW60-53017 | <0.0010 | **0.00076** | -- | **0.017** | -- | <0.0010 | -- | **0.00070** | -- | **0.0023** | -- | **0.28** | -- | **7.0** | <0.00050 | -- | **0.74** | <0.00020 | -- | **0.17** | **0.00051** | -- | **0.00024** | -- |
| MW-60 | Multiunit 1 | Supplementary | 5/30/2017 | FC-CCR-MW60-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** |
| MW-60 | Multiunit 1 | Supplementary | 6/22/2017 | FC-CCR-MW60-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 6/22/2017 | FC-CCR-MW60-62217 | <0.0010 | **0.00072** | -- | **0.017** | -- | <0.0010 | -- | **0.00060** | -- | **0.0027** | -- | **0.29** | -- | **7.1** | <0.00050 | -- | **0.78** | <0.00020 | -- | **0.17** | **0.00084** | -- | **0.00025** | -- |
| MW-60 | Multiunit 1 | Supplementary | 6/22/2017 | FC-CCR-MW60-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.4** |
| MW-60 | Multiunit 1 | Supplementary | 7/22/2017 | FC-CCR-MW60-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **7.0** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 7/22/2017 | FC-CCR-MW60-72217 | <0.0040 | <0.0020 | -- | **0.016** | -- | <0.0010 | -- | <0.00040 | -- | <0.0020 | -- | **0.24** | -- | -- | <0.0020 | -- | **0.82** | <0.00020 | -- | **0.15** | <0.0020 | -- | <0.00040 | -- |
| MW-60 | Multiunit 1 | Supplementary | 7/22/2017 | FC-CCR-MW60-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** |
| MW-60 | Multiunit 1 | Supplementary | 8/10/2017 | FC-CCR-MW60-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 8/10/2017 | FC-CCR-MW60-81017 | <0.0010 | **0.00055** | -- | **0.018** | -- | <0.0010 | -- | **0.00064** | -- | **0.0026** | -- | **0.28** | -- | **7.1** | <0.00050 | -- | **0.85** | <0.00020 | -- | **0.17** | **0.00082** | -- | **0.00021** | -- |
| MW-60 | Multiunit 1 | Supplementary | 8/10/2017 | FC-CCR-MW60-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-60 | Multiunit 1 | Supplementary | 8/17/2017 | FC-CCR-MW60-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-60 | Multiunit 1 | Supplementary | 8/17/2017 | FC-CCR-MW60-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **7.4** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/10/2017 | FC-CCR-MW60-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/10/2017 | FC-CCR-MW60-91017 | <0.0040 | <0.0020 | -- | **0.017** | -- | <0.0010 | -- | **0.00097** | -- | <0.0040 | -- | **0.29** | -- | **7.4** | <0.0020 | -- | **0.76** | <0.00020 | -- | **0.16** | <0.0020 | -- | <0.00040 | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/10/2017 | FC-CCR-MW60-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** |
| MW-60 | Multiunit 1 | Supplementary | 10/12/2017 | FC-CCR-MW60-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.6** |
| MW-60 | Multiunit 1 | Supplementary | 10/12/2017 | FC-CCR-MW60-101217 | <0.0040 | <0.0050 | -- | **0.017** | -- | <0.0010 | -- | **0.0016** | -- | <0.010 | -- | **0.36** | -- | **7.0** | <0.0050 | -- | **0.75** | <0.00020 | -- | **0.15** | <0.0020 | -- | <0.00040 | -- |
| MW-60 | Multiunit 1 | Supplementary | 6/21/2020 | FC-CCR-MW60-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.24** | -- | -- | -- | -- | -- | -- | -- | **0.18** | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 11/8/2020 | FC-CCR-MW60-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.26** | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 4/24/2021 | FC-CCR-MW60-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.21** | -- | -- | -- | -- | -- | -- | -- | **0.16** | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 11/13/2021 | FC-CCR-MW60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.25** | -- | -- | -- | -- | -- | -- | -- | **0.19** | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 5/23/2022 | FC-CCR-MW60-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | **0.15** | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 11/10/2022 | FC-CCR-MW60-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.23** | -- | -- | -- | -- | -- | -- | -- | **0.19** | -- | -- | -- | -- |

**Table G-5**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Selenium | Selenium | Thallium | Total Radium |
| **Filtered:** | | | | | N | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | N | Y | N | N | Y | N | N | Y | N | N |
| **Units:** | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| *Multiunit 1 BTV* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *Multiunit 1 GWPS* | | | | | *0.01* | *0.01* | *0.01* | *2* | *2* | *0.004* | *0.004* | *0.005* | *0.005* | *0.1* | *0.1* | *0.01* | *0.01* | *5* | *0.015* | *0.015* | *1.8* | *0.002* | *0.002* | *0.1* | *0.092* | *--* | *0.017* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-60 | Multiunit 1 | Supplementary | 5/2/2023 | FC-CCR-MW60-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.18 | -- | -- | -- | -- | -- | -- | -- | 0.15 | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 11/09/2023 | FC-CCR-MW60-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.19 | -- | -- | -- | -- | -- | -- | -- | 0.18 | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 05/16/2024 | FC-CCR-MW60-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.18 | -- | -- | -- | -- | -- | -- | -- | 0.16 | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 10/28/2024 | FC-CCR-MW60-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.161 | -- | -- | -- | -- | -- | -- | -- | 0.154 | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/6/2015 | FC-CCR-MW61-110615 | 0.00029 | 0.00056 | -- | 0.016 | -- | 0.00016 | -- | 0.0010 | -- | 0.00075 | -- | 0.011 | -- | 1.2 | 0.00082 | -- | 0.36 | <0.00020 | -- | 0.076 | 0.0016 | -- | 0.00018 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/6/2015 | FC-CCR-MW61-110615 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/6/2015 | *DUP* FC-CCR-FD-1-110615 | 0.00032 | 0.00062 | -- | 0.016 | -- | 0.00023 | -- | 0.00099 | -- | 0.00028 | -- | 0.011 | -- | 1.2 | 0.00085 | -- | 0.37 | <0.00020 | -- | 0.084 | 0.0017 | -- | 0.00019 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/6/2015 | *DUP* FC-CCR-FD-1-110615 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 4/26/2016 | FC-CCR-MW-61-042616 | <0.0025 | <0.00050 | -- | 0.014 | -- | <0.0010 | -- | 0.00082 | -- | <0.00050 | -- | 0.010 | -- | 1.3 | 0.00078 | -- | 0.40 | <0.00020 | -- | 0.076 | 0.00088 | -- | 0.00013 | 1.7 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/6/2016 | FC-CCR-MW61-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.8 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/6/2016 | FC-CCR-MW61-616 | 0.00023 | <0.00050 | -- | 0.015 | -- | <0.0010 | -- | 0.00094 | -- | <0.00050 | -- | 0.012 | -- | 1.2 | 0.00080 | -- | 0.39 | <0.00020 | -- | 0.077 | 0.00096 | -- | 0.00014 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW61-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.2 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW61-816 | 0.00023 | 0.00058 | -- | 0.015 | -- | <0.0010 | -- | 0.00091 | -- | 0.00052 | -- | 0.013 | -- | 0.91 | 0.0010 | -- | 0.44 | <0.00020 | -- | 0.083 | 0.00091 | -- | 0.00016 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW61-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <1.4 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW61-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.3 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW61-916 | <0.0025 | <0.0010 | -- | 0.014 | -- | <0.0010 | -- | 0.00094 | -- | <0.0025 | -- | 0.013 | -- | 1.1 | 0.00089 | -- | 0.37 | <0.00020 | -- | 0.069 | <0.0030 | -- | <0.00050 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW61-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.3 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/19/2016 | FC-CCR-MW101-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.84 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/19/2016 | FC-CCR-MW101-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/20/2016 | FC-CCR-MW61-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.95 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/20/2016 | FC-CCR-MW61-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.7 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW61-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.2 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW61-117 | <0.0010 | 0.00050 | -- | 0.013 | -- | <0.0010 | -- | 0.0011 | -- | <0.00050 | -- | 0.013 | -- | 1.1 | 0.00079 | -- | 0.36 | <0.00020 | -- | 0.072 | 0.00070 | -- | 0.00015 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW61-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.2 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW61-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW61-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW61-41817 | <0.0040 | <0.0020 | -- | 0.014 | -- | <0.0010 | -- | 0.00093 | -- | <0.0020 | -- | 0.014 | -- | 1.1 | <0.0020 | -- | 0.37 | <0.00020 | -- | 0.078 | <0.0020 | -- | <0.00040 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW61-5317 | <0.0010 | <0.00050 | -- | 0.014 | -- | <0.0010 | -- | 0.00094 | -- | 0.00062 | -- | 0.014 | -- | 2.8 | 0.00082 | -- | 0.38 | <0.00020 | -- | 0.075 | 0.00067 | -- | 0.00015 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW61-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.7 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW61-53017 | <0.0010 | <0.00050 | -- | 0.014 | -- | <0.0010 | -- | 0.00092 | -- | <0.00050 | -- | 0.015 | -- | 1.2 | 0.00089 | -- | 0.36 | <0.00020 | -- | 0.079 | <0.00050 | -- | 0.00016 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW61-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW61-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW61-62217 | <0.0010 | 0.00063 | -- | 0.014 | -- | <0.0010 | -- | 0.00098 | -- | 0.00052 | -- | 0.015 | -- | 1.3 | 0.00086 | -- | 0.37 | <0.00020 | -- | 0.079 | 0.00076 | -- | 0.00016 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW61-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW61-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.3 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW61-72217 | <0.0040 | <0.0020 | -- | 0.013 | -- | <0.0010 | -- | 0.00082 | -- | <0.0020 | -- | 0.013 | -- | -- | <0.0020 | -- | 0.38 | <0.00020 | -- | 0.070 | <0.0020 | -- | <0.00040 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW61-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.5 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW61-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW61-81017 | <0.0010 | <0.00050 | -- | 0.014 | -- | <0.0010 | -- | 0.00092 | -- | <0.0010 | -- | 0.015 | -- | 1.2 | 0.00083 | -- | 0.40 | <0.00020 | -- | 0.079 | 0.00066 | -- | 0.00011 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW61-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/17/2017 | FC-CCR-MW61-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/17/2017 | FC-CCR-MW61-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.4 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW61-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW61-91017 | <0.0040 | <0.0020 | -- | 0.013 | -- | <0.0010 | -- | 0.00087 | -- | <0.0040 | -- | 0.014 | -- | 1.2 | <0.0020 | -- | 0.37 | <0.00020 | -- | 0.073 | <0.0020 | -- | <0.00040 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW61-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.7 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/12/2017 | FC-CCR-MW61-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.0 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/12/2017 | FC-CCR-MW61-101217 | <0.0040 | <0.0050 | -- | 0.013 | -- | <0.0010 | -- | 0.00097 | -- | <0.010 | -- | 0.016 | -- | 1.2 | <0.0050 | -- | 0.35 | <0.00020 | -- | 0.070 | <0.0020 | -- | <0.0010 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/30/2017 | FC-CCR-MW61-113017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.2 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 3/17/2018 | FC-CCR-MW61-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.9 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-61-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-61-6118 | -- | <0.010 | -- | 0.014 | -- | -- | -- | <0.0020 | -- | -- | -- | 0.017 | -- | 1.3 | <0.010 | -- | 0.36 | -- | -- | 0.085 | <0.010 | -- | <0.0020 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | *DUP* FC-CCR-FD01-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | *DUP* FC-CCR-FD01-6118 | -- | <0.010 | -- | 0.014 | -- | -- | -- | <0.0020 | -- | -- | -- | 0.017 | -- | 1.3 | <0.010 | -- | 0.36 | -- | -- | 0.082 | <0.010 | -- | <0.0020 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/3/2018 | FC-CCR-MW61-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.3 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/3/2018 | FC-CCR-MW61-11318 | -- | 0.00084 | -- | 0.015 | -- | -- | -- | 0.00088 | -- | -- | -- | 0.018 | -- | -- | 0.00086 | -- | 0.35 | -- | -- | 0.090 | 0.00061 | -- | 0.00016 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/3/2018 | FC-CCR-MW61-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW61-031919 | <0.0010 | 0.00054 | -- | 0.016 | -- | <0.0010 | -- | 0.00093 | -- | <0.0010 | -- | 0.019 | -- | 1.1 | 0.0012 | -- | 0.37 | <0.00020 | -- | 0.092 | 0.00072 | -- | 0.00016 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW61-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/13/2019 | FC-CCR-MW61-51319 | -- | <0.00050 | -- | 0.015 | -- | -- | -- | 0.0010 | -- | -- | -- | 0.019 | -- | 0.56 | 0.0012 | -- | 0.39 | -- | -- | 0.089 | 0.00067 | -- | 0.00016 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/13/2019 | FC-CCR-MW61-51319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/19/2019 | FC-CCR-MW61-111919 | <0.0010 | <0.00050 | -- | 0.015 | -- | <0.0010 | -- | 0.00097 | -- | <0.0010 | -- | 0.021 | -- | 1.4 | 0.00095 | -- | 0.38 | <0.00020 | -- | 0.098 | 0.00082 | -- | 0.00020 | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/21/2020 | FC-CCR-MW61-0620 | <0.001 | 0.00087 | -- | 0.017 | -- | -- | -- | 0.00089 | -- | <0.001 | -- | 0.021 | -- | 1.2 | 0.00060 | -- | 0.68 | -- | -- | 0.10 | 0.00056 | -- | 0.00019 | 0.7 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/8/2020 | FC-CCR-MW61-1120 | <0.001 | 0.0018 | -- | 0.012 J/0.017 | -- | <0.001 | -- | 0.0011 | -- | 0.00049 J | -- | 0.024 | -- | 1.3 | 0.00093 | -- | 0.42 | <0.0002 | -- | 0.11 | 0.0028 | -- | 0.00017 | <0.8 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 4/23/2021 | FC-CCR-MW61-0421 | <0.001 | <0.0016 | -- | 0.017 | -- | <0.001 | -- | 0.00082 | -- | <0.001 | -- | 0.023 | -- | 1.1 | 0.00084 | -- | 0.42 | <0.0002 | -- | 0.10 | <0.00097 | -- | <0.0001 | 0.9 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/13/2021 | FC-CCR-MW61-1121 | 0.00026 J | <0.001 | -- | 0.020 | -- | <0.001 | -- | 0.0012 | -- | <0.002 | -- | 0.028 | -- | 1.1 | 0.0013 | -- | 0.48 | <0.0002 | -- | 0.11 | 0.0020 | -- | 0.00022 | 0.6 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/22/2022 | FC-CCR-MW61-0522 | <0.001 | 0.0011 | -- | 0.018 | -- | <0.001 | -- | 0.0011 | -- | <0.001 | -- | 0.028 | -- | 1.3 | 0.0010 | -- | 0.46 | <0.0002 | -- | 0.11 | <0.001 | -- | <0.0002 | 0.4 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/11/2022 | FC-CCR-MW61-1122 | <0.001 | 0.00059 | -- | 0.019 | -- | <0.001 | -- | 0.0011 | -- | <0.001 | -- | 0.030 | -- | 1.3 | 0.0011 | -- | 0.42 | <0.0002 | -- | 0.11 | 0.00093 | -- | 0.00022 | <0.6 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/4/2023 | FC-CCR-MW61-0523 | <0.002 | <0.005 | -- | 0.018 | -- | <0.001 | -- | 0.0011 | -- | <0.003 | -- | 0.030 | -- | <4 | 0.0012 | -- | 0.48 | <0.0002 | -- | 0.11 | <0.005 | -- | <0.001 | 2.8 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/09/2023 | FC-CCR-MW61-1124 | <0.001 | 0.0016 | -- | 0.023 | -- | <0.001 | -- | 0.0011 | -- | 0.0018 | -- | 0.027 | -- | 1.3 | 0.0015 | -- | 0.50 | <0.0002 | -- | 0.11 | 0.002 | -- | 0.00028 | <0.8 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 05/16/2024 | FC-CCR-MW61-0524 | <0.01 | 0.0068 | -- | 0.020 J | -- | <0.005 | -- | 0.0010 | -- | <0.01 | -- | 0.030 | -- | 0.97 | <0.005 | -- | 0.49 | <0.0002 | -- | 0.11 | <0.005 | -- | <0.001 | 1.3 |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/25/2024 | FC-CCR-MW61-1024 | <0.0025 | <0.0025 | | 0.0186 | | 0.00055 J | | 0.0011 | | <0.01 | | 0.032 | | 4.47 J | <0.0025 | | 0.48 | <0.0002 | | 0.106 | <0.0025 | | <0.0005 | 1.4 |
| MW-75 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW-75-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.6 |
| MW-75 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW75-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW75-41817 | <0.0040 | <0.0020 | -- | 0.020 | -- | <0.0010 | -- | 0.0022 | -- | <0.0020 | -- | 0.043 | -- | <2.0 | 0.0031 | -- | 0.43 | <0.00020 | -- | 0.17 | 0.0021 | -- | <0.00040 | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW-75-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.4 |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW75-5317 | <0.0010 | <0.0010 | -- | 0.018 | -- | <0.0010 | -- | 0.0019 | -- | <0.0010 | -- | 0.042 | -- | 2.8 | 0.0031 | -- | 0.43 | 0.00028 | -- | 0.17 | 0.0022 | -- | 0.00018 | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW-75-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.9 |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW75-53017 | <0.0010 | <0.00050 | -- | 0.017 | -- | <0.0010 | -- | 0.0019 | -- | <0.00050 | -- | 0.039 | -- | <2.0 | 0.0028 | -- | 0.43 | <0.00020 | -- | 0.16 | 0.0025 | -- | 0.00017 | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW75-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW75-62217 | <0.0040 | <0.0020 | -- | 0.020 | -- | <0.0010 | -- | 0.0024 | -- | <0.0020 | -- | 0.048 | -- | <2.0 | 0.0041 | -- | 0.43 | <0.00020 | -- | 0.18 | 0.0022 | -- | <0.00040 | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW-75-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-75 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW75-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW75-72217 | <0.0040 | <0.0020 | -- | 0.018 | -- | <0.0010 | -- | 0.0020 | -- | <0.0020 | -- | 0.043 | -- | -- | 0.0030 | -- | 0.44 | <0.00020 | -- | 0.16 | 0.0026 | -- | <0.00040 | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW75-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |

**Table G-5**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Selenium | Selenium | Thallium | Total Radium |
| **Filtered:** | | | | | N | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | N | Y | N | N | Y | N | N | Y | N | N |
| **Units:** | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| *Multiunit 1 BTV* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *Multiunit 1 GWPS* | | | | | *0.01* | *0.01* | *0.01* | *2* | *2* | *0.004* | *0.004* | *0.005* | *0.005* | *0.1* | *0.1* | *0.01* | *0.01* | *5* | *0.015* | *0.015* | *1.8* | *0.002* | *0.002* | *0.1* | *0.092* | -- | *0.017* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-75 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW75-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW75-81017 | <0.010 | <0.0020 | -- | **0.019** | -- | <0.0010 | -- | **0.0023** | -- | <0.0040 | -- | **0.046** | -- | <2.0 | <0.0050 | -- | **0.45** | <0.00020 | -- | **0.18** | **0.0025** | -- | <0.0010 | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW75-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 8/17/2017 | FC-CCR-MW75-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-75 | Multiunit 1 | Downgradient Boundary | 8/17/2017 | FC-CCR-MW75-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW75-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW75-91017 | <0.0040 | <0.0020 | -- | **0.018** | -- | <0.0010 | -- | **0.0020** | -- | <0.0040 | -- | **0.044** | -- | <2.0 | **0.0032** | -- | **0.42** | <0.00020 | -- | **0.16** | **0.0023** | -- | <0.00040 | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW75-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 10/12/2017 | FC-CCR-MW75-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 10/12/2017 | FC-CCR-MW75-101217 | <0.010 | <0.0050 | -- | **0.020** | -- | <0.0010 | -- | **0.0023** | -- | <0.010 | -- | **0.049** | -- | <2.0 | <0.0050 | -- | **0.41** | <0.00020 | -- | **0.18** | <0.0050 | -- | <0.0010 | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/30/2017 | FC-CCR-MW75-113017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/30/2017 | DUP* FC-CCR-FD02-11301 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 3/17/2018 | FC-CCR-MW75-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.8 |
| MW-75 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-75-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.4** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-75-6118 | -- | <0.010 | -- | **0.020** | -- | -- | -- | **0.0024** | -- | -- | -- | **0.048** | -- | **1.2** | <0.010 | -- | **0.40** | -- | -- | **0.17** | <0.010 | -- | <0.0020 | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/3/2018 | FC-CCR-MW75-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/3/2018 | FC-CCR-MW75-11318 | -- | **0.00060** | -- | **0.017** | -- | -- | -- | **0.0018** | -- | -- | -- | **0.045** | -- | **1.2** | **0.0030** | -- | **0.39** | -- | -- | **0.18** | **0.0026** | -- | **0.00018** | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/3/2018 | FC-CCR-MW75-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-75 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW75-031919 | <0.0010 | <0.00050 | -- | **0.019 J** | -- | <0.0010 | -- | **0.0018** | -- | <0.0010 | -- | **0.045** | -- | **1.1** | **0.0030** | -- | **0.40** | <0.00020 | -- | **0.17** | **0.0026** | -- | **0.00017** | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW75-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/13/2019 | FC-CCR-MW75-51319 | -- | <0.00050 | -- | **0.019** | -- | -- | -- | **0.0019** | -- | -- | -- | **0.045** | -- | **1.2** | **0.0030** | -- | **0.43** | -- | -- | **0.18** | **0.0023** | -- | **0.00018** | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/13/2019 | FC-CCR-MW75-51319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/19/2019 | FC-CCR-MW75-111919 | <0.0010 | **0.00056** | -- | **0.019** | -- | <0.0010 | -- | **0.0020** | -- | <0.0010 | -- | **0.045** | -- | **1.2** | **0.0030** | -- | **0.41** | <0.00020 | -- | **0.19** | **0.0029** | -- | **0.00022** | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 6/21/2020 | FC-CCR-MW75-0620 | <0.001 | **0.00071** | -- | **0.018** | -- | -- | -- | **0.0017** | -- | <0.001 | -- | **0.047** | -- | **1.1** | **0.0028** | -- | **0.77** | -- | -- | **0.18** | **0.0030** | -- | **0.00021** | **0.8** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/8/2020 | FC-CCR-MW75-1120 | <0.001 | <0.0013 | -- | **0.013 J** | -- | <0.001 | -- | **0.0019** | -- | **0.00072 J** | -- | **0.047** | -- | **1.3** | **0.0029** | -- | **0.43** | <0.0002 | -- | **0.19** | **0.0060** | -- | **0.00020** | <0.8 |
| MW-75 | Multiunit 1 | Downgradient Boundary | 4/23/2021 | FC-CCR-MW75-0421 | <0.001 | <0.0016 | -- | **0.02** | -- | <0.001 | -- | **0.0018** | -- | <0.001 | -- | **0.045** | -- | **1.0** | **0.0029** | -- | **0.44** | <0.0002 | -- | **0.18** | **0.0037** | -- | <0.0001 | <0.8 |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/13/2021 | FC-CCR-MW75-1121 | **0.00013 J** | <0.001 | -- | **0.028** | -- | <0.001 | -- | **0.0020** | -- | <0.002 | -- | **0.054** | -- | **1.0** | **0.0036** | -- | **0.47** | <0.0002 | -- | **0.20** | **0.0042** | -- | **0.00024** | **0.8** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/22/2022 | FC-CCR-MW75-0522 | <0.001 | **0.00075** | -- | **0.020** | -- | <0.001 | -- | **0.0016** | -- | <0.001 | -- | **0.050** | -- | **1.2** | **0.0026** | -- | **0.47** | <0.0002 | -- | **0.17** | **0.0030** | -- | **0.00021** | **1.4** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/11/2022 | FC-CCR-MW75-1122 | <0.001 | **0.00051** | -- | **0.021** | -- | <0.001 | -- | **0.0016** | -- | <0.001 | -- | **0.057** | -- | **1.3** | **0.0031** | -- | **0.42** | <0.0002 | -- | **0.18** | **0.0044** | -- | **0.00022** | **0.7** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/4/2023 | FC-CCR-MW75-0523 | <0.002 | <0.005 | -- | **0.019** | -- | <0.001 | -- | **0.0017** | -- | <0.003 | -- | **0.056** | -- | <4 | **0.0034** | -- | **0.47** | <0.0002 | -- | **0.17** | <0.005 | -- | <0.001 | **0.7** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/08/2023 | FC-CCR-MW75-1124 | <0.001 | **0.0012** | -- | **0.020** | -- | <0.001 | -- | **0.0018** | -- | <0.001 | -- | **0.058** | -- | **1.2** | **0.0035** | -- | **0.50** | <0.0002 | -- | **0.18** | **0.0045** | -- | **0.00025** | <0.8 |
| MW-75 | Multiunit 1 | Downgradient Boundary | 05/16/2024 | FC-CCR-MW75-0524 | <0.01 | **0.0063** | -- | **0.020 J** | -- | <0.005 | -- | **0.0018** | -- | <0.01 | -- | **0.064** | -- | **0.85** | **<0.005** | -- | **0.49** | <0.0002 | -- | **0.18** | <0.005 | -- | <0.001 | **2.0** |
| MW-75 | Multiunit 1 | Downgradient Boundary | 10/25/2024 | FC-CCR-MW75-1024 | <0.0025 | <0.0025 | | **0.019** | | **0.0017 J** | | **0.0018** | | <0.01 | | **0.0654** | | **0.967** | **0.0034** | | **0.43** | <0.0002 | | **0.159** | **0.0028** | | <0.0005 | **2.3** |
| MW-76 | Multiunit 1 | Downgradient Boundary | 4/26/2021 | FC-CCR-MW76-0421 | <0.001 | <0.0018 | -- | **0.021** | -- | <0.001 | -- | <0.0001 | -- | **0.0017** | -- | **0.015** | -- | **0.44 J** | <0.0005 | -- | **0.63** | <0.0002 | -- | **0.095** | **0.0036** | -- | <0.0001 | <0.8 |
| MW-87 | Multiunit 1 | Downgradient | 3/19/2019 | FC-CCR-MW87-031919 | **0.0037** | **0.0023** | -- | **0.023** | -- | <0.0010 | -- | **0.00013** | -- | <0.0010 | -- | **0.032** | -- | <0.80 | **0.00062** | -- | **1.1** | <0.00020 | -- | **0.12** | **0.090** | -- | <0.00010 | -- |
| MW-87 | Multiunit 1 | Downgradient | 3/19/2019 | FC-CCR-MW87-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** |
| MW-87 | Multiunit 1 | Downgradient | 5/14/2019 | FC-CCR-MW87-51419 | -- | **0.0026** | -- | **0.015** | -- | -- | -- | <0.00010 | -- | -- | -- | **0.018** | -- | <0.80 | <0.00050 | -- | **1.3** | -- | -- | **0.10** | **0.033** | -- | <0.00010 | -- |
| MW-87 | Multiunit 1 | Downgradient | 5/14/2019 | FC-CCR-MW87-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.4** |
| MW-87 | Multiunit 1 | Downgradient | 6/22/2019 | FC-NIT-MW87-62219 | **0.0033** | **0.0042** | -- | **0.016** | -- | <0.0010 | -- | <0.00010 | -- | <0.0020 | -- | **0.018** | -- | <0.80 | <0.0020 | -- | **1.3** | <0.00020 | -- | **0.13** | **0.0059** | -- | <0.00040 | -- |
| MW-87 | Multiunit 1 | Downgradient | 11/19/2019 | FC-CCR-MW87-111919 | <0.0010 | **0.0028 J** | -- | **0.015** | -- | <0.0010 | -- | **0.00024** | -- | <0.0010 | -- | **0.0037** | -- | <0.80 | <0.00050 | -- | **1.2** | <0.00020 | -- | **0.030** | **0.015** | -- | **0.00018** | -- |
| MW-87 | Multiunit 1 | Downgradient | 11/19/2019 | DUP* FC-CCR-FD02-111919 | <0.0010 | **0.0014 J** | -- | **0.015** | -- | <0.0010 | -- | **0.00024** | -- | <0.0010 | -- | **0.0036** | -- | <0.80 | <0.00050 | -- | **1.3** | <0.00020 | -- | **0.028** | **0.018** | -- | **0.00017** | -- |
| MW-87 | Multiunit 1 | Downgradient | 6/23/2020 | FC-CCR-MW87-0620 | **0.0021** | **0.0030** | -- | **0.012** | -- | -- | -- | **0.00032** | -- | <0.002 | -- | **0.010** | -- | <0.8 | <0.001 | -- | -- | -- | -- | **0.069** | **0.0067** | -- | <0.0002 | **2.8** |
| MW-87 | Multiunit 1 | Downgradient | 11/6/2020 | FC-CCR-MW87-1120 | **0.0016 J** | **0.0048** | -- | <0.02/0.016 | -- | <0.001 | -- | **0.00023** | -- | **0.012** | -- | **0.014** | -- | **0.56 J** | <0.001 | -- | **1.7** | <0.0002 | -- | **0.051** | **0.019** | -- | **0.00014 J** | **3.7** |
| MW-87 | Multiunit 1 | Downgradient | 4/27/2021 | FC-CCR-MW87-0421 | <0.002 | <0.0024 | -- | **0.014** | -- | <0.001 | -- | <0.0002 | -- | <0.002 | -- | **0.0081** | -- | **0.42 J** | <0.002 | -- | **1.8** | <0.0002 | -- | **0.056** | **0.011** | -- | <0.0004 | <0.8 |
| MW-87 | Multiunit 1 | Downgradient | 11/17/2021 | FC-CCR-MW87-1121 | **0.0016 J** | **0.0024** | -- | **0.014** | -- | <0.002 | -- | **0.00017 J** | -- | **0.0021** | -- | **0.0078** | -- | **0.17 J** | **0.00080** | -- | **2.7** | <0.0002 | -- | **0.065** | **0.029** | -- | **0.00016** | **0.6** |
| MW-87 | Multiunit 1 | Downgradient | 11/17/2021 | FC-CCR-FD04-1121 | **0.0016 J** | **0.0032** | -- | **0.014** | -- | <0.002 | -- | **0.00017 J** | -- | **0.0023** | -- | **0.0082** | -- | **0.16 J** | **0.00081** | -- | **2.7** | <0.0002 | -- | **0.067** | **0.027** | -- | **0.00016** | **0.7** |
| MW-87 | Multiunit 1 | Downgradient | 2/8/2022 | FC-CCR-MW87-0222 | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | **0.0036** | -- | <0.8 | -- | -- | **2.3** | -- | -- | **0.037** | -- | -- | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 5/24/2022 | FC-CCR-MW87-0522 | **0.0014** | **0.0017** | -- | **0.010** | -- | <0.002 | -- | **0.00017** | -- | <0.001 | -- | **0.0077** | -- | <0.8 | <0.0005 | -- | **2.5** | <0.0002 | -- | **0.053** | **0.012** | -- | <0.0004 | **3.9** |
| MW-87 | Multiunit 1 | Downgradient | 5/24/2022 | *DUP* FC-CCR-FD04-0522 | **0.0014** | **0.0016** | -- | **0.0097** | -- | <0.002 | -- | **0.00013** | -- | **0.0011** | -- | **0.0077** | -- | <0.8 | <0.0005 | -- | **2.5** | <0.0002 | -- | **0.055** | **0.013** | -- | <0.0004 | **3.9** |
| MW-87 | Multiunit 1 | Downgradient | 5/24/2022 | FC-CCR-SS07-0522 | <0.1 | <0.05 | -- | <0.125 | -- | <0.0125 | -- | <0.0125 | -- | <0.1 | -- | **0.00856 J** | -- | <125/0.51 | <0.025 | -- | **2.34** | <0.001 | -- | **0.0548** | **0.0072 J** | -- | <0.025 | -- |
| MW-87 | Multiunit 1 | Downgradient | 8/11/2022 | FC-CCR-MW87-0822 | -- | -- | -- | -- | -- | <0.01 | -- | -- | -- | -- | -- | **0.0069** | -- | **2.2** | -- | -- | **2.7 J** | -- | -- | **0.052** | -- | -- | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 8/11/2022 | *DUP* FC-CCR-FD01-0822 | -- | -- | -- | -- | -- | <0.01 | -- | -- | -- | -- | -- | **0.0065** | -- | <2 | -- | -- | **2.7** | -- | -- | **0.056** | -- | -- | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 11/15/2022 | FC-CCR-MW87-1122 | <0.002 | **0.0014** | -- | **0.0086** | -- | <0.002 | -- | **0.00021** | -- | <0.002 | -- | **0.0059** | -- | <8 | <0.001 | -- | **2.8** | <0.0002 | -- | **0.057** | **0.022** | -- | **0.00020** | **4.8** |
| MW-87 | Multiunit 1 | Downgradient | 5/5/2023 | FC-CCR-MW87-0523 | <0.002 | <0.005 | -- | **0.0076** | -- | <0.001 | -- | <0.001 | -- | <0.003 | -- | **0.0030** | -- | <80 | <0.001 | -- | **2.6** | <0.0002 | -- | **0.036** | **0.0053** | -- | <0.001 | **2.3** |
| MW-87 | Multiunit 1 | Downgradient | 05/23/2024 | FC-CCR-MW87-0524 | <0.01 | **0.0060 J** | -- | **0.0084 J** | | <0.01 | -- | <0.001 | -- | <0.01 | -- | **0.014** | -- | <0.4 | <0.005 | -- | **3.3** | <0.0002 | -- | **0.043** | **0.0093** | -- | <0.001 | **1.7** |
| MW-87 | Multiunit 1 | Downgradient | 05/23/2024 | Be re-run | -- | -- | -- | -- | -- | **0.027** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 11/12/2024 | FC-CCR-MW87-1024 | <0.0025 | <0.0025 | -- | **0.0083** | -- | <0.0022 | -- | <0.0004 | -- | <0.01 | -- | **0.0087** | -- | <0.38 | <0.0025 | -- | **2.9** | <0.0002 | -- | **0.0379** | **0.0335** | -- | <0.0005 | **5.2** |
| EW-14 | Extraction Monitor | Supplementary | 6/23/2020 | FC-CCR-EW14-0620 | <0.001 | **0.00082** | -- | **0.018** | -- | -- | -- | **0.00077** | -- | <0.001 | -- | **0.023** | -- | <0.8 | <0.0005 | -- | -- | -- | -- | **0.012** | **0.00063** | -- | **0.00026** | <0.6 |
| EW-14 | Extraction Monitor | Supplementary | 11/16/2023 | FC-CCR-EW14-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0070** | -- | <0.8 | -- | -- | -- | -- | -- | **0.057** | -- | -- | -- | -- |
| EW-14 | Extraction Monitor | Supplementary | 05/23/2024 | FC-CCR-EW14-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | <0.4 | -- | -- | -- | -- | -- | **0.0059** | -- | -- | -- | -- |
| EW-14 | Extraction Monitor | Supplementary | 11/13/2024 | FC-CCR-EW14-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0038** | -- | -- | -- | -- | -- | -- | -- | **0.0051** | -- | -- | -- | -- |
| EW-15 | Extraction Monitor | Supplementary | 11/16/2023 | FC-CCR-EW15-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | <0.8 | -- | -- | -- | -- | -- | **0.040** | -- | -- | -- | -- |
| EW-15 | Extraction Monitor | Supplementary | 6/23/2020 | FC-CCR-EW15-0620 | **0.0010** | **0.00099** | -- | **0.0089** | -- | -- | -- | **0.00048** | -- | **0.0032** | -- | **0.017** | -- | <0.8 | <0.0005 | -- | -- | -- | -- | **0.0039** | <0.001 | -- | **0.00012** | **0.8** |
| EW-15 | Extraction Monitor | Supplementary | 05/21/2024 | FC-CCR-EW15-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | **0.70** | -- | -- | -- | -- | -- | **0.0068** | -- | -- | -- | -- |
| EW-15 | Extraction Monitor | Supplementary | 11/14/2024 | FC-CCR-EW15-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0026** | -- | -- | -- | -- | -- | -- | -- | **0.0052** | -- | -- | -- | -- |
| MW-50B | Multiunit 1 | -- | 3/17/2015 | FCPP-50B-031715 | -- | **0.0790** | -- | -- | -- | -- | -- | -- | -- | **0.35** | -- | **--** | -- | <2.0 | -- | -- | -- | -- | -- | **--** | **0.020** | -- | -- | -- |

*Notes:*
BTV exceedances are shown in grey shaded cells. GWPS exceedences are shown in red text.

*Abbreviations and Data Qualifiers:*
* data appears anomalous
< = less than
BTV = Background Threshold Value
degrees C = degrees Celsius
GWPS = Groundwater Protection Standard
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
mg/L = milligrams per liter
pCi/L = Picocuries per liter
su = standard units
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.
UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Magnesium | Manganese | Nickel | Potassium | Potassium | Radium 226 | Radium 228 | Sodium | Sodium | Zinc |
| | | | | Filtered: | N | N | N | N | N | N | N | Y | N | N | N | Y | N | N | N | Y | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-43 | Multiunit 1 | Background | 11/18/2013 | FC-43-111813 | **590** | <6.0 | <6.0 | **590** | <6.0 | -- | **550** | -- | -- | -- | **32** | -- | -- | -- | **1,900** | -- | -- |
| MW-43 | Multiunit 1 | Background | 9/8/2014 | FCPP-43-090814 | **570** | <6.0 | <6.0 | **570** | <6.0 | -- | **580** | -- | -- | -- | **30** | -- | -- | -- | **2,100** | -- | -- |
| MW-43 | Multiunit 1 | Background | 3/16/2015 | FCPP-43-031615 | **580** | <6.0 | <6.0 | **580** | <6.0 | -- | **560** | -- | -- | -- | **35** | -- | -- | -- | **2,000** | -- | -- |
| MW-43 | Multiunit 1 | Background | 12/1/2015 | FC-CCR-MW43-120115 | **680** | <5.0 | -- | **680** | -- | -- | **560** | -- | -- | -- | **31** | -- | **1.81** | **2.73** | **1,900** | -- | -- |
| MW-43 | Multiunit 1 | Background | 11/15/2024 | FC-CCR-MW43-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 9/10/2014 | FCPP-49A-091014 | **930** | <6.0 | <6.0 | **930** | <6.0 | -- | **2,200** | -- | -- | -- | **100** | -- | -- | -- | **11,000** | -- | -- |
| MW-49A | Multiunit 1 | Background | 3/19/2015 | FCPP-49A-031915 | **1,100** | <6.0 | <6.0 | **1,100** | <6.0 | -- | **1,800** | -- | -- | -- | **82** | -- | -- | -- | **11,000** | -- | -- |
| MW-49A | Multiunit 1 | Background | 7/1/2015 | MW-47A | **1,100** | <6.0 | <6.0 | **1,100** | <6.0 | -- | **2,000** | -- | -- | -- | **93** | -- | -- | -- | **12,000** | -- | -- |
| MW-49A | Multiunit 1 | Background | 8/29/2015 | FCPP-49A-082915 | **1,100** | <6.0 | <6.0 | **1,100** | <6.0 | -- | **1,800** | -- | -- | -- | **90** | -- | -- | -- | **8,700** | -- | -- |
| MW-49A | Multiunit 1 | Background | 12/1/2015 | FC-CCR-MW49A-120115 | **870** | <5.0 | -- | **870** | -- | -- | **750** | -- | -- | -- | **54** | -- | -- | -- | **4,600** | -- | -- |
| MW-49A | Multiunit 1 | Background | 12/1/2015 | FC-CCR-MW49A-120115 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.528** | **1.34** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 4/26/2016 | FC-CCR-MW-49A-042616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **1.9** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 6/7/2016 | FC-CCR-MW49A-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **1.8** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 6/7/2016 | FC-CCR-MW49A-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 8/21/2016 | FC-CCR-MW49A-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 8/21/2016 | FC-CCR-MW49A-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 8/21/2016 | FC-CCR-MW49A-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **3.1** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 9/13/2016 | FC-CCR-MW49A-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 9/13/2016 | FC-CCR-MW49A-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 9/13/2016 | FC-CCR-MW49A-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.3** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 10/20/2016 | FC-CCR-MW49A-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 10/20/2016 | FC-CCR-MW49A-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **1.7** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW49A-117 | **890** | <6.0 | <6.0 | **890** | <6.0 | -- | **1,300** | -- | -- | -- | **77** | -- | -- | -- | **6,700** | -- | -- |
| MW-49A | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW49A-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW49A-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **2.9** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 1/5/1900 | FC-CCR-MW49A-41817 | **900** | <6.0 | <6.0 | **900** | <6.0 | -- | **1,400** | -- | -- | -- | **71** | -- | -- | -- | **6,600** | -- | -- |
| MW-49A | Multiunit 1 | Background | 4/18/2017 | FC-CCR-MW49A-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **1.4** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 4/18/2017 | FC-CCR-MW49A-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 5/3/2017 | FC-CCR-MW49A-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 5/3/2017 | FC-CCR-MW49A-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.9** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 5/30/2017 | FC-CCR-MW49A-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 5/30/2017 | FC-CCR-MW49A-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **2.1** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 6/22/2017 | FC-CCR-MW49A-62217 | **850** | <6.0 | <6.0 | **850** | <6.0 | -- | **1,200** | -- | -- | -- | **70** | -- | -- | -- | **5,700** | -- | -- |
| MW-49A | Multiunit 1 | Background | 6/22/2017 | FC-CCR-MW49A-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 6/22/2017 | FC-CCR-MW49A-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **2.2** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 7/22/2017 | FC-CCR-MW49A-72217 | **850** | <6.0 | <6.0 | **850** | <6.0 | -- | **1,100** | -- | -- | -- | **69** | -- | -- | -- | **5,700** | -- | -- |
| MW-49A | Multiunit 1 | Background | 7/22/2017 | FC-CCR-MW49A-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 7/22/2017 | FC-CCR-MW49A-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **2.1** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 8/10/2017 | FC-CCR-MW49A-81017 | **790** | <6.0 | <6.0 | **790** | <6.0 | -- | **1,100** | -- | -- | -- | **70** | -- | -- | -- | **5,700** | -- | -- |
| MW-49A | Multiunit 1 | Background | 8/10/2017 | FC-CCR-MW49A-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 8/10/2017 | FC-CCR-MW49A-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.7** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 8/17/2017 | FC-CCR-MW49A-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **2.0** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 8/17/2017 | FC-CCR-MW49A-81717 | **750** | <6.0 | <6.0 | **750** | <6.0 | -- | **980** | -- | -- | -- | **84** | -- | -- | -- | **5,400** | -- | -- |
| MW-49A | Multiunit 1 | Background | 9/10/2017 | FC-CCR-MW49A-91017 | **720** | <6.0 | <6.0 | **720** | <6.0 | -- | **880** | -- | -- | -- | **62** | -- | -- | -- | **4,900** | -- | -- |
| MW-49A | Multiunit 1 | Background | 9/10/2017 | FC-CCR-MW49A-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 9/10/2017 | FC-CCR-MW49A-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.3** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 10/12/2017 | FC-CCR-MW49A-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.5** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 10/12/2017 | FC-CCR-MW49A-101217 | **710** | <6.0 | <6.0 | **710** | <6.0 | -- | **790** | -- | -- | -- | **62** | -- | -- | -- | **4,900** | -- | -- |
| MW-49A | Multiunit 1 | Background | 11/30/2017 | FC-CCR-MW49A-113017 | **780** | <6.0 | <6.0 | **780** | <6.0 | -- | **1,000** | -- | -- | -- | **79** | -- | -- | -- | **6,100** | -- | -- |
| MW-49A | Multiunit 1 | Background | 3/17/2018 | FC-CCR-MW49A-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.8 | <0.8 | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 6/1/2018 | FC-CCR-MW-49A-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.5** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 6/1/2018 | FC-CCR-MW-49A-6118 | **750** | <6.0 | <6.0 | **750** | <6.0 | -- | **2,800** | -- | -- | -- | **70** | -- | -- | -- | **6,400** | -- | -- |
| MW-49A | Multiunit 1 | Background | 11/4/2018 | FC-CCR-MW49A-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 11/4/2018 | FC-CCR-MW49A-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 11/4/2018 | FC-CCR-MW49A-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.4** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 3/19/2019 | FC-CCR-MW49A-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 3/19/2019 | FC-CCR-MW49A-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **0.8** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 5/14/2019 | FC-CCR-MW49A-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 5/14/2019 | FC-CCR-MW49A-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 | <0.7 | -- | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | **Alkalinity Bicarbonate** | **Alkalinity Carbonate** | **Alkalinity Hydroxide** | **Alkalinity(as CaCO3)** | **Alkalinity, Phenolphthalein, as CaCO3** | **Iron** | **Magnesium** | **Magnesium** | **Manganese** | **Nickel** | **Potassium** | **Potassium** | **Radium 226** | **Radium 228** | **Sodium** | **Sodium** | **Zinc** |
| **Filtered:** | | | | | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **Y** | **N** | **N** | **N** | **Y** | **N** | **N** | **N** | **Y** | **N** |
| **Units:** | | | | | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **pCi/L** | **pCi/L** | **mg/L** | **mg/L** | **mg/L** |
| *Multiunit 1 BTV* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *Multiunit 1 GWPS* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-49A | Multiunit 1 | Background | 11/19/2019 | FC-CCR-MW49A-111919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 6/23/2020 | FC-CCR-MW49A-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.8** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 11/6/2020 | FC-CCR-MW49-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.8 | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 4/27/2021 | FC-CCR-MW49A-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.8 | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 11/15/2021 | FC-CCR-MW49A-1121 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | **1.3** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 5/26/2022 | FC-CCR-MW49A-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.6 J** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 11/16/2022 | FC-CCR-MW49A-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | <0.7 | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 5/8/2023 | FC-CCR-MW49A-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.078** | -- | -- | <0.39 | **0.9** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 11/15/2023 | FC-CCR-MW49A-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.48 | **2.1** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 05/23/2024 | FC-CCR-MW49A-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.52** | **1.3** | -- | -- | -- |
| MW-49A | Multiunit 1 | Background | 11/12/2024 | FC-CCR-MW49A-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** | **1.4** | -- | -- | -- |
| MW-50A | Multiunit 1 | Background | 3/19/2015 | FCPP-50A-031915 | **320** | <6.0 | <6.0 | **320** | <6.0 | -- | **380** | -- | -- | -- | **33** | -- | -- | -- | **1,500** | -- | -- |
| MW-50A | Multiunit 1 | Background | 12/1/2015 | FC-CCR-MW50-120115 | **350** | <5.0 | -- | **350** | -- | -- | **340** | -- | -- | -- | **37** | -- | -- | -- | **1,300** | -- | -- |
| MW-50A | Multiunit 1 | Background | 12/1/2015 | FC-CCR-MW50-120115 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **6.69** | **17.3** | -- | -- | -- |
| MW-50A | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW50A-117 | **290** | <6.0 | <6.0 | **290** | <6.0 | -- | **320** | -- | -- | -- | **32** | -- | -- | -- | **1,100** | -- | -- |
| MW-50A | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW50A-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-50A | Multiunit 1 | Background | 11/15/2024 | FC-CCR-MW50A-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW74-117 | **380** | <6.0 | <6.0 | **380** | <6.0 | -- | **600** | -- | -- | -- | **26** | -- | -- | -- | **2,200** | -- | -- |
| MW-74 | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW74-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 2/2/2017 | FC-CCR-MW74-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.6** | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 4/18/2017 | FC-CCR-MW74-41817 | **410** | <6.0 | <6.0 | **410** | <6.0 | -- | **570** | -- | -- | -- | **20** | -- | -- | -- | **2,100** | -- | -- |
| MW-74 | Multiunit 1 | Background | 4/18/2017 | FC-CCR-MW74-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.7** | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 4/18/2017 | FC-CCR-MW74-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 5/2/2017 | FC-CCR-MW74-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 5/2/2017 | FC-CCR-MW74-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | <0.6 | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 5/29/2017 | FC-CCR-MW74-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 5/29/2017 | FC-CCR-MW74-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.1** | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 6/22/2017 | FC-CCR-MW74-62217 | **440** | <6.0 | <6.0 | **440** | <6.0 | -- | **640** | -- | -- | -- | **22** | -- | -- | -- | **2,200** | -- | -- |
| MW-74 | Multiunit 1 | Background | 6/22/2017 | FC-CCR-MW74-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 6/22/2017 | FC-CCR-MW74-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.6 | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 7/22/2017 | FC-CCR-MW74-72217 | **430** | <6.0 | <6.0 | **430** | <6.0 | -- | **710** | -- | -- | -- | **22** | -- | -- | -- | **2,400** | -- | -- |
| MW-74 | Multiunit 1 | Background | 7/22/2017 | FC-CCR-MW74-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 7/22/2017 | FC-CCR-MW74-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 8/10/2017 | FC-CCR-MW74-81017 | **420** | <6.0 | <6.0 | **420** | <6.0 | -- | **730** | -- | -- | -- | **22** | -- | -- | -- | **2,400** | -- | -- |
| MW-74 | Multiunit 1 | Background | 8/10/2017 | FC-CCR-MW74-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 8/10/2017 | FC-CCR-MW74-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.9** | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 9/10/2017 | FC-CCR-MW74-91017 | **410** | <6.0 | <6.0 | **410** | <6.0 | -- | **1,100** | -- | -- | -- | **23** | -- | -- | -- | **3,200** | -- | -- |
| MW-74 | Multiunit 1 | Background | 9/10/2017 | FC-CCR-MW74-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 9/10/2017 | FC-CCR-MW74-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **1.2** | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 10/11/2017 | FC-CCR-MW74-101117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.6 | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 10/11/2017 | FC-CCR-MW74-101117 | **390** | <6.0 | <6.0 | **390** | <6.0 | -- | **1,000** | -- | -- | -- | **22** | -- | -- | -- | **2,900** | -- | -- |
| MW-74 | Multiunit 1 | Background | 11/30/2017 | FC-CCR-MW74-113017 | **380** | <6.0 | <6.0 | **380** | <6.0 | -- | **1,200** | -- | -- | -- | **28** | -- | -- | -- | **3,500** | -- | -- |
| MW-74 | Multiunit 1 | Background | 3/17/2018 | FC-CCR-MW74-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.9 | <0.8 | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 6/1/2018 | FC-CCR-MW-74-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 6/1/2018 | FC-CCR-MW-74-6118 | **450** | <6.0 | <6.0 | **450** | <6.0 | -- | **870** | -- | -- | -- | **22** | -- | -- | -- | **3,100** | -- | -- |
| MW-74 | Multiunit 1 | Background | 3/19/2019 | FC-CCR-MW74-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 3/19/2019 | FC-CCR-MW74-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 5/13/2019 | FC-CCR-MW74-51319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 5/13/2019 | FC-CCR-MW74-51319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 | <0.7 | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 6/20/2020 | FC-CCR-MW74-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- | -- | -- |
| MW-74 | Multiunit 1 | Background | 4/23/2021 | FC-CCR-MW74-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.8 | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 4/21/1992 | DMX-3_4/21/1992 | -- | -- | -- | **361** | -- | -- | -- | **1,320** | -- | -- | -- | **36** | -- | -- | -- | **2,180** | -- |
| DMX-3 | Multiunit 1 | Supplementary | 3/12/2014 | FC-DMX3-031214 | **410** | <6.0 | <6.0 | **410** | <6.0 | -- | **890** | -- | -- | -- | **37** | -- | -- | -- | **1,500** | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 9/11/2014 | FCPP-DMX3-91114 | **480** | <6.0 | <6.0 | **480** | <6.0 | -- | **1,100** | -- | -- | -- | **43** | -- | -- | -- | **1,900** | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 12/8/2014 | FCPP-DUP1-12914 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 12/8/2014 | FCPP-DMX03-12914 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 3/18/2015 | FCPP-DMX3-031815 | **580** | <6.0 | <6.0 | **580** | <6.0 | -- | **1,300** | -- | -- | -- | **42** | -- | -- | -- | **2,100** | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 6/24/2015 | DMX-3 | **640** | <6.0 | <6.0 | **640** | <6.0 | -- | **1,400** | -- | -- | -- | **46** | -- | -- | -- | **2,100** | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 11/5/2015 | FC DMX -3-(051115) | **690** | <6.0 | <6.0 | **690** | <6.0 | -- | **1,600** | -- | -- | -- | **45** | -- | -- | -- | **2,400** | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 6/21/2016 | FC-SEEPS-DMX-3-062116 | **780** | <6.0 | <6.0 | **780** | <6.0 | -- | **1,600** | -- | -- | -- | **55** | -- | -- | -- | **2,600** | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Magnesium | Manganese | Nickel | Potassium | Potassium | Radium 226 | Radium 228 | Sodium | Sodium | Zinc |
| | | | | Filtered: | N | N | N | N | N | N | N | Y | N | N | N | Y | N | N | N | Y | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| DMX-3 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-DMX3-916 | **600** | <6.0 | <6.0 | **600** | <6.0 | -- | **1,700** | -- | -- | -- | **55** | -- | -- | -- | **2,800** | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-DMX03-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-DMX03-1120 | **750** | <6 | <6 | **750** | <6 | -- | **1,900** | -- | -- | -- | **66** | -- | <0.4 | <0.8 | **2,800** | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-DMX03-0421 | **750** | <6 | <6 | **750** | <6 | **0.44** | **2,000** | -- | **0.30** | -- | **72** | -- | <0.4 | <0.8 | **3,100** | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 11/14/2021 | FC-CCR-DMX03 | **950 J** | <6 | <6 | **950 J** | <6 | **0.35** | **2,300** | -- | **0.32** | -- | **58** | -- | **0.6** | **0.8** | **3,600** | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 2/1/2022 | FC-CCR-DMX03-0222 | **880** | <6 | <6 | **880** | <6 | **0.32** | **1,800** | -- | -- | -- | **56** | -- | -- | -- | **2,800** | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-DMX03-0522 | **860** | <6 | <6 | **860** | <6 | **0.24** | **2,000** | -- | **0.53** | -- | **66** | -- | **0.4** | **1.0** | **3,200** | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 8/12/2022 | FC-CCR-DMX03-0822 | **860** | <6 | <6 | **860** | <6 | **0.22** | **1,900** | -- | -- | -- | **59** | -- | -- | -- | **2,800** | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 11/11/2022 | FC-CCR-DMX03-1122 | **880** | <6 | <6 | **880** | <6 | **0.41** | **2,000** | -- | **0.54** | -- | **62** | -- | **0.6** | **0.7** | **3,100** | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 5/3/2023 | FC-CCR-DMX03-0523 | **870** | <6 | <6 | **870** | <6 | **0.16** | **2,300** | -- | **0.44** | **0.026** | **67** | -- | <0.46 | **1.6** | **2,900** | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 11/13/2023 | FC-CCR-DMX03-1124 | **850** | <6 | <6 | **850** | <6 | <0.5 | **2,300** | -- | **0.44** | -- | **62** | -- | <0.52 | <0.82 | **3,600 J** | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 05/20/2024 | FC-CCR-DMX03-0524 | **860** | <6 | <6 | **860** | <6 | <5 | **2,900** | -- | **0.59** | -- | **88** | -- | <0.59 | **3.0** | **4,400** | -- | -- |
| DMX-3 | Multiunit 1 | Supplementary | 11/12/2024 | FC-CCR-DMX03-1024 | **873** | <20 | -- | **--** | -- | **0.0799** | **1,750** | -- | **0.21** | -- | **62.1** | -- | **1.5** | **0.8** | **2,900** | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 4/21/1992 | DMX-4_4/21/1992 | -- | -- | -- | **396** | -- | -- | -- | **982** | **--** | -- | -- | **32.6** | -- | -- | -- | **3,440** | -- |
| DMX-4 | Multiunit 1 | Supplementary | 3/18/2015 | FCPP-DMX4-031815 | **350** | <6.0 | <6.0 | **350** | <6.0 | -- | **680** | -- | -- | -- | **32** | -- | -- | -- | **1,900** | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 6/24/2015 | DMX-4 | **340** | <6.0 | <6.0 | **340** | <6.0 | -- | **630** | -- | -- | -- | **32** | -- | -- | -- | **1,600** | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 8/29/2015 | FCPP-DMX4-082915 | **330** | <6.0 | <6.0 | **330** | <6.0 | -- | **620** | -- | -- | -- | **34** | -- | -- | -- | **1,500** | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 11/7/2015 | FC DMX-4-(07115) | **330** | <6.0 | <6.0 | **330** | <6.0 | -- | **790** | -- | -- | -- | **34** | -- | -- | -- | **1,800** | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 11/7/2015 | *DUP* FC FD-3-(071115) | **330** | <6.0 | <6.0 | **330** | <6.0 | -- | **900** | -- | -- | -- | **37** | -- | -- | -- | **1,900** | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 6/21/2016 | FC-SEEPS-DMX-4-062116 | **340** | <6.0 | <6.0 | **340** | <6.0 | -- | **640** | -- | -- | -- | **35** | -- | -- | -- | **1,600** | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-DMX4-916 | **320** | <6.0 | <6.0 | **320** | <6.0 | -- | **610** | -- | -- | -- | **34** | -- | -- | -- | **1,600** | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-DMX4-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-DMX4-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-DMX4-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-DMX4-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-DMX4-111919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-DMX04-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | <0.8 | -- | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-DMX04-1120 | **410** | <6 | <6 | **410** | <6 | -- | **800** | -- | **--** | -- | **42** | -- | <0.4 | <0.8 | **3,000** | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-DMX04-0421 | **410** | <6 | <6 | **410** | <6 | **0.12** | **840** | -- | **0.32** | -- | **47** | -- | <0.4 | <0.8 | **2,800** | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-DMX04-1121 | **340** | <6 | <6 | **340** | <6 | **0.089 J** | **750** | -- | **0.14** | -- | **35** | -- | <0.4 | **0.7** | **1,800** | | -- |
| DMX-4 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-DMX04-0222 | **360** | <6 | <6 | **360** | <6 | **0.11** | **760** | -- | -- | -- | **36** | -- | -- | -- | **1,700** | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-DMX04-0522 | **340** | <6 | <6 | **340** | <6 | <0.1 | **780** | -- | **0.25** | -- | **37** | -- | <0.3 | <0.6 | **1,800** | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 8/12/2022 | FC-CCR-DMX04-0822 | **350** | <6 | <6 | **350** | <6 | **0.11** | **760** | -- | -- | -- | **34** | -- | -- | -- | **1,600** | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 11/14/2022 | FC-CCR-DMX04-1122 | **370** | <6 | <6 | **370** | <6 | **0.10** | **780** | -- | **0.64** | -- | **37** | -- | <0.4 | <0.6 | **2,000** | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 5/4/2023 | FC-CCR-DMX04-0523 | **370** | <6 | <6 | **370** | <6 | <1 | **700** | -- | **0.97** | **0.028** | **39** | -- | <0.45 | <0.6 | **1,700** | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-DMX04-1124 | **350** | <6 | <6 | **350** | <6 | <0.5 | **750** | -- | **0.53** | -- | **33** | -- | <0.52 | <0.82 | **1,800** | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 05/21/2024 | FC-CCR-DMX04-0524 | **350** | <6 | <6 | **350** | <6 | **0.21** | **840** | -- | **4.6** | -- | **42** | -- | <0.58 | <0.92 | **2,100** | -- | -- |
| DMX-4 | Multiunit 1 | Supplementary | 11/14/2024 | FC-CCR-DMX04-1124 | **375** | <20 | -- | **--** | -- | <0.05 | **631** | -- | **1.03** | -- | **38.3** | -- | <0.6 | <0.7 | **1,560** | -- | -- |
| DMX-05R | Multiunit 1 | Extraction (Inactive) | 11/16/2023 | FC-CCR-DMX05R-1124 | **450** | <6 | <6 | **450** | <6 | **3.9** | **630** | -- | **0.87** | -- | **54** | -- | **1.3** | **4.1** | **4,400** | -- | <0.13 |
| DMX-05R | Multiunit 1 | Extraction (Inactive) | 05/23/2024 | FC-CCR-DMX05R-0524 | **480** | <6 | <6 | **480** | <6 | **6.7** | **730** | -- | **0.91** | -- | <50 | -- | <0.56 | **5.3** | **5,300** | -- | -- |
| DMX-05R | Multiunit 1 | Extraction (Inactive) | 11/13/2024 | FC-CCR-DMX05R-1124 | **500** | <20 | -- | **--** | -- | **5.66** | **684** | -- | **0.888** | -- | **61.5** | -- | **1.8** | **5.1** | **5,980** | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 4/21/1992 | DMX-6_4/21/1992 | -- | -- | -- | **201** | -- | -- | -- | **565** | **--** | -- | -- | **27.1** | -- | -- | -- | **1,420** | -- |
| DMX-6 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-DMX6-031715 | **250** | <6.0 | <6.0 | **250** | <6.0 | -- | **490** | -- | -- | -- | **31** | -- | -- | -- | **1,400** | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 6/24/2015 | DMX-6 | **710** | <6.0 | <6.0 | **710** | <6.0 | -- | **580** | -- | -- | -- | **53** | -- | -- | -- | **5,000** | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 8/29/2015 | FCPP-DMX6-082915 | **290** | <6.0 | <6.0 | **290** | <6.0 | -- | **500** | -- | -- | -- | **39** | -- | -- | -- | **1,700** | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 11/10/2015 | FC DMX-6-(101115) | **310** | <6.0 | <6.0 | **310** | <6.0 | -- | **570** | -- | -- | -- | **36** | -- | -- | -- | **2,000** | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 6/22/2016 | FC-SEEPS-DMX6-062216 | **310** | <6.0 | <6.0 | **310** | <6.0 | -- | **500** | -- | -- | -- | **36** | -- | -- | -- | **1,700** | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-DMX6-916 | **370** | <6.0 | <6.0 | **370** | <6.0 | -- | **490** | -- | -- | -- | **39** | -- | -- | -- | **2,100** | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-DMX6-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-DMX6-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 | <0.7 | -- | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-DMX6-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-DMX6-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-DMX6-111919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 6/23/2020 | FC-CCR-DMX06-0620 | **480** | <6 | <6 | **480** | <6 | -- | **510** | -- | -- | -- | **48** | -- | **0.6** | <0.8 | **3,100** | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 11/6/2020 | FC-CCR-DMX06-1120 | **570** | <6 | <6 | **570** | <6 | -- | **490** | -- | **--** | -- | **46** | -- | <0.4 | <0.8 | **3,700** | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 4/27/2021 | FC-CCR-DMX06-0421 | **430** | <6 | <6 | **430** | <6 | **0.10** | **610** | -- | **0.76** | -- | **46** | -- | <0.4 | <0.8 | **2,300** | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 11/18/2021 | FC-CCR-DMX06-1121 | **440** | <6 | <6 | **440** | <6 | **0.085 J** | **560** | -- | **0.84** | -- | **42** | -- | <0.4 | <0.6 | **2,700** | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-DMX06-0222 | **460** | <6 | <6 | **460** | <6 | **0.11** | **580** | -- | -- | -- | **44** | -- | -- | -- | **2,700** | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 5/24/2022 | FC-CCR-DMX06-0522 | **440** | <6 | <6 | **440** | <6 | <0.1 | **540/560** | -- | **0.79** | -- | **41** | -- | <0.3 | <0.6 | **2,600** | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 8/13/2022 | FC-CCR-DMX06-0822 | **400** | <6 | <6 | **400** | <6 | <0.1 | **600** | -- | -- | -- | **38** | -- | -- | -- | **2,300** | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 11/16/2022 | FC-CCR-DMX06-1122 | **430** | <6 | <6 | **430** | <6 | <0.1 | **580** | -- | **0.76** | -- | **40** | -- | **0.8** | <0.7 | **2,800** | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Magnesium | Manganese | Nickel | Potassium | Potassium | Radium 226 | Radium 228 | Sodium | Sodium | Zinc |
| | | | | Filtered: | N | N | N | N | N | N | N | Y | N | N | N | Y | N | N | N | Y | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| DMX-6 | Multiunit 1 | Supplementary | 5/8/2023 | FC-CCR-DMX06-0523 | **440** | <6 | <6 | **440** | <6 | <0.1 | **550** | -- | **0.80** | **0.11** | **39** | -- | <0.4 | <0.6 | **2,900** | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 11/15/2023 | FC-CCR-DMX06-1124 | **520** | <6 | <6 | **520** | <6 | <0.1 | **660** | -- | **1.2** | -- | **55** | -- | <0.52 | <0.82 | **3,900** | -- | <0.13 |
| DMX-6 | Multiunit 1 | Supplementary | 05/23/2024 | FC-CCR-DMX06-0524 | **520** | <6 | <6 | **520** | <6 | **0.18** | **630** | -- | **1.0** | -- | **51** | -- | <0.57 | <0.92 | **4,000** | -- | -- |
| DMX-6 | Multiunit 1 | Supplementary | 11/12/2024 | FC-CCR-DMX06-1024 | **507** | <20 | -- | **--** | -- | <0.05 | **506** | -- | **0.9** | -- | **49.4** | -- | **1.0** | **0.8** | **2,900** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 4/1/1987 | MW-5_4/1/1987 | -- | -- | -- | **830** | -- | -- | -- | **1,600** | **--** | -- | -- | **55** | -- | -- | -- | **4,600** | -- |
| MW-05 | Multiunit 1 | Supplementary | 10/2/1987 | MW-5_10/2/1987 | -- | -- | -- | **880** | -- | -- | -- | **1,900** | **--** | -- | -- | **90** | -- | -- | -- | **5,200** | -- |
| MW-05 | Multiunit 1 | Supplementary | 6/14/1988 | MW-5-19880614 | **817.4** | -- | -- | **670** | <0 | -- | **1,540** | -- | -- | -- | **76** | -- | -- | -- | **4,575** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 9/21/1988 | MW-5-19880921 | **915** | -- | -- | **750** | <0 | -- | **1,780** | -- | -- | -- | **77** | -- | -- | -- | **3,720** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/28/1988 | MW-5-19881128 | **902.8** | -- | -- | **740** | <0 | -- | **1,970** | -- | -- | -- | **92** | -- | -- | -- | **4,170** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 2/28/1989 | MW-5-19890228 | **976** | -- | -- | **800** | <0 | -- | **1,650** | -- | -- | -- | **80** | -- | -- | -- | **3,830** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 9/11/1989 | MW-5-19890911 | **893** | -- | -- | **732** | <0 | -- | **1,908** | -- | -- | -- | **76** | -- | -- | -- | **4,100** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 3/22/1990 | MW-5-19900322 | **915** | -- | -- | **750** | <0 | -- | **1,450** | -- | -- | -- | **74** | -- | -- | -- | **3,900** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 10/30/1990 | MW-5-19901030 | **793** | -- | -- | **650** | <0 | -- | **1,400** | -- | -- | -- | **60** | -- | -- | -- | **3,100** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 4/4/1991 | MW-5-19910404 | **823.5** | -- | -- | **675** | <0 | -- | **1,500** | -- | -- | -- | **65** | -- | -- | -- | **3,400** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 9/30/1991 | MW-5-19910930 | **762.5** | -- | -- | **625** | <0 | -- | **1,390** | -- | -- | -- | **66** | -- | -- | -- | **3,140** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 4/15/1992 | MW-5-19920415 | **701.5** | -- | -- | **575** | <0 | -- | **1,400** | -- | -- | -- | **76** | -- | -- | -- | **3,900** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/3/1992 | MW-5-19921103 | **976** | -- | -- | **800** | <0 | -- | **1,600** | -- | -- | -- | **62** | -- | -- | -- | **4,600** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 6/22/1993 | MW-5-19930622 | **732** | -- | -- | **600** | <0 | -- | **1,300** | -- | -- | -- | **75** | -- | -- | -- | **3,300** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/30/1993 | MW-5-19931130 | **732** | -- | -- | **600** | <0 | -- | **1,400** | -- | -- | -- | **62** | -- | -- | -- | **3,300** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 5/10/1994 | MW-5-19940510 | **945.5** | -- | -- | **775** | <0 | -- | **1,400** | -- | -- | -- | **71** | -- | -- | -- | **3,400** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/8/1994 | MW-5-19941108 | **762.5** | -- | -- | **625** | <0 | -- | **1,300** | -- | -- | -- | **70** | -- | -- | -- | **3,700** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 4/6/1995 | MW-5-19950406 | **823.5** | -- | -- | **675** | <0 | -- | **1,400** | -- | -- | -- | **63** | -- | -- | -- | **3,300** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 12/13/1995 | MW-5-19951213 | **732** | -- | -- | **600** | <0 | -- | **1,500** | -- | -- | -- | **65** | -- | -- | -- | **3,400** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 8/15/1996 | MW-5-19960815 | **762.5** | -- | -- | **625** | <0 | -- | **1,200** | -- | -- | -- | **62** | -- | -- | -- | **3,000** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 4/15/1997 | MW-5-19970415 | **823.5** | -- | -- | **675** | <0 | -- | **1,100** | -- | -- | -- | **58** | -- | -- | -- | **3,000** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 10/13/1997 | MW-5-19971013 | **762.5** | -- | -- | **625** | <0 | -- | **1,000** | -- | -- | -- | **56** | -- | -- | -- | **2,700** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 4/14/1998 | MW-5-19980414 | **640.5** | -- | -- | **525** | <0 | -- | **1,200** | -- | -- | -- | **51** | -- | -- | -- | **2,900** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 10/20/1998 | MW-5-19981020 | **793** | -- | -- | **650** | <0 | -- | **1,100** | -- | -- | -- | **50** | -- | -- | -- | **2,600** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 6/8/1999 | MW-5-19990608 | **762.5** | -- | -- | **625** | <0 | -- | **1,200** | -- | -- | -- | **49** | -- | -- | -- | **2,000** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 12/1/1999 | MW-5-19991201 | **671** | -- | -- | **550** | <0 | -- | **1,000** | -- | -- | -- | **50** | -- | -- | -- | **3,500** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 5/30/2000 | MW-5-20000530 | **762.5** | -- | -- | **625** | <0 | -- | **1,230** | -- | -- | -- | **52.1** | -- | -- | -- | **2,940** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/14/2000 | MW-5-20001114 | **640.5** | -- | -- | **525** | <0 | -- | **1,000** | -- | -- | -- | **57** | -- | -- | -- | **3,000** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 8/21/2001 | MW-5-20010821 | **640.5** | -- | -- | **525** | <0 | -- | **1,100** | -- | -- | -- | **51** | -- | -- | -- | **3,500** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 12/4/2001 | MW-5-20011204 | **701.5** | -- | -- | **575** | <0 | -- | **1,000** | -- | -- | -- | **50** | -- | -- | -- | **2,900** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 6/11/2002 | MW-5-20020611 | **1,037** | -- | -- | **850** | <0 | -- | **1,100** | -- | -- | -- | **52** | -- | -- | -- | **2,800** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 12/18/2002 | MW-5-20021218 | **793** | -- | -- | **650** | <0 | -- | **1,000** | -- | -- | -- | **42** | -- | -- | -- | **2,500** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 5/28/2003 | MW-5-20030528 | **701.5** | -- | -- | **575** | <0 | -- | **1,000** | -- | -- | -- | **44** | -- | -- | -- | **2,300** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 12/15/2003 | MW-5-20031215 | **2,867** | -- | -- | **2,350** | <0 | -- | **1,000** | -- | -- | -- | **56** | -- | -- | -- | **2,500** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 6/18/2004 | MW-5-20040618 | **5,307** | -- | -- | **4,350** | <0 | -- | **1,100** | -- | -- | -- | **59** | -- | -- | -- | **3,100** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/30/2004 | MW-5-20041130 | **732** | -- | -- | **600** | <0 | -- | **1,200** | -- | -- | -- | **60** | -- | -- | -- | **3,450** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 5/11/2005 | MW-5-20050511 | **732** | -- | -- | **600** | <0 | -- | **1,200** | -- | -- | -- | **59** | -- | -- | -- | **2,300** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 12/12/2005 | MW-5-20051212 | **732** | -- | -- | **600** | <0 | -- | **1,220** | -- | -- | -- | **49** | -- | -- | -- | **3,050** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 5/15/2006 | MW-5-20060515 | **705.2** | -- | -- | **578** | <0 | -- | **1,190** | -- | -- | -- | **47.7** | -- | -- | -- | **2,890** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 10/13/2006 | MW-5-20061013 | **716.1** | -- | -- | **587** | <0 | -- | **1,230** | -- | -- | -- | **41.2** | -- | -- | -- | **2,820** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 4/19/2007 | MW-5-20070419 | **686.9** | -- | -- | **563** | <0 | -- | **1,090** | -- | -- | -- | **47.2** | -- | -- | -- | **2,480** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/20/2007 | MW-5-20071120 | **768.6** | -- | -- | **630** | <0 | -- | **859** | -- | -- | -- | **41.5** | -- | -- | -- | **2,220** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 5/8/2008 | MW-5-20080508 | **744.2** | -- | -- | **610** | <0 | -- | **1,060** | -- | -- | -- | **53.7** | -- | -- | -- | **3,070** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 9/27/2012 | MW-5-092712-01 | **880** | <6.0 | <6.0 | **880** | <6.0 | -- | **1,200** | -- | -- | -- | **66** | -- | -- | -- | **5,500** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 9/10/2014 | FCPP-05-091014 | **980** | <6.0 | <6.0 | **980** | <6.0 | -- | **1,300** | -- | -- | -- | **68** | -- | -- | -- | **5,600** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 3/18/2015 | FCPP-05-031815 | **900** | <6.0 | <6.0 | **900** | <6.0 | -- | **1,200** | -- | -- | -- | **60** | -- | -- | -- | **5,500** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 6/30/2015 | MW-5 | **850** | <6.0 | <6.0 | **850** | <6.0 | -- | **1,300** | -- | -- | -- | **68** | -- | -- | -- | **5,600** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 8/25/2015 | FCPP-5-082515 | **950** | <6.0 | <6.0 | **950** | <6.0 | -- | **1,200** | -- | -- | -- | **76** | -- | -- | -- | **5,900** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/6/2015 | FC MW-5-(061115) | **790** | <6.0 | <6.0 | **790** | <6.0 | -- | **1,400** | -- | -- | -- | **62** | -- | -- | -- | **4,600** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 6/17/2016 | FC-Seep-MW5-616 | **740** | <6.0 | <6.0 | **740** | <6.0 | -- | **1,400** | -- | -- | -- | **70** | -- | -- | -- | **6,000** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 6/17/2016 | FC-Seep-Dup1-616 | **740** | <6.0 | <6.0 | **740** | <6.0 | -- | **1,400** | -- | -- | -- | **69** | -- | -- | -- | **5,700** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW5-916 | **1,000** | <6.0 | <6.0 | **1,000** | <6.0 | -- | **1,400** | -- | -- | -- | **75** | -- | -- | -- | **5,700** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-MW05-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-MW05-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-MW05-0421 | **900** | <6 | <6 | **900** | <6 | **0.26** | **1,500** | -- | **1.6** | -- | **100** | -- | -- | -- | **6,500** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-MW05-1121 | **850** | <6 | <6 | **850** | <6 | **0.30** | **1,400** | -- | **1.6** | -- | **89** | -- | -- | -- | **6,500** | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | **Alkalinity Bicarbonate** | **Alkalinity Carbonate** | **Alkalinity Hydroxide** | **Alkalinity(as CaCO3)** | **Alkalinity, Phenolphthalein, as CaCO3** | **Iron** | **Magnesium** | **Magnesium** | **Manganese** | **Nickel** | **Potassium** | **Potassium** | **Radium 226** | **Radium 228** | **Sodium** | **Sodium** | **Zinc** |
| **Filtered:** | | | | | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **Y** | **N** | **N** | **N** | **Y** | **N** | **N** | **N** | **Y** | **N** |
| **Units:** | | | | | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **pCi/L** | **pCi/L** | **mg/L** | **mg/L** | **mg/L** |
| *Multiunit 1 BTV* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *Multiunit 1 GWPS* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-05 | Multiunit 1 | Supplementary | 2/1/2022 | FC-CCR-MW05-0222 | **930** | <6 | <6 | **930** | <6 | **0.28** | **1,300** | -- | -- | -- | **72** | -- | -- | -- | **6,400** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW05-0522 | **890** | <6 | <6 | **890** | <6 | **0.24** | **1,300** | -- | **1.6** | -- | **94** | -- | -- | -- | **6,700** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 8/12/2022 | FC-CCR-MW05-0822 | **880** | <6 | <6 | **880** | <6 | **0.25** | **1,400** | -- | -- | -- | **87** | -- | -- | -- | **6,300** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/11/2022 | FC-CCR-MW05-1122 | **870** | <6 | <6 | **870** | <6 | **0.25** | **1,300** | -- | **1.1** | -- | **95** | -- | -- | -- | **6,700** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 5/3/2023 | FC-CCR-MW05-0523 | **830** | <6 | <6 | **830** | <6 | <0.1 | **1,500** | -- | **0.83** | -- | **78** | -- | -- | -- | **8,000** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/13/2023 | FC-CCR-MW05-1124 | **780** | <6 | <6 | **780** | <6 | <0.5 | **1,400** | -- | **0.73** | -- | **65** | -- | -- | -- | **8,400** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 05/20/2024 | FC-CCR-MW05-0524 | **780** | <6 | <6 | **780** | <6 | <5 | **1,600** | -- | **0.60** | -- | **81** | -- | -- | -- | **8,300** | -- | -- |
| MW-05 | Multiunit 1 | Supplementary | 11/13/2024 | FC-CCR-MW05-1124 | **789** | <20 | -- | **--** | -- | <0.05 | **1,860** | -- | **0.34** | -- | **86.1** | -- | -- | -- | **6,160** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/1/1987 | MW-6_4/1/1987 | -- | -- | -- | **280** | -- | -- | -- | **810** | **--** | -- | -- | **32** | -- | -- | -- | **2,300** | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/30/1987 | MW-6_9/30/1987 | -- | -- | -- | **280** | -- | -- | -- | **760** | **--** | -- | -- | **46** | -- | -- | -- | **2,300** | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/15/1988 | MW-6-19880615 | **414.8** | -- | -- | **340** | <0 | -- | **812** | -- | -- | -- | **49** | -- | -- | -- | **2,690** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/21/1988 | MW-6-19880921 | **329.4** | -- | -- | **270** | <0 | -- | **789** | -- | -- | -- | **45** | -- | -- | -- | **2,430** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/29/1988 | MW-6-19881129 | **244** | -- | -- | **200** | <0 | -- | **1,000** | -- | -- | -- | **49** | -- | -- | -- | **2,270** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 2/27/1989 | MW-6-19890227 | **488** | -- | -- | **400** | <0 | -- | **757** | -- | -- | -- | **48** | -- | -- | -- | **2,200** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/12/1989 | MW-6-19890912 | **427** | -- | -- | **350** | <0 | -- | **850** | -- | -- | -- | **44** | -- | -- | -- | **2,100** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 3/26/1990 | MW-6-19900326 | **366** | -- | -- | **300** | <0 | -- | **650** | -- | -- | -- | **56** | -- | -- | -- | **2,100** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 10/30/1990 | MW-6-19901030 | **335.5** | -- | -- | **275** | <0 | -- | **700** | -- | -- | -- | **40** | -- | -- | -- | **2,050** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/2/1991 | MW-6-19910402 | **396.5** | -- | -- | **325** | <0 | -- | **700** | -- | -- | -- | **42** | -- | -- | -- | **2,050** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/24/1991 | MW-6-19910924 | **366** | -- | -- | **300** | <0 | -- | **720** | -- | -- | -- | **40.5** | -- | -- | -- | **2,085** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/5/1992 | MW-6-19920505 | **366** | -- | -- | **300** | <0 | -- | **700** | -- | -- | -- | **42** | -- | -- | -- | **2,150** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/27/1992 | MW-6-19921127 | **396.5** | -- | -- | **325** | <0 | -- | **650** | -- | -- | -- | **46** | -- | -- | -- | **2,250** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/21/1993 | MW-6-19930421 | **488** | -- | -- | **400** | <0 | -- | **650** | -- | -- | -- | **47.5** | -- | -- | -- | **2,450** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/22/1993 | MW-6-19931122 | **335.5** | -- | -- | **275** | <0 | -- | **650** | -- | -- | -- | **40** | -- | -- | -- | **1,950** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/20/1994 | MW-6-19940420 | **457.5** | -- | -- | **375** | <0 | -- | **650** | -- | -- | -- | **45** | -- | -- | -- | **2,000** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/20/1994 | MW-6-19940920 | **396.5** | -- | -- | **325** | <0 | -- | **650** | -- | -- | -- | **46** | -- | -- | -- | **1,900** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 12/14/1994 | MW-6-19941214 | -- | -- | -- | -- | -- | -- | **630** | -- | -- | -- | **34** | -- | -- | -- | **1,700** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/5/1995 | MW-6-19950405 | **457.5** | -- | -- | **375** | <0 | -- | **600** | -- | -- | -- | **42** | -- | -- | -- | **2,000** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/21/1995 | MW-6-19951121 | **366** | -- | -- | **300** | <0 | -- | **600** | -- | -- | -- | **46** | -- | -- | -- | **1,900** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 8/14/1996 | MW-6-19960814 | **396.5** | -- | -- | **325** | <0 | -- | **650** | -- | -- | -- | **38** | -- | -- | -- | **1,900** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/23/1997 | MW-6-19970423 | **396.5** | -- | -- | **325** | <0 | -- | **600** | -- | -- | -- | **41** | -- | -- | -- | **2,050** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 10/14/1997 | MW-6-19971014 | **762.5** | -- | -- | **625** | <0 | -- | **550** | -- | -- | -- | **38** | -- | -- | -- | **1,700** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 10/21/1998 | MW-6-19981021 | **396.5** | -- | -- | **325** | <0 | -- | **600** | -- | -- | -- | **30** | -- | -- | -- | **1,500** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/9/1999 | MW-6-19990609 | **457.5** | -- | -- | **375** | <0 | -- | **550** | -- | -- | -- | **30.5** | -- | -- | -- | **1,250** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 12/1/1999 | MW-6-19991201 | **305** | -- | -- | **250** | <0 | -- | **550** | -- | -- | -- | **32.5** | -- | -- | -- | **2,000** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/8/2000 | MW-6-20000608 | **488** | -- | -- | **400** | <0 | -- | **618** | -- | -- | -- | **34.7** | -- | -- | -- | **1,630** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/28/2000 | MW-6-20001128 | **457.5** | -- | -- | **375** | <0 | -- | **550** | -- | -- | -- | **37** | -- | -- | -- | **2,050** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 8/21/2001 | MW-6-20010821 | **701.5** | -- | -- | **575** | <0 | -- | **600** | -- | -- | -- | **33** | -- | -- | -- | **1,850** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 12/3/2001 | MW-6-20011203 | **396.5** | -- | -- | **325** | <0 | -- | **500** | -- | -- | -- | **29.5** | -- | -- | -- | **1,900** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/24/2002 | MW-6-20020624 | **427** | -- | -- | **350** | <0 | -- | **550** | -- | -- | -- | **40.5** | -- | -- | -- | **1,500** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 12/18/2002 | MW-6-20021218 | **335.5** | -- | -- | **275** | <0 | -- | **450** | -- | -- | -- | **34.5** | -- | -- | -- | **1,550** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/3/2003 | MW-6-20030603 | **366** | -- | -- | **300** | <0 | -- | **500** | -- | -- | -- | **36** | -- | -- | -- | **1,550** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/24/2003 | MW-6-20030924 | **396.5** | -- | -- | **325** | <0 | -- | **500** | -- | -- | -- | **37.5** | -- | -- | -- | **1,450** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/16/2004 | MW-6-20040616 | **2,501** | -- | -- | **2,050** | <0 | -- | **550** | -- | -- | -- | **34** | -- | -- | -- | **1,650** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/9/2004 | MW-6-20041109 | **2,349** | -- | -- | **1,925** | <0 | -- | **499** | -- | -- | -- | **29.8** | -- | -- | -- | **1,320** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/12/2005 | MW-6-20050512 | **305** | -- | -- | **250** | <0 | -- | **550** | -- | -- | -- | **35.5** | -- | -- | -- | **1,250** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/1/2005 | MW-6-20051101 | **396.5** | -- | -- | **325** | <0 | -- | **494** | -- | -- | -- | **29.6** | -- | -- | -- | **1,420** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/16/2006 | MW-6-20060516 | **259.9** | -- | -- | **213** | <0 | -- | **468** | -- | -- | -- | **27.3** | -- | -- | -- | **1,360** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 10/13/2006 | MW-6-20061013 | **233** | -- | -- | **191** | <0 | -- | **471** | -- | -- | -- | **26.6** | -- | -- | -- | **1,320** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/18/2007 | MW-6-20070418 | **235.5** | -- | -- | **193** | <0 | -- | **417** | -- | -- | -- | **25.2** | -- | -- | -- | **1,180** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/20/2007 | MW-6-20071120 | **239.1** | -- | -- | **196** | <0 | -- | **373** | -- | -- | -- | **22.7** | -- | -- | -- | **1,100** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 8/1/2008 | MW-6-20080801 | **244** | -- | -- | **200** | <0 | -- | **418** | -- | -- | -- | **25.9** | -- | -- | -- | **1,130** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 12/3/2009 | MW-6-20091203 | **431.9** | -- | -- | **354** | <0 | -- | **467** | -- | -- | -- | **32.1** | -- | -- | -- | **2,560** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/28/2012 | MW-6-092812-01 | **140** | <6.0 | <6.0 | **140** | <6.0 | -- | **360** | -- | -- | -- | **22** | -- | -- | -- | **960** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/20/2013 | FC-06-112013 | **460** | <6.0 | <6.0 | **460** | <6.0 | -- | **630** | -- | -- | -- | **41** | -- | -- | -- | **3,300** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 3/12/2014 | FC-06-031214 | **440** | <6.0 | <6.0 | **440** | <6.0 | -- | **580** | -- | -- | -- | **41** | -- | -- | -- | **3,300** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/11/2014 | FCPP-06-91114 | **410** | <6.0 | <6.0 | **410** | <6.0 | -- | **580** | -- | -- | -- | **41** | -- | -- | -- | **3,300** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 12/8/2014 | FCPP-MW06-12914 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 3/19/2015 | FCPP-06-031915 | **430** | <6.0 | <6.0 | **430** | <6.0 | -- | **640** | -- | -- | -- | **38** | -- | -- | -- | **3,400** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/24/2015 | MW-6 | **430** | <6.0 | <6.0 | **430** | <6.0 | -- | **620** | -- | -- | -- | **44** | -- | -- | -- | **3,500** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 8/29/2015 | FCPP-06-082915 | **380** | <6.0 | <6.0 | **380** | <6.0 | -- | **580** | -- | -- | -- | **42** | -- | -- | -- | **3,000** | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Constituent: | | | | | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Magnesium | Manganese | Nickel | Potassium | Potassium | Radium 226 | Radium 228 | Sodium | Sodium | Zinc |
| Filtered: | | | | | N | N | N | N | N | N | N | Y | N | N | N | Y | N | N | N | Y | N |
| Units: | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L | mg/L | mg/L |
| *Multiunit 1 BTV* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *Multiunit 1 GWPS* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/7/2015 | FC MW-6-(07115) | **430** | <6.0 | <6.0 | **430** | <6.0 | -- | **770** | -- | -- | -- | **46** | -- | -- | -- | **4,000** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/20/2016 | FC-Seep-MW6-616 | **460** | <6.0 | <6.0 | **460** | <6.0 | -- | **670** | -- | -- | -- | **47** | -- | -- | -- | **3,900** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/15/2016 | FC-Seep-MW6-916 | **470** | <6.0 | <6.0 | **470** | <6.0 | -- | **630** | -- | -- | -- | **48** | -- | -- | -- | **4,000** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 3/19/2019 | FC-CCR-MW6-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 3/19/2019 | FC-CCR-MW6-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.9** | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/14/2019 | FC-CCR-MW6-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/14/2019 | FC-CCR-MW6-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.4** | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/19/2019 | FC-CCR-MW6-111919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 6/23/2020 | FC-CCR-MW06-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | **1.8** | -- | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/7/2020 | FC-CCR-MW06-1120 | **720** | <6 | <6 | **720** | <6 | -- | **1,500** | -- | -- | -- | **88** | -- | **1.0** | **1.1** | **7,300** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 4/26/2021 | FC-CCR-MW06-0421 | **710** | <6 | <6 | **710** | <6 | **4.7** | **1,600** | -- | **4.1** | -- | **100** | -- | <0.4 | <0.8 | **7,400** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/16/2021 | FC-CCR-MW06-1121 | **660** | <6 | <6 | **660** | <6 | **0.33** | **1,700** | -- | **0.022** | -- | **95** | -- | **0.4** | <0.6 | **8,000** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 2/8/2022 | FC-CCR-MW06-0222 | **670** | <6 | <6 | **670** | <6 | **0.32** | **1,500** | -- | -- | -- | **100** | -- | -- | -- | **7,200** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/25/2022 | FC-CCR-MW06-0522 | **660** | <6 | <6 | **660** | <6 | <1 | **1,800** | -- | <0.1 | -- | **65** | -- | <0.3 | <0.6 | **8,800** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 9/1/2022 | FC-CCR-MW06-0922 | **660** | <6 | <6 | **660** | <6 | **0.43** | **1,800** | -- | -- | -- | **89** | -- | -- | -- | **7,200** | | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 11/14/2022 | FC-CCR-MW06-1122 | **660** | <6 | <6 | **660** | <6 | **0.30** | **1,600** | -- | <0.071 | -- | **100** | -- | <0.3 | <0.6 | **8,100** | -- | -- |
| MW-06 | Multiunit 1/EW System | Supplementary | 5/4/2023 | FC-CCR-MW06-0523 | **610** | <6 | <6 | **610** | <6 | **2.9** | **1,900** | -- | **0.50** | **0.045** | **81** | -- | <0.45 | **1.4** | **6,800** | -- | -- |
| MW-06R | Multiunit 1/EW System | Supplementary | 11/14/2023 | FC-CCR-MW06R-1124 | **470** | <6 | <6 | **470** | <6 | **1.1 J** | **360** | -- | **0.42** | -- | **43** | -- | <0.51 | **3.0** | **4,300** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/1/1987 | MW-7_4/1/1987 | -- | -- | -- | **140** | -- | -- | -- | **400** | **--** | -- | -- | **21** | -- | -- | -- | **770** | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/1/1987 | MW-7 dup_4/1/1987 | -- | -- | -- | **140** | -- | -- | -- | **410** | **--** | -- | -- | **21** | -- | -- | -- | **780** | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/30/1987 | MW-7_9/30/1987 | -- | -- | -- | **220** | -- | -- | -- | **380** | **--** | -- | -- | **30** | -- | -- | -- | **1,100** | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/16/1988 | MW-7-19880616 | **231.8** | -- | -- | **190** | <0 | -- | **352** | -- | -- | -- | **30** | -- | -- | -- | **980** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/21/1988 | MW-7-19880921 | **170.8** | -- | -- | **140** | <0 | -- | **326** | -- | -- | -- | **28** | -- | -- | -- | **752** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/14/1988 | MW-7-19881114 | **244** | -- | -- | **200** | <0 | -- | **397** | -- | -- | -- | **39** | -- | -- | -- | **872** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/6/1989 | MW-7-19890306 | **366** | -- | -- | **300** | <0 | -- | **309** | -- | -- | -- | **29** | -- | -- | -- | **806** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/12/1989 | MW-7-19890912 | **305** | -- | -- | **250** | <0 | -- | **285** | -- | -- | -- | **29** | -- | -- | -- | **800** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/22/1990 | MW-7-19900322 | **244** | -- | -- | **200** | <0 | -- | **240** | -- | -- | -- | **37** | -- | -- | -- | **800** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/24/1990 | MW-7-19900924 | **183** | -- | -- | **150** | <0 | -- | **200** | -- | -- | -- | **30** | -- | -- | -- | **820** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/27/1991 | MW-7-19910327 | **222** | -- | -- | **182** | <0 | -- | **200** | -- | -- | -- | **31** | -- | -- | -- | **828** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/24/1991 | MW-7-19910924 | **305** | -- | -- | **250** | <0 | -- | **260** | -- | -- | -- | **36** | -- | -- | -- | **812** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/30/1992 | MW-7-19920430 | **274.5** | -- | -- | **225** | <0 | -- | **200** | -- | -- | -- | **43** | -- | -- | -- | **860** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/27/1992 | MW-7-19921027 | **244** | -- | -- | **200** | <0 | -- | **200** | -- | -- | -- | **36** | -- | -- | -- | **720** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/22/1993 | MW-7-19930422 | **427** | -- | -- | **350** | <0 | -- | **240** | -- | -- | -- | **37** | -- | -- | -- | **820** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/22/1993 | MW-7-19931122 | **275** | -- | -- | **225** | <0 | -- | **260** | -- | -- | -- | **34** | -- | -- | -- | **780** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/20/1994 | MW-7-19940420 | **397** | -- | -- | **325** | <0 | -- | **300** | -- | -- | -- | **34** | -- | -- | -- | **940** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/21/1994 | MW-7-19940921 | **366** | -- | -- | **300** | <0 | -- | **260** | -- | -- | -- | **42** | -- | -- | -- | **940** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 12/14/1994 | MW-7-19941214 | -- | -- | -- | -- | -- | -- | **260** | -- | -- | -- | <25 | -- | -- | -- | **860** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/4/1995 | MW-7-19950404 | **305** | -- | -- | **250** | <0 | -- | **280** | -- | -- | -- | **38** | -- | -- | -- | **880** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/18/1995 | MW-7-19951118 | **274.5** | -- | -- | **225** | <0 | -- | **240** | -- | -- | -- | **39** | -- | -- | -- | **820** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/13/1996 | MW-7-19960813 | **366** | -- | -- | **300** | <0 | -- | **240** | -- | -- | -- | **33** | -- | -- | -- | **760** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/15/1997 | MW-7-19970415 | **335.5** | -- | -- | **275** | <0 | -- | **220** | -- | -- | -- | **30** | -- | -- | -- | **820** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/7/1997 | MW-7-19971007 | **305** | -- | -- | **250** | <0 | -- | **240** | -- | -- | -- | **25.8** | -- | -- | -- | **880** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/13/1998 | MW-7-19980413 | **213.5** | -- | -- | **175** | <0 | -- | **280** | -- | -- | -- | **24.2** | -- | -- | -- | **860** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/20/1998 | MW-7-19981020 | **366** | -- | -- | **300** | <0 | -- | **260** | -- | -- | -- | **22** | -- | -- | -- | **700** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/11/1999 | MW-7-19990511 | **305** | -- | -- | **250** | <0 | -- | **260** | -- | -- | -- | **26.2** | -- | -- | -- | **800** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/30/1999 | MW-7-19991130 | **366** | -- | -- | **300** | <0 | -- | **280** | -- | -- | -- | **24.8** | -- | -- | -- | **1,140** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/8/2000 | MW-7-20000608 | **488** | -- | -- | **400** | <0 | -- | **267** | -- | -- | -- | **25.3** | -- | -- | -- | **863** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/28/2000 | MW-7-20001128 | **488** | -- | -- | **400** | <0 | -- | **144** | -- | -- | -- | **24.8** | -- | -- | -- | **1,020** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/22/2001 | MW-7-20010822 | **335.5** | -- | -- | **275** | <0 | -- | **280** | -- | -- | -- | **22** | -- | -- | -- | **800** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 12/3/2001 | MW-7-20011203 | **366** | -- | -- | **300** | <0 | -- | **260** | -- | -- | -- | **22** | -- | -- | -- | **1,060** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/24/2002 | MW-7-20020624 | **366** | -- | -- | **300** | <0 | -- | **260** | -- | -- | -- | **26.6** | -- | -- | -- | **860** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 12/19/2002 | MW-7-20021219 | **244** | -- | -- | **200** | <0 | -- | **280** | -- | -- | -- | **24.6** | -- | -- | -- | **920** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/29/2003 | MW-7-20030529 | **762.5** | -- | -- | **625** | <0 | -- | **360** | -- | -- | -- | **26.8** | -- | -- | -- | **1,100** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 12/24/2003 | MW-7-20031224 | **1,617** | -- | -- | **1,325** | <0 | -- | **300** | -- | -- | -- | **30.2** | -- | -- | -- | **1,120** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/21/2004 | MW-7-20040621 | **2,776** | -- | -- | **2,275** | <0 | -- | **320** | -- | -- | -- | **30.4** | -- | -- | -- | **1,180** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/29/2004 | MW-7-20041129 | **2,867** | -- | -- | **2,350** | <0 | -- | **280** | -- | -- | -- | **28.6** | -- | -- | -- | **1,210** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/13/2005 | MW-7-20050613 | **335.5** | -- | -- | **275** | <0 | -- | **300** | -- | -- | -- | **29.6** | -- | -- | -- | **1,180** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 12/14/2005 | MW-7-20051214 | **488** | -- | -- | **400** | <0 | -- | **366** | -- | -- | -- | **26.6** | -- | -- | -- | **1,710** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/16/2006 | MW-7-20060516 | **340.4** | -- | -- | **279** | <0 | -- | **274** | -- | -- | -- | **26.3** | -- | -- | -- | **1,260** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/11/2006 | MW-7-20061011 | **370.9** | -- | -- | **304** | <0 | -- | **330** | -- | -- | -- | **33.8** | -- | -- | -- | **1,550** | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Magnesium | Manganese | Nickel | Potassium | Potassium | Radium 226 | Radium 228 | Sodium | Sodium | Zinc |
| | | | | Filtered: | N | N | N | N | N | N | N | Y | N | N | N | Y | N | N | N | Y | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/19/2007 | MW-7-20070419 | **337.9** | -- | -- | **277** | <0 | -- | **269** | -- | -- | -- | **27.1** | -- | -- | -- | **1,280** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/19/2007 | MW-7-20071119 | **434.3** | -- | -- | **356** | <0 | -- | **258** | -- | -- | -- | **25.1** | -- | -- | -- | **1,490** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/7/2008 | MW-7-20080807 | **414.8** | -- | -- | **340** | <0 | -- | **321** | -- | -- | -- | **30.1** | -- | -- | -- | **1,590** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 7/10/2012 | MW-7 | **470** | <6.0 | <6.0 | **470** | <6.0 | -- | **440** | -- | -- | -- | **36** | -- | -- | -- | **2,000** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/27/2012 | MW-7-092712-01 | **390** | <6.0 | <6.0 | **390** | <6.0 | -- | **800** | -- | -- | -- | **39** | -- | -- | -- | **2,600** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/19/2013 | FC-07-111913 | **420** | <6.0 | <6.0 | **420** | <6.0 | -- | **580** | -- | -- | -- | **38** | -- | -- | -- | **1,500** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/10/2014 | FCPP-07-091014 | **440** | <6.0 | <6.0 | **440** | <6.0 | -- | **530** | -- | -- | -- | **37** | -- | -- | -- | **2,100** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/16/2015 | FCPP-07-031615 | **470** | <6.0 | <6.0 | **470** | <6.0 | -- | **480** | -- | -- | -- | **37** | -- | -- | -- | **2,400** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/26/2015 | FCPP-7-082615 | **470** | <6.0 | <6.0 | **470** | <6.0 | -- | **400** | -- | -- | -- | **40** | -- | -- | -- | **2,300** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/7/2015 | FC-CCR-MW7-110715 | **560** | <5.0 | -- | **560** | -- | -- | **390** | -- | -- | -- | **30** | -- | -- | -- | **1,900** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/7/2015 | FC-CCR-MW7-110715 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.611** | **1.19** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/26/2016 | FC-CCR-MW-7-042616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.9** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/6/2016 | FC-CCR-MW7-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** | **2.4** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/6/2016 | FC-CCR-MW7-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW7-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW7-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW7-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.7** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW7-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW7-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW7-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.9** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/20/2016 | FC-CCR-MW7-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/20/2016 | FC-CCR-MW7-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW7-117 | **450** | <6.0 | <6.0 | **450** | <6.0 | -- | **500** | -- | -- | -- | **36** | -- | -- | -- | **1,800** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW7-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW7-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.9** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW7-41817 | **490** | <6.0 | <6.0 | **490** | <6.0 | -- | **600** | -- | -- | -- | **38** | -- | -- | -- | **2,000** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW7-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.5** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW7-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW7-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW7-53117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.6 | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/29/2017 | FC-CCR-MW-72-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.2** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW7-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW7-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.6 | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW7-62217 | **500** | <6.0 | <6.0 | **500** | <6.0 | -- | **620** | -- | -- | -- | **36** | -- | -- | -- | **1,700** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW7-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW7-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | **1.2** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW7-72217 | **500** | <6.0 | <6.0 | **500** | <6.0 | -- | **620** | -- | -- | -- | **36** | -- | -- | -- | **1,700** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW7-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW7-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.9** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW7-81017 | **510** | <6.0 | <6.0 | **510** | <6.0 | -- | **630** | -- | -- | -- | **36** | -- | -- | -- | **1,700** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW7-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW7-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.2** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/17/2017 | FC-CCR-MW7-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.2** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 8/17/2017 | FC-CCR-MW7-81717 | **520** | <6.0 | <6.0 | **520** | <6.0 | -- | **670** | -- | -- | -- | **43** | -- | -- | -- | **1,700** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW7-91017 | **510** | <6.0 | <6.0 | **510** | <6.0 | -- | **610** | -- | -- | -- | **35** | -- | -- | -- | **1,600** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW7-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW7-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.3** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/12/2017 | FC-CCR-MW7-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.4** | **1.2** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 10/12/2017 | FC-CCR-MW7-101217 | **510** | <6.0 | <6.0 | **510** | <6.0 | -- | **550** | -- | -- | -- | **34** | -- | -- | -- | **1,600** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/30/2017 | FC-CCR-MW7-113017 | **500** | <6.0 | <6.0 | **500** | <6.0 | -- | **560** | -- | -- | -- | **38** | -- | -- | -- | **1,900** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/17/2018 | FC-CCR-MW7-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/17/2018 | FC-CCR-MW7-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.9 | <0.8 | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/17/2018 | *DUP* FC-CCR-FD02-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.9 | <0.8 | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-7-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **0.8** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-7-6118 | **510** | <6.0 | <6.0 | **510** | <6.0 | -- | **470** | -- | -- | -- | **34** | -- | -- | -- | **1,700** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/4/2018 | FC-CCR-MW7-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/4/2018 | FC-CCR-MW7-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/4/2018 | FC-CCR-MW7-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW7-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Magnesium | Manganese | Nickel | Potassium | Potassium | Radium 226 | Radium 228 | Sodium | Sodium | Zinc |
| | | | | Filtered: | N | N | N | N | N | N | N | Y | N | N | N | Y | N | N | N | Y | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-07 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW7-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/14/2019 | FC-CCR-MW7-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/14/2019 | FC-CCR-MW7-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 | <0.7 | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/19/2019 | FC-CCR-MW7-111919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 6/23/2020 | FC-CCR-MW07-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.8** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/6/2020 | FC-CCR-MW07-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.4** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/6/2020 | *DUP* FC-CCR-FD05-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **1.0** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/27/2021 | FC-CCR-MW07-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.4 J** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 4/27/2021 | *DUP* FC-CCR-FD04-0421 | **480** | <6 | <6 | **480** | <6 | **0.11** | **560** | -- | **0.022** | -- | **42** | -- | <0.4 | **0.9 J** | **1,500** | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/18/2021 | FC-CCR-MW07-1121 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | **1.6** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/26/2022 | FC-CCR-MW07-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.7 J** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/16/2022 | FC-CCR-MW07-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **0.9** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 5/8/2023 | FC-CCR-MW07-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.030** | -- | -- | <0.39 | **0.7** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/15/2023 | FC-CCR-MW07-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.49 | **2.1** | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 05/23/2024 | FC-CCR-MW07-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.54 | <0.75 | -- | -- | -- |
| MW-07 | Multiunit 1 | Downgradient Boundary | 11/12/2024 | FC-CCR-MW07-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** | **1.9** | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 10/2/1987 | MW-8_10/2/1987 | -- | -- | -- | **200** | -- | -- | -- | **680** | -- | -- | -- | **40** | -- | -- | -- | **1,600** | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/16/1988 | MW-8-19880616 | **414.8** | -- | -- | **340** | <0 | -- | **578** | -- | -- | -- | **43** | -- | -- | -- | **1,920** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/21/1988 | MW-8-19880921 | **378.2** | -- | -- | **310** | <0 | -- | **597** | -- | -- | -- | **36** | -- | -- | -- | **1,660** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/14/1988 | MW-8-19881114 | **366** | -- | -- | **300** | <0 | -- | **648** | -- | -- | -- | **39** | -- | -- | -- | **1,030** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 3/8/1989 | MW-8-19890308 | **366** | -- | -- | **300** | <0 | -- | **608** | -- | -- | -- | **38** | -- | -- | -- | **1,450** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/12/1989 | MW-8-19890912 | **366** | -- | -- | **300** | <0 | -- | **470** | -- | -- | -- | **32** | -- | -- | -- | **1,300** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 3/22/1990 | MW-8-19900322 | **305** | -- | -- | **250** | <0 | -- | **400** | -- | -- | -- | **42** | -- | -- | -- | **1,250** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 10/29/1990 | MW-8-19901029 | **274.5** | -- | -- | **225** | <0 | -- | **400** | -- | -- | -- | **28** | -- | -- | -- | **1,300** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 3/27/1991 | MW-8-19910327 | **335.5** | -- | -- | **275** | <0 | -- | **360** | -- | -- | -- | **30** | -- | -- | -- | **1,340** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 10/1/1991 | MW-8-19911001 | **305** | -- | -- | **250** | <0 | -- | **365** | -- | -- | -- | **30** | -- | -- | -- | **1,210** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/1/1992 | MW-8-19920501 | **305** | -- | -- | **250** | <0 | -- | **300** | -- | -- | -- | **29** | -- | -- | -- | **1,200** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/3/1992 | MW-8-19921103 | **366** | -- | -- | **300** | <0 | -- | **250** | -- | -- | -- | **31** | -- | -- | -- | **1,375** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/28/1993 | MW-8-19930428 | **366** | -- | -- | **300** | <0 | -- | **220** | -- | -- | -- | **36** | -- | -- | -- | **1,300** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/30/1993 | MW-8-19931130 | **305** | -- | -- | **250** | <0 | -- | **260** | -- | -- | -- | **40** | -- | -- | -- | **1,300** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/28/1994 | MW-8-19940428 | **305** | -- | -- | **250** | <0 | -- | **260** | -- | -- | -- | **46** | -- | -- | -- | **1,400** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/16/1994 | MW-8-19941116 | **305** | -- | -- | **250** | <0 | -- | **240** | -- | -- | -- | **40** | -- | -- | -- | **1,500** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/14/1994 | MW-8-19941214 | -- | -- | -- | -- | -- | -- | **290** | -- | -- | -- | <25 | -- | -- | -- | **1,000** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/5/1995 | MW-8-19950405 | **305** | -- | -- | **250** | <0 | -- | **240** | -- | -- | -- | **35** | -- | -- | -- | **1,100** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/18/1995 | MW-8-19951118 | **305** | -- | -- | **250** | <0 | -- | **240** | -- | -- | -- | **41** | -- | -- | -- | **1,200** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 8/19/1996 | MW-8-19960819 | **488** | -- | -- | **400** | <0 | -- | **200** | -- | -- | -- | **30** | -- | -- | -- | **1,600** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/24/1997 | MW-8-19970624 | **549** | -- | -- | **450** | <0 | -- | **220** | -- | -- | -- | **23** | -- | -- | -- | **1,000** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 10/7/1997 | MW-8-19971007 | **366** | -- | -- | **300** | <0 | -- | **220** | -- | -- | -- | **30** | -- | -- | -- | **1,100** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/14/1998 | MW-8-19980414 | **366** | -- | -- | **300** | <0 | -- | **240** | -- | -- | -- | **24** | -- | -- | -- | **1,300** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 10/21/1998 | MW-8-19981021 | **457.5** | -- | -- | **375** | <0 | -- | **220** | -- | -- | -- | **27** | -- | -- | -- | **1,300** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/11/1999 | MW-8-19990511 | **396.5** | -- | -- | **325** | <0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/1/1999 | MW-8-19991201 | **335.5** | -- | -- | **275** | <0 | -- | **220** | -- | -- | -- | **26** | -- | -- | -- | **1,500** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/7/2000 | MW-8-20000607 | **427** | -- | -- | **350** | <0 | -- | **257** | -- | -- | -- | **23.4** | -- | -- | -- | **1,200** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/12/2000 | MW-8-20001212 | **488** | -- | -- | **400** | <0 | -- | **260** | -- | -- | -- | **31** | -- | -- | -- | **1,700** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 8/22/2001 | MW-8-20010822 | **488** | -- | -- | **400** | <0 | -- | **235** | -- | -- | -- | **22** | -- | -- | -- | **1,400** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/3/2001 | MW-8-20011203 | **518.5** | -- | -- | **425** | <0 | -- | **220** | -- | -- | -- | **22** | -- | -- | -- | **1,700** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/24/2002 | MW-8-20020624 | **518.5** | -- | -- | **425** | <0 | -- | **260** | -- | -- | -- | **30** | -- | -- | -- | **1,400** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/18/2002 | MW-8-20021218 | **457.5** | -- | -- | **375** | <0 | -- | **260** | -- | -- | -- | **30** | -- | -- | -- | **1,400** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/3/2003 | MW-8-20030603 | **305** | -- | -- | **250** | <0 | -- | **240** | -- | -- | -- | **34** | -- | -- | -- | **1,800** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/23/2003 | MW-8-20030923 | **366** | -- | -- | **300** | <0 | -- | **320** | -- | -- | -- | **33** | -- | -- | -- | **1,300** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/16/2004 | MW-8-20040616 | **2,532** | -- | -- | **2,075** | <0 | -- | **260** | -- | -- | -- | **31** | -- | -- | -- | **1,100** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/9/2004 | MW-8-20041109 | **2,898** | -- | -- | **2,375** | <0 | -- | **317** | -- | -- | -- | **24** | -- | -- | -- | **1,280** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/12/2005 | MW-8-20050512 | **488** | -- | -- | **400** | <0 | -- | **340** | -- | -- | -- | **32** | -- | -- | -- | **1,100** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/1/2005 | MW-8-20051101 | **427** | -- | -- | **350** | <0 | -- | **371** | -- | -- | -- | **26.7** | -- | -- | -- | **1,540** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/16/2006 | MW-8-20060516 | **412.4** | -- | -- | **338** | <0 | -- | **355** | -- | -- | -- | **24.7** | -- | -- | -- | **1,480** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 10/11/2006 | MW-8-20061011 | **398.9** | -- | -- | **327** | <0 | -- | **403** | -- | -- | -- | **30.5** | -- | -- | -- | **1,480** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/18/2007 | MW-8-20070418 | **428.2** | -- | -- | **351** | <0 | -- | **344** | -- | -- | -- | **25.2** | -- | -- | -- | **1,430** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/14/2007 | MW-8-20071114 | **456.3** | -- | -- | **374** | <0 | -- | **365** | -- | -- | -- | **23.9** | -- | -- | -- | **1,520** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/7/2008 | MW-8-20080507 | **512.4** | -- | -- | **420** | <0 | -- | **406** | -- | -- | -- | **27** | -- | -- | -- | **1,570** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/3/2009 | MW-8-20091203 | **695.4** | -- | -- | **570** | <0 | -- | **508** | -- | -- | -- | **28.2** | -- | -- | -- | **2,580** | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Magnesium | Manganese | Nickel | Potassium | Potassium | Radium 226 | Radium 228 | Sodium | Sodium | Zinc |
| | | | | Filtered: | N | N | N | N | N | N | N | Y | N | N | N | Y | N | N | N | Y | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/27/2012 | MW-8-092712-01 | **420** | <6.0 | <6.0 | **420** | <6.0 | -- | **400** | -- | -- | -- | **29** | -- | -- | -- | **2,100** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/19/2013 | FC-08-111913 | **430** | <6.0 | <6.0 | **430** | <6.0 | -- | **470** | -- | -- | -- | **28** | -- | -- | -- | **1,900** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/10/2014 | FCPP-08-091014 | **430** | <6.0 | <6.0 | **430** | <6.0 | -- | **520** | -- | -- | -- | **30** | -- | -- | -- | **2,000** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 3/17/2015 | FCPP-08-031715 | **420** | <6.0 | <6.0 | **420** | <6.0 | -- | **630** | -- | -- | -- | **32** | -- | -- | -- | **2,300** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/29/2015 | MW-8 | **430** | <6.0 | <6.0 | **430** | <6.0 | -- | **680** | -- | -- | -- | **34** | -- | -- | -- | **2,300** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 8/26/2015 | FCPP-8-082615 | **420** | <6.0 | <6.0 | **420** | <6.0 | -- | **660** | -- | -- | -- | **40** | -- | -- | -- | **2,500** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/1/2015 | FC-CCR-MW8-120115 | **540** | <5.0 | -- | **540** | -- | -- | **760** | -- | -- | -- | **34** | -- | -- | -- | **2,600** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 12/1/2015 | FC-CCR-MW8-120115 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.78** | **1.88** | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/26/2016 | FC-CCR-MW-8-042616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **0.9** | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/7/2016 | FC-CCR-MW8-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.3** | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/7/2016 | FC-CCR-MW8-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW8-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW8-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW8-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | **1.3** | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW8-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW8-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW8-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.2** | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW8-41817 | **510** | <6.0 | <6.0 | **510** | <6.0 | -- | **780** | -- | -- | -- | **37** | -- | -- | -- | **3,200** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW8-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.0** | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW8-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW8-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW8-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **1.4** | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW8-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW8-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.2** | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-8-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-8-6118 | **510** | <6.0 | <6.0 | **510** | <6.0 | -- | **750** | -- | -- | -- | **37** | -- | -- | -- | **1,300** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/4/2018 | FC-CCR-MW8-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/4/2018 | FC-CCR-MW8-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/4/2018 | FC-CCR-MW8-11418 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW8-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW8-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.3** | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/14/2019 | FC-CCR-MW8-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/14/2019 | FC-CCR-MW8-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.1** | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/19/2019 | FC-CCR-MW8-111919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/23/2020 | FC-CCR-MW08-0620 | **490** | <6 | <6 | **490** | <6 | -- | **830** | -- | -- | -- | **35** | -- | <0.4 | **0.7** | **3,100** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 6/23/2020 | "DUP" FC-CCR-FD04-0620 | **490** | <6 | <6 | **490** | <6 | -- | **830** | -- | -- | -- | **37** | -- | -- | -- | **3,100** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/6/2020 | FC-CCR-MW08-1120 | **540** | <6 | <6 | **540** | <6 | -- | **940** | **--** | **--** | -- | **47** | **--** | <0.4 | <0.8 | **2,700** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 4/27/2021 | FC-CCR-MW08-0421 | **570** | <6 | <6 | **570** | <6 | -- | **920** | -- | -- | -- | **44** | -- | <0.5 | <0.8 | **2,600** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/18/2021 | FC-CCR-MW08-1121 | **490** | <6 | <6 | **490** | <6 | -- | **910** | -- | -- | -- | **35** | -- | **0.4** | **0.9** | **2,800** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/24/2022 | FC-CCR-MW08-0522 | **490** | <6 | <6 | **490** | <6 | -- | **970** | -- | -- | -- | **38** | -- | <0.4 | **1.1** | **3,000** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/24/2022 | FC-CCR-SS06-0522 | -- | -- | -- | -- | -- | <1.5 | **901** | -- | <0.5 | -- | **37.1** | -- | -- | -- | **2,940** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/16/2022 | FC-CCR-MW08-1122 | **490** | <6 | <6 | **490** | <6 | -- | **1,000** | -- | -- | -- | **39** | -- | **1.1** | **1.9** | **3,300** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 5/8/2023 | FC-CCR-MW08-0523 | **510** | <6 | <6 | **510** | <6 | -- | **980** | -- | -- | **0.051** | **38** | -- | <0.39 | **1.0** | **3,300** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/15/2023 | FC-CCR-MW08-1124 | **500** | <6 | <6 | **500** | <6 | -- | **1,100** | -- | -- | -- | **46** | -- | <0.48 | **1.7** | **3,900** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 05/23/2024 | FC-CCR-MW08-0524 | **500** | <6 | <6 | **500** | <6 | -- | **1,200** | -- | -- | -- | **58** | -- | <0.53 | **2.0** | **4,200** | -- | -- |
| MW-08 | Multiunit 1 | Downgradient Boundary | 11/12/2024 | FC-CCR-MW08-1024 | **516** | <20 | -- | **--** | -- | <0.05 | **880** | -- | **0.469** | -- | **46.3** | -- | **1.2** | **2.4** | **2,970** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 9/30/1987 | MW-15_9/30/1987 | -- | -- | -- | **320** | -- | -- | -- | **680** | **--** | -- | -- | **37** | -- | -- | -- | **1,400** | -- |
| MW-15 | Multiunit 1 | Supplementary | 6/20/1988 | MW-15-19880620 | **388** | -- | -- | **318** | <0 | -- | **614** | -- | -- | -- | **41** | -- | -- | -- | **1,250** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 9/22/1988 | MW-15-19880922 | **414.8** | -- | -- | **340** | <0 | -- | **582** | -- | -- | -- | **34** | -- | -- | -- | **1,180** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/14/1988 | MW-15-19881114 | **402.6** | -- | -- | **330** | <0 | -- | **677** | -- | -- | -- | **39** | -- | -- | -- | **1,160** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 3/8/1989 | MW-15-19890308 | **488** | -- | -- | **400** | <0 | -- | **514** | -- | -- | -- | **33** | -- | -- | -- | **1,260** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 9/13/1989 | MW-15-19890913 | **488** | -- | -- | **400** | <0 | -- | **580** | -- | -- | -- | **40** | -- | -- | -- | **1,100** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 3/22/1990 | MW-15-19900322 | **366** | -- | -- | **300** | <0 | -- | **520** | -- | -- | -- | **41** | -- | -- | -- | **1,050** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 9/24/1990 | MW-15-19900924 | **396.5** | -- | -- | **325** | <0 | -- | **600** | -- | -- | -- | **40** | -- | -- | -- | **1,200** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 3/27/1991 | MW-15-19910327 | **427** | -- | -- | **350** | <0 | -- | **480** | -- | -- | -- | **40** | -- | -- | -- | **925** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 9/27/1991 | MW-15-19910927 | **396.5** | -- | -- | **325** | <0 | -- | **600** | -- | -- | -- | **45** | -- | -- | -- | **935** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 5/1/1992 | MW-15-19920501 | **366** | -- | -- | **300** | <0 | -- | **500** | -- | -- | -- | **39** | -- | -- | -- | **900** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 10/28/1992 | MW-15-19921028 | **396.5** | -- | -- | **325** | <0 | -- | **600** | -- | -- | -- | **40** | -- | -- | -- | **900** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 4/23/1993 | MW-15-19930423 | **518.5** | -- | -- | **425** | <0 | -- | **400** | -- | -- | -- | **41** | -- | -- | -- | **1,220** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/22/1993 | MW-15-19931122 | **396.5** | -- | -- | **325** | <0 | -- | **500** | -- | -- | -- | **51** | -- | -- | -- | **1,000** | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Magnesium | Manganese | Nickel | Potassium | Potassium | Radium 226 | Radium 228 | Sodium | Sodium | Zinc |
| | | | | Filtered: | N | N | N | N | N | N | N | Y | N | N | N | Y | N | N | N | Y | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-15 | Multiunit 1 | Supplementary | 4/20/1994 | MW-15-19940420 | **488** | -- | -- | **400** | <0 | -- | **500** | -- | -- | -- | **54** | -- | -- | -- | **920** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/8/1994 | MW-15-19941108 | **610** | -- | -- | **500** | <0 | -- | **500** | -- | -- | -- | **50** | -- | -- | -- | **1,120** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 4/5/1995 | MW-15-19950405 | **457.5** | -- | -- | **375** | <0 | -- | **500** | -- | -- | -- | **43** | -- | -- | -- | **840** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/18/1995 | MW-15-19951118 | **396.5** | -- | -- | **325** | <0 | -- | **500** | -- | -- | -- | **47** | -- | -- | -- | **1,000** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 8/14/1996 | MW-15-19960814 | **427** | -- | -- | **350** | <0 | -- | **500** | -- | -- | -- | **37** | -- | -- | -- | **960** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 4/23/1997 | MW-15-19970423 | **518.5** | -- | -- | **425** | <0 | -- | **400** | -- | -- | -- | **35** | -- | -- | -- | **900** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 10/8/1997 | MW-15-19971008 | **457.5** | -- | -- | **375** | <0 | -- | **400** | -- | -- | -- | **36** | -- | -- | -- | **1,120** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 4/14/1998 | MW-15-19980414 | **335.5** | -- | -- | **275** | <0 | -- | **400** | -- | -- | -- | **32** | -- | -- | -- | **1,150** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 5/11/1999 | MW-15-19990511 | **457.5** | -- | -- | **375** | <0 | -- | **400** | -- | -- | -- | **32** | -- | -- | -- | **820** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 12/1/1999 | MW-15-19991201 | **366** | -- | -- | **300** | <0 | -- | **400** | -- | -- | -- | **31** | -- | -- | -- | **1,180** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 6/8/2000 | MW-15-20000608 | **549** | -- | -- | **450** | <0 | -- | **573** | -- | -- | -- | **31.3** | -- | -- | -- | **1,260** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 12/12/2000 | MW-15-20001212 | **549** | -- | -- | **450** | <0 | -- | **400** | -- | -- | -- | **40** | -- | -- | -- | **1,600** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 8/22/2001 | MW-15-20010822 | **488** | -- | -- | **400** | <0 | -- | **460** | -- | -- | -- | **32** | -- | -- | -- | **1,310** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 12/3/2001 | MW-15-20011203 | **457.5** | -- | -- | **375** | <0 | -- | **350** | -- | -- | -- | **38** | -- | -- | -- | **1,040** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 6/24/2002 | MW-15-20020624 | **579.5** | -- | -- | **475** | <0 | -- | **400** | -- | -- | -- | **33** | -- | -- | -- | **1,060** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 12/18/2002 | MW-15-20021218 | **488** | -- | -- | **400** | <0 | -- | **400** | -- | -- | -- | **41** | -- | -- | -- | **1,060** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 5/28/2003 | MW-15-20030528 | **457.5** | -- | -- | **375** | <0 | -- | **400** | -- | -- | -- | **36** | -- | -- | -- | **800** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 12/24/2003 | MW-15-20031224 | **1,922** | -- | -- | **1,575** | <0 | -- | **500** | -- | -- | -- | **42** | -- | -- | -- | **9,000** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 6/16/2004 | MW-15-20040616 | **1,678** | -- | -- | **1,375** | <0 | -- | **500** | -- | -- | -- | **40** | -- | -- | -- | **220** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/29/2004 | MW-15-20041129 | **3,874** | -- | -- | **3,175** | <0 | -- | **480** | -- | -- | -- | **34** | -- | -- | -- | **980** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 5/13/2005 | MW-15-20050513 | **488** | -- | -- | **400** | <0 | -- | **400** | -- | -- | -- | **51** | -- | -- | -- | **960** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 12/14/2005 | MW-15-20051214 | **549** | -- | -- | **450** | <0 | -- | **526** | -- | -- | -- | **26.6** | -- | -- | -- | **1,250** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 6/17/2006 | MW-15-20060617 | **439.2** | -- | -- | **360** | <0 | -- | **450** | -- | -- | -- | **25.4** | -- | -- | -- | **1,080** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 10/11/2006 | MW-15-20061011 | **442.9** | -- | -- | **363** | <0 | -- | **456** | -- | -- | -- | **33.5** | -- | -- | -- | **1,150** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 4/18/2007 | MW-15-20070418 | **450.2** | -- | -- | **369** | <0 | -- | **432** | -- | -- | -- | **29.5** | -- | -- | -- | **1,080** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/14/2007 | MW-15-20071114 | **512.4** | -- | -- | **420** | <0 | -- | **367** | -- | -- | -- | **27** | -- | -- | -- | **1,240** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 5/7/2008 | MW-15-20080507 | **549** | -- | -- | **450** | <0 | -- | **414** | -- | -- | -- | **29.5** | -- | -- | -- | **1,180** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/19/2013 | FC-15MS-111913 | -- | -- | -- | -- | -- | -- | **520** | -- | -- | -- | **30** | -- | -- | -- | **1,900** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/19/2013 | FC-15-111913 | **530** | <6.0 | <6.0 | **530** | <6.0 | -- | **510** | -- | -- | -- | **33** | -- | -- | -- | **1,900** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 9/9/2014 | FCPP-15-090914 | **560** | <6.0 | <6.0 | **560** | <6.0 | -- | **520** | -- | -- | -- | **38** | -- | -- | -- | **2,100** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-15-031715 | **560** | <6.0 | <6.0 | **560** | <6.0 | -- | **510** | -- | -- | -- | **34** | -- | -- | -- | **2,000** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 6/29/2015 | MW-15 | **560** | <6.0 | <6.0 | **560** | <6.0 | -- | **500** | -- | -- | -- | **34** | -- | -- | -- | **2,000** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 8/26/2015 | FCPP-15-082615 | **570** | <6.0 | <6.0 | **570** | <6.0 | -- | **450** | -- | -- | -- | **38** | -- | -- | -- | **2,300** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 6/18/2016 | FC-Seep-MW15-616 | **600** | <6.0 | <6.0 | **600** | <6.0 | -- | **580** | -- | -- | -- | **38** | -- | -- | -- | **2,100** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW15-916 | **150** | <6.0 | <6.0 | **150** | <6.0 | -- | **510** | -- | -- | -- | **38** | -- | -- | -- | **2,200** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 3/20/2019 | FC-CCR-MW15-032019 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 3/20/2019 | FC-CCR-MW15-032019 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 | <0.7 | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW15-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW15-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-MW15-111919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 6/23/2020 | FC-CCR-MW15-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.8 | -- | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/6/2020 | FC-CCR-MW15-1120 | **660** | <6 | <6 | **660** | <6 | -- | **640** | -- | -- | -- | **41** | -- | <0.4 | <0.8 | **2,200** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 4/27/2021 | FC-CCR-MW15-0421 | **700** | <6 | <6 | **700** | <6 | **0.17** | **710** | -- | **1.0** | -- | **47** | -- | <0.4 | <0.8 | **2,100** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/18/2021 | FC-CCR-MW15-1121 | **630** | <6 | <6 | **630** | <6 | **0.11** | **630** | -- | **0.72** | -- | **37** | -- | **0.6** | <0.6 | **2,100** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-MW15-0222 | **680** | <6 | <6 | **680** | <6 | **0.13** | **730** | -- | -- | -- | **43** | -- | -- | -- | **2,100** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 5/24/2022 | FC-CCR-MW15-0522 | **680** | <6 | <6 | **680** | <6 | **0.12** | **680** | -- | **1.1** | -- | **42** | -- | <0.3 | <0.6 | **2,300** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 8/13/2022 | FC-CCR-MW15-0822 | **660** | <6 | <6 | **660** | <6 | **0.11** | **720** | -- | -- | -- | **39** | -- | -- | -- | **2,100** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/16/2022 | FC-CCR-MW15-1122 | **880** | <6 | <6 | **880** | <6 | <0.1 | **710** | -- | **0.56** | -- | **40** | -- | <0.3 | <0.7 | **2,300** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 5/8/2023 | FC-CCR-MW15-0523 | **660** | <6 | <6 | **660** | <6 | **0.11** | **690** | -- | **1.2** | **0.04** | **41** | -- | **0.6** | **0.9** | **2,400** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/15/2023 | FC-CCR-MW15-1124 | **660** | <6 | <6 | **660** | <6 | **0.26** | **780** | -- | **1.1** | -- | **48** | -- | <0.51 | **1.3** | **2,600** | -- | <0.13 |
| MW-15 | Multiunit 1 | Supplementary | 05/23/2024 | FC-CCR-MW15-0524 | **660** | <6 | <6 | **660** | <6 | **0.19** | **740** | -- | **1.2** | -- | **44** | -- | <0.56 | <0.92 | **2,400** | -- | -- |
| MW-15 | Multiunit 1 | Supplementary | 11/14/2024 | FC-CCR-MW15-1124 | **675** | <20 | -- | **--** | -- | **0.0553** | **597** | -- | **0.746** | -- | **39.8** | -- | **1.0** | <0.8 | **2,330** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 9/30/1987 | MW-16_9/30/1987 | -- | -- | -- | **330** | -- | -- | -- | **1,200** | **--** | -- | -- | **58** | -- | -- | -- | **4,400** | -- |
| MW-16 | Multiunit 1 | Supplementary | 6/20/1988 | MW-16-19880620 | **407.5** | -- | -- | **334** | <0 | -- | **1,150** | -- | -- | -- | **59** | -- | -- | -- | **4,250** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 9/21/1988 | MW-16-19880921 | **488** | -- | -- | **400** | <0 | -- | **1,200** | -- | -- | -- | **53** | -- | -- | -- | **3,870** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/14/1988 | MW-16-19881114 | **463.6** | -- | -- | **380** | <0 | -- | **1,510** | -- | -- | -- | **73** | -- | -- | -- | **3,420** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 3/8/1989 | MW-16-19890308 | **488** | -- | -- | **400** | <0 | -- | **1,130** | -- | -- | -- | **59** | -- | -- | -- | **3,740** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 9/13/1989 | MW-16-19890913 | **366** | -- | -- | **300** | <0 | -- | **1,173** | -- | -- | -- | **56** | -- | -- | -- | **3,500** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 3/26/1990 | MW-16-19900326 | **366** | -- | -- | **300** | <0 | -- | **950** | -- | -- | -- | **52** | -- | -- | -- | **3,800** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 9/24/1990 | MW-16-19900924 | **427** | -- | -- | **350** | <0 | -- | **1,000** | -- | -- | -- | **60** | -- | -- | -- | **3,700** | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Magnesium | Manganese | Nickel | Potassium | Potassium | Radium 226 | Radium 228 | Sodium | Sodium | Zinc |
| | | | | Filtered: | N | N | N | N | N | N | N | Y | N | N | N | Y | N | N | N | Y | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-16 | Multiunit 1 | Supplementary | 4/2/1991 | MW-16-19910402 | **457.5** | -- | -- | **375** | <0 | -- | **1,000** | -- | -- | -- | **47** | -- | -- | -- | **3,400** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 10/1/1991 | MW-16-19911001 | **366** | -- | -- | **300** | <0 | -- | **1,000** | -- | -- | -- | **55** | -- | -- | -- | **3,090** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/7/1992 | MW-16-19920507 | **457.5** | -- | -- | **375** | <0 | -- | **1,100** | -- | -- | -- | **46** | -- | -- | -- | **3,200** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/5/1992 | MW-16-19921105 | **427** | -- | -- | **350** | <0 | -- | **800** | -- | -- | -- | **48** | -- | -- | -- | **2,900** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 4/26/1993 | MW-16-19930426 | **457.5** | -- | -- | **375** | <0 | -- | **700** | -- | -- | -- | **56** | -- | -- | -- | **2,800** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/23/1993 | MW-16-19931123 | **396.5** | -- | -- | **325** | <0 | -- | **800** | -- | -- | -- | **54** | -- | -- | -- | **3,000** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 4/20/1994 | MW-16-19940420 | **457.5** | -- | -- | **375** | <0 | -- | **900** | -- | -- | -- | **64** | -- | -- | -- | **2,900** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 9/21/1994 | MW-16-19940921 | **427** | -- | -- | **350** | <0 | -- | **800** | -- | -- | -- | **55** | -- | -- | -- | **2,700** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 4/4/1995 | MW-16-19950404 | **457.5** | -- | -- | **375** | <0 | -- | **800** | -- | -- | -- | **50** | -- | -- | -- | **2,700** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/21/1995 | MW-16-19951121 | **274.5** | -- | -- | **225** | <0 | -- | **700** | -- | -- | -- | **51** | -- | -- | -- | **2,000** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 8/15/1996 | MW-16-19960815 | **457.5** | -- | -- | **375** | <0 | -- | **700** | -- | -- | -- | **44** | -- | -- | -- | **2,300** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 4/15/1997 | MW-16-19970415 | **488** | -- | -- | **400** | <0 | -- | **600** | -- | -- | -- | **41** | -- | -- | -- | **1,900** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 10/8/1997 | MW-16-19971008 | **488** | -- | -- | **400** | <0 | -- | **600** | -- | -- | -- | **43** | -- | -- | -- | **1,900** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 4/15/1998 | MW-16-19980415 | **732** | -- | -- | **600** | <0 | -- | **700** | -- | -- | -- | **41** | -- | -- | -- | **1,800** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/11/1999 | MW-16-19990511 | **488** | -- | -- | **400** | <0 | -- | **700** | -- | -- | -- | **44** | -- | -- | -- | **1,700** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/30/1999 | MW-16-19991130 | **457.5** | -- | -- | **375** | <0 | -- | **700** | -- | -- | -- | **36** | -- | -- | -- | **2,400** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 6/8/2000 | MW-16-20000608 | **701.5** | -- | -- | **575** | <0 | -- | **819** | -- | -- | -- | **40** | -- | -- | -- | **1,930** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 12/12/2000 | MW-16-20001212 | **610** | -- | -- | **500** | <0 | -- | **700** | -- | -- | -- | **48** | -- | -- | -- | **2,300** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 8/22/2001 | MW-16-20010822 | **427** | -- | -- | **350** | <0 | -- | **820** | -- | -- | -- | **46** | -- | -- | -- | **2,200** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 12/3/2001 | MW-16-20011203 | **518.5** | -- | -- | **425** | <0 | -- | **600** | -- | -- | -- | **38** | -- | -- | -- | **2,600** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 6/12/2002 | MW-16-20020612 | **610** | -- | -- | **500** | <0 | -- | **800** | -- | -- | -- | **42** | -- | -- | -- | **2,000** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 12/18/2002 | MW-16-20021218 | **457.5** | -- | -- | **375** | <0 | -- | **600** | -- | -- | -- | **43** | -- | -- | -- | **1,600** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/29/2003 | MW-16-20030529 | **579.5** | -- | -- | **475** | <0 | -- | **700** | -- | -- | -- | **46** | -- | -- | -- | **240** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 12/24/2003 | MW-16-20031224 | **1,464** | -- | -- | **1,200** | <0 | -- | **700** | -- | -- | -- | **44** | -- | -- | -- | **1,300** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 6/16/2004 | MW-16-20040616 | **3,142** | -- | -- | **2,575** | <0 | -- | **700** | -- | -- | -- | **43** | -- | -- | -- | **1,800** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/29/2004 | MW-16-20041129 | **3,233** | -- | -- | **2,650** | <0 | -- | **650** | -- | -- | -- | **50** | -- | -- | -- | **1,600** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 6/13/2005 | MW-16-20050613 | **396.5** | -- | -- | **325** | <0 | -- | **500** | -- | -- | -- | **40** | -- | -- | -- | **960** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 10/31/2005 | MW-16-20051031 | **335.5** | -- | -- | **275** | <0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/16/2006 | MW-16-20060516 | **340.4** | -- | -- | **279** | <0 | -- | **613** | -- | -- | -- | **32.5** | -- | -- | -- | **1,190** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 10/11/2006 | MW-16-20061011 | **340.4** | -- | -- | **279** | <0 | -- | **624** | -- | -- | -- | **36.2** | -- | -- | -- | **1,160** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 4/18/2007 | MW-16-20070418 | **347.7** | -- | -- | **285** | <0 | -- | **579** | -- | -- | -- | **31.9** | -- | -- | -- | **1,170** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/14/2007 | MW-16-20071114 | **375.8** | -- | -- | **308** | <0 | -- | **478** | -- | -- | -- | **30** | -- | -- | -- | **1,120** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/7/2008 | MW-16-20080507 | **378.2** | -- | -- | **310** | <0 | -- | **536** | -- | -- | -- | **32.6** | -- | -- | -- | **1,120** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 12/4/2009 | MW-16-20091204 | **327** | -- | -- | **268** | <0 | -- | **475** | -- | -- | -- | **28.1** | -- | -- | -- | **1,020** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 9/27/2012 | MW-16-092712-01 | **320** | <6.0 | <6.0 | **320** | <6.0 | -- | **510** | -- | -- | -- | **33** | -- | -- | -- | **1,300** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/19/2013 | FC-16-111913 | **490** | <6.0 | <6.0 | **490** | <6.0 | -- | **700** | -- | -- | -- | **36** | -- | -- | -- | **1,600** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 3/12/2014 | FC-16-031214 | **490** | <6.0 | <6.0 | **490** | <6.0 | -- | **660** | -- | -- | -- | **37** | -- | -- | -- | **1,700** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 9/9/2014 | FCPP-16-090914 | **490** | <6.0 | <6.0 | **490** | <6.0 | -- | **660** | -- | -- | -- | **39** | -- | -- | -- | **1,700** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-16-031715 | **510** | <6.0 | <6.0 | **510** | <6.0 | -- | **680** | -- | -- | -- | **37** | -- | -- | -- | **1,600** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 6/29/2015 | MW-16 | **520** | <6.0 | <6.0 | **520** | <6.0 | -- | **710** | -- | -- | -- | **39** | -- | -- | -- | **1,600** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 8/26/2015 | FCPP-16-082615 | **520** | <6.0 | <6.0 | **520** | <6.0 | -- | **690** | -- | -- | -- | **44** | -- | -- | -- | **1,800** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/10/2015 | FC MW-16-(111115) | **480** | <6.0 | <6.0 | **480** | <6.0 | -- | **1,200** | -- | -- | -- | **48** | -- | -- | -- | **2,500** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 6/18/2016 | FC-Seep-MW16-616 | **540** | <6.0 | <6.0 | **540** | <6.0 | -- | **1,100** | -- | -- | -- | **48** | -- | -- | -- | **2,600** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW16-916 | **530** | <6.0 | <6.0 | **530** | <6.0 | -- | **1,100** | -- | -- | -- | **49** | -- | -- | -- | **2,600** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 3/20/2019 | FC-CCR-MW16-032019 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 3/20/2019 | FC-CCR-MW16-032019 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 | **2.9** | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW16-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW16-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.9** | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/14/2019 | *DUP* FC-CCR-FD02-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/14/2019 | *DUP* FC-CCR-FD02-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.7** | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-MW16-111919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 6/23/2020 | FC-CCR-MW16-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** | **2.2** | -- | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/6/2020 | FC-CCR-MW16-1120 | **610** | <6 | <6 | **610** | <6 | -- | **1,300** | **--** | -- | -- | **54** | **--** | **0.9** | **2.7** | **3,000** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 4/27/2021 | FC-CCR-MW16-0421 | **650** | <6 | <6 | **650** | <6 | -- | **1,400** | -- | -- | -- | **58** | -- | **0.9** | **1.1** | **3,100** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/18/2021 | FC-CCR-MW16-1121 | **580** | <6 | <6 | **580** | <6 | **0.14** | **1,300** | -- | **1.2** | -- | **50** | -- | **0.6** | **1.9** | **3,100** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-MW16-0222 | **620** | <6 | <6 | **620** | <6 | **0.18** | **1,400** | -- | -- | -- | **59** | -- | -- | -- | **3,000** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 5/26/2022 | FC-CCR-MW16-0522 | **600** | <6 | <6 | **600** | <6 | **0.15** | **1,500** | -- | -- | -- | **60** | -- | **1.0** | **2.4 J** | **3,500** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 8/13/2022 | FC-CCR-MW16-0822 | **600** | <6 | <6 | **600** | <6 | **0.15** | **1,400** | -- | -- | -- | **52** | -- | -- | -- | **3,100** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/16/2022 | FC-CCR-MW16-1122 | **610** | <6 | <6 | **610** | <6 | **0.16** | **1,500** | -- | -- | -- | **51** | -- | **1.9** | **3.2** | **3,300** | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Magnesium | Manganese | Nickel | Potassium | Potassium | Radium 226 | Radium 228 | Sodium | Sodium | Zinc |
| | | | | Filtered: | N | N | N | N | N | N | N | Y | N | N | N | Y | N | N | N | Y | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-16 | Multiunit 1 | Supplementary | 5/8/2023 | FC-CCR-MW16-0523 | **600** | <6 | <6 | **600** | <6 | **0.15** | **1,700** | -- | -- | **0.099** | **63** | -- | **1.3** | **3.0** | **3,800** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/15/2023 | FC-CCR-MW16-1124 | **590** | <6 | <6 | **590** | <6 | **0.16** | **1,700** | -- | **1.6** | -- | **74** | -- | <0.51 | **3.5** | **4,100** | -- | <0.13 |
| MW-16 | Multiunit 1 | Supplementary | 05/23/2024 | FC-CCR-MW16-0524 | **590** | <6 | <6 | **590** | <6 | **0.64** | **2,100** | -- | **--** | -- | <50 UJ | -- | **0.7** | **4.2** | **4,600** | -- | -- |
| MW-16 | Multiunit 1 | Supplementary | 11/14/2024 | FC-CCR-MW16-1124 | **597** | <20 | -- | **--** | -- | <0.05 | **1,460** | -- | **--** | -- | **64.9** | -- | **2.1** | **3.0** | **3,300** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 3/12/2014 | FC-17R-031214 | **120** | <6.0 | <6.0 | **120** | <6.0 | -- | **280** | -- | -- | -- | **19** | -- | -- | -- | **960** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 9/9/2014 | FCPP-17R-090914 | **120** | <6.0 | <6.0 | **120** | <6.0 | -- | **270** | -- | -- | -- | **21** | -- | -- | -- | **990** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-17R-031715 | **120** | <6.0 | <6.0 | **120** | <6.0 | -- | **270** | -- | -- | -- | **19** | -- | -- | -- | **980** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 6/30/2015 | MW-17R | **120** | <6.0 | <6.0 | **120** | <6.0 | -- | **280** | -- | -- | -- | **20** | -- | -- | -- | **980** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 8/25/2015 | FCPP-17R-082515 | **130** | <6.0 | <6.0 | **130** | <6.0 | -- | **290** | -- | -- | -- | **23** | -- | -- | -- | **1,000** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 11/4/2015 | FC MW-17R-(041115) | -- | -- | -- | -- | -- | -- | **420** | -- | -- | -- | **29** | -- | -- | -- | **1,300** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 11/13/2015 | FC MW-17R-(131115) | **130** | <6.0 | <6.0 | **130** | <6.0 | -- | **280** | -- | -- | -- | **21** | -- | -- | -- | **1,100** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 6/18/2016 | FC-Seep-MW17B-616 | **130** | <6.0 | <6.0 | **130** | <6.0 | -- | **290** | -- | -- | -- | **20** | -- | -- | -- | **1,100** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW17R-916 | **120** | <6.0 | <6.0 | **120** | <6.0 | -- | **260** | -- | -- | -- | **21** | -- | -- | -- | **1,000** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-MW17R-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-MW17R-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 | **2.4** | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW17R-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW17R-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.7** | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 5/14/2019 | *DUP* FC-CCR-FD01-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 5/14/2019 | *DUP* FC-CCR-FD01-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.2** | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-MW17R-111919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-MW17R-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **1.1** | -- | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-MW17R-1120 | **140** | <6 | <6 | **140** | <6 | -- | **260** | -- | -- | -- | **20** | -- | **0.8** | **1.2** | **1,100** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-MW17R-0421 | **140** | <6 | <6 | **140** | <6 | **0.094 J** | **290** | -- | **0.83** | -- | **22** | -- | **0.9** | **1.3** | **1,100** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-MW17R-1121 | **130** | <6 | <6 | **130** | <6 | **0.048 J** | **290** | -- | **0.83** | -- | **21** | -- | **1.4** | **1.8** | **1,100** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 2/9/2022 | FC-CCR-MW17R-0222 | **140** | <6 | <6 | **140** | <6 | <0.1 | **300** | -- | -- | -- | **20** | -- | -- | -- | **1,100** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 2/9/2022 | *DUP* FC-CCR-FD01-0222 | **140** | <6 | <6 | **140** | <6 | <0.1 | **280** | -- | -- | -- | **20** | -- | -- | -- | **1,000** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW17R-0522 | **130** | <6 | <6 | **130** | <6 | <0.1 | **280** | -- | **0.84** | -- | **20** | -- | **0.7** | **1.3** | **1,200** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 8/11/2022 | FC-CCR-MW17R-0822 | **130** | <6 | <6 | **130** | <6 | <0.1 | **280** | -- | -- | -- | **18** | -- | -- | -- | **1,000** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 11/15/2022 | FC-CCR-MW17R-1122 | **140** | <6 | <6 | **140** | <6 | <0.1 | **290** | -- | **0.87** | -- | **21** | -- | **1.5** | **0.9** | **1,100** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 5/4/2023 | FC-CCR-MW17R-0523 | **140** | <6 | <6 | **140** | <6 | <0.1 | **300** | -- | **0.93** | **0.52** | **22** | -- | **1.2** | **0.8** | **970** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW17R-1124 | **130** | <6 | <6 | **130** | <6 | <0.5 | **290** | -- | **1.1** | -- | **19** | -- | <0.5 | **1.6** | **1,200** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 05/21/2024 | FC-CCR-MW17R-0524 | **130** | <6 | <6 | **130** | <6 | **0.23** | **300** | -- | **1.0** | -- | <50 | -- | <0.54 | **1.4** | **1,300** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 11/14/2024 | FC-CCR-MW17R-1124 | **147** | <20 | -- | **--** | -- | <0.05 | **285** | -- | **1.01** | -- | **23.6** | -- | **2.0** | **1 J** | **1,190** | -- | -- |
| MW-17R | Multiunit 1 | Supplementary | 11/14/2024 | FC-CCR-FD09-1124 | **145** | <20 | -- | **--** | -- | <0.05 | **292** | -- | **1.02** | -- | **24.4** | -- | **1.0** | **2.7 J** | **1,170** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/29/1987 | MW-18_9/29/1987 | -- | -- | -- | **310** | -- | -- | -- | **1,300** | **--** | -- | -- | **41** | -- | -- | -- | **2,200** | -- |
| MW-18 | Multiunit 1 | Supplementary | 6/15/1988 | MW-18-19880615 | **524.6** | -- | -- | **430** | <0 | -- | **1,475** | -- | -- | -- | **56** | -- | -- | -- | **3,600** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/21/1988 | MW-18-19880921 | **488** | -- | -- | **400** | <0 | -- | **1,220** | -- | -- | -- | **49** | -- | -- | -- | **2,530** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/28/1988 | MW-18-19881128 | **451.4** | -- | -- | **370** | <0 | -- | **1,520** | -- | -- | -- | **53** | -- | -- | -- | **1,830** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 2/27/1989 | MW-18-19890227 | **488** | -- | -- | **400** | <0 | -- | **1,230** | -- | -- | -- | **53** | -- | -- | -- | **2,550** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/11/1989 | MW-18-19890911 | **395.3** | -- | -- | **324** | <0 | -- | **1,275** | -- | -- | -- | **46** | -- | -- | -- | **2,300** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 3/26/1990 | MW-18-19900326 | **427** | -- | -- | **350** | <0 | -- | **1,100** | -- | -- | -- | **48** | -- | -- | -- | **2,700** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/18/1990 | MW-18-19900918 | **396.5** | -- | -- | **325** | <0 | -- | **1,000** | -- | -- | -- | **50** | -- | -- | -- | **2,400** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 5/30/1991 | MW-18-19910530 | **732** | -- | -- | **600** | <0 | -- | **1,440** | -- | -- | -- | **56** | -- | -- | -- | **4,310** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/11/1991 | MW-18-19910911 | **488** | -- | -- | **400** | <0 | -- | **1,440** | -- | -- | -- | **56** | -- | -- | -- | **2,820** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 5/5/1992 | MW-18-19920505 | **915** | -- | -- | **750** | <0 | -- | **1,600** | -- | -- | -- | **69** | -- | -- | -- | **6,400** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 10/27/1992 | MW-18-19921027 | **976** | -- | -- | **800** | <0 | -- | **1,400** | -- | -- | -- | **81** | -- | -- | -- | **6,600** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 4/26/1993 | MW-18-19930426 | **854** | -- | -- | **700** | <0 | -- | **1,300** | -- | -- | -- | **77** | -- | -- | -- | **5,000** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/23/1993 | MW-18-19931123 | **579.5** | -- | -- | **475** | <0 | -- | **1,200** | -- | -- | -- | **63** | -- | -- | -- | **3,600** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 4/21/1994 | MW-18-19940421 | **579.5** | -- | -- | **475** | <0 | -- | **1,400** | -- | -- | -- | **71** | -- | -- | -- | **3,600** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/20/1994 | MW-18-19940920 | **549** | -- | -- | **450** | <0 | -- | **1,200** | -- | -- | -- | **73** | -- | -- | -- | **3,600** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 12/14/1994 | MW-18-19941214 | -- | -- | -- | -- | -- | -- | **1,000** | -- | -- | -- | **38** | -- | -- | -- | **2,100** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 4/5/1995 | MW-18-19950405 | **854** | -- | -- | **700** | <0 | -- | **1,400** | -- | -- | -- | **71** | -- | -- | -- | **5,000** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 12/13/1995 | MW-18-19951213 | **610** | -- | -- | **500** | <0 | -- | **1,400** | -- | -- | -- | **70** | -- | -- | -- | **5,000** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 8/12/1996 | MW-18-19960812 | **640.5** | -- | -- | **525** | <0 | -- | **1,200** | -- | -- | -- | **56** | -- | -- | -- | **3,800** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 4/23/1997 | MW-18-19970423 | **396.5** | -- | -- | **325** | <0 | -- | **1,200** | -- | -- | -- | **70** | -- | -- | -- | **6,200** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 10/20/1997 | MW-18-19971020 | **579.5** | -- | -- | **475** | <0 | -- | **1,000** | -- | -- | -- | **47** | -- | -- | -- | **2,400** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 4/14/1998 | MW-18-19980414 | **549** | -- | -- | **450** | <0 | -- | **1,100** | -- | -- | -- | **47** | -- | -- | -- | **3,000** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 6/8/1999 | MW-18-19990608 | **488** | -- | -- | **400** | <0 | -- | **1,100** | -- | -- | -- | **43** | -- | -- | -- | **2,600** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 12/8/1999 | MW-18-19991208 | **366** | -- | -- | **300** | <0 | -- | **1,000** | -- | -- | -- | **45** | -- | -- | -- | **3,600** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 6/8/2000 | MW-18-20000608 | **579.5** | -- | -- | **475** | <0 | -- | **990** | -- | -- | -- | **38** | -- | -- | -- | **2,040** | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Magnesium | Manganese | Nickel | Potassium | Potassium | Radium 226 | Radium 228 | Sodium | Sodium | Zinc |
| | | | | Filtered: | N | N | N | N | N | N | N | Y | N | N | N | Y | N | N | N | Y | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-18 | Multiunit 1 | Supplementary | 11/28/2000 | MW-18-20001128 | **518.5** | -- | -- | **425** | <0 | -- | **800** | -- | -- | -- | **43** | -- | -- | -- | **2,400** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 8/21/2001 | MW-18-20010821 | **579.5** | -- | -- | **475** | <0 | -- | **1,240** | -- | -- | -- | **49** | -- | -- | -- | **2,800** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 12/5/2001 | MW-18-20011205 | **610** | -- | -- | **500** | <0 | -- | **1,000** | -- | -- | -- | **43** | -- | -- | -- | **3,800** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 6/12/2002 | MW-18-20020612 | **671** | -- | -- | **550** | <0 | -- | **800** | -- | -- | -- | **40** | -- | -- | -- | **2,200** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 12/18/2002 | MW-18-20021218 | **488** | -- | -- | **400** | <0 | -- | **900** | -- | -- | -- | **39** | -- | -- | -- | **2,600** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 6/3/2003 | MW-18-20030603 | **457.5** | -- | -- | **375** | <0 | -- | **800** | -- | -- | -- | **47** | -- | -- | -- | **4,600** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/24/2003 | MW-18-20030924 | **579.5** | -- | -- | **475** | <0 | -- | **500** | -- | -- | -- | **22.5** | -- | -- | -- | **1,800** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 6/16/2004 | MW-18-20040616 | **2,959** | -- | -- | **2,425** | <0 | -- | **900** | -- | -- | -- | **43** | -- | -- | -- | **2,600** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/9/2004 | MW-18-20041109 | **3,233** | -- | -- | **2,650** | <0 | -- | **860** | -- | -- | -- | **35.7** | -- | -- | -- | **1,750** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 5/12/2005 | MW-18-20050512 | **366** | -- | -- | **300** | <0 | -- | **900** | -- | -- | -- | **47** | -- | -- | -- | **2,400** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/1/2005 | MW-18-20051101 | **579.5** | -- | -- | **475** | <0 | -- | **962** | -- | -- | -- | **44.3** | -- | -- | -- | **2,770** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 5/15/2006 | MW-18-20060515 | **457.5** | -- | -- | **375** | <0 | -- | **908** | -- | -- | -- | **41.9** | -- | -- | -- | **2,420** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 10/13/2006 | MW-18-20061013 | **386.7** | -- | -- | **317** | <0 | -- | **880** | -- | -- | -- | **37.6** | -- | -- | -- | **2,020** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 4/18/2007 | MW-18-20070418 | **475.8** | -- | -- | **390** | <0 | -- | **864** | -- | -- | -- | **41.4** | -- | -- | -- | **2,300** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/20/2007 | MW-18-20071120 | **444.1** | -- | -- | **364** | <0 | -- | **692** | -- | -- | -- | **32.9** | -- | -- | -- | **1,740** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 4/30/2008 | MW-18-20080430 | **524.6** | -- | -- | **430** | <0 | -- | **827** | -- | -- | -- | **41.5** | -- | -- | -- | **1,850** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 12/3/2009 | MW-18-20091203 | **915** | -- | -- | **750** | <0 | -- | **848** | -- | -- | -- | **49.1** | -- | -- | -- | **4,540** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/27/2012 | MW-18-092712-01 | **730** | <6.0 | <6.0 | **730** | <6.0 | -- | **1,000** | -- | -- | -- | **57** | -- | -- | -- | **5,400** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/19/2013 | FC-18-111913 | **720** | <6.0 | <6.0 | **720** | <6.0 | -- | **930** | -- | -- | -- | **57** | -- | -- | -- | **4,800** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 3/12/2014 | FC-18-031214 | **720** | <6.0 | <6.0 | **720** | <6.0 | -- | **800** | -- | -- | -- | **58** | -- | -- | -- | **4,900** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/10/2014 | FCPP-18-091014 | **740** | <6.0 | <6.0 | **740** | <6.0 | -- | **920** | -- | -- | -- | **59** | -- | -- | -- | **5,200** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 3/18/2015 | FCPP-18-031815 | **750** | <6.0 | <6.0 | **750** | <6.0 | -- | **890** | -- | -- | -- | **55** | -- | -- | -- | **5,500** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 6/30/2015 | MW-18 | **740** | <6.0 | <6.0 | **740** | <6.0 | -- | **790** | -- | -- | -- | **60** | -- | -- | -- | **5,200** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 8/25/2015 | FCPP-18-082515 | **740** | <6.0 | <6.0 | **740** | <6.0 | -- | **760** | -- | -- | -- | **68** | -- | -- | -- | **5,300** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/6/2015 | FC MW-18-(061115) | **750** | <6.0 | <6.0 | **750** | <6.0 | -- | **940** | -- | -- | -- | **56** | -- | -- | -- | **5,900** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 6/17/2016 | FC-Seep-MW18-616 | **820** | <6.0 | <6.0 | **820** | <6.0 | -- | **840** | -- | -- | -- | **65** | -- | -- | -- | **6,600** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW18-916 | **450** | <6.0 | <6.0 | **450** | <6.0 | -- | **790** | -- | -- | -- | **45** | -- | -- | -- | **2,100** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-MW18-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-MW18-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-MW18-0421 | **900** | <6 | <6 | **900** | <6 | **0.41** | **1,100** | -- | **2.6** | -- | **110** | -- | -- | -- | **7,100** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-MW18-1121 | **850** | <6 | <6 | **850** | <6 | **0.54** | **1,100** | -- | **2.5** | -- | **93** | -- | -- | -- | **7,400** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-MW18-0222 | **970** | <6 | <6 | **970** | <6 | **0.41** | **990** | -- | -- | -- | **110** | -- | -- | -- | **6,800** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW18-0522 | **950** | <6 | <6 | **950** | <6 | **0.35** | **1,100** | -- | **2.7** | -- | **96** | -- | -- | -- | **7,600** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 8/12/2022 | FC-CCR-MW18-0822 | **950** | <6 | <6 | **950** | <6 | **0.43** | **1,100** | -- | -- | -- | **93** | -- | -- | -- | **7,200** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/14/2022 | FC-CCR-MW18-1122 | **970** | <6 | <6 | **970** | <6 | **0.30** | **1,000** | -- | **2.5** | -- | **95** | -- | -- | -- | **7,500** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 5/4/2023 | FC-CCR-MW18-0523 | **950** | <6 | <6 | **950** | <6 | **0.14** | **890** | -- | **2.5** | -- | **81** | -- | -- | -- | **6,800** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW18-1124 | **930** | <6 | <6 | **930** | <6 | <0.5 | **1,200** | -- | **2.9** | -- | **78** | -- | -- | -- | **9,000 J** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 05/20/2024 | FC-CCR-MW18-0524 | **940** | <6 | <6 | **940** | <6 | <5 | **1,200** | -- | **3.2** | -- | **80** | -- | -- | -- | **9,100** | -- | -- |
| MW-18 | Multiunit 1 | Supplementary | 11/14/2024 | FC-CCR-MW18-1124 | **961** | <20 | -- | **--** | -- | <0.25 | **998** | -- | **2.61** | -- | **84.9** | -- | -- | -- | **7,320** | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 3/11/2014 | FC-23RMS-031114 | -- | -- | -- | -- | -- | -- | **810** | -- | -- | -- | **36** | -- | -- | -- | **1,500** | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 3/11/2014 | FC-23R-031114 | **400** | <6.0 | <6.0 | **400** | <6.0 | -- | **830** | -- | -- | -- | **39** | -- | -- | -- | **1,600** | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 9/11/2014 | FCPP-23R-91114 | **410** | <6.0 | <6.0 | **410** | <6.0 | -- | **3,700** | -- | -- | -- | **130** | -- | -- | -- | **6,400** | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 12/8/2014 | FCPP-MW23R-12914 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 3/18/2015 | FCPP-23R-031815 | **370** | <6.0 | <6.0 | **370** | <6.0 | -- | **890** | -- | -- | -- | **32** | -- | -- | -- | **1,500** | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 6/30/2015 | MW-23R | **360** | <6.0 | <6.0 | **360** | <6.0 | -- | **800** | -- | -- | -- | **33** | -- | -- | -- | **1,400** | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 11/3/2015 | FC MW-23R-(031115) | -- | -- | -- | -- | -- | -- | **890** | -- | -- | -- | **36** | -- | -- | -- | **1,500** | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 11/13/2015 | FC MW-23R-(131115) | **370** | <6.0 | <6.0 | **370** | <6.0 | -- | **830** | -- | -- | -- | **33** | -- | -- | -- | **1,500** | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 6/21/2016 | FC-SEEPS-MW-23R-062116 | **380** | <6.0 | <6.0 | **380** | <6.0 | -- | **750** | -- | -- | -- | **32** | -- | -- | -- | **1,400** | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW23R-916 | **400** | <6.0 | <6.0 | **400** | <6.0 | -- | **790** | -- | -- | -- | **34** | -- | -- | -- | **1,500** | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 6/21/2020 | FC-CCR-MW23R-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-MW23R-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-MW23R-0421 | **490** | <6 | <6 | **490** | <6 | **0.18** | **1,100** | -- | **0.038** | -- | **41** | -- | -- | -- | **1,700** | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 11/14/2021 | FC-CCR-MW23R | **500** | <6 | <6 | **500** | <6 | **0.19** | **1,600** | -- | <0.01 | -- | **38** | -- | -- | -- | **2,500** | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 2/9/2022 | FC-CCR-MW23R-0222 | **500** | <6 | <6 | **500** | <6 | **0.17** | **1,200** | -- | -- | -- | **40** | -- | -- | -- | **1,900** | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW23R-0522 | **500** | <6 | <6 | **500** | <6 | **0.14** | **1,300** | -- | <0.01 | -- | **40** | -- | -- | -- | **2,100** | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 8/12/2022 | FC-CCR-MW23R-0822 | **500** | <6 | <6 | **500** | <6 | **0.15** | **1,200** | -- | -- | -- | **38** | -- | -- | -- | **1,900** | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 11/11/2022 | FC-CCR-MW23R-1122 | **500** | <6 | <6 | **500** | <6 | **0.31** | **1,300** | -- | <0.014 | -- | **41** | -- | -- | -- | **2,000** | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 5/3/2023 | FC-CCR-MW23R-0523 | **470** | <6 | <6 | **470** | <6 | <0.1 | **1,300** | -- | **0.055** | -- | **46** | -- | -- | -- | **1,900** | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW23R-1124 | **570** | <6 | <6 | **570** | <6 | <0.5 | **1,700** | -- | **0.23** | -- | **46** | -- | -- | -- | **2,800 J** | -- | -- |
| MW-23R | Multiunit 1 | Supplementary | 05/20/2024 | FC-CCR-MW23R-0524 | **550** | <6 | <6 | **550** | <6 | <5 | **2,100** | -- | <0.5 | -- | **60** | -- | -- | -- | **3,200** | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Magnesium | Manganese | Nickel | Potassium | Potassium | Radium 226 | Radium 228 | Sodium | Sodium | Zinc |
| | | | | Filtered: | N | N | N | N | N | N | N | Y | N | N | N | Y | N | N | N | Y | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-24 | Multiunit 1 | Supplementary | 3/19/2015 | FCPP-24-031915 | **170** | <6.0 | <6.0 | **170** | <6.0 | -- | **210** | -- | -- | -- | **36** | -- | -- | -- | **6,200** | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 6/29/2015 | MW-24 | **160** | <6.0 | <6.0 | **160** | <6.0 | -- | **220** | -- | -- | -- | **68** | -- | -- | -- | **6,000** | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 8/26/2015 | FCPP-24-082615 | **230** | <6.0 | <6.0 | **230** | <6.0 | -- | **190** | -- | -- | -- | **59** | -- | -- | -- | **6,800** | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 6/20/2016 | FC-Seep-MW24-616 | **320** | <6.0 | <6.0 | **320** | <6.0 | -- | **210** | -- | -- | -- | **45** | -- | -- | -- | **7,800** | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW24-916 | **340** | <6.0 | <6.0 | **340** | <6.0 | -- | **180** | -- | -- | -- | **42** | -- | -- | -- | **7,800** | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 4/26/2021 | FC-CCR-MW24-0421 | **320** | <6 | <6 | **320** | <6 | **0.16** | **220** | -- | **1.9** | -- | **62** | -- | -- | -- | **7,700** | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-MW24-1121 | **290** | <6 | <6 | **290** | <6 | **0.22** | **210** | -- | **1.8** | -- | **49** | -- | -- | -- | **6,900** | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-MW24-0222 | **300** | <6 | <6 | **300** | <6 | **0.37** | **210** | -- | -- | -- | **60** | -- | -- | -- | **6,600** | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW24-0522 | **290** | <6 | <6 | **290** | <6 | **0.11** | **190** | -- | **1.8** | -- | **46** | -- | -- | -- | **7,300** | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 8/12/2022 | FC-CCR-MW24-0822 | **290** | <6 | <6 | **290** | <6 | **0.17** | **210** | -- | -- | -- | **50** | -- | -- | -- | **7,300** | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 11/14/2022 | FC-CCR-MW24-1122 | **290** | <6 | <6 | **290** | <6 | **0.12** | **200** | -- | **1.8** | -- | **51** | -- | -- | -- | **7,400** | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 5/4/2023 | FC-CCR-MW24-0523 | **290** | <6 | <6 | **290** | <6 | **0.57** | **180** | -- | **1.9** | -- | **46** | -- | -- | -- | **6,600** | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW24-1124 | **280** | <6 | <6 | **280** | <6 | <0.5 | **210** | -- | **1.9** | -- | **36** | -- | -- | -- | **7,800 J** | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 05/21/2024 | FC-CCR-MW24-0524 | **270** | <6 | <6 | **270** | <6 | **0.5** | **200** | -- | **1.7** | -- | <50 | -- | -- | -- | **8,200** | -- | -- |
| MW-24 | Multiunit 1 | Supplementary | 11/13/2024 | FC-CCR-MW24-1124 | **276** | <20 | -- | **--** | -- | <0.05 | **193** | -- | **1.74** | -- | **55.2** | -- | -- | -- | **6,740** | -- | -- |
| MW-34 | Multiunit 1 | Supplementary | 6/23/2020 | FC-CCR-MW34-0620 | **210** | <6 | <6 | **210** | <6 | -- | **480** | -- | -- | -- | **28** | -- | <0.4 | **0.6** | **1,100** | -- | -- |
| MW-34 | Multiunit 1 | Supplementary | 11/16/2023 | FC-CCR-MW34-1124 | -- | -- | -- | -- | -- | **0.12** | **590** | -- | **2.6** | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-34 | Multiunit 1 | Supplementary | 05/21/2024 | FC-CCR-MW34-0524 | **--** | -- | -- | **--** | -- | **0.3** | **570** | -- | **2.3** | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-34 | Multiunit 1 | Supplementary | 11/13/2024 | FC-CCR-MW34-1124 | **--** | -- | -- | **--** | -- | <0.05 | **531** | -- | **2.37** | -- | -- | -- | -- | -- | **--** | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 9/9/2014 | FCPP-36R-090914 | **190** | <6.0 | <6.0 | **190** | <6.0 | -- | **470** | -- | -- | -- | **27** | -- | -- | -- | **1,000** | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 3/19/2015 | FCPP-36R-031915 | **240** | <6.0 | <6.0 | **240** | <6.0 | -- | **560** | -- | -- | -- | **26** | -- | -- | -- | **1,100** | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 6/30/2015 | MW-36R | **190** | <6.0 | <6.0 | **190** | <6.0 | -- | **460** | -- | -- | -- | **25** | -- | -- | -- | **980** | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 8/25/2015 | FCPP-36R-082515 | **250** | <6.0 | <6.0 | **250** | <6.0 | -- | **560** | -- | -- | -- | **30** | -- | -- | -- | **1,100** | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 11/3/2015 | FC MW-36R-(031115) | -- | -- | -- | -- | -- | -- | **570** | -- | -- | -- | **26** | -- | -- | -- | **1,100** | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 11/13/2015 | FC MW-36R-(131115) | **220** | <6.0 | <6.0 | **220** | <6.0 | -- | **530** | -- | -- | -- | **24** | -- | -- | -- | **1,000** | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 6/17/2016 | FC-Seep-MW36R-616 | **230** | <6.0 | <6.0 | **230** | <6.0 | -- | **520** | -- | -- | -- | **27** | -- | -- | -- | **1,100** | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW36R-916 | **160** | <6.0 | <6.0 | **160** | <6.0 | -- | **340** | -- | -- | -- | **25** | -- | -- | -- | **960** | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 6/21/2020 | FC-CCR-MW36R-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-MW36R-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 11/7/2020 | *DUP* FC-CCR-FD04-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 4/25/2021 | FC-CCR-MW36R-0421 | **230** | <6 | <6 | **230** | <6 | **0.072 J** | **430** | -- | **0.25** | -- | **29** | -- | -- | -- | **990** | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 11/14/2021 | FC-CCR-MW36R | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 2/9/2022 | FC-CCR-MW36R-0222 | **230** | <6 | <6 | **230** | <6 | **0.27** | **2,500** | -- | -- | -- | **90** | -- | -- | -- | **6,200** | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW36R-0522 | **220** | <6 | <6 | **220** | <6 | <0.1 | **400** | -- | **0.15** | -- | **25** | -- | -- | -- | **1,100** | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 8/11/2022 | FC-CCR-MW36R-0822 | **220** | <6 | <6 | **220** | <6 | **0.14** | **400** | -- | -- | -- | **23** | -- | -- | -- | **960** | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 11/11/2022 | FC-CCR-MW36R-1122 | **220** | <6 | <6 | **220** | <6 | <0.1 | **420** | -- | <0.26 | -- | **26** | -- | -- | -- | **1,000** | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | **Alkalinity Bicarbonate** | **Alkalinity Carbonate** | **Alkalinity Hydroxide** | **Alkalinity(as CaCO3)** | **Alkalinity, Phenolphthalein, as CaCO3** | **Iron** | **Magnesium** | **Magnesium** | **Manganese** | **Nickel** | **Potassium** | **Potassium** | **Radium 226** | **Radium 228** | **Sodium** | **Sodium** | **Zinc** |
| **Filtered:** | | | | | **N** | **N** | **N** | **N** | **N** | **N** | **N** | **Y** | **N** | **N** | **N** | **Y** | **N** | **N** | **N** | **Y** | **N** |
| **Units:** | | | | | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **mg/L** | **pCi/L** | **pCi/L** | **mg/L** | **mg/L** | **mg/L** |
| *Multiunit 1 BTV* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *Multiunit 1 GWPS* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-36R | Multiunit 1 | Supplementary | 5/4/2023 | FC-CCR-MW36R-0523 | **220** | <6 | <6 | **220** | <6 | <0.1 | **440** | -- | **0.18** | -- | **29** | -- | -- | -- | **1,100** | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW36R-1124 | **210** | <6 | <6 | **210** | <6 | <0.5 | **420** | -- | **0.28** | -- | **25** | -- | -- | -- | **1,100 J** | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 05/20/2024 | FC-CCR-MW36R-0524 | **210** | <6 | <6 | **210** | <6 | <5 | **520** | -- | <0.5 | -- | **31** | -- | -- | -- | **1,200** | -- | -- |
| MW-36R | Multiunit 1 | Supplementary | 11/15/2024 | FC-CCR-MW36R-1124 | **222** | <20 | -- | **--** | -- | <0.1 | **384** | -- | **0.225** | -- | **25.5** | -- | -- | -- | **930** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 3/12/2014 | FC-38R-031214 | **430** | <6.0 | <6.0 | **430** | <6.0 | -- | **1,200** | -- | -- | -- | **35** | -- | -- | -- | **3,200** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 9/11/2014 | FCPP-38R-91114 | **540** | <6.0 | <6.0 | **540** | <6.0 | -- | **2,000** | -- | -- | -- | **50** | -- | -- | -- | **5,600** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 3/19/2015 | FCPP-38R-031915 | **490** | <6.0 | <6.0 | **490** | <6.0 | -- | **1,700** | -- | -- | -- | **51** | -- | -- | -- | **4,900** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 6/30/2015 | MW-38R | **270** | <6.0 | <6.0 | **270** | <6.0 | -- | **770** | -- | -- | -- | **30** | -- | -- | -- | **3,000** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 8/29/2015 | FCPP-38R-082915 | **240** | <6.0 | <6.0 | **240** | <6.0 | -- | **650** | -- | -- | -- | **26** | -- | -- | -- | **2,500** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 11/10/2015 | FC MW-38R-(101115) | **370** | <6.0 | <6.0 | **370** | <6.0 | -- | **1,400** | -- | -- | -- | **51** | -- | -- | -- | **4,300** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 6/21/2016 | FC-SEEPS-MW-38R-DUP 06211 | **270** | <6.0 | <6.0 | **270** | <6.0 | -- | **690** | -- | -- | -- | **33** | -- | -- | -- | **2,500** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 6/21/2016 | FC-SEEPS-MW-38R-062116 | **310** | <6.0 | <6.0 | **310** | <6.0 | -- | **760** | -- | -- | -- | **39** | -- | -- | -- | **2,700** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW38R-916 | **240** | <6.0 | <6.0 | **240** | <6.0 | -- | **690** | -- | -- | -- | **36** | -- | -- | -- | **2,800** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW106-916 | **260** | <6.0 | <6.0 | **260** | <6.0 | -- | **670** | -- | -- | -- | **34** | -- | -- | -- | **2,500** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-MW38R-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-MW38R-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **0.8** | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW38R-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW38R-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-MW38R-111919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 11/19/2019 | *DUP* FC-CCR-FD01-111919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-MW38R-0620 | **120** | <6 | <6 | **120** | <6 | -- | **290** | -- | -- | -- | **20** | -- | **0.4** | <0.8 | **920** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 6/22/2020 | *DUP* FC-CCR-FD05-0620 | **130** | <6 | <6 | **130** | <6 | -- | **300** | -- | -- | -- | **19** | -- | <0.4 | **1.1** | **910** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 11/6/2020 | FC-CCR-MW38R-1120 | **120** | <6 | <6 | **120** | <6 | -- | **300** | -- | -- | -- | **16/18** | -- | <0.4 | <0.8 | **970** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 4/27/2021 | FC-CCR-MW384R-0421 | **130** | <6 | <6 | **130** | <6 | **0.08 J** | **310** | -- | <0.01 | -- | **20** | -- | <0.4 | <0.8 | **970** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-MW38R-1121 | **120** | <6 | <6 | **120** | <6 | **0.078 J** | **280** | -- | **0.0027 J** | -- | **17** | -- | **0.4** | <0.6 | **920** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 2/9/2022 | FC-CCR-MW38R-0222 | **130** | <6 | <6 | **130** | <6 | **0.093** | **290** | -- | -- | -- | **17** | -- | -- | -- | **920** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 5/25/2022 | FC-CCR-MW38R-0522 | **130** | <6 | <6 | **130** | <6 | **0.64** | **270** | -- | **0.02** | -- | **18** | -- | <0.3 | <0.6 | **1,000** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 8/11/2022 | FC-CCR-MW38R-0822 | **140** | <6 | <6 | **140** | <6 | **0.23** | **330** | -- | -- | -- | **18** | -- | -- | -- | **1,100** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 11/15/2022 | FC-CCR-MW38R-1122 | **180** | <6 | <6 | **180** | <6 | **0.24** | **500** | -- | <0.01 | -- | **23** | -- | <0.3 | <0.6 | **1,500** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 5/5/2023 | FC-CCR-MW38R-0523 | **180** | <6 | <6 | **180** | <6 | **0.26** | **530** | -- | <0.01 | **0.32** | **28** | -- | **0.9** | **1.0** | **1,500** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW38R-1124 | **380** | <6 | <6 | **380** | <6 | <0.5 | **1,500** | -- | <0.05 | -- | **43** | -- | <0.5 | **1.2** | **3,700 J** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 05/22/2024 | FC-CCR-MW38R-0524 | **410** | <6 | <6 | **410** | <6 | **0.69** | **1,700** | -- | <0.01 | -- | <50 | -- | <0.54 | **2.5** | **4,100** | -- | -- |
| MW-38R | Multiunit 1 | Supplementary | 11/16/2024 | FC-CCR-MW38R-1124 | **464** | <20 | -- | **--** | -- | <0.1 | **1,510** | -- | **0.0121** | -- | **52.1** | -- | 0.6 | **2.1** | **3,750** | -- | -- |
| MW-40R | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW40R-117 | **360** | <6.0 | <6.0 | **360** | <6.0 | -- | **1,100** | -- | -- | -- | **60** | -- | -- | -- | **3,400** | -- | -- |
| MW-40R | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW40R-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-40R | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW40R-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.2 | **0.6** | -- | -- | -- |
| MW-40R | Multiunit 1 | Downgradient Boundary | 4/26/2021 | FC-CCR-MW40R-0421 | -- | -- | -- | -- | -- | 10 | 2,000 | | 3.0 | -- | 97 | | <0.4 | 2.2 | 5,600 | -- | -- |
| MW-46 | Multiunit 1 | Supplementary | 6/30/2015 | MW-46 | **600** | <6.0 | <6.0 | **600** | <6.0 | -- | **720** | -- | -- | -- | **37** | -- | -- | -- | **8,000** | -- | -- |
| MW-46 | Multiunit 1 | Supplementary | 11/7/2015 | FC MW-46-(07115) | **590** | <6.0 | <6.0 | **590** | <6.0 | -- | **850** | -- | -- | -- | **38** | -- | -- | -- | **8,500** | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-MSD02-031715 | **130** | <6.0 | <6.0 | **130** | <6.0 | -- | **600** | -- | -- | -- | **27** | -- | -- | -- | **1,100** | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-52-031715 | **120** | <6.0 | <6.0 | **120** | <6.0 | -- | **590** | -- | -- | -- | **28** | -- | -- | -- | **1,100** | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 8/26/2015 | FCPP-52-082615 | **130** | <6.0 | <6.0 | **130** | <6.0 | -- | **540** | -- | -- | -- | **31** | -- | -- | -- | **1,100** | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/3/2015 | FC MW-52-(031115) | **130** | <6.0 | <6.0 | **130** | <6.0 | -- | **620** | -- | -- | -- | **28** | -- | -- | -- | **1,100** | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 6/18/2016 | FC-Seep-MW52-616 | **130** | <6.0 | <6.0 | **130** | <6.0 | -- | **580** | -- | -- | -- | **29** | -- | -- | -- | **1,100** | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 9/16/2016 | FC-Seep-MW52-916 | **120** | <6.0 | <6.0 | **120** | <6.0 | -- | **540** | -- | -- | -- | **28** | -- | -- | -- | **1,000** | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 6/20/2020 | FC-CCR-MW52-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/8/2020 | FC-CCR-MW52-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 4/23/2021 | FC-CCR-MW52-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/13/2021 | FC-CCR-MW52-1121 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/13/2021 | FC-CCR-FD03-1121 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 5/22/2022 | FC-CCR-MW52-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 5/22/2022 | *DUP* FC-CCR-FD03-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/10/2022 | FC-CCR-MW52-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/10/2022 | *DUP* FC-CCR-FD03-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 5/2/2023 | FC-CCR-MW52-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 5/2/2023 | *DUP* FC-CCR-FD03-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/08/2023 | FC-CCR-MW52-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 11/08/2023 | *DUP* FC-CCR-FD03-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 05/16/2024 | FC-CCR-MW52-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-52 | Multiunit 1 | Supplementary | 05/16/2024 | FC-CCR-FD03-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Magnesium | Manganese | Nickel | Potassium | Potassium | Radium 226 | Radium 228 | Sodium | Sodium | Zinc |
| | | | | Filtered: | N | N | N | N | N | N | N | Y | N | N | N | Y | N | N | N | Y | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-52 | Multiunit 1 | Supplementary | 11/12/2024 | FC-CCR-MW52-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-54 | Multiunit 1 | Supplementary | 9/10/2014 | FCPP-54-091014 | **590** | <6.0 | <6.0 | **590** | <6.0 | -- | **3,500** | -- | -- | -- | **92** | -- | -- | -- | **12,000** | -- | -- |
| MW-54 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-54-031715 | **530** | <6.0 | <6.0 | **530** | <6.0 | -- | **1,500** | -- | -- | -- | **42** | -- | -- | -- | **5,000** | -- | -- |
| MW-54 | Multiunit 1 | Supplementary | 8/26/2015 | FCPP-54-082615 | **520** | <6.0 | <6.0 | **520** | <6.0 | -- | **1,600** | -- | -- | -- | **53** | -- | -- | -- | **4,800** | -- | -- |
| MW-54 | Multiunit 1 | Supplementary | 11/3/2015 | FC MW-54-(031115) | **510** | <6.0 | <6.0 | **510** | <6.0 | -- | **3,200** | -- | -- | -- | **84** | -- | -- | -- | **9,600** | -- | -- |
| MW-54 | Multiunit 1 | Supplementary | 6/20/2016 | FC-Seep-MW54-616 | **490** | <6.0 | <6.0 | **490** | <6.0 | -- | **1,300** | -- | -- | -- | **45** | -- | -- | -- | **4,200** | -- | -- |
| MW-54 | Multiunit 1 | Supplementary | 9/16/2016 | FC-Seep-MW54-916 | **390** | <6.0 | <6.0 | **390** | <6.0 | -- | **1,200** | -- | -- | -- | **44** | -- | -- | -- | **3,800** | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 3/12/2014 | FC-56-031214 | **570** | <6.0 | <6.0 | **570** | <6.0 | -- | **1,700** | -- | -- | -- | **61** | -- | -- | -- | **3,700** | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 9/10/2014 | FCPP-56-091014 | **470** | <6.0 | <6.0 | **470** | <6.0 | -- | **1,400** | -- | -- | -- | **52** | -- | -- | -- | **3,100** | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 3/19/2015 | FCPP-56-031915 | **670** | <6.0 | <6.0 | **670** | <6.0 | -- | **2,000** | -- | -- | -- | **64** | -- | -- | -- | **4,600** | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 6/30/2015 | MW-56 | **740** | <6.0 | <6.0 | **740** | <6.0 | -- | **1,800** | -- | -- | -- | **61** | -- | -- | -- | **3,900** | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 8/25/2015 | FCPP-56-082515 | **1,000** | <6.0 | <6.0 | **1,000** | <6.0 | -- | **2,000** | -- | -- | -- | **78** | -- | -- | -- | **4,400** | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 11/5/2015 | FC MW-56-(051115) | **950** | <6.0 | <6.0 | **950** | <6.0 | -- | **2,000** | -- | -- | -- | **64** | -- | -- | -- | **4,400** | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 6/18/2016 | FC-Seep-MW56-616 | **710** | <6.0 | <6.0 | **710** | <6.0 | -- | **1,600** | -- | -- | -- | **61** | -- | -- | -- | **3,800** | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW56-916 | **380** | <6.0 | <6.0 | **380** | <6.0 | -- | **770** | -- | -- | -- | **40** | -- | -- | -- | **1,800** | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 3/20/2019 | FC-CCR-MW56-032019 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 3/20/2019 | FC-CCR-MW56-032019 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **2.3** | -- | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW56-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW56-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **2.7** | -- | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-MW56-111919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-MW56-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | **2.2** | -- | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 11/7/2020 | FC-CCR-MW56-1120 | **750** | <6 | <6 | **750** | <6 | -- | **2,200** | **--** | **--** | -- | **83** | **--** | <0.4 | **2.2** | **4,900** | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 4/26/2021 | FC-CCR-MW56-0421 | **800** | <6 | <6 | **800** | <6 | **0.26** | **2,500** | -- | **0.016** | -- | **100** | -- | <0.4 | **2.2** | **5,100** | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 11/16/2021 | FC-CCR-MW56-1121 | **800** | <6 | <6 | **800** | <6 | **0.24** | **2,500** | -- | **0.038** | -- | **78** | -- | **0.7** | **2.4** | **4,900** | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-MW56-0222 | **890** | <6 | <6 | **890** | <6 | <0.1 | **410** | -- | -- | -- | **25** | -- | -- | -- | **930** | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 8/11/2022 | FC-CCR-MW56-0822 | **870** | <6 | <6 | **870** | <6 | **0.27** | **2,500** | -- | -- | -- | **83** | -- | -- | -- | **5,100** | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 11/15/2022 | FC-CCR-MW56-1122 | **910** | <6 | <6 | **910** | <6 | **0.28** | **2,700** | -- | <0.01 | -- | **91** | -- | **1.0** | **2.7** | **5,300** | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 5/4/2023 | FC-CCR-MW56-0523 | **880** | <6 | <6 | **880** | <6 | <0.1 | **3,200** | -- | <0.01 | **0.036** | **87** | -- | **1.1** | **3.3** | **4,900** | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW56-1124 | **890** | <6 | <6 | **890** | <6 | <0.5 | **3,100** | -- | <0.05 | -- | **81** | -- | <0.5 | **6.4** | **5,700 J** | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 05/21/2024 | FC-CCR-MW56-0524 | **890** | <6 | <6 | **890** | <6 | **0.79** | **3,000** | -- | **0.012** | -- | <50 | -- | <0.53 | **3.2** | **6,000** | -- | -- |
| MW-56 | Multiunit 1 | Supplementary | 11/15/2024 | FC-CCR-MW56-1124 | **955** | <20 | -- | **--** | -- | <0.1 | **2,580** | -- | **0.0342** | -- | **76.7** | -- | <0.5 | **3.2** | **5,260** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 3/12/2014 | FC-57-031214 | **260** | <6.0 | <6.0 | **260** | <6.0 | -- | **540** | -- | -- | -- | **33** | -- | -- | -- | **1,700** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 9/9/2014 | FCPP-57MS-090914 | -- | -- | -- | -- | -- | -- | **470** | -- | -- | -- | **31** | -- | -- | -- | **1,500** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 9/9/2014 | FCPP-57-090914 | **240** | <6.0 | <6.0 | **240** | <6.0 | -- | **430** | -- | -- | -- | **28** | -- | -- | -- | **1,400** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 3/17/2015 | FCPP-57-031715 | **240** | <6.0 | <6.0 | **240** | <6.0 | -- | **460** | -- | -- | -- | **28** | -- | -- | -- | **1,400** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 6/29/2015 | MW-57 | **230** | <6.0 | <6.0 | **230** | <6.0 | -- | **450** | -- | -- | -- | **28** | -- | -- | -- | **1,400** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 8/26/2015 | FCPP-57-082615 | **240** | <6.0 | <6.0 | **240** | <6.0 | -- | **460** | -- | -- | -- | **35** | -- | -- | -- | **1,500** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 11/10/2015 | FC MW-57-(101115)-MSD | **250** | <6.0 | <6.0 | **250** | <6.0 | -- | **550** | -- | -- | -- | **34** | -- | -- | -- | **1,600** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 11/10/2015 | FC MW-57-(101115)-MS | **250** | <6.0 | <6.0 | **250** | <6.0 | -- | **590** | -- | -- | -- | **35** | -- | -- | -- | **1,600** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 11/10/2015 | FC MW-57-(101115) | **250** | <6.0 | <6.0 | **250** | <6.0 | -- | **540** | -- | -- | -- | **31** | -- | -- | -- | **1,500** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 11/11/2015 | *DUP* FC FD-4-(101115) | **250** | <6.0 | <6.0 | **250** | <6.0 | -- | **540** | -- | -- | -- | **32** | -- | -- | -- | **1,500** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 6/18/2016 | FC-Seep-MW57-616 | **300** | <6.0 | <6.0 | **300** | <6.0 | -- | **540** | -- | -- | -- | **34** | -- | -- | -- | **1,600** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 9/15/2016 | FC-Seep-MW57-916 | **200** | <6.0 | <6.0 | **200** | <6.0 | -- | **430** | -- | -- | -- | **26** | -- | -- | -- | **1,300** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-MW57-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 3/19/2019 | FC-CCR-MW57-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.3** | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW57-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 5/14/2019 | FC-CCR-MW57-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 11/19/2019 | FC-CCR-MW57-111919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 6/22/2020 | FC-CCR-MW57-0620 | **400** | <6 | <6 | **400** | <6 | -- | **700** | -- | -- | -- | **46** | -- | **0.7** | **1.7** | **1,900** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 11/6/2020 | FC-CCR-MW57-1120 | **510** | <6 | <6 | **510** | <6 | -- | **840** | **--** | **--** | -- | **47** | **--** | <0.4 | **2.2** | **2,400** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 4/27/2021 | FC-CCR-MW57-0421 | **440** | <6 | <6 | **440** | <6 | **0.62** | **810** | -- | **0.17** | -- | **52** | -- | **0.5** | **2.2** | **2,000** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 11/17/2021 | FC-CCR-MW57-1121 | **410** | <6 | <6 | **410** | <6 | **1.4** | **860** | -- | **0.28** | -- | **45** | -- | **0.7** | **0.7** | **1,900** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 2/8/2022 | FC-CCR-MW57-0222 | **500** | <6 | <6 | **500** | <6 | **0.63** | **820** | -- | -- | -- | **47** | -- | -- | -- | **2,200** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 5/24/2022 | FC-CCR-MW57-0522 | **430** | <6 | <6 | **430** | <6 | **0.51** | **730** | -- | **0.26** | -- | **41** | -- | <0.3 | **1.5** | **2,000** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 5/24/2022 | FC-CCR-SS09-0522 | **393** | <20 | <20 | **393** | -- | **0.891 J** | **712** | -- | **0.272 J** | -- | **41.8** | -- | -- | -- | **2,030** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 8/11/2022 | FC-CCR-MW57-0822 | **450** | <6 | <6 | **450** | <6 | **0.19** | **930** | -- | -- | -- | **43** | -- | -- | -- | **2,200** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 11/15/2022 | FC-CCR-MW571122 | **500** | <6 | <6 | **500** | <6 | **0.14** | **1,000** | -- | <0.051 | -- | **50** | -- | **0.6** | **0.8** | **2,600** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 5/5/2023 | FC-CCR-MW57-0523 | **470** | <6 | <6 | **470** | <6 | **0.18** | **940** | -- | **0.17** | **0.034** | **54** | -- | **1.0** | **2.1** | **2,300** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 11/14/2023 | FC-CCR-MW57-1124 | **1,000** | <6 | <6 | **1,000** | <6 | **6.0 J** | **2,700** | -- | **2.0** | -- | **95** | -- | <0.49 | **1.2** | **7,000 J** | -- | -- |
| MW-57 | Multiunit 1 | Supplementary | 05/21/2024 | FC-CCR-MW57-0524 | **970** | <6 | <6 | **970** | <6 | **0.86** | **2,500** | -- | **0.090** | -- | <50 | -- | <0.53 | **1.7** | **6,200** | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Magnesium | Manganese | Nickel | Potassium | Potassium | Radium 226 | Radium 228 | Sodium | Sodium | Zinc |
| | | | | Filtered: | N | N | N | N | N | N | N | Y | N | N | N | Y | N | N | N | Y | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-57 | Multiunit 1 | Supplementary | 11/15/2024 | FC-CCR-MW57-1124 | **1,490** | <20 | -- | **--** | -- | **1.61** | **3,770** | -- | **1.090** | -- | **139** | -- | **0.5** | **2.0** | **9,290** | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 11/8/2015 | FC-CCR-MW60-110815 | **320** | <5.0 | -- | **320** | -- | -- | **710** | -- | -- | -- | **35** | -- | -- | -- | **1,400** | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 11/8/2015 | FC-CCR-MW60-110815 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.521 | <0.422 | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 4/26/2016 | FC-CCR-MW-60-042616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.8 | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 6/6/2016 | FC-CCR-MW60-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | <0.8 | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 6/6/2016 | FC-CCR-MW60-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 8/21/2016 | FC-CCR-MW60-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 8/21/2016 | FC-CCR-MW60-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 8/21/2016 | FC-CCR-MW60-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.2 | <0.7 | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/13/2016 | FC-CCR-MW60-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/13/2016 | FC-CCR-MW60-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/13/2016 | FC-CCR-MW60-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.0** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/13/2016 | FC-CCR-MW100-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/13/2016 | FC-CCR-MW100-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/13/2016 | FC-CCR-MW100-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.6** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 10/20/2016 | FC-CCR-MW60-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 10/20/2016 | FC-CCR-MW60-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | **1.0** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 10/20/2016 | FC-CCR-MW60-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 2/2/2017 | FC-CCR-MW60-117 | **120** | <6.0 | <6.0 | **120** | <6.0 | -- | **500** | -- | -- | -- | **28** | -- | -- | -- | **1,100** | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 2/2/2017 | FC-CCR-MW60-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 2/2/2017 | FC-CCR-MW60-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.4** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 4/18/2017 | FC-CCR-MW60-41817 | **130** | <6.0 | <6.0 | **130** | <6.0 | -- | **510** | -- | -- | -- | **27** | -- | -- | -- | **1,100** | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 4/18/2017 | FC-CCR-MW60-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **0.6** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 4/18/2017 | FC-CCR-MW60-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 5/3/2017 | FC-CCR-MW60-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 5/3/2017 | FC-CCR-MW60-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 5/30/2017 | FC-CCR-MW60-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 5/30/2017 | FC-CCR-MW60-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.2** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 6/22/2017 | FC-CCR-MW60-62217 | **130** | <6.0 | <6.0 | **130** | <6.0 | -- | **510** | -- | -- | -- | **27** | -- | -- | -- | **1,100** | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 6/22/2017 | FC-CCR-MW60-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 6/22/2017 | FC-CCR-MW60-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **0.9** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 7/22/2017 | FC-CCR-MW60-72217 | **130** | <6.0 | <6.0 | **130** | <6.0 | -- | **540** | -- | -- | -- | **28** | -- | -- | -- | **1,200** | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 7/22/2017 | FC-CCR-MW60-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 7/22/2017 | FC-CCR-MW60-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | **0.8** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 8/10/2017 | FC-CCR-MW60-81017 | **130** | <6.0 | <6.0 | **130** | <6.0 | -- | **540** | -- | -- | -- | **28** | -- | -- | -- | **1,200** | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 8/10/2017 | FC-CCR-MW60-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 8/10/2017 | FC-CCR-MW60-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 8/17/2017 | FC-CCR-MW60-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 8/17/2017 | FC-CCR-MW60-81717 | **130** | <6.0 | <6.0 | **130** | <6.0 | -- | **560** | -- | -- | -- | **32** | -- | -- | -- | **1,200** | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/10/2017 | FC-CCR-MW60-91017 | **130** | <6.0 | <6.0 | **130** | <6.0 | -- | **520** | -- | -- | -- | **26** | -- | -- | -- | **1,100** | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/10/2017 | FC-CCR-MW60-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 9/10/2017 | FC-CCR-MW60-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 | **0.8** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 10/12/2017 | FC-CCR-MW60-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **1.1** | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 10/12/2017 | FC-CCR-MW60-101217 | **130** | <6.0 | <6.0 | **130** | <6.0 | -- | **480** | -- | -- | -- | **26** | -- | -- | -- | **1,100** | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 6/21/2020 | FC-CCR-MW60-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 11/8/2020 | FC-CCR-MW60-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 4/24/2021 | FC-CCR-MW60-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 11/13/2021 | FC-CCR-MW60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 5/23/2022 | FC-CCR-MW60-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 11/10/2022 | FC-CCR-MW60-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 5/2/2023 | FC-CCR-MW60-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 11/09/2023 | FC-CCR-MW60-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 05/16/2024 | FC-CCR-MW60-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-60 | Multiunit 1 | Supplementary | 10/28/2024 | FC-CCR-MW60-1024 | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- | -- | -- | | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/6/2015 | FC-CCR-MW61-110615 | **64** | **34** | -- | **98** | -- | -- | **110** | -- | -- | -- | **18** | -- | -- | -- | **1,000** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/6/2015 | FC-CCR-MW61-110615 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.288** | **1.01** | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/6/2015 | *DUP* FC-CCR-FD-1-110615 | **59** | **44** | -- | **100** | -- | -- | **110** | -- | -- | -- | **19** | -- | -- | -- | **1,100** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/6/2015 | *DUP* FC-CCR-FD-1-110615 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.622** | **0.665** | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 4/26/2016 | FC-CCR-MW-61-042616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **1.1** | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/6/2016 | FC-CCR-MW61-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.8 | -- | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Constituent: | | | | | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Magnesium | Manganese | Nickel | Potassium | Potassium | Radium 226 | Radium 228 | Sodium | Sodium | Zinc |
| Filtered: | | | | | N | N | N | N | N | N | N | Y | N | N | N | Y | N | N | N | Y | N |
| Units: | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L | mg/L | mg/L |
| *Multiunit 1 BTV* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *Multiunit 1 GWPS* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/6/2016 | FC-CCR-MW61-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW61-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW61-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/21/2016 | FC-CCR-MW61-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **1.0** | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW61-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW61-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 9/13/2016 | FC-CCR-MW61-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.3** | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/19/2016 | FC-CCR-MW101-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/19/2016 | FC-CCR-MW101-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.2 | <0.4 | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/20/2016 | FC-CCR-MW61-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/20/2016 | FC-CCR-MW61-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | **0.7** | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW61-117 | **66** | **24** | <6.0 | **90** | **12** | **--** | **120** | -- | -- | -- | **20** | -- | -- | -- | **1,000** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW61-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 2/2/2017 | FC-CCR-MW61-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.2** | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW61-41817 | **77** | **11** | <6.0 | **89** | <6.0 | **--** | **120** | -- | -- | -- | **20** | -- | -- | -- | **1,100** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW61-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.6 | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW61-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW61-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW61-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.7** | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW61-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW61-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW61-62217 | **76** | **14** | <6.0 | **90** | **6.8** | **--** | **120** | -- | -- | -- | **20** | -- | -- | -- | **1,100** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW61-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW61-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.6 | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW61-72217 | **88** | <6.0 | <6.0 | **88** | <6.0 | -- | **130** | -- | -- | -- | **21** | -- | -- | -- | **1,100** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW61-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW61-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | <0.6 | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW61-81017 | **88** | <6.0 | <6.0 | **88** | <6.0 | -- | **130** | -- | -- | -- | **21** | -- | -- | -- | **1,100** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW61-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW61-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/17/2017 | FC-CCR-MW61-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 8/17/2017 | FC-CCR-MW61-81717 | **89** | <6.0 | <6.0 | **89** | <6.0 | -- | **130** | -- | -- | -- | **24** | -- | -- | -- | **1,100** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW61-91017 | **73** | **17** | <6.0 | **90** | **8.3** | **--** | **120** | -- | -- | -- | **20** | -- | -- | -- | **1,000** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW61-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW61-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.7** | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/12/2017 | FC-CCR-MW61-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **1.6** | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/12/2017 | FC-CCR-MW61-101217 | **76** | **14** | <6.0 | **90** | **7.0** | **--** | **120** | -- | -- | -- | **19** | -- | -- | -- | **1,000** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/30/2017 | FC-CCR-MW61-113017 | **78** | **11** | <6.0 | **90** | <6.0 | -- | **120** | -- | -- | -- | **22** | -- | -- | -- | **1,100** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 3/17/2018 | FC-CCR-MW61-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.9 | <0.8 | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-61-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-61-6118 | **91** | <6.0 | <6.0 | **91** | <6.0 | -- | **120** | -- | -- | -- | **19** | -- | -- | -- | **980** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | *DUP* FC-CCR-FD01-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | *DUP* FC-CCR-FD01-6118 | **89** | <6.0 | <6.0 | **91** | <6.0 | -- | **120** | -- | -- | -- | **20** | -- | -- | -- | **980** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/3/2018 | FC-CCR-MW61-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/3/2018 | FC-CCR-MW61-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/3/2018 | FC-CCR-MW61-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW61-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW61-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/13/2019 | FC-CCR-MW61-51319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/13/2019 | FC-CCR-MW61-51319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 | <0.7 | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/19/2019 | FC-CCR-MW61-111919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 6/21/2020 | FC-CCR-MW61-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | <0.6 | -- | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/8/2020 | FC-CCR-MW61-1120 | **61** | **33** | <6 | **94** | **17** | **--** | **140** | **--** | **--** | -- | **25** | **--** | <0.4 | <0.8 | **1,100** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 4/23/2021 | FC-CCR-MW61-0421 | **72** | **26** | <6 | **97** | **13** | -- | **130** | -- | -- | -- | **23** | -- | <0.4 | **0.9** | **1,000** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/13/2021 | FC-CCR-MW61-1121 | **59** | **32** | <6 | **91** | **16** | -- | **140** | -- | -- | -- | **21** | -- | **0.6** | <0.6 | **1,100** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/22/2022 | FC-CCR-MW61-0522 | **68** | **29** | <6 | **97** | **15** | -- | **140** | -- | -- | -- | **20** | -- | **0.4** | <0.6 | **1,100** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/11/2022 | FC-CCR-MW61-1122 | **64** | **33** | <6 | **97** | **16** | -- | **150** | -- | -- | -- | **21** | -- | <0.3 | <0.6 | **1,100** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 5/4/2023 | FC-CCR-MW61-0523 | **74** | **23** | <6 | **97** | **12** | -- | **160** | -- | -- | **0.46** | **24** | -- | **0.6** | **2.2** | **1,100** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 11/09/2023 | FC-CCR-MW61-1124 | **99** | <6 | <6 | **99** | <6 | -- | **190** | -- | -- | -- | **28** | -- | <0.42 | <0.75 | **1,200** | -- | -- |
| MW-61 | Multiunit 1 | Downgradient Boundary | 05/16/2024 | FC-CCR-MW61-0524 | **100** | <6 | <6 | **100** | <6 | -- | **150** | -- | -- | -- | **21** | -- | <0.51 | **1.3** | **940** | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Magnesium | Manganese | Nickel | Potassium | Potassium | Radium 226 | Radium 228 | Sodium | Sodium | Zinc |
| | | | | Filtered: | N | N | N | N | N | N | N | Y | N | N | N | Y | N | N | N | Y | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-61 | Multiunit 1 | Downgradient Boundary | 10/25/2024 | FC-CCR-MW61-1024 | **74.8** | **35.3** | -- | **--** | -- | -- | **157** | | -- | -- | **25.6** | | **0.6** | **0.8** | **1,200** | | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW-75-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.6** | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW75-41817 | **94** | <6.0 | <6.0 | **94** | <6.0 | -- | **210** | -- | -- | -- | **21** | -- | -- | -- | **1,200** | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 4/18/2017 | FC-CCR-MW75-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW-75-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | <0.6 | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/3/2017 | FC-CCR-MW75-5317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW-75-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.9** | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/30/2017 | FC-CCR-MW75-53017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW75-62217 | **95** | <6.0 | <6.0 | **95** | <6.0 | -- | **240** | -- | -- | -- | **23** | -- | -- | -- | **1,300** | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW75-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 6/22/2017 | FC-CCR-MW-75-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.6 | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW75-72217 | **95** | <6.0 | <6.0 | **95** | <6.0 | -- | **240** | -- | -- | -- | **23** | -- | -- | -- | **1,300** | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW75-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 7/22/2017 | FC-CCR-MW75-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW75-81017 | **94** | <6.0 | <6.0 | **94** | <6.0 | -- | **240** | -- | -- | -- | **23** | -- | -- | -- | **1,300** | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW75-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 8/10/2017 | FC-CCR-MW75-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.0** | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 8/17/2017 | FC-CCR-MW75-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 8/17/2017 | FC-CCR-MW75-81717 | **95** | <6.0 | <6.0 | **95** | <6.0 | -- | **240** | -- | -- | -- | **26** | -- | -- | -- | **1,300** | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW75-91017 | **96** | <6.0 | <6.0 | **96** | <6.0 | -- | **230** | -- | -- | -- | **22** | -- | -- | -- | **1,200** | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW75-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 9/10/2017 | FC-CCR-MW75-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **0.8** | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 10/12/2017 | FC-CCR-MW75-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | **0.8** | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 10/12/2017 | FC-CCR-MW75-101217 | **96** | <6.0 | <6.0 | **96** | <6.0 | -- | **220** | -- | -- | -- | **21** | -- | -- | -- | **1,200** | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/30/2017 | FC-CCR-MW75-113017 | **90** | <6.0 | <6.0 | **90** | <6.0 | -- | **230** | -- | -- | -- | **24** | -- | -- | -- | **1,300** | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/30/2017 | *DUP* FC-CCR-FD02-113017 | **90** | <6.0 | <6.0 | **90** | <6.0 | -- | **230** | -- | -- | -- | **24** | -- | -- | -- | **1,200** | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 3/17/2018 | FC-CCR-MW75-31718 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.8 | <0.8 | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-75-6118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.4** | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 6/1/2018 | FC-CCR-MW-75-6118 | **98** | <6.0 | <6.0 | **98** | <6.0 | -- | **210** | -- | -- | -- | **21** | -- | -- | -- | **1,100** | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/3/2018 | FC-CCR-MW75-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/3/2018 | FC-CCR-MW75-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/3/2018 | FC-CCR-MW75-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW75-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 3/19/2019 | FC-CCR-MW75-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/13/2019 | FC-CCR-MW75-51319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/13/2019 | FC-CCR-MW75-51319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 | <0.7 | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/19/2019 | FC-CCR-MW75-111919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 6/21/2020 | FC-CCR-MW75-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | <0.6 | -- | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/8/2020 | FC-CCR-MW75-1120 | **99** | <6 | <6 | **99** | <6 | -- | **250** | -- | -- | -- | **27** | -- | <0.4 | <0.8 | **1,300** | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 4/23/2021 | FC-CCR-MW75-0421 | **100** | <6 | <6 | **100** | <6 | -- | **240** | -- | -- | -- | **25** | -- | <0.5 | <0.8 | **1,300** | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/13/2021 | FC-CCR-MW75-1121 | **98** | <6 | <6 | **98** | <6 | -- | **240** | -- | -- | -- | **22** | -- | <0.3 | **0.8** | **1,300** | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/22/2022 | FC-CCR-MW75-0522 | **100** | <6 | <6 | **100** | <6 | -- | **230** | -- | -- | -- | **23** | -- | <0.3 | **1.4** | **1,300** | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/11/2022 | FC-CCR-MW75-1122 | **100** | <6 | <6 | **100** | <6 | -- | **250** | -- | -- | -- | **22** | -- | **0.7** | <0.6 | **1,400** | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 5/4/2023 | FC-CCR-MW75-0523 | **100** | <6 | <6 | **100** | <6 | -- | **250** | -- | -- | **0.31** | **26** | -- | **0.7** | <0.6 | **1,400** | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 11/08/2023 | FC-CCR-MW75-1124 | **100** | <6 | <6 | **100** | <6 | -- | **290** | -- | -- | -- | **29** | -- | <0.42 | <0.75 | **1,500** | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 05/16/2024 | FC-CCR-MW75-0524 | **100** | <6 | <6 | **100** | <6 | -- | **310** | -- | -- | -- | **28** | -- | <0.5 | **2.0** | **1,500** | -- | -- |
| MW-75 | Multiunit 1 | Downgradient Boundary | 10/25/2024 | FC-CCR-MW75-1024 | **110** | <20 | -- | **--** | -- | -- | **248** | | -- | -- | **28.5** | | **0.9** | **1.4** | **1,490** | | -- |
| MW-76 | Multiunit 1 | Downgradient Boundary | 4/26/2021 | FC-CCR-MW76-0421 | **270** | <6 | <6 | **270** | <6 | -- | **200** | -- | -- | -- | **29** | -- | <0.5 | <0.8 | **1,200** | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 3/19/2019 | FC-CCR-MW87-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 3/19/2019 | FC-CCR-MW87-031919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 | **1.5** | -- | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 5/14/2019 | FC-CCR-MW87-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 5/14/2019 | FC-CCR-MW87-51419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.4** | -- | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 6/22/2019 | FC-NIT-MW87-62219 | **830** | <6.0 | <6.0 | **830** | <6.0 | -- | **1,200** | -- | -- | -- | **83** | -- | -- | -- | **6,300** | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 11/19/2019 | FC-CCR-MW87-111919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 11/19/2019 | *DUP* FC-CCR-FD02-111919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 6/23/2020 | FC-CCR-MW87-0620 | **900** | <6 | <6 | **900** | <6 | -- | **1,500** | -- | -- | -- | **78** | -- | **0.8** | **2.0** | **7,200** | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 11/6/2020 | FC-CCR-MW87-1120 | **800** | <6 | <6 | **800** | <6 | -- | **2,000** | -- | -- | -- | **130** | -- | **1.0** | **2.7** | **8,300** | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 4/27/2021 | FC-CCR-MW87-0421 | **900** | <6 | <6 | **900** | <6 | **0.56** | **2,300** | -- | **0.58** | -- | **130** | -- | <0.5 | <0.8 | **9,600** | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 11/17/2021 | FC-CCR-MW87-1121 | **1,200** | <6 | <6 | **1,200** | <6 | **1.6** | **3,500** | -- | **0.43** | -- | **130** | -- | **0.6** | <0.7 | **14,000** | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 11/17/2021 | FC-CCR-FD04-1121 | **1,100** | <6 | <6 | **1,100** | <6 | **1.5** | **3,500** | -- | **0.43** | -- | **130** | -- | **0.7** | <0.7 | **13,000** | -- | -- |

**Table G-6**
**Groundwater Sampling Results for the Multiunit Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Magnesium | Manganese | Nickel | Potassium | Potassium | Radium 226 | Radium 228 | Sodium | Sodium | Zinc |
| | | | | Filtered: | N | N | N | N | N | N | N | Y | N | N | N | Y | N | N | N | Y | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L | mg/L | mg/L |
| | | | | *Multiunit 1 BTV* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *Multiunit 1 GWPS* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-87 | Multiunit 1 | Downgradient | 2/8/2022 | FC-CCR-MW87-0222 | **1,200** | <6 | <6 | **1,200** | <6 | **0.52** | **3,000** | -- | -- | -- | **100** | -- | -- | -- | **13,000** | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 5/24/2022 | FC-CCR-MW87-0522 | **1,200** | <6 | <6 | **1,200** | <6 | **0.31** | **2,900** | -- | **0.47** | -- | **110** | -- | **0.8** | **3.1** | **11,000** | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 5/24/2022 | *DUP* FC-CCR-FD04-0522 | **1,200** | <6 | <6 | **1,200** | <6 | **0.33** | **3,000** | -- | **0.47** | -- | **110** | -- | **0.6** | **3.3** | **11,000** | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 5/24/2022 | FC-CCR-SS07-0522 | **1,160** | <20 | <20 | **1,160** | -- | <7.5 | **2,680** | -- | <2.5 | -- | **101** | -- | -- | -- | **10,900** | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 8/11/2022 | FC-CCR-MW87-0822 | **1,300** | <6 | <6 | **1,300** | <6 | <1 | **3,300** | -- | -- | -- | **83** | -- | -- | -- | **11,000** | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 8/11/2022 | *DUP* FC-CCR-FD01-0822 | **1,300** | <6 | <6 | **1,300** | <6 | <1 | **3,200** | -- | -- | -- | **83** | -- | -- | -- | **12,000** | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 11/15/2022 | FC-CCR-MW87-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** | **3.3** | -- | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 5/5/2023 | FC-CCR-MW87-0523 | **1,200** | <6 | <6 | **1,200** | <6 | **0.33** | **3,900** | -- | **0.35** | **0.051** | **110** | -- | <0.46 | **2.3** | **9,800** | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 05/23/2024 | FC-CCR-MW87-0524 | **1,400** | <6 | <6 | **1,400** | <6 | **3.0** | **5,100** | -- | 1.7 | -- | **160** | -- | <0.5 | **1.7** | **13,000** | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 05/23/2024 | Be re-run | **--** | -- | -- | **--** | -- | **--** | **--** | -- | -- | -- | **--** | -- | -- | **--** | **--** | -- | -- |
| MW-87 | Multiunit 1 | Downgradient | 11/12/2024 | FC-CCR-MW87-1024 | **1,560** | <20 | -- | **--** | -- | <0.25 | **3,600** | -- | **0.868** | -- | **144** | -- | **1.1** | **4.1** | **13,200** | -- | -- |
| EW-14 | Extraction Monitor | Supplementary | 6/23/2020 | FC-CCR-EW14-0620 | **140** | <6 | <6 | **140** | <6 | -- | **420** | -- | -- | -- | **26** | -- | <0.4 | <0.6 | **1,400** | -- | -- |
| EW-14 | Extraction Monitor | Supplementary | 11/16/2023 | FC-CCR-EW14-1124 | -- | -- | -- | -- | -- | **0.13** | **380** | -- | **3.8** | -- | -- | -- | -- | -- | -- | -- | -- |
| EW-14 | Extraction Monitor | Supplementary | 05/23/2024 | FC-CCR-EW14-0524 | -- | -- | -- | -- | -- | **0.21** | **350** | -- | **1.7** | -- | -- | -- | -- | -- | -- | -- | -- |
| EW-14 | Extraction Monitor | Supplementary | 11/13/2024 | FC-CCR-EW14-1124 | -- | -- | -- | -- | -- | <0.05 | **352** | -- | **1.85** | -- | -- | -- | -- | -- | -- | -- | -- |
| EW-15 | Extraction Monitor | Supplementary | 11/16/2023 | FC-CCR-EW15-1124 | -- | -- | -- | -- | -- | **0.12** | **590** | -- | **2.7** | -- | -- | -- | -- | -- | -- | -- | -- |
| EW-15 | Extraction Monitor | Supplementary | 6/23/2020 | FC-CCR-EW15-0620 | **140** | <6 | <6 | **140** | <6 | -- | **350** | -- | -- | -- | **26** | -- | <0.4 | **0.8** | **1,200** | -- | -- |
| EW-15 | Extraction Monitor | Supplementary | 05/21/2024 | FC-CCR-EW15-0524 | -- | -- | -- | -- | -- | **0.27** | **520** | -- | **2.1** | -- | -- | -- | -- | -- | -- | -- | -- |
| EW-15 | Extraction Monitor | Supplementary | 11/14/2024 | FC-CCR-EW15-1124 | -- | -- | -- | -- | -- | <0.05 | **472** | -- | **1.99** | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-50B | Multiunit 1 | -- | 3/17/2015 | FCPP-50B-031715 | **630** | <6.0 | <6.0 | **630** | <6.0 | -- | <200 | -- | -- | -- | **79** | -- | -- | -- | **4,500** | -- | -- |

*Notes:*

BTV exceedances are shown in grey shaded cells. GWPS exceedences are shown in red text.

*Abbreviations and Data Qualifiers:*

* data appears anomalous
< = less than
BTV = Background Threshold Value
degrees C = degrees Celsius
GWPS = Groundwater Protection Standard
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
mg/L = milligrams per liter
pCi/L = Picocuries per liter
su = standard units
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.
UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

# Table G-7
## Groundwater Sampling Results for the CWTP Monitoring Wells - Appendix III Constituents

| | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | *CWTP BTV (applicable to MW-62)* | *2* | *536* | *631* | *1.8* | *6.5 - 6.9* | *6.5 - 6.9* | *13,000* | *20,000* |
| | | | *CWTP BTV (applicable to MW-63)* | *2* | *536* | *631* | *2.3* | *6.5 - 6.9* | *6.5 - 6.9* | *13,000* | *20,000* |
| | | | *CWTP BTV (applicable to MW-64)* | *0.73* | *486* | *631* | *1.6* | *7.23 - 7.66* | *7.23 - 7.66* | *13,000* | *20,000* |
| | | | *CWTP BTV (applicable to MW-65)* | *0.73* | *486* | *631* | *2.1* | *7.00 - 7.44* | *7.00 - 7.44* | *13,000* | *20,000* |
| | | | *CWTP GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | |
| MW-71 | URS/CWTP | Background | 3/5/2016 | FC-CCR-MW-71-030516 | **0.44** | **450** | **660** | <0.050 | **7.73** | -- | **8,500** | **13,000** |
| MW-71 | URS/CWTP | Background | 3/5/2016 | FC-CCR-MW-71-030516 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 3/5/2016 | *DUP* FC-CCR-FD-2-030516 | **0.46** | **480** | **670** | <0.050 | -- | -- | **8,500** | **13,000** |
| MW-71 | URS/CWTP | Background | 3/5/2016 | *DUP* FC-CCR-FD-2-030516 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 4/26/2016 | FC-CCR-MW-71-042616 | **0.69** | **470** | **670** | <2.0 | **6.58** | -- | **13,000** | **21,000** |
| MW-71 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW71-616 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW71-616 | **0.70** | **460** | **750** | <0.40 | **6.47** | **6.87** | **13,000** | **20,000** |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW71-816 | **0.56** | **450** | **590** | <0.80 | **7.04** | **7.1** | **8,400** | **14,000** |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW71-816 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW71-816 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW101-816 | -- | -- | -- | -- | -- | **7.1** | -- | **14,000** |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW101-816 | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW101-816 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 9/12/2016 | FC-CCR-MW71-916 | **0.58** | **460** | **570** | <0.40 | **6.86** | **7.2** | **9,300** | **16,000** |
| MW-71 | URS/CWTP | Background | 9/12/2016 | FC-CCR-MW71-916 | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 9/12/2016 | FC-CCR-MW71-916 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW71-1016 | **0.55** | **410** | **580** | <0.40 | **6.90** | **7.3** | **9,100** | **15,000** |
| MW-71 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW71-1016 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW71-117 | **0.62** | **440** | **610** | <0.40 | **6.64** | **7.6** | **14,000** | **17,000** |
| MW-71 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW71-117 | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW71-117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW71-41717 | **0.52** | **400** | **550** | <2.0 | **6.81** | **7.6** | **9,400** | **15,000** |
| MW-71 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW71-41717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW71-41717 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW71-5217 | -- | -- | -- | <13 | **6.86** | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW71-5217 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW71-52917 | -- | -- | -- | <2.0 | **6.76** | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW71-52917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW71-62217 | **0.60** | **460** | **620** | -- | **6.79** | **7.2** | **4,600** | **17,000** |
| MW-71 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW71-62217 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW71-62117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW71-72117 | **0.55** | **450** | **590** | <2.0 | **7.00** | **7.1** | **10,000** | **15,000** |
| MW-71 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW71-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW71-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW71-81017 | **0.55** | **450** | **560** | -- | **6.59** | **7.4** | **10,000** | **15,000** |
| MW-71 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW71-81017 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW71-81017 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW71-81717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW71-81717 | **0.56** | **480** | **570** | <2.0 | **6.62** | **7.3** | **9,500** | **15,000** |
| MW-71 | URS/CWTP | Background | 9/11/2017 | FC-CCR-MW71-91117 | **0.55** | **470** | **570** | -- | **6.56** | **7.1** | **9,900** | **15,000** |
| MW-71 | URS/CWTP | Background | 9/11/2017 | FC-CCR-MW71-91117 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 9/11/2017 | FC-CCR-MW71-91117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW71-101317 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW71-101317 | **0.54** | **420** | **570** | <2.0 | **6.79** | **7.2** | **10,000** | **15,000** |
| MW-71 | URS/CWTP | Background | 11/30/2017 | FC-CCR-MW71-113017 | **0.56** | **490** | **540** | <2.0 | **6.71** | **7.1** | **10,000** | **15,000** |
| MW-71 | URS/CWTP | Background | 3/16/2018 | FC-CCR-MW71-31618 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-71-6218 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-71-6218 | **0.55** | **420** | **520** | <0.80 | **6.85** | **7.1** | **10,000** | **15,000** |
| MW-71 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW71-11318 | **0.56** | **470** | **520** | <2.0 | **6.81** | **7.0** | **11,000** | **16,000** |
| MW-71 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW71-11318 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW71-11318 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD01-11318 | **0.54** | **450** | **520** | <0.80 | -- | **7.2** | **11,000** | **16,000** |
| MW-71 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD01-11318 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW71-031819 | -- | -- | -- | <0.80 | **6.68** | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW71-031819 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 5/6/2019 | FC-CCR-MW71-5719 | -- | -- | -- | -- | **6.66** | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 12/2/2019 | FC-CCR-MW71-120219 | **0.50** | **440** | **500** | <0.80 | **6.66** | **7.2 J** | **10,000** | **16000 J** |
| MW-71 | URS/CWTP | Background | 6/20/2020 | FC-CCR-MW71-0620 | **0.59** | **450** | **480** | <0.8 | **6.71** | **7.3 J** | **9,900** | **15,000** |
| MW-71 | URS/CWTP | Background | 11/5/2020 | FC-CCR-MW71-1120 | **0.59** | **460** | **490** | <0.4 | **6.78** | **7.2 J** | **10,000** | **16,000** |
| MW-71 | URS/CWTP | Background | 4/22/2021 | FC-CCR-MW71-0421 | **0.73** | **510** | **560** | **3.8 NJ** | **6.83** | **7.2 J** | **14,000** | **19,000** |
| MW-71 | URS/CWTP | Background | 11/12/2021 | FC-CCR-MW71-1121 | **0.54** | **440** | **560** | **0.14 J** | **6.74** | **7.4 J** | **12,000** | **8,000** |
| MW-71 | URS/CWTP | Background | 5/21/2022 | FC-CCR-MW71-0522 | **0.56** | **450** | **560** | <0.8 | **6.74** | **7.58 J** | **9,900** | **16,000** |

# Table G-7
## Groundwater Sampling Results for the CWTP Monitoring Wells - Appendix III Constituents

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *CWTP BTV (applicable to MW-62)* | *2* | *536* | *631* | *1.8* | *6.5 - 6.9* | *6.5 - 6.9* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-63)* | *2* | *536* | *631* | *2.3* | *6.5 - 6.9* | *6.5 - 6.9* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-64)* | *0.73* | *486* | *631* | *1.6* | *7.23 - 7.66* | *7.23 - 7.66* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-65)* | *0.73* | *486* | *631* | *2.1* | *7.00 - 7.44* | *7.00 - 7.44* | *13,000* | *20,000* |
| | | | | *CWTP GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-71 | URS/CWTP | Background | 5/21/2022 | FC-CCR-SS04-0522 | **0.78 J** | **467** | **642** | <50 / 0.28 J | **6.74** | **7.8 J** | **12,400** | **16,000** |
| MW-71 | URS/CWTP | Background | 8/14/2022 | FC-CCR-MW71-0822 | **0.44** | -- | -- | -- | **6.80** | **7.0 J** | -- | -- |
| MW-71 | URS/CWTP | Background | 11/13/2022 | FC-CCR-MW71-1122 | **0.52** | **490** | **530** | <0.8 | **6.79** | **7.1 J** | **12,000** | **19,000** |
| MW-71 | URS/CWTP | Background | 01/27/2023 | FC-CCR-MW71-0123 | **0.47** | **460** | -- | -- | **6.99** | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 05/08/2023 | FC-CCR-MW71-0523 | **0.58** | **470** | **570** | <2 | **6.80** | **7.2 J** | **10,000** | **17,000** |
| MW-71 | URS/CWTP | Background | 06/27/2023 | FC-CCR-MW71-0623 | **0.57** | **530** | **600** | <20 | **7.04** | **7.0 J** | **14,000** | **20,000** |
| MW-71 | URS/CWTP | Background | 11/08/2023 | FC-CCR-MW71-1123 | **0.67 J** | **540 J** | **640** | <0.8 | **6.86** | **7.2 J** | **14,000** | **20,000 J** |
| MW-71 | URS/CWTP | Background | 05/16/2024 | FC-CCR-MW71-0524 | **0.76** | **440** | **550** | <0.4 | **6.85** | **7.3 J** | **9,800** | **17000** |
| MW-71 | URS/CWTP | Background | 10/24/2024 | FC-CCR-MW71-1024 | **0.652** | **427** | **611** | <0.38 | **6.83** | **7.24 J** | **10,100** | **18,000** |
| MW-72 | URS/CWTP | Background | 3/7/2016 | FC-CCR-MW72-030716 | **0.16** | **480** | **490** | <0.050 | **7.71** | -- | **12,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 3/7/2016 | FC-CCR-MW72-030716 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 4/26/2016 | FC-CCR-MW-72-042616 | **0.22** | **470** | **430** | <2.0 | **6.87** | -- | **11,000** | **19,000** |
| MW-72 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW72-616 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW72-616 | **0.25** | **570** | **530** | <0.40 | **6.56** | **6.99** | **4,500** | **9,500** |
| MW-72 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW72-816 | **0.23** | **450** | **440** | <0.40 | **6.72** | **7.0** | **10,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW72-816 | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW72-816 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 9/13/2016 | FC-CCR-MW72-916 | **0.24** | **470** | **450** | <0.40 | **6.17** | **7.1** | **10,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 9/13/2016 | FC-CCR-MW72-916 | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 9/13/2016 | FC-CCR-MW72-916 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW72-1016 | **0.23** | **400** | **480** | <0.40 | **6.84** | **7.1** | **11,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW72-1016 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW72-117 | **0.23** | **420** | **430** | <0.40 | **6.63** | **7.5** | **11,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW72-117 | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW72-117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW101-117 | **0.21** | **430** | **450** | <0.40 | -- | **7.5** | **11,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW101-117 | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW101-117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW-72-41717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW72-41717 | **0.20** | **440** | **450** | <2.0 | **6.73** | **7.4** | **610** | **17,000** |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW72-41717 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW-72-5217 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW72-5217 | -- | -- | -- | <13 | **6.83** | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW72-52917 | -- | -- | -- | <2.0 | **6.68** | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW72-62217 | **0.23** | **450** | **450** | -- | **6.65** | **7.1** | **11,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW72-62217 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW-72-62117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | *DUP* FC-CCR-FD02-62217 | **0.22** | **440** | **450** | -- | -- | **7.0** | **11,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 6/22/2017 | *DUP* FC-CCR-FD02-62217 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | *DUP* FC-CCR-FD02-62117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW72-72117 | **0.23** | **450** | **460** | <2.0 | **6.93** | **7.1** | **11,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW72-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW72-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW72-81017 | **0.21** | **450** | **460** | -- | **6.47** | **7.3** | **11,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW72-81017 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW72-81017 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | *DUP* FC-CCR-FD02-81017 | **0.25** | **460** | **460** | -- | -- | **7.2** | **12,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 8/10/2017 | *DUP* FC-CCR-FD02-81017 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | *DUP* FC-CCR-FD02-81017 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW72-81717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW72-81717 | **0.26** | **490** | **450** | <2.0 | **6.18** | **7.1** | **11,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 8/17/2017 | *DUP* FC-CCR-FD02-81717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/17/2017 | *DUP* FC-CCR-FD02-81717 | **0.27** | **480** | **460** | <2.0 | -- | **7.2** | **12,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW72-91017 | **0.21** | **470** | **460** | -- | **6.61** | **7.0** | **11,000** | **17,000** |
| MW-72 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW72-91017 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW72-91017 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW72-101317 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW72-101317 | **0.22** | **430** | **450** | <2.0 | **6.65** | **7.2** | **11,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 11/29/2017 | FC-CCR-MW72-112917 | **0.22** | **500** | **450** | <2.0 | **6.63** | **7.2** | **10,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 3/16/2018 | FC-CCR-MW72-31618 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-72-6218 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-72-6218 | **0.21** | **410** | **450** | <0.80 | **6.75** | **7.0** | **11,000** | **16,000** |

# Table G-7
## Groundwater Sampling Results for the CWTP Monitoring Wells - Appendix III Constituents

| | | | | Constituent: | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *CWTP BTV (applicable to MW-62)* | *2* | *536* | *631* | *1.8* | *6.5 - 6.9* | *6.5 - 6.9* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-63)* | *2* | *536* | *631* | *2.3* | *6.5 - 6.9* | *6.5 - 6.9* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-64)* | *0.73* | *486* | *631* | *1.6* | *7.23 - 7.66* | *7.23 - 7.66* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-65)* | *0.73* | *486* | *631* | *2.1* | *7.00 - 7.44* | *7.00 - 7.44* | *13,000* | *20,000* |
| | | | | *CWTP GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-72 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW72-11318 | **0.22** | **470** | **450** | <2.0 | **6.75** | **7.0** | **11,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW72-11318 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW72-11318 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD02-11318 | **0.21** | **460** | **450** | <2.0 | -- | **7.1** | **11,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD02-11318 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 3/17/2019 | FC-CCR-MW72-031719 | -- | -- | -- | <0.80 | **6.68** | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 3/17/2019 | FC-CCR-MW72-031719 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 5/7/2019 | FC-CCR-MW72-5719 | -- | -- | -- | -- | **6.85** | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 12/2/2019 | FC-CCR-MW72-120219 | **0.19** | **430** | **430** | <0.80 | **6.62** | **7.1 J** | **11,000** | **16000 J** |
| MW-72 | URS/CWTP | Background | 6/19/2020 | FC-CCR-MW72-0620 | **0.23** | **440** | **400** | <0.8 | **6.65** | **7.2 J** | **11,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 11/5/2020 | FC-CCR-MW72-1120 | **0.24** | **470** | **430** | <0.4 | **6.70** | **7.1 J** | **10,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 4/22/2021 | FC-CCR-MW72-0421 | **0.25** | **480** | **400** | <0.8 | **6.89** | **7.2 J** | **10,000** | **16,000** |
| MW-72 | URS/CWTP | Background | 11/12/2021 | FC-CCR-MW72-1121 | **0.22** | **440** | **450** | <0.8 | **6.64** | **7.1 J** | **11,000** | **14,000** |
| MW-72 | URS/CWTP | Background | 5/22/2022 | FC-CCR-MW72-0522 | **0.22** | **440** | **410** | <0.8 | **6.63** | **7.50 J** | **9,600** | **13,000** |
| MW-72 | URS/CWTP | Background | 8/13/2022 | FC-CCR-MW72-0822 | **0.14** | -- | -- | -- | **6.81** | **7.0 J** | -- | -- |
| MW-72 | URS/CWTP | Background | 11/13/2022 | FC-CCR-MW72-1122 | **0.15** | **470** | **400** | <0.8 | **6.81** | **7.2 J** | **10,000** | **15,000** |
| MW-72 | URS/CWTP | Background | 01/27/2023 | FC-CCR-MW72-0123 | **0.16** | **470** | -- | -- | **6.97** | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 05/08/2023 | FC-CCR-MW72-0523 | **0.28** | **440** | **440** | **4.2** | **6.75** | **7.2 J** | **9,800** | **15,000** |
| MW-72 | URS/CWTP | Background | 06/27/2023 | FC-CCR-MW72-0623 | **0.18** | **510** | **430** | <20 | **7.06** | **7.1 J** | **9,700** | **15,000** |
| MW-72 | URS/CWTP | Background | 11/08/2023 | FC-CCR-MW72-1123 | **0.21 J** | **500 J** | **430** | <0.8 | **6.89** | **7.3 J** | **9,500** | **15,000** |
| MW-72 | URS/CWTP | Background | 05/16/2024 | FC-CCR-MW72-0524 | **0.28** | **470** | **400** | <0.4 | **6.83** | **7.3 J** | **8,500** | **14,000** |
| MW-72 | URS/CWTP | Background | 10/24/2024 | FC-CCR-MW72-1024 | **0.291** | **419** | **415** | <0.38 | **6.88** | **7.30 J** | **9,080** | **15,100** |
| MW-73 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW73-117 | **1.6** | **480** | **380** | <0.40 | **6.65** | **7.5** | **5,400** | **8,800** |
| MW-73 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW73-117 | -- | -- | -- | <0.40 | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW73-117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 4/18/2017 | FC-CCR-MW73-41817 | **1.6** | **450** | **340** | <0.80 | **6.70** | **7.3** | **5,700** | **9,200** |
| MW-73 | URS/CWTP | Background | 4/18/2017 | FC-CCR-MW73-41817 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 4/18/2017 | FC-CCR-MW73-41817 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW73-5217 | -- | -- | -- | <5.0 | **6.70** | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW73-5217 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW73-52917 | -- | -- | -- | <0.80 | **6.70** | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW73-52917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW73-62217 | **1.6** | **490** | **450** | -- | **6.74** | **7.0** | **6,700** | **11,000** |
| MW-73 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW73-62217 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW73-62117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 7/22/2017 | FC-CCR-MW73-72217 | **1.6** | **490** | **520** | <0.80 | **6.83** | **7.1** | **8,000** | **12,000** |
| MW-73 | URS/CWTP | Background | 7/22/2017 | FC-CCR-MW73-72217 | -- | -- | -- | <2.0 | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 7/22/2017 | FC-CCR-MW73-72217 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 7/22/2017 | *DUP* FC-CCR-FD02-72217 | **1.6** | **490** | **500** | <2.0 | -- | **7.1** | **7,800** | **12,000** |
| MW-73 | URS/CWTP | Background | 7/22/2017 | *DUP* FC-CCR-FD02-72217 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW73-81017 | **1.7** | **500** | **540** | -- | **6.45** | **7.4** | **7,700** | **12,000** |
| MW-73 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW73-81017 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW73-81017 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW73-81717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW73-81717 | **1.7** | **540** | **550** | <0.80 | **6.50** | **7.0** | **7,600** | **11,000** |
| MW-73 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW73-91017 | **1.9** | **520** | **470** | -- | **6.62** | **7.0** | **6,000** | **9,900** |
| MW-73 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW73-91017 | -- | -- | -- | <0.80 | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW73-91017 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 10/12/2017 | FC-CCR-MW73-101217 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 10/12/2017 | FC-CCR-MW73-101217 | **2.0** | **510** | **310** | <0.80 | **6.64** | **7.3** | **3,900** | **6,600** |
| MW-73 | URS/CWTP | Background | 10/12/2017 | *DUP* FC-CCR-FD01-101217 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 10/12/2017 | *DUP* FC-CCR-FD01-101217 | **2.0** | **510** | **300** | <0.80 | -- | **7.1** | **3,700** | **6,600** |
| MW-73 | URS/CWTP | Background | 11/29/2017 | FC-CCR-MW73-112917 | **1.8** | **550** | **420** | <0.80 | **6.61** | **7.1** | **5,600** | **8,900** |
| MW-73 | URS/CWTP | Background | 3/16/2018 | FC-CCR-MW73-31618 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-73-6218 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-73-6218 | **1.6** | **460** | **550** | <0.80 | **6.67** | **6.9** | **7,100** | **12,000** |
| MW-73 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW73-11318 | **1.7** | **480** | **660** | <0.80 | **6.64** | **7.0** | **7,500** | **12,000** |
| MW-73 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW73-11318 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW73-031819 | -- | -- | -- | <0.80 | **6.95** | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW73-031819 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 5/6/2019 | FC-CCR-MW73-5619 | -- | -- | -- | -- | **6.51** | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 12/2/2019 | FC-CCR-MW73-120219 | **1.6** | **460** | **520** | <0.80 | **6.49** | **7.1 J** | **7,100** | **11000 J** |

# Table G-7
## Groundwater Sampling Results for the CWTP Monitoring Wells - Appendix III Constituents

| | | | | Constituent: | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *CWTP BTV (applicable to MW-62)* | *2* | *536* | *631* | *1.8* | *6.5 - 6.9* | *6.5 - 6.9* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-63)* | *2* | *536* | *631* | *2.3* | *6.5 - 6.9* | *6.5 - 6.9* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-64)* | *0.73* | *486* | *631* | *1.6* | *7.23 - 7.66* | *7.23 - 7.66* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-65)* | *0.73* | *486* | *631* | *2.1* | *7.00 - 7.44* | *7.00 - 7.44* | *13,000* | *20,000* |
| | | | | *CWTP GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-73 | URS/CWTP | Background | 12/2/2019 | *DUP* FC-CCR-FD01-120219 | **1.7** | **480** | **500** | <0.80 | -- | **7.0 J** | **6,900** | **11000 J** |
| MW-73 | URS/CWTP | Background | 6/20/2020 | FC-CCR-MW73-0620 | **1.7** | **450** | **520** | <0.8 | **6.53** | **7.2 J** | **7,200** | **12,000** |
| MW-73 | URS/CWTP | Background | 11/5/2020 | FC-CCR-MW73-1120 | **1.6** | **480** | **530** | **0.063 J** | **6.65** | **7.0 J** | **7,100** | **12,000** |
| MW-73 | URS/CWTP | Background | 4/22/2021 | FC-CCR-MW73-0421 | **1.6** | **530** | **380** | <0.4 | **6.76** | **7.1 J** | **5,700** | **9,700** |
| MW-73 | URS/CWTP | Background | 11/13/2021 | FC-CCR-MW73-1121 | **1.6** | **460** | **560** | **0.12 J** | **6.48** | **7.0 J** | **7,400** | **9,600** |
| MW-73 | URS/CWTP | Background | 5/22/2022 | FC-CCR-MW73-0522 | **1.6** | **470** | **570** | <0.8 | **6.55** | **7.47 J** | **7,100** | **11,000** |
| MW-73 | URS/CWTP | Background | 8/13/2022 | FC-CCR-MW73-0822 | **1.6** | -- | -- | -- | **6.66** | **6.9 J** | -- | -- |
| MW-73 | URS/CWTP | Background | 11/14/2022 | FC-CCR-MW73-1122 | **1.6** | **490** | **610** | <0.8 | **6.73** | **7.0 J** | **6,800** | **12,000** |
| MW-73 | URS/CWTP | Background | 01/27/2023 | FC-CCR-MW73-0123 | **1.6** | **480** | -- | -- | **6.77** | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 05/07/2023 | FC-CCR-MW73-0523 | **1.9** | **510** | **740** | <80 | **6.62** | **7.0 J** | **8,200** | **12,000** |
| MW-73 | URS/CWTP | Background | 06/27/2023 | FC-CCR-MW73-0623 | **1.7** | **520** | **640** | <20 | **6.82** | **6.9 J** | **7,000** | **12,000** |
| MW-73 | URS/CWTP | Background | 11/08/2023 | FC-CCR-MW73-1123 | **1.7 J** | **550 J** | **650** | <0.8 | **6.72** | **7.2 J** | **7,000** | **12,000** |
| MW-73 | URS/CWTP | Background | 05/16/2024 | FC-CCR-MW73-0524 | **2.4** | **520** | **520** | <0.4 | **6.65** | **7.1 J** | **6,300** | **11,000** |
| MW-73 | URS/CWTP | Background | 10/24/2024 | FC-CCR-MW73-1024 | **1.73** | **409** | **620** | <0.38 | **6.72** | **7.03 J** | **6,750** | **12,600** |
| MW-62 | CWTP | Downgradient Boundary | 11/9/2015 | FC-CCR-MW62-110915 | **2.1** | **520** | **150** | **1.6** | **6.63** | **6.94** | **3,600** | **6,700** |
| MW-62 | CWTP | Downgradient Boundary | 11/9/2015 | FC-CCR-MW62-110915 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-62-042716 | -- | -- | -- | **1.6** | **6.77** | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW62-616 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW62-616 | **2.0** | **510** | **140** | **1.5** | **6.50** | **6.86** | **3,300** | **5,900** |
| MW-62 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW62-816 | **2.3** | **530** | **120** | **1.5** | **7.40** | **6.7** | **3,300** | **5,800** |
| MW-62 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW62-816 | -- | -- | -- | **1.3** | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW62-816 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW62-916 | **2.5** | **570** | **130** | **1.5** | **6.73** | **6.9** | **3,300** | **2,400** |
| MW-62 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW62-916 | -- | -- | -- | **1.3** | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW62-916 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW62-1016 | **2.2** | **480** | **120** | **1.2** | -- | **7.0** | **3,300** | **6,000** |
| MW-62 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW62-1016 | -- | -- | -- | -- | **6.57** | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 2/1/2017 | FC-CCR-MW62-117 | **2.1** | **510** | **110** | **1.4** | **6.68** | **7.6** | **3,400** | **5,600** |
| MW-62 | CWTP | Downgradient Boundary | 2/1/2017 | FC-CCR-MW62-117 | -- | -- | -- | **1.4** | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 2/1/2017 | FC-CCR-MW62-117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 4/16/2017 | FC-CCR-MW62-41617 | **1.9** | **500** | **120** | **1.2** | **6.64** | **7.2** | **3,300** | **5,900** |
| MW-62 | CWTP | Downgradient Boundary | 4/16/2017 | FC-CCR-MW62-41617 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 4/16/2017 | FC-CCR-MW62-41617 | -- | -- | -- | **1.2** | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 5/1/2017 | FC-CCR-MW62-5117 | -- | -- | -- | **3.3** | **6.64** | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 5/1/2017 | FC-CCR-MW62-5117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 5/29/2017 | FC-CCR-MW62-52917 | -- | -- | -- | **1.2** | **6.50** | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 5/29/2017 | FC-CCR-MW62-52917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW62-62117 | **1.9** | **520** | **120** | -- | **6.54** | **7.0** | **3,600** | **5,700** |
| MW-62 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW62-62117 | -- | -- | -- | **1.4** | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW62-62117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW62-72117 | **2.1** | **540** | **99** | **1.5** | **6.69** | **7.0** | **3,300** | **5,400** |
| MW-62 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW62-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW62-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW62-8917 | **2.2** | **540** | **110** | -- | **6.41** | **7.0** | **3,400** | **5,400** |
| MW-62 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW62-8917 | -- | -- | -- | **1.4** | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW62-8917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW62-81617 | -- | -- | -- | -- | **6.36** | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW62-81617 | **2.1** | **590** | **110** | **1.6** | -- | **7.0** | **3,200** | **5,400** |
| MW-62 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW62-9917 | **2.3** | **570** | **120** | -- | **6.41** | **6.8** | **3,300** | **5,500** |
| MW-62 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW62-9917 | -- | -- | -- | **1.5** | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW62-9917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW62-101317 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW62-101317 | **2.2** | **520** | **130** | **1.5** | **6.46** | **6.8** | **3,300** | **5,600** |
| MW-62 | CWTP | Downgradient Boundary | 11/30/2017 | FC-CCR-MW62-113017 | **2.3** | **570** | **130** | **1.4** | **6.43** | **7.0** | **3,400** | **5,900** |
| MW-62 | CWTP | Downgradient Boundary | 4/6/2018 | FC-CCR-MW62-4618 | **2.1** | **520** | -- | -- | **6.70** | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 6/3/2018 | FC-CCR-MW-62-6318 | **1.8** | **490** | **120** | **1.6** | **6.59** | **6.8** | **3,500** | **5,900** |
| MW-62 | CWTP | Downgradient Boundary | 11/2/2018 | FC-CCR-MW62-11218 | **2.4** | **550** | **110** | **1.5** | **6.46** | **6.8** | **3,300** | **5,600** |
| MW-62 | CWTP | Downgradient Boundary | 4/1/2019 | FC-CCR-MW62-4119 | **2.0** | **530** | **110** | **1.6** | **6.73** | **7.1** | **3,400** | **5,500** |
| MW-62 | CWTP | Downgradient Boundary | 5/7/2019 | FC-CCR-MW62-5719-01 | **1.8** | **540** | -- | **1.4** | **6.65** | **7.2** | -- | **5,800** |
| MW-62 | CWTP | Downgradient Boundary | 12/3/2019 | FC-CCR-MW62-120319 | **2.1** | **530** | -- | **1.5** | **6.37** | **7.2 J** | -- | **5,000** |
| MW-62 | CWTP | Downgradient Boundary | 6/19/2020 | FC-CCR-MW62-0620 | **1.9** | **490** | **82** | **1.8** | **6.90** | **6.9 J** | **2,800** | **4,700** |
| MW-62 | CWTP | Downgradient Boundary | 11/5/2020 | FC-CCR-MW62-1120 | **2.1 J** | **510** | **130** | **1.8** | **6.57** | **6.9 J** | **3,500** | **5,300** |

# Table G-7
# Groundwater Sampling Results for the CWTP Monitoring Wells - Appendix III Constituents

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *CWTP BTV (applicable to MW-62)* | *2* | *536* | *631* | *1.8* | *6.5 - 6.9* | *6.5 - 6.9* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-63)* | *2* | *536* | *631* | *2.3* | *6.5 - 6.9* | *6.5 - 6.9* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-64)* | *0.73* | *486* | *631* | *1.6* | *7.23 - 7.66* | *7.23 - 7.66* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-65)* | *0.73* | *486* | *631* | *2.1* | *7.00 - 7.44* | *7.00 - 7.44* | *13,000* | *20,000* |
| | | | | *CWTP GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-62 | CWTP | Downgradient Boundary | 1/14/2021 | FC-CCR-MW62-011421 | -- | -- | -- | **1.2** | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 4/22/2021 | FC-CCR-MW62-0421 | **1.9** | **530** | **130** | **1.5** | **6.91** | **7.3 J** | **3,400** | **5,700** |
| MW-62 | CWTP | Downgradient Boundary | 11/15/2021 | FC-CCR-MW62-1121 | **2.3** | **530** | **180** | **1.4** | **6.51** | **7.7 J** | **4,000** | **6,700** |
| MW-62 | CWTP | Downgradient Boundary | 5/20/2022 | FC-CCR-MW62-0522 | **1.8** | **500** | **180** | **1.4** | **6.89** | **7.45 J** | **3,400** | **6,000** |
| MW-62 | CWTP | Downgradient Boundary | 11/13/2022 | FC-CCR-MW62-1122 | **2.1** | **610** | **200** | **1.6** | **6.75** | **7.0 J** | **4,000** | **7,100** |
| MW-62 | CWTP | Downgradient Boundary | 01/27/2023 | FC-CCR-MW62-0123 | **2.1** | **550** | -- | -- | **7.00** | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 05/07/2023 | FC-CCR-MW62-0523 | **2.2** | **550** | <400 | <80 | **6.75** | **7.0 J** | **3,500** | **6,400** |
| MW-62 | CWTP | Downgradient Boundary | 06/28/2023 | FC-CCR-MW62-0623 | **2.2** | **550** | **120** | **2.0** | **7.00** | **6.9 J** | **3,600** | **6,300** |
| MW-62 | CWTP | Downgradient Boundary | 11/06/2023 | FC-CCR-MW62-1123 | **2.9 J** | **610 J** | **140** | **1.6** | **6.63** | **7.0 J** | **2,100** | **6,800** |
| MW-62 | CWTP | Downgradient Boundary | 05/22/2024 | FC-CCR-MW62-0524 | **2.2** | **540** | <200 | **1.3** | **6.87** | **7.4 J** | **3,200** | **6,000** |
| MW-62 | CWTP | Downgradient Boundary | 10/23/2024 | FC-CCR-MW62-1024 | **2.32** | **476** | **198** | **1.28 J** | **6.74** | **7.18 J** | **4,040** | **7,650** |
| MW-63 | CWTP | Downgradient Boundary | 11/4/2015 | FC-CCR-MW63-110415 | **1.6** | **420** | **77** | **2.4** | **6.86** | -- | **2,800** | **4,100** |
| MW-63 | CWTP | Downgradient Boundary | 11/4/2015 | FC-CCR-MW63-110415 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-63-042716 | -- | -- | -- | **2.0** | **6.88** | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW63-616 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW63-616 | **1.4** | **500** | **110** | **1.9** | **6.70** | **7.05** | **2,500** | **4,400** |
| MW-63 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW63-816 | **1.9** | **530** | **98** | **1.9** | **6.92** | **6.9** | **2,800** | **4,700** |
| MW-63 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW63-816 | -- | -- | -- | **1.9** | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW63-816 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW63-916 | **2.0** | **550** | **110** | **2.1** | **7.03** | **7.1** | **2,800** | **4,700** |
| MW-63 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW63-916 | -- | -- | -- | **2.0** | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW63-916 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW63-1016 | **1.7** | **470** | **100** | **1.8** | **6.82** | **7.2** | **2,700** | **4,500** |
| MW-63 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW63-1016 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 10/20/2016 | FC-CCR-MW100-1016 | **1.7** | **480** | **98** | **2.0** | -- | **7.2** | **2,600** | **4,400** |
| MW-63 | CWTP | Downgradient Boundary | 10/20/2016 | FC-CCR-MW100-1016 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW63-117 | **1.4** | **510** | **95** | **2.0** | **6.67** | **7.7** | **2,600** | **4,200** |
| MW-63 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW63-117 | -- | -- | -- | **2.0** | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW63-117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW100-117 | **1.4** | **500** | **93** | **1.7** | -- | **7.6** | **2,500** | **4,200** |
| MW-63 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW100-117 | -- | -- | -- | **1.8** | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW100-117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 4/17/2017 | FC-CCR-MW63-41717 | **1.4** | **520** | **98** | **1.6** | **6.78** | **7.3** | **2,600** | **4,400** |
| MW-63 | CWTP | Downgradient Boundary | 4/17/2017 | FC-CCR-MW63-41717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 4/17/2017 | FC-CCR-MW63-41717 | -- | -- | -- | **1.5** | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 5/2/2017 | FC-CCR-MW63-5217 | -- | -- | -- | **2.5** | **6.79** | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 5/2/2017 | FC-CCR-MW63-5217 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 5/28/2017 | FC-CCR-MW63-52817 | -- | -- | -- | **1.6** | **6.80** | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 5/28/2017 | FC-CCR-MW63-52817 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 5/28/2017 | *DUP* FC-CCR-FD01-52817 | -- | -- | -- | **1.6** | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 5/28/2017 | *DUP* FC-CCR-FD01-52817 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW63-62117 | **1.6** | **520** | **100** | -- | **6.78** | **7.2** | **2,900** | **4,400** |
| MW-63 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW63-62117 | -- | -- | -- | **1.9** | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW63-62117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW63-72117 | **1.8** | **530** | **98** | **2.0** | **6.87** | **7.2** | **2,900** | **4,600** |
| MW-63 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW63-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW63-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW63-8917 | **1.9** | **530** | **97** | -- | **6.56** | **7.2** | **2,900** | **4,500** |
| MW-63 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW63-8917 | -- | -- | -- | **1.9** | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW63-8917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW63-81617 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW63-81617 | **1.8** | **580** | **100** | **2.1** | **6.53** | **7.2** | **2,700** | **4,500** |
| MW-63 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW63-9917 | **2.0** | **540** | **97** | -- | **6.83** | **7.0** | **2,700** | **4,300** |
| MW-63 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW63-9917 | -- | -- | -- | **2.0** | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW63-9917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW63-101317 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW63-101317 | **1.8** | **500** | **90** | **2.0** | **6.69** | **7.1** | **2,700** | **4,300** |
| MW-63 | CWTP | Downgradient Boundary | 11/30/2017 | FC-CCR-MW63-113017 | **1.7** | **560** | **91** | **1.8** | **6.72** | **7.2** | **2,700** | **4,500** |
| MW-63 | CWTP | Downgradient Boundary | 4/6/2018 | FC-CCR-MW63-4618 | **1.3** | **530** | -- | -- | **6.75** | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 6/3/2018 | FC-CCR-MW-63-6318 | **1.4** | **510** | **90** | **1.7** | **6.76** | **7.1** | **2,600** | **4,500** |
| MW-63 | CWTP | Downgradient Boundary | 11/2/2018 | FC-CCR-MW63-112818 | **1.9** | **550** | **88** | **1.9** | **6.66** | **7.1** | **2,800** | **4,300** |
| MW-63 | CWTP | Downgradient Boundary | 4/1/2019 | FC-CCR-MW63-4119 | **1.2** | **500** | **88** | **1.7** | **6.80** | **7.0** | **2,600** | **4,300** |

# Table G-7
## Groundwater Sampling Results for the CWTP Monitoring Wells - Appendix III Constituents

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *CWTP BTV (applicable to MW-62)* | *2* | *536* | *631* | *1.8* | *6.5 - 6.9* | *6.5 - 6.9* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-63)* | *2* | *536* | *631* | *2.3* | *6.5 - 6.9* | *6.5 - 6.9* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-64)* | *0.73* | *486* | *631* | *1.6* | *7.23 - 7.66* | *7.23 - 7.66* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-65)* | *0.73* | *486* | *631* | *2.1* | *7.00 - 7.44* | *7.00 - 7.44* | *13,000* | *20,000* |
| | | | | *CWTP GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-63 | CWTP | Downgradient Boundary | 5/7/2019 | FC-CCR-MW63-5719-02 | **1.3** | **540** | -- | **1.6** | **6.63** | **7.2** | -- | **4,400** |
| MW-63 | CWTP | Downgradient Boundary | 12/3/2019 | FC-CCR-MW63-120319 | **1.5** | **550** | -- | **1.8** | **6.58** | **7.1 J** | -- | **4,300** |
| MW-63 | CWTP | Downgradient Boundary | 12/3/2019 | *DUP* FC-CCR-FD01-120319 | **1.6** | **560** | -- | **1.8** | -- | **7.2 J** | -- | **4,100** |
| MW-63 | CWTP | Downgradient Boundary | 6/19/2020 | FC-CCR-MW63-0620 | **1.5** | **540** | **77** | **2.1** | -- | **7.2 J** | **2,400** | **4,200** |
| MW-63 | CWTP | Downgradient Boundary | 11/5/2020 | FC-CCR-MW63-1120 | **1.7** | **550** | **85** | **2.2** | **6.72** | **7.1 J** | **2,800** | **4,200** |
| MW-63 | CWTP | Downgradient Boundary | 4/22/2021 | FC-CCR-MW63-0421 | **0.93** | **400** | **88** | **2.0** | **7.07** | **7.5 J** | **1,900** | **3,200** |
| MW-63 | CWTP | Downgradient Boundary | 7/8/2021 | FC-CCR-MW63-0721 | -- | -- | -- | -- | **7.21** | **7.2 J** | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 11/15/2021 | FC-CCR-MW63-1121 | **1.3** | **440** | **81 J** | **0.28 J** | **6.89** | **7.7 J** | **2,100** | **3,600** |
| MW-63 | CWTP | Downgradient Boundary | 5/20/2022 | FC-CCR-MW63-0522 | **0.83** | **310** | **93** | **2.1** | **7.09** | **7.40 J** | **1,500** | **2,500** |
| MW-63 | CWTP | Downgradient Boundary | 8/14/2022 | FC-CCR-MW63-0822 | -- | -- | -- | -- | **6.88** | **7.1 J** | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 11/13/2022 | FC-CCR-MW63-1122 | **1.1** | **420** | **80** | **2.1** | **7.00** | **7.4 J** | **1,700** | **3,000** |
| MW-63 | CWTP | Downgradient Boundary | 05/07/2023 | FC-CCR-MW63-0523 | **0.90** | **470** | **76** | <8 | **6.99** | **7.4 J** | **1,900** | **3,400** |
| MW-63 | CWTP | Downgradient Boundary | 06/27/2023 | FC-CCR-MW63-0623 | **0.79** | **330** | **66** | **1.8** | **7.30** | **7.3 J** | **1,300** | **2,400** |
| MW-63 | CWTP | Downgradient Boundary | 11/06/2023 | FC-CCR-MW63-1123 | **1.2 J** | **440 J** | **71** | **2.2** | **6.95** | **7.4 J** | **1,500** | **2,700** |
| MW-63 | CWTP | Downgradient Boundary | 05/22/2024 | FC-CCR-MW63-0524 | **1.0** | **330** | **97** | **2.1** | **7.08** | **7.5 J** | **1,500** | **2,700** |
| MW-63 | CWTP | Downgradient Boundary | 10/23/2024 | FC-CCR-MW63-1024 | **1.1** | **284** | **74.3** | **2.55** | **6.99** | **7.58 J** | **1,360** | **2,240** |
| MW-64 | CWTP | Downgradient Boundary | 11/5/2015 | FC-CCR-MW64-110515 | **0.64** | **87** | **49** | **1.5** | **7.64** | -- | **320** | **780** |
| MW-64 | CWTP | Downgradient Boundary | 11/5/2015 | FC-CCR-MW64-110515 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-64-042716 | -- | -- | -- | **1.4** | **7.50** | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW64-616 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW64-616 | **0.58** | **86** | **52** | **1.4** | **7.29** | **7.66** | **350** | **800** |
| MW-64 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW64-816 | **0.65** | **89** | **46** | **1.3** | **7.68** | **7.5** | **330** | **790** |
| MW-64 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW64-816 | -- | -- | -- | **1.6** | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW64-816 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW64-916 | **0.67** | **90** | **52** | **1.5** | **7.54** | **7.7** | **320** | **790** |
| MW-64 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW64-916 | -- | -- | -- | **1.5** | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW64-916 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW64-1016 | **0.64** | **83** | **53** | **1.5** | **7.52** | **7.8** | **330** | **790** |
| MW-64 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW64-1016 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW64-117 | **0.61** | **85** | **48** | **1.4** | **7.38** | **8.1** | **340** | **800** |
| MW-64 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW64-117 | -- | -- | -- | **1.5** | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW64-117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 4/17/2017 | FC-CCR-MW64-41717 | **0.58** | **85** | **51** | **1.4** | **7.53** | **7.9** | **870** | **800** |
| MW-64 | CWTP | Downgradient Boundary | 4/17/2017 | FC-CCR-MW64-41717 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 4/17/2017 | FC-CCR-MW64-41717 | -- | -- | -- | **1.4** | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/2/2017 | FC-CCR-MW64-5217 | -- | -- | -- | **1.3** | **7.47** | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/2/2017 | FC-CCR-MW64-5217 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/2/2017 | *DUP* FC-CCR-FD02-5217 | -- | -- | -- | **1.3** | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/2/2017 | *DUP* FC-CCR-FD02-5217 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/28/2017 | FC-CCR-MW64-52817 | -- | -- | -- | **1.5** | **7.45** | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/28/2017 | FC-CCR-MW64-52817 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW64-62117 | **0.55** | **86** | **51** | -- | **7.50** | **7.8** | **390** | **770** |
| MW-64 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW64-62117 | -- | -- | -- | **1.4** | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW64-62117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW64-72117 | **0.59** | **88** | **52** | **1.5** | **7.61** | **7.7** | **370** | **790** |
| MW-64 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW64-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW64-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW64-8917 | **0.61** | **89** | **52** | -- | **7.31** | **7.8** | **380** | **890** |
| MW-64 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW64-8917 | -- | -- | -- | **1.5** | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW64-8917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW64-81617 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW64-81617 | **0.58** | **89** | **53** | **1.5** | **7.29** | **7.8** | **360** | **790** |
| MW-64 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW64-9917 | **0.67** | **90** | **53** | -- | **7.36** | **7.8** | **350** | **810** |
| MW-64 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW64-9917 | -- | -- | -- | **1.5** | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW64-9917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW64-101317 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW64-101317 | **0.62** | **82** | **52** | **1.4** | **7.42** | **7.7** | **360** | **790** |
| MW-64 | CWTP | Downgradient Boundary | 11/30/2017 | FC-CCR-MW64-113017 | **0.64** | **90** | **52** | **1.4** | **7.37** | **7.7** | **350** | **780** |
| MW-64 | CWTP | Downgradient Boundary | 6/3/2018 | FC-CCR-MW-64-6318 | **0.48** | **85** | **50** | **1.4** | **7.54** | **7.7** | **390** | **800** |
| MW-64 | CWTP | Downgradient Boundary | 11/2/2018 | FC-CCR-MW64-11218 | **0.64** | **88** | **50** | **1.4** | **7.43** | **7.8** | **350** | **760** |
| MW-64 | CWTP | Downgradient Boundary | 4/1/2019 | FC-CCR-MW64-4119 | **0.48** | **81** | **51** | **1.4** | **7.48** | **7.7** | **360** | **760** |
| MW-64 | CWTP | Downgradient Boundary | 5/7/2019 | FC-CCR-MW64-5719-03 | **0.49** | **89** | -- | **1.4** | **7.41** | **8.0** | -- | **790** |

# Table G-7
# Groundwater Sampling Results for the CWTP Monitoring Wells - Appendix III Constituents

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *CWTP BTV (applicable to MW-62)* | *2* | *536* | *631* | *1.8* | *6.5 - 6.9* | *6.5 - 6.9* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-63)* | *2* | *536* | *631* | *2.3* | *6.5 - 6.9* | *6.5 - 6.9* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-64)* | *0.73* | *486* | *631* | *1.6* | *7.23 - 7.66* | *7.23 - 7.66* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-65)* | *0.73* | *486* | *631* | *2.1* | *7.00 - 7.44* | *7.00 - 7.44* | *13,000* | *20,000* |
| | | | | *CWTP GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-64 | CWTP | Downgradient Boundary | 5/7/2019 | *DUP* FC-CCR-FD03-5719-04 | **0.48** | **88** | -- | **1.4** | -- | **8.0** | -- | **780** |
| MW-64 | CWTP | Downgradient Boundary | 12/3/2019 | FC-CCR-MW64-120319 | **0.56** | **82** | -- | **1.5** | **7.29** | **7.8 J** | -- | **720** |
| MW-64 | CWTP | Downgradient Boundary | 6/19/2020 | FC-CCR-MW64-0620 | **0.47** | **77** | **49** | **1.3** | **7.22** | **7.9 J** | **300** | **790** |
| MW-64 | CWTP | Downgradient Boundary | 11/5/2020 | FC-CCR-MW64-1120 | **0.51** | **73** | **53** | **1.6** | **7.49** | **7.8 J** | **270** | **720** |
| MW-64 | CWTP | Downgradient Boundary | 4/22/2021 | FC-CCR-MW64-0421 | **0.50** | **89** | **52** | **1.4** | **7.60** | **7.9 J** | **300** | **660** |
| MW-64 | CWTP | Downgradient Boundary | 11/15/2021 | FC-CCR-MW64-1121 | **0.58** | **72** | **51** | **1.4** | **7.29** | **7.1 J** | **270** | **680** |
| MW-64 | CWTP | Downgradient Boundary | 5/20/2022 | FC-CCR-MW64-0522 | **0.53** | **77** | **52** | **1.4** | **7.61** | **7.90 J** | **290** | **850** |
| MW-64 | CWTP | Downgradient Boundary | 5/20/2022 | FC-CCR-SS01-0522 | **0.554** | **86.4** | **43.1** | **0.874 J / 1.39** | **7.61** | **8.3 J** | **406** | **734** |
| MW-64 | CWTP | Downgradient Boundary | 11/13/2022 | FC-CCR-MW64-1122 | **0.52** | **70** | **51** | **1.6** | **7.56** | **7.9 J** | **230** | **610** |
| MW-64 | CWTP | Downgradient Boundary | 05/07/2023 | FC-CCR-MW64-0523 | **0.53** | **81** | **51** | **1.4** | **7.45** | **7.8 J** | **200** | **650** |
| MW-64 | CWTP | Downgradient Boundary | 06/27/2023 | FC-CCR-MW64-0623 | **0.51** | **75** | **53** | **1.3** | **7.65** | **7.7 J** | **240** | **640** |
| MW-64 | CWTP | Downgradient Boundary | 11/06/2023 | FC-CCR-MW64-1123 | **0.58 J** | **87 J** | **52** | **1.5** | **7.52** | **7.9 J** | <400 | **710** |
| MW-64 | CWTP | Downgradient Boundary | 05/22/2024 | FC-CCR-MW64-0524 | **0.96** | **210** | **110** | **1.0** | **7.23** | **7.6 J** | **800** | **1,900** |
| MW-64 | CWTP | Downgradient Boundary | 10/23/2024 | FC-CCR-MW64-1024 | **0.189 J** | **38.5** | **10.9** | **0.76** | **7.86** | **8.02 J** | **80.7 J** | **257** |
| MW-65 | CWTP | Downgradient Boundary | 11/5/2015 | FC-CCR-MW65-110515 | **0.86** | **100** | **52** | **2.0** | **7.50** | -- | **440** | **1,000** |
| MW-65 | CWTP | Downgradient Boundary | 11/5/2015 | FC-CCR-MW65-110515 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-65-042716 | -- | -- | -- | **1.8** | **7.29** | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW65-616 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW65-616 | **0.75** | **100** | **54** | **2.0** | **7.08** | **7.41** | **460** | **1,100** |
| MW-65 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW65-816 | **0.79** | **100** | **52** | **1.7** | **8.27** | **7.4** | **450** | **1,000** |
| MW-65 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW65-816 | -- | -- | -- | **2.1** | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW65-816 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW65-916 | **0.83** | **110** | **54** | **2.0** | **7.52** | **7.5** | **480** | **1,100** |
| MW-65 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW65-916 | -- | -- | -- | **2.0** | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW65-916 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW65-1016 | **0.77** | **95** | **54** | **2.0** | **7.36** | **7.6** | **450** | **1,000** |
| MW-65 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW65-1016 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 2/1/2017 | FC-CCR-MW65-117 | **0.76** | **96** | **51** | **1.8** | **7.35** | **7.9** | **410** | **970** |
| MW-65 | CWTP | Downgradient Boundary | 2/1/2017 | FC-CCR-MW65-117 | -- | -- | -- | **2.0** | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 2/1/2017 | FC-CCR-MW65-117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 4/16/2017 | FC-CCR-MW65-41617 | **0.83** | **120** | **60** | **1.8** | **7.21** | **7.6** | **490** | **1,300** |
| MW-65 | CWTP | Downgradient Boundary | 4/16/2017 | FC-CCR-MW65-41617 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 4/16/2017 | FC-CCR-MW65-41617 | -- | -- | -- | **1.7** | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/1/2017 | FC-CCR-MW65-5117 | -- | -- | -- | **1.6** | **7.24** | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/1/2017 | FC-CCR-MW65-5117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/1/2017 | *DUP* FC-CCR-FD01-5117 | -- | -- | -- | **1.6** | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/1/2017 | *DUP* FC-CCR-FD01-5117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/29/2017 | FC-CCR-MW65-52917 | -- | -- | -- | **1.8** | **7.10** | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/29/2017 | FC-CCR-MW65-52917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/29/2017 | *DUP* FC-CCR-FD02-52917 | -- | -- | -- | **1.8** | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/29/2017 | *DUP* FC-CCR-FD02-52917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW65-62117 | **0.92** | **140** | **68** | -- | **7.06** | **7.6** | **710** | **1,400** |
| MW-65 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW65-62117 | -- | -- | -- | **1.9** | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW65-62117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/21/2017 | *DUP* FC-CCR-FD01-62117 | **0.96** | **140** | **68** | -- | -- | **7.6** | **720** | **1,300** |
| MW-65 | CWTP | Downgradient Boundary | 6/21/2017 | *DUP* FC-CCR-FD01-62117 | -- | -- | -- | **2.0** | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/21/2017 | *DUP* FC-CCR-FD01-62117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW65-72117 | **0.76** | **110** | **53** | **2.0** | **7.31** | **7.5** | **470** | **1,000** |
| MW-65 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW65-72117 | -- | -- | -- | **2.0** | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW65-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 7/21/2017 | *DUP* FC-CCR-FD01-72117 | **0.77** | **110** | **53** | **2.0** | -- | **7.5** | **470** | **1,000** |
| MW-65 | CWTP | Downgradient Boundary | 7/21/2017 | *DUP* FC-CCR-FD01-72117 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW65-8917 | **0.76** | **110** | **53** | -- | **7.15** | **7.7** | **500** | **1,000** |
| MW-65 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW65-8917 | -- | -- | -- | **2.0** | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW65-8917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW65-81617 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW65-81617 | **0.75** | **110** | **53** | **2.0** | **6.96** | **7.7** | **500** | **1,000** |
| MW-65 | CWTP | Downgradient Boundary | 8/16/2017 | *DUP* FC-CCR-FD01-81617 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/16/2017 | *DUP* FC-CCR-FD01-81617 | **0.75** | **110** | **53** | **2.0** | -- | **7.6** | **470** | **1,000** |
| MW-65 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW65-9917 | **0.80** | **110** | **53** | -- | **7.04** | **7.5** | **450** | **1,000** |
| MW-65 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW65-9917 | -- | -- | -- | **2.0** | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW65-9917 | -- | -- | -- | -- | -- | -- | -- | -- |

# Table G-7
# Groundwater Sampling Results for the CWTP Monitoring Wells - Appendix III Constituents

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| | | | | *CWTP BTV (applicable to MW-62)* | *2* | *536* | *631* | *1.8* | *6.5 - 6.9* | *6.5 - 6.9* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-63)* | *2* | *536* | *631* | *2.3* | *6.5 - 6.9* | *6.5 - 6.9* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-64)* | *0.73* | *486* | *631* | *1.6* | *7.23 - 7.66* | *7.23 - 7.66* | *13,000* | *20,000* |
| | | | | *CWTP BTV (applicable to MW-65)* | *0.73* | *486* | *631* | *2.1* | *7.00 - 7.44* | *7.00 - 7.44* | *13,000* | *20,000* |
| | | | | *CWTP GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| MW-65 | CWTP | Downgradient Boundary | 9/9/2017 | *DUP* FC-CCR-FD01-9917 | **0.81** | **110** | **54** | -- | -- | **7.5** | **450** | **1,000** |
| MW-65 | CWTP | Downgradient Boundary | 9/9/2017 | *DUP* FC-CCR-FD01-9917 | -- | -- | -- | **2.0** | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 9/9/2017 | *DUP* FC-CCR-FD01-9917 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW65-101317 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW65-101317 | **0.75** | **92** | **52** | **1.9** | **7.13** | **7.6** | **400** | **960** |
| MW-65 | CWTP | Downgradient Boundary | 10/13/2017 | *DUP* FC-CCR-FD02-101317 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 10/13/2017 | *DUP* FC-CCR-FD02-101317 | **0.76** | **93** | **52** | **1.9** | -- | **7.6** | **400** | **980** |
| MW-65 | CWTP | Downgradient Boundary | 11/30/2017 | FC-CCR-MW65-113017 | **0.79** | **100** | **53** | **2.0** | **7.21** | **7.6** | **410** | **990** |
| MW-65 | CWTP | Downgradient Boundary | 6/3/2018 | FC-CCR-MW-65-6318 | **0.62** | **98** | **52** | **1.9** | **7.22** | **7.5** | **480** | **1,000** |
| MW-65 | CWTP | Downgradient Boundary | 11/2/2018 | FC-CCR-MW65-11218 | **0.77** | **100** | **51** | **1.9** | **7.18** | **7.5** | **420** | **940** |
| MW-65 | CWTP | Downgradient Boundary | 4/1/2019 | FC-CCR-MW65-4119 | **0.58** | **92** | **52** | **1.8** | **7.20** | **7.6** | **400** | **910** |
| MW-65 | CWTP | Downgradient Boundary | 4/1/2019 | *DUP* FC-CCR-FD1-4119 | **0.57** | **90** | **52** | **1.9** | **7.20** | **7.6** | **390** | **930** |
| MW-65 | CWTP | Downgradient Boundary | 5/7/2019 | FC-CCR-MW65-5719-05 | **0.60** | **100** | -- | **1.7** | **7.13** | **7.9** | -- | **970** |
| MW-65 | CWTP | Downgradient Boundary | 12/3/2019 | FC-CCR-MW65-120319 | **0.65** | **89** | -- | **1.9** | **7.10** | **7.6 J** | -- | **850** |
| MW-65 | CWTP | Downgradient Boundary | 6/19/2020 | FC-CCR-MW65-0620 | **0.57** | **88** | **48** | **1.7** | **7.18** | **7.4 J** | **380** | **940** |
| MW-65 | CWTP | Downgradient Boundary | 11/5/2020 | FC-CCR-MW65-1120 | **0.61** | **82** | **52** | **2.1** | **7.36** | **7.7 J** | **350** | **780** |
| MW-65 | CWTP | Downgradient Boundary | 4/22/2021 | FC-CCR-MW65-0421 | **0.78** | **170** | **71** | **1.5** | **7.19** | **7.7 J** | **740** | **540** |
| MW-65 | CWTP | Downgradient Boundary | 7/8/2021 | FC-CCR-MW65-0721 | **0.87** | -- | -- | -- | **7.40** | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 11/15/2021 | FC-CCR-MW65-1121 | **0.73** | **92** | **55** | **1.7** | **7.14** | **8.0 J** | **390** | **910** |
| MW-65 | CWTP | Downgradient Boundary | 5/20/2022 | FC-CCR-MW65-0522 | **0.85** | **200** | **140** | **1.5** | **7.27** | **7.73 J** | **980** | **1,900** |
| MW-65 | CWTP | Downgradient Boundary | 8/14/2022 | FC-CCR-MW65-0822 | **0.61** | -- | -- | -- | **7.29** | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 11/13/2022 | FC-CCR-MW65-1122 | **0.64** | **93** | **59** | **1.8** | **7.35** | **7.8 J** | **300** | **840** |
| MW-65 | CWTP | Downgradient Boundary | 05/07/2023 | FC-CCR-MW65-0523 | **0.58** | **100** | **56** | <2 | **7.36** | **7.6 J** | **300** | **900** |
| MW-65 | CWTP | Downgradient Boundary | 06/28/2023 | FC-CCR-MW65-0623 | **0.57** | **97** | **57** | **1.4** | **7.61** | **7.6 J** | **310** | **880** |
| MW-65 | CWTP | Downgradient Boundary | 11/06/2023 | FC-CCR-MW65-1123 | **0.67 J** | **110 J** | **54** | **1.5** | **7.34** | **7.7 J** | **300** | **840** |
| MW-65 | CWTP | Downgradient Boundary | 05/22/2024 | FC-CCR-MW65-0524 | **0.79** | **190** | **100** | **1.3** | **7.40** | **7.6 J** | **710** | **1,700** |
| MW-65 | CWTP | Downgradient Boundary | 10/23/2024 | FC-CCR-MW65-1024 | **0.723** | **144** | **103** | **1.65** | **7.17** | **7.69 J** | **752** | **1,610** |

*Notes:*
BTV exceedances are shown in grey shaded cells. GWPS exceedences are shown in red text.

*Abbreviations and Data Qualifiers:*
< = less than
BTV = Background Threshold Value
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
mg/L = milligrams per liter
NJ = The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the sample.
pCi/L = Picocuries per liter
su = standard units
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

**Table G-8**
**Groundwater Sampling Results for the CWTP Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Total Radium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| | | | | *CWTP BTV (applicable to MW-62)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | *CWTP BTV (applicable to MW-63)* | | | | | | | | | | | | | | | |
| | | | | *CWTP BTV (applicable to MW-64)* | | | | | | | | | | | | | | | |
| | | | | *CWTP BTV (applicable to MW-65)* | | | | | | | | | | | | | | | |
| | | | | *CWTP GWPS (applicable to downgradient wells)* | *0.006* | *0.013* | *2* | *0.004* | *0.005* | *0.1* | *0.014* | *4.2* | *0.015* | *0.89* | *0.002* | *0.1* | *0.47* | *0.002* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | |
| MW-71 | URS/CWTP | Background | 3/5/2016 | FC-CCR-MW-71-030516 | **0.00016** | **0.016** | **0.027** | **0.00064** | **0.00019** | **0.00078** | **0.0028** | <0.050 | **0.00061** | **0.28** | <0.00020 | **0.0028** | **0.19** | **0.00031** | -- |
| MW-71 | URS/CWTP | Background | 3/5/2016 | FC-CCR-MW-71-030516 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 3/5/2016 | *DUP* FC-CCR-FD-2-030516 | <0.0020 | **0.017** | **0.025** | <0.0010 | **0.00010** | **0.00054** | **0.0028** | <0.050 | **0.00021** | **0.28** | <0.00020 | **0.0029** | **0.20** | **0.00026** | -- |
| MW-71 | URS/CWTP | Background | 3/5/2016 | *DUP* FC-CCR-FD-2-030516 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 4/26/2016 | FC-CCR-MW-71-042616 | <0.0025 | **0.0064** | **0.019** | <0.0010 | **0.00015** | <0.00050 | **0.0049** | <2.0 | <0.00050 | **0.45** | <0.00020 | **0.0018** | **0.31** | **0.00047** | **2.2** |
| MW-71 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW71-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.2** |
| MW-71 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW71-616 | **0.00012** | **0.0069** | **0.020** | <0.0010 | **0.00015** | <0.00050 | **0.0041** | <0.40 | **0.00073** | **0.41** | <0.00020 | **0.0014** | **0.28** | **0.00043** | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW71-816 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW71-816 | **0.00022** | **0.0066** | **0.014** | <0.0010 | <0.00020 | <0.0010 | <0.0010 | <0.80 | <0.0010 | **0.36** | <0.00020 | **0.0025** | **0.26** | **0.00029** | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW71-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.6** |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW101-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW101-816 | **0.00024** | **0.0076** | **0.013** | <0.0010 | <0.00020 | <0.0010 | <0.0010 | <0.40 | <0.0010 | **0.37** | <0.00020 | **0.0024** | **0.25** | **0.00028** | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW101-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** |
| MW-71 | URS/CWTP | Background | 9/12/2016 | FC-CCR-MW71-916 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 9/12/2016 | FC-CCR-MW71-916 | <0.0025 | <0.0010 | **0.013** | <0.0010 | <0.00050 | <0.0025 | **0.0012** | <0.40 | <0.00050 | **0.30** | <0.00020 | **0.0013** | **0.18** | <0.00050 | -- |
| MW-71 | URS/CWTP | Background | 9/12/2016 | FC-CCR-MW71-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.1** |
| MW-71 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW71-1016 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW71-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** |
| MW-71 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW71-117 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW71-117 | <0.0010 | **0.0094** | **0.012** | <0.0010 | **0.00011** | <0.00050 | **0.0012** | <0.40 | <0.00050 | **0.39** | <0.00020 | **0.00078** | **0.34** | **0.00037** | -- |
| MW-71 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW71-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** |
| MW-71 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW71-41717 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW71-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** |
| MW-71 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW71-41717 | <0.0040 | **0.0063** | **0.010** | <0.0010 | <0.00040 | <0.0020 | <0.0020 | <2.0 | <0.0020 | **0.32** | <0.00020 | <0.0020 | **0.20** | <0.00040 | -- |
| MW-71 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW71-5217 | <0.0010 | **0.0072** | **0.0087** | <0.0010 | <0.00010 | <0.0010 | <0.0010 | <13 | <0.00050 | **0.34** | <0.00020 | <0.0010 | **0.27** | **0.00025** | -- |
| MW-71 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW71-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** |
| MW-71 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW71-52917 | <0.010 | **0.0070** | **0.010** | <0.0010 | <0.0010 | <0.0050 | <0.0050 | <2.0 | <0.0050 | **0.33** | <0.00020 | <0.0050 | **0.21** | <0.0010 | -- |
| MW-71 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW71-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-71 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW71-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW71-62217 | <0.0040 | **0.0063** | **0.012** | <0.0010 | <0.00040 | <0.0020 | <0.0020 | <2.0 | <0.0020 | **0.38** | <0.00020 | <0.0020 | **0.25** | <0.00040 | -- |
| MW-71 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW71-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.7** |
| MW-71 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW71-72117 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW71-72117 | <0.0040 | **0.0053** | **0.0086** | <0.0010 | <0.00040 | <0.0020 | <0.0010 | -- | <0.0020 | <0.40 | <0.00020 | <0.0020 | **0.24** | <0.00040 | -- |
| MW-71 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW71-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 |
| MW-71 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW71-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW71-81017 | <0.010 | **0.0048** | **0.0092** | <0.0010 | <0.0010 | <0.0040 | <0.0020 | <2.0 | <0.0050 | **0.34** | <0.00020 | <0.0050 | **0.21** | <0.0010 | -- |
| MW-71 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW71-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-71 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW71-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.0** |
| MW-71 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW71-81717 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 9/11/2017 | FC-CCR-MW71-91117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 9/11/2017 | FC-CCR-MW71-91117 | <0.0040 | **0.0048** | **0.0089** | <0.0010 | <0.00040 | <0.0040 | <0.0020 | <2.0 | <0.0020 | **0.32** | <0.00020 | <0.0020 | **0.20** | <0.00040 | -- |
| MW-71 | URS/CWTP | Background | 9/11/2017 | FC-CCR-MW71-91117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-71 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW71-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.6** |
| MW-71 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW71-101317 | <0.010 | <0.0050 | **0.012** | <0.0010 | <0.0010 | <0.010 | <0.0050 | <2.0 | <0.0050 | **0.33** | <0.00020 | <0.0050 | **0.20** | <0.0010 | -- |
| MW-71 | URS/CWTP | Background | 11/30/2017 | FC-CCR-MW71-113017 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 3/16/2018 | FC-CCR-MW71-31618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** |
| MW-71 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-71-6218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** |
| MW-71 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-71-6218 | -- | **0.012** | <0.010 | -- | -- | -- | <0.010 | <0.80 | -- | **0.32** | <0.00020 | <0.010 | **0.20** | <0.0020 | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW71-11318 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW71-11318 | -- | **0.0046** | **0.0098** | -- | -- | -- | <0.00050 | -- | -- | **0.35** | -- | **0.00079** | **0.27** | **0.00031** | **1.2** |
| MW-71 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW71-11318 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD01-11318 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD01-11318 | -- | **0.0068** | **0.0095** | -- | -- | -- | <0.00050 | -- | -- | **0.34** | -- | **0.00065** | **0.31** | **0.00030** | **1.8** |
| MW-71 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW71-031819 | <0.0010 | **0.0069** | **0.010** | <0.0010 | <0.00010 | <0.0010 | <0.00050 | <0.80 | <0.00050 | **0.32** | <0.00020 | **0.00066** | **0.37** | **0.00031** | -- |
| MW-71 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW71-031819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-71 | URS/CWTP | Background | 5/6/2019 | FC-CCR-MW71-5719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** |
| MW-71 | URS/CWTP | Background | 12/2/2019 | FC-CCR-MW71-120219 | <0.0040 | **0.0095** | **0.012** | <0.0010 | <0.00040 | <0.0040 | <0.0020 | <0.80 | <0.0020 | **0.32** | <0.00020 | <0.0020 | **0.27** | **0.00065** | -- |
| MW-71 | URS/CWTP | Background | 6/20/2020 | FC-CCR-MW71-0620 | <0.002 | **0.0048** | **0.0045** | -- | <0.0002 | <0.002 | <0.001 | <0.8 | <0.001 | **0.75** | -- | <0.001 | **0.15** | **0.00025** | <0.8 |
| MW-71 | URS/CWTP | Background | 11/5/2020 | FC-CCR-MW71-1120 | <0.002 | **0.012** | **0.0092** | <0.001 | <0.0002 | <0.002 | **0.00026 J** | <0.4 | <0.001 | **0.35** | <0.0002 | **0.00061 J** | **0.28** | **0.00023** | <0.8 |
| MW-71 | URS/CWTP | Background | 4/22/2021 | FC-CCR-MW71-0421 | <0.004 | **0.0013 J** | **0.014** | <0.001 | **0.00012 J** | <0.004 | **0.0003 J** | **3.8 NJ** | <0.002 | **0.40** | <0.0002 | <0.002 | **0.36** | **0.0004** | **0.7** |
| MW-71 | URS/CWTP | Background | 11/12/2021 | FC-CCR-MW71-1121 | <0.002 | <0.001 | **0.010** | <0.001 | **0.00010 J** | <0.002 | **0.00013 J** | **0.14 J** | <0.001 | **0.37** | <0.0002 | <0.001 | **0.24** | **0.00042** | **0.5** |
| MW-71 | URS/CWTP | Background | 5/21/2022 | FC-CCR-MW71-0522 | <0.002 | <0.001 | **0.0094** | <0.001 | <0.0002 | <0.002 | <0.001 | <0.8 | <0.001 | **0.37** | <0.0002 | <0.001 | **0.28** | **0.00037** | **1.2** |
| MW-71 | URS/CWTP | Background | 5/21/2022 | FC-CCR-SS04-0522 | <0.02 | <0.01 | **0.00887 J** | <0.0025 | <0.0025 | <0.02 | **0.00147 J** | <50 / 0.28 J | <0.005 | **0.367 J** | <0.001 | <0.005 | **0.233** | <0.005 | -- |
| MW-71 | URS/CWTP | Background | 8/14/2022 | FC-CCR-MW71-0822 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 11/13/2022 | FC-CCR-MW71-1122 | <0.001 | **0.00073** | **0.012** | <0.001 | <0.0001 | <0.001 | <0.0005 | <0.8 | <0.0005 | **0.37** | <0.0002 | **0.00052** | **0.36** | **0.00043** | **1.0** |
| MW-71 | URS/CWTP | Background | 01/27/2023 | FC-CCR-MW71-0123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 05/08/2023 | FC-CCR-MW71-0523 | <0.002 | <0.005 | **0.0095** | <0.001 | <0.001 | <0.003 | <0.001 | <2 | <0.001 | **0.40** | <0.0002 | <0.002 | **0.20** | <0.001 | **1.7** |
| MW-71 | URS/CWTP | Background | 06/27/2023 | FC-CCR-MW71-0623 | <0.01 | <0.005 | **0.011** | **0.0022** | <0.001 | <0.01 | <0.005 | <20 | <0.0005 | **0.45** | <0.0002 | <0.005 | **0.25** | **0.00039** | **2.2** |
| MW-71 | URS/CWTP | Background | 11/08/2023 | FC-CCR-MW71-1123 | <0.004 | **0.0024** | **0.010 J** | <0.001 | <0.0004 | <0.004 | <0.002 | <0.8 | <0.0005 | **0.40** | <0.0002 | <0.002 | **0.28** | **0.0004** | **1.8** |
| MW-71 | URS/CWTP | Background | 05/16/2024 | FC-CCR-MW71-0524 | <0.01 | **0.0070** | **0.011 J** | <0.005 | <0.001 | <0.01 | <0.005 | <0.4 | <0.005 | **0.39** | <0.0002 | <0.005 | **0.25** | <0.001 | **1.4** |
| MW-71 | URS/CWTP | Background | 10/24/2024 | FC-CCR-MW71-1024 | <0.0025 | <0.0025 | **0.010** | <0.00044 | <0.0004 | <0.01 | <0.0025 | <0.38 | <0.0025 | **0.30** | <0.0002 | <0.0025 | **0.259** | <0.0005 | **1.7** |
| MW-72 | URS/CWTP | Background | 3/7/2016 | FC-CCR-MW72-030716 | <0.0020 | **0.011** | **0.035** | <0.0010 | **0.000078** | **0.00044** | **0.019** | <0.050 | **0.00013** | **0.33** | <0.00020 | **0.011** | **0.13** | **0.0012** | -- |
| MW-72 | URS/CWTP | Background | 3/7/2016 | FC-CCR-MW72-030716 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** |
| MW-72 | URS/CWTP | Background | 4/26/2016 | FC-CCR-MW-72-042616 | <0.0025 | **0.0038** | **0.034** | <0.0010 | <0.00010 | **0.0028** | **0.0087** | <2.0 | **0.0011** | **0.40** | <0.00020 | **0.0093** | **0.16** | **0.00081** | <0.8 |
| MW-72 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW72-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** |
| MW-72 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW72-616 | **0.00027** | **0.0084** | **0.051** | <0.0010 | <0.00020 | **0.00060** | **0.0029** | <0.40 | <0.0010 | <0.20 | <0.00020 | **0.0052** | **0.39** | **0.00058** | -- |
| MW-72 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW72-816 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW72-816 | **0.00026** | **0.0047** | **0.016** | <0.0010 | <0.00020 | <0.0010 | **0.0034** | <0.40 | <0.0010 | **0.42** | <0.00020 | **0.0061** | **0.18** | **0.0011** | -- |
| MW-72 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW72-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.2** |
| MW-72 | URS/CWTP | Background | 9/13/2016 | FC-CCR-MW72-916 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 9/13/2016 | FC-CCR-MW72-916 | <0.0025 | <0.0010 | **0.019** | <0.0010 | <0.00050 | <0.0025 | **0.0073** | <0.40 | <0.00050 | **0.35** | <0.00020 | **0.011** | <0.0030 | **0.00056** | -- |
| MW-72 | URS/CWTP | Background | 9/13/2016 | FC-CCR-MW72-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.9** |
| MW-72 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW72-1016 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW72-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **4.2** |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW72-117 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW72-117 | <0.0010 | **0.0041** | **0.0093** | <0.0010 | <0.00010 | <0.0010 | **0.0025** | <0.40 | <0.00050 | **0.39** | <0.00020 | **0.00093** | **0.13** | **0.00094** | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW72-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **4.0** |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW101-117 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW101-117 | <0.0020 | **0.0027** | **0.0084** | <0.0010 | <0.00020 | <0.0010 | **0.0025** | <0.40 | <0.0010 | **0.39** | <0.00020 | **0.0010** | **0.12** | **0.00096** | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW101-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW-72-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.5** |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW72-41717 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW72-41717 | <0.0040 | **0.0028** | **0.0096** | <0.0010 | <0.00040 | <0.0020 | **0.0024** | <2.0 | <0.0020 | **0.35** | <0.00020 | <0.0020 | **0.10** | **0.00096** | -- |
| MW-72 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW-72-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.8** |
| MW-72 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW72-5217 | <0.0010 | **0.0030** | **0.0079** | <0.0010 | <0.00010 | <0.0010 | **0.0024** | <13 | <0.00050 | **0.38** | <0.00020 | <0.0010 | **0.12** | **0.00091** | -- |
| MW-72 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW72-52917 | <0.010 | <0.0050 | **0.0093** | <0.0010 | <0.0010 | <0.0050 | <0.0050 | <2.0 | <0.0050 | **0.37** | <0.00020 | <0.0050 | **0.11** | **0.0011** | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW72-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW72-62217 | <0.0040 | **0.0023** | **0.0077** | <0.0010 | <0.00040 | <0.0020 | **0.0025** | <2.0 | <0.0020 | **0.39** | <0.00020 | <0.0020 | **0.10** | **0.0010** | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW-72-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.8** |
| MW-72 | URS/CWTP | Background | 6/22/2017 | *DUP* FC-CCR-FD02-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | *DUP* FC-CCR-FD02-62217 | <0.0040 | <0.0020 | **0.0086** | <0.0010 | <0.00040 | <0.0020 | **0.0025** | <2.0 | <0.0020 | **0.40** | **0.00020** | <0.0020 | **0.099** | **0.0011** | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | *DUP* FC-CCR-FD02-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.0** |
| MW-72 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW72-72117 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW72-72117 | <0.0040 | **0.0026** | **0.0073** | <0.0010 | <0.00040 | <0.0020 | **0.0024** | -- | <0.0020 | <0.80 | <0.00020 | <0.0020 | **0.13** | **0.00089** | -- |
| MW-72 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW72-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.7** |
| MW-72 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW72-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW72-81017 | <0.0010 | **0.0040** | **0.0075** | <0.0010 | <0.00010 | <0.0010 | **0.0023** | <2.0 | <0.00050 | **0.41** | <0.00020 | **0.00087** | **0.14** | **0.00091** | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW72-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.8** |

**Table G-8**
**Groundwater Sampling Results for the CWTP Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Total Radium |
| **Filtered:** | | | | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| **Units:** | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| *CWTP BTV (applicable to MW-62)* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *CWTP BTV (applicable to MW-63)* | | | | | | | | | | | | | | | | | | | |
| *CWTP BTV (applicable to MW-64)* | | | | | | | | | | | | | | | | | | | |
| *CWTP BTV (applicable to MW-65)* | | | | | | | | | | | | | | | | | | | |
| *CWTP GWPS (applicable to downgradient wells)* | | | | | *0.006* | *0.013* | *2* | *0.004* | *0.005* | *0.1* | *0.014* | *4.2* | *0.015* | *0.89* | *0.002* | *0.1* | *0.47* | *0.002* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | |
| MW-72 | URS/CWTP | Background | 8/10/2017 | *DUP* FC-CCR-FD02-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | *DUP* FC-CCR-FD02-81017 | <0.010 | **0.0028** | **0.0089** | <0.0010 | <0.0010 | <0.0040 | **0.0025** | <2.0 | <0.0050 | **0.42** | <0.00020 | <0.0050 | **0.10** | **0.0010** | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | *DUP* FC-CCR-FD02-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.7** |
| MW-72 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW72-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.1** |
| MW-72 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW72-81717 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/17/2017 | *DUP* FC-CCR-FD02-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.0** |
| MW-72 | URS/CWTP | Background | 8/17/2017 | *DUP* FC-CCR-FD02-81717 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW72-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW72-91017 | <0.0040 | **0.0029** | **0.0086** | <0.0010 | <0.00040 | <0.0040 | **0.0023** | <2.0 | <0.0020 | **0.37** | <0.00020 | <0.0020 | **0.10** | **0.00095** | -- |
| MW-72 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW72-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.3** |
| MW-72 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW72-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.1** |
| MW-72 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW72-101317 | <0.010 | **0.0052** | **0.011** | <0.0010 | <0.0010 | <0.010 | <0.0050 | <2.0 | <0.0050 | **0.38** | <0.00020 | <0.0050 | **0.11** | **0.0010** | -- |
| MW-72 | URS/CWTP | Background | 11/29/2017 | FC-CCR-MW72-112917 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 3/16/2018 | FC-CCR-MW72-31618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** |
| MW-72 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-72-6218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.8** |
| MW-72 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-72-6218 | -- | <0.010 | <0.010 | -- | -- | -- | <0.010 | <0.80 | -- | **0.35** | <0.00020 | <0.010 | **0.10** | <0.0020 | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW72-11318 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW72-11318 | -- | **0.0031** | **0.0075** | -- | -- | -- | **0.0020** | -- | -- | **0.37** | -- | **0.00078** | **0.13** | **0.00088** | **1.7** |
| MW-72 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW72-11318 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD02-11318 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD02-11318 | -- | **0.0026** | **0.0075** | -- | -- | -- | **0.0020** | -- | -- | **0.37** | -- | **0.00078** | **0.15** | **0.00087** | **2.0** |
| MW-72 | URS/CWTP | Background | 3/17/2019 | FC-CCR-MW72-031719 | <0.0010 | **0.0034** | **0.0077** | <0.0010 | <0.00010 | <0.0010 | **0.0022** | <0.80 | <0.00050 | **0.36** | <0.00020 | **0.00095** | **0.13** | **0.00095** | -- |
| MW-72 | URS/CWTP | Background | 3/17/2019 | FC-CCR-MW72-031719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.4** |
| MW-72 | URS/CWTP | Background | 5/7/2019 | FC-CCR-MW72-5719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.4** |
| MW-72 | URS/CWTP | Background | 12/2/2019 | FC-CCR-MW72-120219 | <0.0020 | **0.0031** | **0.0081** | <0.0010 | <0.00020 | <0.0040 | **0.0023** | <0.80 | <0.0010 | **0.36** | <0.00020 | **0.0014** | **0.11** | **0.0011** | -- |
| MW-72 | URS/CWTP | Background | 6/19/2020 | FC-CCR-MW72-0620 | <0.004 | **0.0044** | **0.020** | -- | <0.0004 | <0.004 | **0.0027** | <0.8 | <0.001 | **0.89** | -- | <0.002 | **0.11** | **0.0011** | **3.5** |
| MW-72 | URS/CWTP | Background | 11/5/2020 | FC-CCR-MW72-1120 | <0.001 | **0.0053** | **0.018** | <0.001 | <0.0001 | **0.00071 J** | **0.0013** | <0.4 | <0.0005 | **0.38** | <0.0002 | **0.0020** | **0.11** | <0.00011 | **2.4** |
| MW-72 | URS/CWTP | Background | 4/22/2021 | FC-CCR-MW72-0421 | <0.004 | **0.0026** | **0.0086** | <0.001 | **0.00012 J** | <0.004 | **0.0029** | <0.8 | <0.002 | **0.37** | <0.0002 | **0.00111 J** | **0.11** | **0.0010** | **2.2** |
| MW-72 | URS/CWTP | Background | 11/12/2021 | FC-CCR-MW72-1121 | <0.002 | <0.001 | **0.0085** | <0.001 | **0.00006 J** | <0.002 | **0.0026** | <0.8 | <0.001 | **0.38** | <0.0002 | **0.00055** | **0.087** | **0.0010** | **3.7** |
| MW-72 | URS/CWTP | Background | 5/22/2022 | FC-CCR-MW72-0522 | <0.002 | <0.001 | **0.0073** | <0.001 | <0.0002 | <0.002 | **0.0025** | <0.8 | <0.001 | **0.37** | <0.0002 | <0.001 | **0.095** | **0.00094** | **1.2** |
| MW-72 | URS/CWTP | Background | 8/13/2022 | FC-CCR-MW72-0822 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 11/13/2022 | FC-CCR-MW72-1122 | <0.001 | **0.00070** | **0.0086** | <0.001 | <0.0001 | <0.001 | **0.0026** | <0.8 | <0.0005 | **0.34** | <0.0002 | **0.00077** | **0.12** | **0.0010** | **1.9** |
| MW-72 | URS/CWTP | Background | 01/27/2023 | FC-CCR-MW72-0123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 05/08/2023 | FC-CCR-MW72-0523 | <0.002 | <0.005 | **0.0068** | <0.005 | <0.001 | <0.003 | **0.0025** | **4.2** | <0.001 | **0.38** | <0.0002 | <0.002 | **0.064** | <0.001 | **4.00** |
| MW-72 | URS/CWTP | Background | 06/27/2023 | FC-CCR-MW72-0623 | <0.01 | **0.0014** | **0.0073** | **0.0011** | <0.001 | <0.001 | **0.0023** | <20 | <0.0005 | **0.37** | <0.0002 | <0.005 | **0.11** | **0.00093** | **1.9** |
| MW-72 | URS/CWTP | Background | 11/08/2023 | FC-CCR-MW72-1123 | <0.001 | **0.0024** | **0.008 J** | <0.001 | <0.0001 | <0.004 | **0.0023** | <0.8 | <0.0005 | **0.29** | <0.0002 | **0.0008** | **0.076** | **0.00096** | **5.1** |
| MW-72 | URS/CWTP | Background | 05/16/2024 | FC-CCR-MW72-0524 | <0.01 | **0.0069** | **0.0073 J** | <0.005 | <0.001 | <0.01 | <0.005 | <0.4 | <0.005 | **0.36** | <0.0002 | <0.005 | **0.078** | <0.001 | **3.1** |
| MW-72 | URS/CWTP | Background | 10/24/2024 | FC-CCR-MW72-1024 | <0.0025 | <0.0025 | **0.0070** | <0.00044 | <0.0004 | <0.01 | 0.0028 | <0.38 | <0.0025 | **0.309** | <0.0002 | <0.0025 | **0.080** | **0.0011** | **2.1** |
| MW-73 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW73-117 | -- | -- | -- | -- | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW73-117 | <0.0010 | **0.0015** | **0.043** | <0.0010 | **0.00017** | <0.0010 | **0.0073** | <0.40 | <0.00050 | **0.21** | <0.00020 | **0.0086** | **0.029** | **0.00020** | -- |
| MW-73 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW73-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.2** |
| MW-73 | URS/CWTP | Background | 4/18/2017 | FC-CCR-MW73-41817 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 4/18/2017 | FC-CCR-MW73-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.8** |
| MW-73 | URS/CWTP | Background | 4/18/2017 | FC-CCR-MW73-41817 | <0.0040 | <0.0020 | **0.027** | <0.0010 | <0.00040 | <0.0020 | **0.0058** | <0.80 | <0.0020 | **0.22** | <0.00020 | **0.0041** | **0.019** | <0.00040 | -- |
| MW-73 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW73-5217 | <0.0020 | <0.0010 | **0.026** | <0.0010 | **0.00021** | <0.0010 | **0.0067** | <5.0 | <0.00050 | **0.24** | <0.00020 | **0.0037** | **0.015** | **0.00024** | -- |
| MW-73 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW73-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.3** |
| MW-73 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW73-52917 | <0.010 | <0.0050 | **0.028** | <0.0010 | <0.0010 | <0.0050 | <0.0050 | <0.80 | <0.0050 | <0.20 | <0.00020 | <0.0050 | **0.043** | <0.0010 | -- |
| MW-73 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW73-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-73 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW73-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW73-62217 | <0.0040 | <0.0020 | **0.029** | <0.0010 | <0.00040 | <0.0020 | **0.0066** | <0.80 | <0.0020 | **0.25** | <0.00020 | <0.0020 | **0.019** | <0.00040 | -- |
| MW-73 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW73-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **3.1** |
| MW-73 | URS/CWTP | Background | 7/22/2017 | FC-CCR-MW73-72217 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 7/22/2017 | FC-CCR-MW73-72217 | <0.0040 | <0.0020 | **0.024** | <0.0010 | <0.00040 | <0.0020 | **0.0067** | <2.0 | <0.0020 | <0.40 | <0.00020 | **0.0023** | **0.016** | <0.00040 | -- |
| MW-73 | URS/CWTP | Background | 7/22/2017 | FC-CCR-MW73-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.0** |
| MW-73 | URS/CWTP | Background | 7/22/2017 | *DUP* FC-CCR-FD02-72217 | -- | -- | -- | -- | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 7/22/2017 | *DUP* FC-CCR-FD02-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.8** |
| MW-73 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW73-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW73-81017 | <0.010 | <0.0020 | **0.024** | <0.0010 | <0.0010 | **0.0041** | **0.0065** | <0.80 | <0.0050 | **0.27** | <0.00020 | <0.0050 | **0.017** | <0.0010 | -- |
| MW-73 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW73-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** |
| MW-73 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW73-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** |
| MW-73 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW73-81717 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW73-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW73-91017 | <0.0040 | **0.0020** | **0.023** | <0.0010 | <0.00040 | <0.0040 | **0.0048** | <0.80 | <0.0020 | **0.22** | <0.00020 | **0.0024** | **0.033** | <0.00040 | -- |
| MW-73 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW73-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.5** |
| MW-73 | URS/CWTP | Background | 10/12/2017 | FC-CCR-MW73-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** |
| MW-73 | URS/CWTP | Background | 10/12/2017 | FC-CCR-MW73-101217 | <0.010 | <0.0050 | **0.024** | <0.0010 | <0.0010 | <0.010 | <0.0050 | <0.80 | <0.0050 | <0.20 | <0.00020 | <0.0050 | **0.048** | <0.0010 | -- |
| MW-73 | URS/CWTP | Background | 10/12/2017 | *DUP* FC-CCR-FD01-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** |
| MW-73 | URS/CWTP | Background | 10/12/2017 | *DUP* FC-CCR-FD01-101217 | <0.010 | <0.0050 | **0.024** | <0.0010 | <0.0010 | <0.010 | <0.0050 | <0.80 | <0.0050 | <0.20 | <0.00020 | <0.0050 | **0.047** | <0.0010 | -- |
| MW-73 | URS/CWTP | Background | 11/29/2017 | FC-CCR-MW73-112917 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 3/16/2018 | FC-CCR-MW73-31618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.6** |
| MW-73 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-73-6218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.8** |
| MW-73 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-73-6218 | -- | <0.010 | **0.023** | -- | -- | -- | <0.010 | <0.80 | -- | **0.26** | <0.00020 | <0.010 | **0.011** | <0.0020 | -- |
| MW-73 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW73-11318 | -- | -- | -- | -- | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW73-11318 | -- | <0.00050 | **0.022** | -- | -- | -- | **0.0078** | -- | -- | **0.31** | -- | **0.0026** | **0.0062** | **0.00020** | **2.9** |
| MW-73 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW73-031819 | <0.0010 | <0.00050 | **0.023** | <0.0010 | **0.00013** | <0.0010 | **0.0038** | <0.80 | <0.00050 | **0.26** | <0.00020 | **0.0017** | **0.0069** | **0.00025** | -- |
| MW-73 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW73-031819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.6** |
| MW-73 | URS/CWTP | Background | 5/6/2019 | FC-CCR-MW73-5619 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.7** |
| MW-73 | URS/CWTP | Background | 12/2/2019 | FC-CCR-MW73-120219 | <0.0020 | <0.0010 | **0.020** | <0.0010 | <0.00020 | <0.0040 | **0.0040** | <0.80 | <0.0010 | **0.23** | <0.00020 | **0.0020** | **0.0086** | **0.00022** | -- |
| MW-73 | URS/CWTP | Background | 12/2/2019 | *DUP* FC-CCR-FD01-120219 | <0.0020 | <0.0010 | **0.020** | <0.0010 | <0.00020 | <0.0040 | **0.0039** | <0.80 | <0.0010 | **0.23** | <0.00020 | **0.0021** | **0.0094** | **0.00021** | -- |
| MW-73 | URS/CWTP | Background | 6/20/2020 | FC-CCR-MW73-0620 | <0.004 | <0.002 | **0.033** | -- | <0.0004 | <0.004 | **0.0062** | <0.8 | <0.002 | **0.65** | -- | **0.0035** | **0.0077** | <0.0004 | **3.4** |
| MW-73 | URS/CWTP | Background | 11/5/2020 | FC-CCR-MW73-1120 | <0.002 | **0.0012** | **0.020** | <0.001 | <0.0002 | **0.00073 J** | **0.0067** | **0.063 J** | <0.001 | **0.29** | <0.0002 | **0.0016** | **0.0099** | **0.00022** | **2.8** |
| MW-73 | URS/CWTP | Background | 4/22/2021 | FC-CCR-MW73-0421 | <0.004 | <0.002 | **0.021** | <0.001 | **0.00016 J** | <0.004 | **0.0027** | <0.4 | <0.002 | **0.23** | <0.0002 | **0.0011 J** | **0.015** | **0.00026 J** | **1.8** |
| MW-73 | URS/CWTP | Background | 11/13/2021 | FC-CCR-MW73-1121 | **0.00017 J** | <0.001 | **0.022** | <0.001 | **0.00018 J** | <0.002 | **0.0041** | **0.12 J** | <0.001 | **0.31** | <0.0002 | **0.00093** | **0.0072** | **0.00023** | **2.8** |
| MW-73 | URS/CWTP | Background | 5/22/2022 | FC-CCR-MW73-0522 | <0.002 | <0.001 | **0.018** | <0.001 | <0.0002 | <0.002 | **0.0042** | <0.8 | <0.001 | **0.34** | <0.0002 | **0.0012** | **0.0038** | **0.00023** | **1.4** |
| MW-73 | URS/CWTP | Background | 8/13/2022 | FC-CCR-MW73-0822 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 11/14/2022 | FC-CCR-MW73-1122 | <0.001 | **0.00092** | **0.022** | <0.001 | **0.00017** | <0.001 | **0.0042** | <0.8 | <0.0005 | **0.29** | <0.0002 | **0.0011** | **0.0095** | **0.00025** | **4.9** |
| MW-73 | URS/CWTP | Background | 01/27/2023 | FC-CCR-MW73-0123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 05/07/2023 | FC-CCR-MW73-0523 | <0.002 | <0.005 | **0.018** | <0.001 | <0.001 | <0.003 | **0.0045** | <80 | <0.001 | **0.33** | <0.0002 | <0.002 | <0.005 | <0.001 | **0.8** |
| MW-73 | URS/CWTP | Background | 06/27/2023 | FC-CCR-MW73-0623 | <0.01 | <0.005 | **0.016** | **0.0014** | <0.001 | <0.01 | <0.005 | <20 | <0.0005 | **0.34** | <0.0002 | <0.005 | <0.005 | **0.00021** | **3.2** |
| MW-73 | URS/CWTP | Background | 11/08/2023 | FC-CCR-MW73-1123 | <0.001 | **0.0021** | **0.017 J** | <0.001 | **0.00018** | <0.004 | **0.0037** | <0.8 | <0.0005 | **0.32** | <0.0002 | **0.0011** | **0.0020** | **0.00025** | **2.3** |
| MW-73 | URS/CWTP | Background | 05/16/2024 | FC-CCR-MW73-0524 | <0.01 | **0.0065** | **0.016 J** | <0.005 | <0.001 | <0.01 | <0.005 | <0.4 | <0.005 | **0.30** | <0.0002 | <0.005 | <0.005 | <0.001 | **3.2** |
| MW-73 | URS/CWTP | Background | 10/24/2024 | FC-CCR-MW73-1024 | <0.0025 | <0.0025 | **0.0144** | <0.00044 | <0.0004 | <0.01 | 0.0039 | <0.38 | <0.0025 | **0.25** | <0.0002 | <0.0025 | <0.0025 | <0.0005 | **4.4** |
| MW-62 | CWTP | Downgradient Boundary | 11/9/2015 | FC-CCR-MW62-110915 | <0.0020 | **0.00098** | **0.043** | **0.000086** | **0.000084** | <0.0020 | **0.011** | **1.6** | <0.0010 | **0.11** | <0.00020 | **0.0043** | **0.00093** | <0.0010 | -- |
| MW-62 | CWTP | Downgradient Boundary | 11/9/2015 | FC-CCR-MW62-110915 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-62-042716 | <0.0025 | **0.0010** | **0.033** | <0.0010 | <0.00010 | **0.0010** | **0.0062** | **1.6** | **0.00058** | <0.20 | <0.00020 | **0.0029** | **0.00078** | <0.00010 | **0.6** |
| MW-62 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW62-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** |
| MW-62 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW62-616 | **0.00011** | **0.00062** | **0.027** | <0.0010 | <0.00010 | <0.00050 | **0.0062** | **1.5** | <0.00050 | <0.20 | <0.00020 | **0.0030** | <0.00050 | <0.00010 | -- |
| MW-62 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW62-816 | -- | -- | -- | -- | -- | -- | -- | **1.5** | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW62-816 | **0.00011** | **0.0023** | **0.034** | <0.0010 | <0.00010 | **0.0015** | **0.0061** | **1.3** | **0.00050** | <0.20 | <0.00020 | **0.012** | **0.00054** | <0.00010 | -- |
| MW-62 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW62-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.4** |
| MW-62 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW62-916 | -- | -- | -- | -- | -- | -- | -- | **1.5** | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW62-916 | <0.0025 | **0.0020** | **0.026** | <0.0010 | <0.00050 | <0.0025 | **0.0069** | **1.3** | <0.00050 | <0.20 | <0.00020 | **0.0044** | <0.0030 | <0.00050 | -- |
| MW-62 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW62-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** |
| MW-62 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW62-1016 | -- | -- | -- | -- | -- | -- | -- | **1.2** | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW62-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** |
| MW-62 | CWTP | Downgradient Boundary | 2/1/2017 | FC-CCR-MW62-117 | -- | -- | -- | -- | -- | -- | -- | **1.4** | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 2/1/2017 | FC-CCR-MW62-117 | <0.0010 | **0.0025** | **0.027** | <0.0010 | <0.00010 | **0.00051** | **0.0062** | **1.4** | <0.00050 | <0.20 | <0.00020 | **0.0034** | <0.00050 | <0.00010 | -- |
| MW-62 | CWTP | Downgradient Boundary | 2/1/2017 | FC-CCR-MW62-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** |

**Table G-8**
**Groundwater Sampling Results for the CWTP Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Total Radium |
| **Filtered:** | | | | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| **Units:** | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| *CWTP BTV (applicable to MW-62)* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *CWTP BTV (applicable to MW-63)* | | | | | | | | | | | | | | | | | | | |
| *CWTP BTV (applicable to MW-64)* | | | | | | | | | | | | | | | | | | | |
| *CWTP BTV (applicable to MW-65)* | | | | | | | | | | | | | | | | | | | |
| *CWTP GWPS (applicable to downgradient wells)* | | | | | *0.006* | *0.013* | *2* | *0.004* | *0.005* | *0.1* | *0.014* | *4.2* | *0.015* | *0.89* | *0.002* | *0.1* | *0.47* | *0.002* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | |
| MW-62 | CWTP | Downgradient Boundary | 4/16/2017 | FC-CCR-MW62-41617 | -- | -- | -- | -- | -- | -- | -- | **1.2** | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 4/16/2017 | FC-CCR-MW62-41617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-62 | CWTP | Downgradient Boundary | 4/16/2017 | FC-CCR-MW62-41617 | <0.0040 | <0.0020 | **0.022** | <0.0010 | <0.00040 | <0.0020 | **0.0070** | **1.2** | <0.0020 | <0.20 | <0.00020 | **0.0036** | <0.0020 | <0.00040 | -- |
| MW-62 | CWTP | Downgradient Boundary | 5/1/2017 | FC-CCR-MW62-5117 | <0.0010 | <0.00050 | **0.021** | <0.0010 | <0.00010 | <0.00050 | **0.0066** | **3.3** | <0.00050 | <0.20 | <0.00020 | **0.0032** | <0.00050 | <0.00010 | -- |
| MW-62 | CWTP | Downgradient Boundary | 5/1/2017 | FC-CCR-MW62-5117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-62 | CWTP | Downgradient Boundary | 5/29/2017 | FC-CCR-MW62-52917 | <0.0010 | **0.00067** | **0.021** | <0.0010 | <0.00010 | <0.00050 | **0.0073** | **1.2** | <0.00050 | <0.20 | <0.00020 | **0.0030** | <0.00050 | <0.00010 | -- |
| MW-62 | CWTP | Downgradient Boundary | 5/29/2017 | FC-CCR-MW62-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.6** |
| MW-62 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW62-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW62-62117 | <0.0010 | **0.00065** | **0.023** | <0.0010 | <0.00010 | **0.0010** | **0.0084** | **1.4** | <0.00050 | <0.20 | **0.00025** | **0.0030** | <0.00050 | <0.00010 | -- |
| MW-62 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW62-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-62 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW62-72117 | -- | -- | -- | -- | -- | -- | -- | **1.5** | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW62-72117 | <0.0040 | <0.0020 | **0.023** | <0.0010 | <0.00040 | <0.0020 | **0.0044** | -- | <0.0020 | <0.20 | <0.00020 | **0.0029** | <0.0020 | <0.00040 | -- |
| MW-62 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW62-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-62 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW62-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW62-8917 | <0.0010 | **0.0016** | **0.027** | <0.0010 | <0.00010 | <0.0010 | **0.0048** | **1.4** | <0.00050 | <0.20 | <0.00020 | **0.0025** | <0.00050 | <0.00010 | -- |
| MW-62 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW62-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-62 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW62-81617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** |
| MW-62 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW62-81617 | -- | -- | -- | -- | -- | -- | -- | **1.6** | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW62-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW62-9917 | <0.0040 | **0.0031** | **0.026** | <0.0010 | <0.00040 | <0.0040 | **0.0064** | **1.5** | <0.0020 | <0.20 | <0.00020 | **0.0028** | <0.0020 | <0.00040 | -- |
| MW-62 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW62-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-62 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW62-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** |
| MW-62 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW62-101317 | <0.0040 | <0.0050 | **0.028** | <0.0010 | <0.0010 | <0.010 | **0.010** | **1.5** | <0.0050 | <0.20 | <0.00020 | **0.0031** | <0.0020 | <0.0010 | -- |
| MW-62 | CWTP | Downgradient Boundary | 11/30/2017 | FC-CCR-MW62-113017 | -- | -- | -- | -- | -- | -- | -- | **1.4** | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 4/6/2018 | FC-CCR-MW62-4618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 6/3/2018 | FC-CCR-MW-62-6318 | -- | -- | -- | -- | -- | -- | -- | **1.6** | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 11/2/2018 | FC-CCR-MW62-11218 | -- | -- | -- | -- | -- | -- | -- | **1.5** | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 4/1/2019 | FC-CCR-MW62-4119 | -- | -- | -- | -- | -- | -- | -- | **1.6** | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 5/7/2019 | FC-CCR-MW62-5719-01 | -- | -- | -- | -- | -- | -- | -- | **1.4** | -- | <0.20 | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 12/3/2019 | FC-CCR-MW62-120319 | -- | -- | -- | -- | -- | -- | -- | **1.5** | -- | <0.20 | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 6/19/2020 | FC-CCR-MW62-0620 | -- | -- | -- | -- | -- | -- | -- | **1.8** | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 11/5/2020 | FC-CCR-MW62-1120 | -- | -- | -- | -- | -- | -- | -- | **1.8** | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 1/14/2021 | FC-CCR-MW62-011421 | -- | -- | -- | -- | -- | -- | -- | **1.2** | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 4/22/2021 | FC-CCR-MW62-0421 | <0.0010 | <0.0019 | **0.016** | <0.001 | <0.0001 | <0.001 | **0.00065** | **1.5** | <0.0005 | **0.12** | <0.0002 | **0.0029** | <0.0008 | <0.0001 | <0.7 |
| MW-62 | CWTP | Downgradient Boundary | 11/15/2021 | FC-CCR-MW62-1121 | <0.002 | <0.001 | **0.025** | <0.001 | <0.0002 | <0.002 | **0.014** | **1.4** | <0.001 | **0.14** | <0.0002 | **0.0027** | <0.001 | **0.000098 J** | **1.1** |
| MW-62 | CWTP | Downgradient Boundary | 5/20/2022 | FC-CCR-MW62-0522 | <0.001 | **0.00073** | **0.015** | <0.001 | <0.0001 | <0.001 | **0.0014** | **1.4** | <0.0005 | **0.13** | <0.0002 | **0.0027** | **0.002** | <0.0002 | <0.7 |
| MW-62 | CWTP | Downgradient Boundary | 11/13/2022 | FC-CCR-MW62-1122 | <0.001 | **0.012** | **0.031** | <0.001 | <0.0001 | <0.001 | **0.011** | **1.6** | <0.0005 | **0.15** | **0.00037** | **0.0023** | <0.0005 | <0.0001 | **1.0** |
| MW-62 | CWTP | Downgradient Boundary | 01/27/2023 | FC-CCR-MW62-0123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 05/07/2023 | FC-CCR-MW62-0523 | <0.002 | **0.011** | **0.026** | <0.001 | <0.001 | <0.003 | **0.0033** | <80 | <0.001 | **0.14** | **0.00044** | <0.002 | <0.005 | <0.001 | **0.9** |
| MW-62 | CWTP | Downgradient Boundary | 06/28/2023 | FC-CCR-MW62-0623 | <0.001 | **0.012** | **0.022** | <0.001 | <0.0001 | <0.001 | **0.0029** | **2.0** | <0.0005 | **0.13** | <0.0002 | **0.0012** | **0.00094** | <0.0001 | **0.9** |
| MW-62 | CWTP | Downgradient Boundary | 11/06/2023 | FC-CCR-MW62-1123 | <0.001 | **0.012** | **0.023 J** | <0.001 | <0.0001 | <0.001 | **0.011** | **1.6** | <0.0005 | **0.14** | <0.0002 | **0.0031** | **0.00055** | <0.0001 | <0.8 |
| MW-62 | CWTP | Downgradient Boundary | 05/22/2024 | FC-CCR-MW62-0524 | <0.01 | **0.012** | **0.021 J** | <0.001 | <0.001 | <0.01 | **0.0036 J** | **1.3** | <0.005 | **0.13** | <0.0002 | **0.0025 J** | <0.005 | <0.001 | <0.8 |
| MW-62 | CWTP | Downgradient Boundary | 10/23/2024 | FC-CCR-MW62-1024 | <0.0005 | **0.0049** | **0.0213** | <0.00044 | <0.00008 | <0.002 | **0.0042** | **1.28 J** | <0.0005 | **0.117** | <0.0002 | **0.0029** | **0.00072** | <0.0001 | **1.9** |
| MW-63 | CWTP | Downgradient Boundary | 11/4/2015 | FC-CCR-MW63-110415 | <0.0020 | **0.0012** | **0.033** | **0.000073** | <0.0010 | **0.00043** | **0.0086** | **2.4** | **0.00015** | **0.085** | <0.00020 | **0.0058** | **0.00076** | **0.00011** | -- |
| MW-63 | CWTP | Downgradient Boundary | 11/4/2015 | FC-CCR-MW63-110415 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-63-042716 | <0.0025 | **0.00099** | **0.021** | <0.0010 | <0.00010 | <0.00050 | **0.0059** | **2.0** | <0.00050 | <0.20 | <0.00020 | **0.0026** | <0.00050 | <0.00010 | **0.6** |
| MW-63 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW63-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.8 |
| MW-63 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW63-616 | **0.00013** | **0.00059** | **0.020** | <0.0010 | <0.00010 | <0.00050 | **0.0054** | **1.9** | <0.00050 | <0.20 | <0.00020 | **0.0025** | <0.00050 | <0.00010 | -- |
| MW-63 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW63-816 | -- | -- | -- | -- | -- | -- | -- | **1.9** | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW63-816 | **0.00013** | **0.00082** | **0.022** | <0.0010 | <0.00010 | **0.00084** | **0.0064** | **1.9** | <0.00050 | <0.20 | <0.00020 | **0.017** | <0.00050 | <0.00010 | -- |
| MW-63 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW63-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.1** |
| MW-63 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW63-916 | -- | -- | -- | -- | -- | -- | -- | **2.1** | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW63-916 | <0.0025 | <0.0010 | **0.022** | <0.0010 | <0.00050 | <0.0025 | **0.0069** | **2.0** | <0.00050 | <0.20 | <0.00020 | **0.0031** | <0.0030 | <0.00050 | -- |
| MW-63 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW63-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** |
| MW-63 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW63-1016 | -- | -- | -- | -- | -- | -- | -- | **1.8** | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW63-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-63 | CWTP | Downgradient Boundary | 10/20/2016 | FC-CCR-MW100-1016 | -- | -- | -- | -- | -- | -- | -- | **2.0** | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 10/20/2016 | FC-CCR-MW100-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.8** |
| MW-63 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW63-117 | -- | -- | -- | -- | -- | -- | -- | **2.0** | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW63-117 | <0.0010 | <0.00050 | **0.016** | <0.0010 | **0.00013** | <0.00050 | **0.0041** | **2.0** | <0.00050 | <0.20 | <0.00020 | **0.0024** | <0.00050 | <0.00010 | -- |
| MW-63 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW63-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** |
| MW-63 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW100-117 | -- | -- | -- | -- | -- | -- | -- | **1.7** | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW100-117 | <0.0010 | <0.0010 | **0.018** | <0.0010 | **0.00017** | <0.0010 | **0.0042** | **1.8** | <0.00050 | <0.20 | <0.00020 | **0.0023** | <0.0010 | <0.00010 | -- |
| MW-63 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW100-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.7** |
| MW-63 | CWTP | Downgradient Boundary | 4/17/2017 | FC-CCR-MW63-41717 | -- | -- | -- | -- | -- | -- | -- | **1.6** | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 4/17/2017 | FC-CCR-MW63-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-63 | CWTP | Downgradient Boundary | 4/17/2017 | FC-CCR-MW63-41717 | <0.0040 | <0.0020 | **0.017** | <0.0010 | <0.00040 | <0.0020 | **0.0055** | **1.5** | <0.0020 | <0.20 | <0.00020 | **0.0022** | <0.0020 | <0.00040 | -- |
| MW-63 | CWTP | Downgradient Boundary | 5/2/2017 | FC-CCR-MW63-5217 | <0.0010 | <0.00050 | **0.017** | <0.0010 | <0.00010 | <0.00050 | **0.0050** | **2.5** | <0.00050 | <0.20 | <0.00020 | **0.0020** | <0.00050 | <0.00010 | -- |
| MW-63 | CWTP | Downgradient Boundary | 5/2/2017 | FC-CCR-MW63-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** |
| MW-63 | CWTP | Downgradient Boundary | 5/28/2017 | FC-CCR-MW63-52817 | <0.0010 | <0.00050 | **0.017** | <0.0010 | <0.00010 | <0.00050 | **0.0056** | **1.6** | <0.00050 | <0.20 | <0.00020 | **0.0024** | <0.00050 | <0.00010 | -- |
| MW-63 | CWTP | Downgradient Boundary | 5/28/2017 | FC-CCR-MW63-52817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** |
| MW-63 | CWTP | Downgradient Boundary | 5/28/2017 | *DUP* FC-CCR-FD01-52817 | <0.0010 | <0.00050 | **0.017** | <0.0010 | <0.00010 | <0.00050 | **0.0056** | **1.6** | <0.00050 | <0.20 | <0.00020 | **0.0023** | <0.00050 | <0.00010 | -- |
| MW-63 | CWTP | Downgradient Boundary | 5/28/2017 | *DUP* FC-CCR-FD01-52817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-63 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW63-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW63-62117 | <0.0010 | <0.00050 | **0.019** | <0.0010 | <0.00010 | <0.00050 | **0.0060** | **1.9** | <0.00050 | <0.20 | <0.00020 | **0.0024** | <0.00050 | <0.00010 | -- |
| MW-63 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW63-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** |
| MW-63 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW63-72117 | -- | -- | -- | -- | -- | -- | -- | **2.0** | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW63-72117 | <0.0040 | <0.0020 | **0.018** | <0.0010 | <0.00040 | <0.0020 | **0.0057** | -- | <0.0020 | <0.20 | <0.00020 | **0.0023** | <0.0020 | <0.00040 | -- |
| MW-63 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW63-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** |
| MW-63 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW63-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW63-8917 | <0.0010 | <0.00050 | **0.020** | <0.0010 | <0.00010 | <0.0010 | **0.0063** | **1.9** | <0.00050 | <0.20 | <0.00020 | **0.0026** | <0.00050 | <0.00010 | -- |
| MW-63 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW63-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-63 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW63-81617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-63 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW63-81617 | -- | -- | -- | -- | -- | -- | -- | **2.1** | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW63-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW63-9917 | <0.0040 | <0.0020 | **0.020** | <0.0010 | <0.00040 | <0.0040 | **0.0060** | **2.0** | <0.0020 | <0.20 | <0.00020 | **0.0025** | <0.0020 | <0.00040 | -- |
| MW-63 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW63-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** |
| MW-63 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW63-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.8** |
| MW-63 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW63-101317 | <0.0040 | <0.0050 | **0.022** | <0.0010 | <0.0010 | <0.010 | **0.0069** | **2.0** | <0.0050 | <0.20 | <0.00020 | **0.0029** | <0.0020 | <0.0010 | -- |
| MW-63 | CWTP | Downgradient Boundary | 11/30/2017 | FC-CCR-MW63-113017 | -- | -- | -- | -- | -- | -- | -- | **1.8** | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 4/6/2018 | FC-CCR-MW63-4618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 6/3/2018 | FC-CCR-MW-63-6318 | -- | -- | -- | -- | -- | -- | -- | **1.7** | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 11/2/2018 | FC-CCR-MW63-112818 | -- | -- | -- | -- | -- | -- | -- | **1.9** | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 4/1/2019 | FC-CCR-MW63-4119 | -- | -- | -- | -- | -- | -- | -- | **1.7** | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 5/7/2019 | FC-CCR-MW63-5719-02 | -- | -- | -- | -- | -- | -- | -- | **1.6** | -- | <0.20 | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 12/3/2019 | FC-CCR-MW63-120319 | -- | -- | -- | -- | -- | -- | -- | **1.8** | -- | <0.20 | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 12/3/2019 | *DUP* FC-CCR-FD01-120319 | -- | -- | -- | -- | -- | -- | -- | **1.8** | -- | <0.20 | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 6/19/2020 | FC-CCR-MW63-0620 | -- | -- | -- | -- | -- | -- | -- | **2.1** | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 11/5/2020 | FC-CCR-MW63-1120 | -- | -- | -- | -- | -- | -- | -- | **2.2** | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 4/22/2021 | FC-CCR-MW63-0421 | <0.0010 | <0.0013 | **0.020** | <0.001 | <0.0001 | <0.001 | **0.00062** | **2.0** | <0.0005 | **0.057** | <0.0002 | **0.0019** | <0.0005 | <0.0001 | <0.7 |
| MW-63 | CWTP | Downgradient Boundary | 7/8/2021 | FC-CCR-MW63-0721 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 11/15/2021 | FC-CCR-MW63-1121 | <0.002 | <0.001 | **0.022** | <0.001 | **0.000064 J** | <0.002 | **0.0022** | **0.28 J** | <0.001 | **0.066** | <0.0002 | **0.0035** | <0.001 | **0.00015 J** | <0.6 |
| MW-63 | CWTP | Downgradient Boundary | 5/20/2022 | FC-CCR-MW63-0522 | <0.002 | <0.001 | **0.015** | <0.001 | <0.0002 | <0.002 | **0.0012** | **2.1** | <0.001 | **0.058** | <0.0002 | **0.0029** | **0.0013** | <0.0002 | <0.7 |
| MW-63 | CWTP | Downgradient Boundary | 8/14/2022 | FC-CCR-MW63-0822 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 11/13/2022 | FC-CCR-MW63-1122 | <0.001 | **0.00063** | **0.023** | <0.001 | <0.0001 | <0.001 | **0.0026** | **2.1** | <0.0005 | **0.061** | <0.0002 | **0.0036** | **0.00051** | <0.0001 | <0.6 |
| MW-63 | CWTP | Downgradient Boundary | 05/07/2023 | FC-CCR-MW63-0523 | <0.002 | <0.005 | **0.016** | <0.001 | <0.001 | <0.003 | <0.001 | <8 | <0.001 | **0.055** | <0.0002 | **0.0022** | <0.005 | <0.001 | **0.8** |
| MW-63 | CWTP | Downgradient Boundary | 06/27/2023 | FC-CCR-MW63-0623 | <0.001 | **0.0012** | **0.014** | <0.001 | <0.0001 | <0.001 | **0.0015** | **1.8** | <0.0005 | **0.045** | <0.0002 | **0.003** | **0.00068** | <0.0001 | <0.6 |
| MW-63 | CWTP | Downgradient Boundary | 11/06/2023 | FC-CCR-MW63-1123 | <0.001 | **0.0013** | **0.025 J** | <0.001 | <0.0001 | <0.001 | **0.0037** | **2.2** | <0.0005 | **0.053** | <0.0002 | **0.0033** | <0.0005 | <0.0001 | <0.8 |

**Table G-8**
**Groundwater Sampling Results for the CWTP Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Constituent: | | | | | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Total Radium |
| Filtered: | | | | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| Units: | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| *CWTP BTV (applicable to MW-62)* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *CWTP BTV (applicable to MW-63)* | | | | | | | | | | | | | | | | | | | |
| *CWTP BTV (applicable to MW-64)* | | | | | | | | | | | | | | | | | | | |
| *CWTP BTV (applicable to MW-65)* | | | | | | | | | | | | | | | | | | | |
| *CWTP GWPS (applicable to downgradient wells)* | | | | | *0.006* | *0.013* | *2* | *0.004* | *0.005* | *0.1* | *0.014* | *4.2* | *0.015* | *0.89* | *0.002* | *0.1* | *0.47* | *0.002* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | |
| MW-63 | CWTP | Downgradient Boundary | 05/22/2024 | FC-CCR-MW63-0524 | <0.01 | **0.0053** | **0.015 J** | <0.001 | <0.001 | <0.01 | **0.0019 J** | **2.1** | <0.005 | **0.064** | <0.0002 | **0.0030 J** | <0.005 | <0.001 | **1.4** |
| MW-63 | CWTP | Downgradient Boundary | 10/23/2024 | FC-CCR-MW63-1024 | <0.0005 | **0.00068** | **0.0188** | <0.00044 | <0.00008 | <0.002 | **0.0019** | **2.55** | <0.0005 | **0.0546** | <0.0002 | **0.0035** | <0.0005 | <0.0001 | **0.6** |
| MW-64 | CWTP | Downgradient Boundary | 11/5/2015 | FC-CCR-MW64-110515 | <0.0020 | **0.00070** | **0.027** | <0.0010 | <0.0010 | **0.00023** | **0.0015** | **1.5** | **0.00016** | **0.022** | <0.00020 | **0.0057** | **0.00033** | **0.00011** | -- |
| MW-64 | CWTP | Downgradient Boundary | 11/5/2015 | FC-CCR-MW64-110515 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-64-042716 | <0.0025 | <0.00050 | **0.027** | <0.0010 | <0.00010 | **0.00071** | **0.0017** | **1.4** | <0.00050 | <0.20 | <0.00020 | **0.0051** | <0.00050 | **0.00012** | <0.8 |
| MW-64 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW64-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.8 |
| MW-64 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW64-616 | <0.00010 | <0.00050 | **0.027** | <0.0010 | <0.00010 | <0.00050 | **0.0012** | **1.4** | <0.00050 | <0.20 | <0.00020 | **0.0050** | <0.00050 | <0.00010 | -- |
| MW-64 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW64-816 | -- | -- | -- | -- | -- | -- | -- | **1.3** | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW64-816 | <0.00010 | **0.00056** | **0.033** | <0.0010 | <0.00010 | **0.00093** | **0.0015** | **1.6** | <0.00050 | <0.20 | <0.00020 | **0.0073** | <0.00050 | **0.00013** | -- |
| MW-64 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW64-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-64 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW64-916 | -- | -- | -- | -- | -- | -- | -- | **1.5** | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW64-916 | <0.0025 | <0.0010 | **0.027** | <0.0010 | <0.00050 | <0.0025 | **0.0015** | **1.5** | <0.00050 | <0.20 | <0.00020 | **0.0052** | <0.0030 | <0.00050 | -- |
| MW-64 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW64-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** |
| MW-64 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW64-1016 | -- | -- | -- | -- | -- | -- | -- | **1.5** | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW64-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 |
| MW-64 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW64-117 | -- | -- | -- | -- | -- | -- | -- | **1.4** | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW64-117 | <0.0010 | <0.00050 | **0.025** | <0.0010 | <0.00010 | <0.00050 | **0.0012** | **1.5** | <0.00050 | <0.20 | <0.00020 | **0.0048** | <0.00050 | **0.00011** | -- |
| MW-64 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW64-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.7** |
| MW-64 | CWTP | Downgradient Boundary | 4/17/2017 | FC-CCR-MW64-41717 | -- | -- | -- | -- | -- | -- | -- | **1.4** | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 4/17/2017 | FC-CCR-MW64-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-64 | CWTP | Downgradient Boundary | 4/17/2017 | FC-CCR-MW64-41717 | <0.0040 | <0.0020 | **0.026** | <0.0010 | <0.00040 | <0.0020 | <0.0020 | **1.4** | <0.00050 | <0.20 | <0.00020 | **0.0049** | <0.0020 | **0.00012** | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/2/2017 | FC-CCR-MW64-5217 | <0.0010 | <0.00050 | **0.026** | <0.0010 | <0.00010 | <0.00050 | **0.0011** | **1.3** | <0.00050 | <0.20 | <0.00020 | **0.0045** | <0.00050 | **0.00011** | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/2/2017 | FC-CCR-MW64-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-64 | CWTP | Downgradient Boundary | 5/2/2017 | *DUP* FC-CCR-FD02-5217 | <0.0010 | <0.00050 | **0.026** | <0.0010 | <0.00010 | <0.00050 | **0.0011** | **1.3** | <0.00050 | <0.20 | <0.00020 | **0.0044** | <0.00050 | **0.00011** | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/2/2017 | *DUP* FC-CCR-FD02-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-64 | CWTP | Downgradient Boundary | 5/28/2017 | FC-CCR-MW64-52817 | <0.0010 | <0.00050 | **0.025** | <0.0010 | <0.00010 | <0.00050 | **0.0011** | **1.5** | <0.00050 | <0.20 | <0.00020 | **0.0045** | <0.00050 | <0.00010 | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/28/2017 | FC-CCR-MW64-52817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-64 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW64-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW64-62117 | <0.0010 | <0.00050 | **0.027** | <0.0010 | <0.00010 | <0.00050 | **0.0012** | **1.4** | <0.00050 | <0.20 | <0.00020 | **0.0051** | <0.00050 | **0.00020** | -- |
| MW-64 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW64-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-64 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW64-72117 | -- | -- | -- | -- | -- | -- | -- | **1.5** | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW64-72117 | <0.0040 | <0.0020 | **0.024** | <0.0010 | <0.00040 | <0.0020 | <0.0020 | -- | <0.0020 | <0.20 | <0.00020 | **0.0042** | <0.0020 | <0.00040 | -- |
| MW-64 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW64-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-64 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW64-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW64-8917 | <0.0010 | <0.00050 | **0.027** | <0.0010 | <0.00010 | <0.0010 | **0.0012** | **1.5** | <0.00050 | <0.20 | <0.00020 | **0.0047** | <0.00050 | <0.00010 | -- |
| MW-64 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW64-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** |
| MW-64 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW64-81617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-64 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW64-81617 | -- | -- | -- | -- | -- | -- | -- | **1.5** | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW64-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW64-9917 | <0.0040 | <0.0020 | **0.024** | <0.0010 | <0.00040 | <0.0040 | <0.0020 | **1.5** | <0.0020 | <0.20 | <0.00020 | **0.0045** | <0.0020 | <0.00040 | -- |
| MW-64 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW64-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-64 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW64-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-64 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW64-101317 | <0.0040 | <0.0050 | **0.029** | <0.0010 | <0.0010 | <0.010 | <0.0050 | **1.4** | <0.0050 | <0.20 | <0.00020 | **0.0051** | <0.0020 | <0.00040 | -- |
| MW-64 | CWTP | Downgradient Boundary | 11/30/2017 | FC-CCR-MW64-113017 | -- | -- | -- | -- | -- | -- | -- | **1.4** | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 6/3/2018 | FC-CCR-MW-64-6318 | -- | -- | -- | -- | -- | -- | -- | **1.4** | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 11/2/2018 | FC-CCR-MW64-11218 | -- | -- | -- | -- | -- | -- | -- | **1.4** | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 4/1/2019 | FC-CCR-MW64-4119 | -- | -- | -- | -- | -- | -- | -- | **1.4** | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/7/2019 | FC-CCR-MW64-5719-03 | -- | -- | -- | -- | -- | -- | -- | **1.4** | -- | <0.20 | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/7/2019 | *DUP* FC-CCR-FD03-5719-04 | -- | -- | -- | -- | -- | -- | -- | **1.4** | -- | <0.20 | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 12/3/2019 | FC-CCR-MW64-120319 | -- | -- | -- | -- | -- | -- | -- | **1.5** | -- | <0.20 | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 6/19/2020 | FC-CCR-MW64-0620 | -- | -- | -- | -- | -- | -- | -- | **1.3** | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 11/5/2020 | FC-CCR-MW64-1120 | -- | -- | -- | -- | -- | -- | -- | **1.6** | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 4/22/2021 | FC-CCR-MW64-0421 | <0.0010 | <0.00096 | **0.033** | <0.001 | <0.0001 | <0.001 | **0.00083** | **1.4** | <0.0005 | **0.019 J** | <0.0002 | **0.0047** | <0.0005 | <0.0001 | <0.7 |
| MW-64 | CWTP | Downgradient Boundary | 11/15/2021 | FC-CCR-MW64-1121 | <0.002 | <0.001 | **0.024 J** | <0.001 | **0.000058 J** | <0.002 | **0.0018** | **1.4** | <0.001 | **0.019 J** | <0.0002 | **0.0052** | <0.001 | **0.00041** | <0.6 |
| MW-64 | CWTP | Downgradient Boundary | 5/20/2022 | FC-CCR-MW64-0522 | <0.002 | <0.001 | **0.035** | <0.001 | <0.0002 | <0.002 | **0.0011** | **1.4** | <0.001 | **0.027** | <0.0002 | **0.0049** | <0.001 | <0.0002 | <0.7 |
| MW-64 | CWTP | Downgradient Boundary | 5/20/2022 | FC-CCR-SS01-0522 | <0.002 | **0.00022 J** | **0.0329** | <0.00025 | <0.00025 | <0.002 | **0.00113** | **0.874 J / 1.39** | <0.0005 | **0.0601** | <0.001 | **0.00479** | <0.00025 | <0.0005 | -- |
| MW-64 | CWTP | Downgradient Boundary | 11/13/2022 | FC-CCR-MW64-1122 | <0.001 | <0.0005 | **0.023** | <0.001 | <0.0001 | <0.001 | **0.0018** | **1.6** | <0.0005 | **0.021** | <0.0002 | **0.0052** | <0.0005 | **0.00013** | **0.8** |
| MW-64 | CWTP | Downgradient Boundary | 05/07/2023 | FC-CCR-MW64-0523 | <0.002 | <0.005 | **0.022** | **0.0051** | <0.001 | <0.003 | **0.0017** | **1.4** | <0.001 | **0.023** | <0.0002 | **0.0050** | <0.005 | <0.001 | <0.6 |
| MW-64 | CWTP | Downgradient Boundary | 06/27/2023 | FC-CCR-MW64-0623 | <0.001 | **0.001** | **0.022** | <0.001 | <0.0001 | <0.001 | **0.0017** | **1.3** | <0.0005 | **0.020** | <0.0002 | **0.0046** | <0.0005 | **0.00012** | **1.7** |
| MW-64 | CWTP | Downgradient Boundary | 11/06/2023 | FC-CCR-MW64-1123 | <0.001 | **0.00097** | **0.029 J** | <0.001 | <0.0001 | <0.001 | **0.0016** | **1.5** | <0.0005 | <0.05 | <0.0002 | **0.0044** | <0.0005 | **0.00015** | <0.8 |
| MW-64 | CWTP | Downgradient Boundary | 05/22/2024 | FC-CCR-MW64-0524 | <0.01 | **0.0055** | **0.048 J** | <0.001 | <0.001 | <0.01 | **0.0017 J** | **1.0** | <0.005 | **0.045** | <0.0002 | **0.0036 J** | <0.005 | **<0.001** | **1.0** |
| MW-64 | CWTP | Downgradient Boundary | 10/23/2024 | FC-CCR-MW64-1024 | <0.0005 | **0.00077** | **0.0978** | <0.00044 | <0.00008 | <0.002 | **0.00056** | **0.76** | **0.00071** | **0.0102** | <0.0002 | **0.0046** | **0.00094** | <0.0001 | **0.6** |
| MW-65 | CWTP | Downgradient Boundary | 11/5/2015 | FC-CCR-MW65-110515 | <0.0020 | **0.00071** | **0.014** | <0.0010 | <0.0010 | **0.00049** | **0.0012** | **2.0** | <0.0010 | **0.054** | <0.00020 | **0.0093** | **0.00034** | <0.0010 | -- |
| MW-65 | CWTP | Downgradient Boundary | 11/5/2015 | FC-CCR-MW65-110515 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-65-042716 | <0.0025 | <0.00050 | **0.017** | <0.0010 | <0.00010 | **0.0015** | **0.0012** | **1.8** | <0.00050 | <0.20 | <0.00020 | **0.0078** | <0.00050 | <0.00010 | <0.8 |
| MW-65 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW65-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.8 |
| MW-65 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW65-616 | <0.00010 | <0.00050 | **0.014** | <0.0010 | <0.00010 | <0.00050 | **0.0011** | **2.0** | <0.00050 | <0.20 | <0.00020 | **0.0083** | <0.00050 | <0.00010 | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW65-816 | -- | -- | -- | -- | -- | -- | -- | **1.7** | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW65-816 | <0.00010 | <0.00050 | **0.019** | <0.0010 | <0.00010 | <0.00050 | **0.0012** | **2.1** | <0.00050 | <0.20 | <0.00020 | **0.013** | <0.00050 | <0.00010 | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW65-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 |
| MW-65 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW65-916 | -- | -- | -- | -- | -- | -- | -- | **2.0** | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW65-916 | <0.0025 | <0.0010 | **0.013** | <0.0010 | <0.00050 | <0.0025 | **0.0014** | **2.0** | <0.00050 | <0.20 | <0.00020 | **0.0084** | <0.0030 | <0.00050 | -- |
| MW-65 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW65-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** |
| MW-65 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW65-1016 | -- | -- | -- | -- | -- | -- | -- | **2.0** | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW65-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 |
| MW-65 | CWTP | Downgradient Boundary | 2/1/2017 | FC-CCR-MW65-117 | -- | -- | -- | -- | -- | -- | -- | **1.8** | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 2/1/2017 | FC-CCR-MW65-117 | <0.0010 | <0.00050 | **0.014** | <0.0010 | <0.00010 | <0.00050 | **0.0011** | **2.0** | <0.00050 | <0.20 | <0.00020 | **0.0086** | <0.00050 | <0.00010 | -- |
| MW-65 | CWTP | Downgradient Boundary | 2/1/2017 | FC-CCR-MW65-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.9** |
| MW-65 | CWTP | Downgradient Boundary | 4/16/2017 | FC-CCR-MW65-41617 | -- | -- | -- | -- | -- | -- | -- | **1.8** | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 4/16/2017 | FC-CCR-MW65-41617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** |
| MW-65 | CWTP | Downgradient Boundary | 4/16/2017 | FC-CCR-MW65-41617 | <0.0040 | <0.0020 | **0.016** | <0.0010 | <0.00040 | <0.0020 | <0.0020 | **1.7** | <0.0020 | <0.20 | <0.00020 | **0.0082** | <0.0020 | <0.00040 | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/1/2017 | FC-CCR-MW65-5117 | <0.0010 | <0.00050 | **0.017** | <0.0010 | <0.00010 | <0.00050 | **0.0011** | **1.6** | <0.00050 | <0.20 | <0.00020 | **0.0083** | <0.00050 | <0.00010 | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/1/2017 | FC-CCR-MW65-5117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-65 | CWTP | Downgradient Boundary | 5/1/2017 | *DUP* FC-CCR-FD01-5117 | <0.0010 | <0.00050 | **0.017** | <0.0010 | <0.00010 | <0.00050 | **0.0011** | **1.6** | <0.00050 | <0.20 | <0.00020 | **0.0083** | <0.00050 | <0.00010 | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/1/2017 | *DUP* FC-CCR-FD01-5117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-65 | CWTP | Downgradient Boundary | 5/29/2017 | FC-CCR-MW65-52917 | <0.0010 | <0.00050 | **0.021** | <0.0010 | <0.00010 | <0.00050 | **0.0010** | **1.8** | <0.00050 | <0.20 | <0.00020 | **0.010** | <0.00050 | <0.00010 | -- |

**Table G-8**
**Groundwater Sampling Results for the CWTP Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Total Radium |
| **Filtered:** | | | | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| **Units:** | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| *CWTP BTV (applicable to MW-62)* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| *CWTP BTV (applicable to MW-63)* | | | | | | | | | | | | | | | | | | | |
| *CWTP BTV (applicable to MW-64)* | | | | | | | | | | | | | | | | | | | |
| *CWTP BTV (applicable to MW-65)* | | | | | | | | | | | | | | | | | | | |
| *CWTP GWPS (applicable to downgradient wells)* | | | | | *0.006* | *0.013* | *2* | *0.004* | *0.005* | *0.1* | *0.014* | *4.2* | *0.015* | *0.89* | *0.002* | *0.1* | *0.47* | *0.002* | *5* |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | |
| MW-65 | CWTP | Downgradient Boundary | 5/29/2017 | FC-CCR-MW65-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-65 | CWTP | Downgradient Boundary | 5/29/2017 | *DUP* FC-CCR-FD02-52917 | <0.010 | <0.0050 | **0.023** | <0.0010 | <0.0010 | <0.0050 | <0.0050 | **1.8** | <0.0050 | <0.20 | <0.00020 | **0.010** | <0.0050 | <0.0010 | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/29/2017 | *DUP* FC-CCR-FD02-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-65 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW65-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW65-62117 | <0.0010 | <0.00050 | **0.018** | <0.0010 | <0.00010 | <0.00050 | **0.0011** | **1.9** | <0.00050 | <0.20 | <0.00020 | **0.0097** | <0.00050 | <0.00010 | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW65-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-65 | CWTP | Downgradient Boundary | 6/21/2017 | *DUP* FC-CCR-FD01-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/21/2017 | *DUP* FC-CCR-FD01-62117 | <0.0010 | <0.00050 | **0.019** | <0.0010 | <0.00010 | <0.00050 | **0.0011** | **2.0** | <0.00050 | <0.20 | <0.00020 | **0.0098** | <0.00050 | <0.00010 | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/21/2017 | *DUP* FC-CCR-FD01-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.3** |
| MW-65 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW65-72117 | -- | -- | -- | -- | -- | -- | -- | **2.0** | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW65-72117 | <0.0040 | <0.0020 | **0.012** | <0.0010 | <0.00040 | <0.0020 | <0.0020 | **2.0** | <0.0020 | <0.20 | <0.00020 | **0.0080** | <0.0020 | <0.00040 | -- |
| MW-65 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW65-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-65 | CWTP | Downgradient Boundary | 7/21/2017 | *DUP* FC-CCR-FD01-72117 | -- | -- | -- | -- | -- | -- | -- | **2.0** | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 7/21/2017 | *DUP* FC-CCR-FD01-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-65 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW65-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW65-8917 | <0.0010 | <0.00050 | **0.012** | <0.0010 | <0.00010 | <0.0010 | **0.0012** | **2.0** | <0.00050 | <0.20 | <0.00020 | **0.0083** | <0.00050 | <0.00010 | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW65-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 |
| MW-65 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW65-81617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-65 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW65-81617 | -- | -- | -- | -- | -- | -- | -- | **2.0** | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/16/2017 | *DUP* FC-CCR-FD01-81617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.7 |
| MW-65 | CWTP | Downgradient Boundary | 8/16/2017 | *DUP* FC-CCR-FD01-81617 | -- | -- | -- | -- | -- | -- | -- | **2.0** | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW65-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW65-9917 | <0.0040 | <0.0020 | **0.012** | <0.0010 | <0.00040 | <0.0040 | <0.0020 | **2.0** | <0.0020 | <0.20 | <0.00020 | **0.0080** | <0.0020 | <0.00040 | -- |
| MW-65 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW65-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-65 | CWTP | Downgradient Boundary | 9/9/2017 | *DUP* FC-CCR-FD01-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 9/9/2017 | *DUP* FC-CCR-FD01-9917 | <0.0040 | <0.0020 | **0.011** | <0.0010 | <0.00040 | <0.0040 | <0.0020 | **2.0** | <0.0020 | <0.20 | <0.00020 | **0.0081** | <0.0020 | <0.00040 | -- |
| MW-65 | CWTP | Downgradient Boundary | 9/9/2017 | *DUP* FC-CCR-FD01-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-65 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW65-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-65 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW65-101317 | <0.0010 | <0.00050 | **0.013** | <0.0010 | <0.00010 | <0.0010 | **0.0011** | **1.9** | <0.00050 | <0.20 | <0.00020 | **0.0093** | <0.00050 | <0.00010 | -- |
| MW-65 | CWTP | Downgradient Boundary | 10/13/2017 | *DUP* FC-CCR-FD02-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.6 |
| MW-65 | CWTP | Downgradient Boundary | 10/13/2017 | *DUP* FC-CCR-FD02-101317 | <0.0010 | <0.00050 | **0.013** | <0.0010 | <0.00010 | <0.0010 | **0.0012** | **1.9** | <0.00050 | <0.20 | <0.00020 | **0.0094** | <0.00050 | <0.00010 | -- |
| MW-65 | CWTP | Downgradient Boundary | 11/30/2017 | FC-CCR-MW65-113017 | -- | -- | -- | -- | -- | -- | -- | **2.0** | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/3/2018 | FC-CCR-MW-65-6318 | -- | -- | -- | -- | -- | -- | -- | **1.9** | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 11/2/2018 | FC-CCR-MW65-11218 | -- | -- | -- | -- | -- | -- | -- | **1.9** | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 4/1/2019 | FC-CCR-MW65-4119 | -- | -- | -- | -- | -- | -- | -- | **1.8** | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 4/1/2019 | *DUP* FC-CCR-FD1-4119 | -- | -- | -- | -- | -- | -- | -- | **1.9** | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/7/2019 | FC-CCR-MW65-5719-05 | -- | -- | -- | -- | -- | -- | -- | **1.7** | -- | <0.20 | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 12/3/2019 | FC-CCR-MW65-120319 | -- | -- | -- | -- | -- | -- | -- | **1.9** | -- | <0.20 | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/19/2020 | FC-CCR-MW65-0620 | -- | -- | -- | -- | -- | -- | -- | **1.7** | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 11/5/2020 | FC-CCR-MW65-1120 | -- | -- | -- | -- | -- | -- | -- | **2.1** | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 4/22/2021 | FC-CCR-MW65-0421 | <0.0010 | <0.00099 | **0.032** | <0.001 | <0.0001 | <0.001 | **0.0020** | **1.5** | <0.0005 | **0.061** | <0.0002 | **0.0072** | <0.00059 | <0.0001 | <0.7 |
| MW-65 | CWTP | Downgradient Boundary | 7/8/2021 | FC-CCR-MW65-0721 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 11/15/2021 | FC-CCR-MW65-1121 | <0.002 | <0.001 | **0.020** | <0.001 | <0.0002 | <0.002 | **0.0022** | **1.7** | <0.001 | **0.053** | <0.0002 | **0.0098** | <0.001 | **0.000072 J** | <0.6 |
| MW-65 | CWTP | Downgradient Boundary | 5/20/2022 | FC-CCR-MW65-0522 | <0.002 | <0.001 | **0.042** | <0.001 | <0.0002 | <0.002 | **0.0029** | **1.5** | <0.001 | **0.081** | <0.0002 | **0.0066** | <0.001 | <0.0002 | **1.1** |
| MW-65 | CWTP | Downgradient Boundary | 8/14/2022 | FC-CCR-MW65-0822 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 11/13/2022 | FC-CCR-MW65-1122 | <0.001 | **0.00059** | **0.021** | <0.001 | <0.0001 | <0.001 | **0.0019** | **1.8** | <0.0005 | **0.050** | <0.0002 | **0.0089** | <0.0005 | <0.0001 | <0.6 |
| MW-65 | CWTP | Downgradient Boundary | 05/07/2023 | FC-CCR-MW65-0523 | <0.002 | <0.005 | **0.023** | <0.001 | <0.001 | <0.003 | **0.0018** | <2 | <0.001 | **0.045** | <0.0002 | **0.0070** | <0.005 | <0.001 | <0.6 |
| MW-65 | CWTP | Downgradient Boundary | 06/28/2023 | FC-CCR-MW65-0623 | <0.001 | **0.0013** | **0.022** | <0.001 | <0.0001 | <0.001 | **0.0017** | **1.4** | <0.0005 | **0.050** | <0.0002 | **0.0073** | <0.0005 | <0.0001 | **0.7** |
| MW-65 | CWTP | Downgradient Boundary | 11/06/2023 | FC-CCR-MW65-1123 | <0.001 | **0.0011** | **0.021 J** | <0.001 | <0.0001 | <0.001 | **0.0016** | **1.5** | <0.0005 | <0.05 | <0.0002 | **0.0073** | <0.0005 | <0.0001 | <0.8 |
| MW-65 | CWTP | Downgradient Boundary | 05/22/2024 | FC-CCR-MW65-0524 | <0.01 | **0.0052** | **0.037 J** | <0.001 | <0.001 | <0.01 | **0.0032 J** | **1.3** | <0.005 | **0.073** | <0.0002 | **0.0075** | <0.005 | <0.001 | <0.8 |
| MW-65 | CWTP | Downgradient Boundary | 10/23/2024 | FC-CCR-MW65-1024 | <0.0005 | <0.0005 | **0.0304** | <0.00044 | <0.00008 | <0.002 | **0.0028** | **1.65** | <0.0005 | **0.0608** | <0.0002 | **0.0073** | <0.0005 | <0.0001 | <0.8 |

*Notes:*
BTV exceedances are shown in grey shaded cells. GWPS exceedences are shown in red text.

*Abbreviations and Data Qualifiers:*
< = less than
BTV = Background Threshold Value
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
mg/L = milligrams per liter
NJ = The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the sample.
pCi/L = Picocuries per liter
su = standard units
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

**Table G-9**
**Groundwater Sampling Results for the CWTP Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Constituent:** | | | | | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Manganese | Nickel | Nitrate as N | Nitrate Nitrite as N | Nitrite (as N) | Potassium | Radium 226 | Radium 228 | Sodium |
| **Filtered:** | | | | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| **Units:** | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| *CWTP BTV (applicable to MW-62)* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| *CWTP BTV (applicable to MW-63)* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| *CWTP BTV (applicable to MW-64)* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| *CWTP BTV (applicable to MW-65)* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| *CWTP GWPS (applicable to downgradient wells)* | | | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | |
| MW-71 | URS/CWTP | Background | 3/5/2016 | FC-CCR-MW-71-030516 | **490** | <5.0 | -- | **490** | -- | -- | **1,600** | **--** | -- | -- | -- | -- | **23** | -- | -- | **880** |
| MW-71 | URS/CWTP | Background | 3/5/2016 | FC-CCR-MW-71-030516 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.656** | **1.2** | -- |
| MW-71 | URS/CWTP | Background | 3/5/2016 | *DUP* FC-CCR-FD-2-030516 | **410** | <5.0 | -- | **410** | -- | -- | **1,700** | -- | -- | -- | -- | -- | **24** | -- | -- | **940** |
| MW-71 | URS/CWTP | Background | 3/5/2016 | *DUP* FC-CCR-FD-2-030516 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.717** | **1.26** | -- |
| MW-71 | URS/CWTP | Background | 4/26/2016 | FC-CCR-MW-71-042616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.5** | -- |
| MW-71 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW71-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** | **2.1** | -- |
| MW-71 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW71-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW71-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW71-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW71-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **1.0** | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW101-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW101-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW101-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.3** | **0.8** | -- |
| MW-71 | URS/CWTP | Background | 9/12/2016 | FC-CCR-MW71-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 9/12/2016 | FC-CCR-MW71-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 9/12/2016 | FC-CCR-MW71-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **1.6** | -- |
| MW-71 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW71-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW71-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | <0.7 | -- |
| MW-71 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW71-117 | **550** | <6.0 | <6.0 | **550** | <6.0 | -- | **2,300** | **--** | -- | -- | -- | -- | **32** | -- | -- | **1,200** |
| MW-71 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW71-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW71-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.9** | -- |
| MW-71 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW71-41717 | **420** | <6.0 | <6.0 | **420** | <6.0 | -- | **1,800** | **--** | -- | -- | -- | -- | **25** | -- | -- | **980** |
| MW-71 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW71-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.2** | -- |
| MW-71 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW71-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW71-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW71-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | <0.6 | -- |
| MW-71 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW71-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW71-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-71 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW71-62217 | **540** | <6.0 | <6.0 | **540** | <6.0 | -- | **2,400** | **--** | -- | -- | -- | -- | **31** | -- | -- | **1,200** |
| MW-71 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW71-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW71-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | **1.5** | -- |
| MW-71 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW71-72117 | **420** | <6.0 | <6.0 | **420** | <6.0 | -- | **1,800** | **--** | -- | -- | -- | -- | **27** | -- | -- | **1,100** |
| MW-71 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW71-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW71-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.4 | -- |
| MW-71 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW71-81017 | **420** | <6.0 | <6.0 | **420** | <6.0 | -- | **2,000** | **--** | -- | -- | -- | -- | **27** | -- | -- | **1,100** |
| MW-71 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW71-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW71-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-71 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW71-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.0** | -- |
| MW-71 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW71-81717 | **430** | <6.0 | <6.0 | **430** | <6.0 | -- | **1,800** | **--** | -- | -- | -- | -- | **30** | -- | -- | **1,100** |
| MW-71 | URS/CWTP | Background | 9/11/2017 | FC-CCR-MW71-91117 | **420** | <6.0 | <6.0 | **420** | <6.0 | -- | **1,800** | **--** | -- | -- | -- | -- | **26** | -- | -- | **1,100** |
| MW-71 | URS/CWTP | Background | 9/11/2017 | FC-CCR-MW71-91117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 9/11/2017 | FC-CCR-MW71-91117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-71 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW71-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **0.8** | -- |
| MW-71 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW71-101317 | **430** | <6.0 | <6.0 | **430** | <6.0 | -- | **1,700** | **--** | -- | -- | -- | -- | **26** | -- | -- | **1,000** |
| MW-71 | URS/CWTP | Background | 11/30/2017 | FC-CCR-MW71-113017 | **430** | <6.0 | <6.0 | **430** | <6.0 | -- | **1,700** | **--** | -- | -- | -- | -- | **29** | -- | -- | **1,100** |
| MW-71 | URS/CWTP | Background | 3/16/2018 | FC-CCR-MW71-31618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <1.0 | **0.8** | -- |
| MW-71 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-71-6218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **1.5** | -- |
| MW-71 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-71-6218 | **430** | <6.0 | <6.0 | **430** | <6.0 | -- | **2,000** | **--** | -- | -- | -- | -- | **27** | -- | -- | **1,000** |
| MW-71 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW71-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW71-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | <0.7 | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW71-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD01-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD01-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.8** | <0.7 | -- |
| MW-71 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW71-031819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW71-031819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-71 | URS/CWTP | Background | 5/6/2019 | FC-CCR-MW71-5719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.0** | -- |
| MW-71 | URS/CWTP | Background | 12/2/2019 | FC-CCR-MW71-120219 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 6/20/2020 | FC-CCR-MW71-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.8 | -- |
| MW-71 | URS/CWTP | Background | 11/5/2020 | FC-CCR-MW71-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.8 | -- |
| MW-71 | URS/CWTP | Background | 4/22/2021 | FC-CCR-MW71-0421 | | | | | | -- | -- | -- | -- | -- | -- | -- | | **0.7** | <0.7 | |
| MW-71 | URS/CWTP | Background | 11/12/2021 | FC-CCR-MW71-1121 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | <0.6 | -- |
| MW-71 | URS/CWTP | Background | 5/21/2022 | FC-CCR-MW71-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **0.8** | -- |
| MW-71 | URS/CWTP | Background | 5/21/2022 | FC-CCR-SS04-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 8/14/2022 | FC-CCR-MW71-0822 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 11/13/2022 | FC-CCR-MW71-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1** | -- |
| MW-71 | URS/CWTP | Background | 01/27/2023 | FC-CCR-MW71-0123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-71 | URS/CWTP | Background | 05/08/2023 | FC-CCR-MW71-0523 | -- | -- | -- | -- | -- | -- | -- | -- | **0.0035** | -- | -- | -- | -- | <0.4 | **1.7** | |
| MW-71 | URS/CWTP | Background | 06/27/2023 | FC-CCR-MW71-0623 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.2** | -- |
| MW-71 | URS/CWTP | Background | 11/08/2023 | FC-CCR-MW71-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **1.0** | -- |
| MW-71 | URS/CWTP | Background | 05/16/2024 | FC-CCR-MW71-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.42 | **1.4** | -- |
| MW-71 | URS/CWTP | Background | 10/24/2024 | FC-CCR-MW71-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.7** | -- |
| MW-72 | URS/CWTP | Background | 3/7/2016 | FC-CCR-MW72-030716 | **620** | <5.0 | -- | **620** | -- | -- | **2,300** | **--** | -- | -- | -- | -- | **29** | -- | -- | **720** |
| MW-72 | URS/CWTP | Background | 3/7/2016 | FC-CCR-MW72-030716 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.06** | **1.85** | -- |
| MW-72 | URS/CWTP | Background | 4/26/2016 | FC-CCR-MW-72-042616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.8 | -- |
| MW-72 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW72-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **0.8** | -- |
| MW-72 | URS/CWTP | Background | 6/6/2016 | FC-CCR-MW72-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW72-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW72-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/21/2016 | FC-CCR-MW72-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **2.7** | -- |
| MW-72 | URS/CWTP | Background | 9/13/2016 | FC-CCR-MW72-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 9/13/2016 | FC-CCR-MW72-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 9/13/2016 | FC-CCR-MW72-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **3.4** | -- |
| MW-72 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW72-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 10/20/2016 | FC-CCR-MW72-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **3.5** | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW72-117 | **560** | <6.0 | <6.0 | **560** | <6.0 | -- | **2,200** | **--** | -- | -- | -- | -- | **27** | -- | -- | **700** |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW72-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW72-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **3.3** | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW101-117 | **560** | <6.0 | <6.0 | **560** | <6.0 | -- | **2,300** | **--** | -- | -- | -- | -- | **28** | -- | -- | **710** |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW101-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW101-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **0.6** | -- |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW-72-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **2.9** | -- |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW72-41717 | **600** | <6.0 | <6.0 | **600** | <6.0 | -- | **2,400** | **--** | -- | -- | -- | -- | **29** | -- | -- | **760** |
| MW-72 | URS/CWTP | Background | 4/17/2017 | FC-CCR-MW72-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW-72-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **3.1** | -- |
| MW-72 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW72-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW72-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW72-62217 | **600** | <6.0 | <6.0 | **600** | <6.0 | -- | **2,400** | **--** | -- | -- | -- | -- | **29** | -- | -- | **760** |
| MW-72 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW72-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW-72-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **2.2** | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | *DUP* FC-CCR-FD02-62217 | **610** | <6.0 | <6.0 | **610** | <6.0 | -- | **2,500** | **--** | -- | -- | -- | -- | **30** | -- | -- | **770** |

**Table G-9**
**Groundwater Sampling Results for the CWTP Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Manganese | Nickel | Nitrate as N | Nitrate Nitrite as N | Nitrite (as N) | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *CWTP BTV (applicable to MW-62)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP BTV (applicable to MW-63)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP BTV (applicable to MW-64)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP BTV (applicable to MW-65)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | |
| MW-72 | URS/CWTP | Background | 6/22/2017 | *DUP* FC-CCR-FD02-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/22/2017 | *DUP* FC-CCR-FD02-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **2.5** | -- | -- |
| MW-72 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW72-72117 | **600** | <6.0 | <6.0 | **600** | <6.0 | -- | **2,300** | -- | -- | -- | -- | -- | **29** | -- | -- | **760** |
| MW-72 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW72-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 7/21/2017 | FC-CCR-MW72-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.7** | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW72-81017 | **600** | <6.0 | <6.0 | **600** | <6.0 | -- | **2,500** | -- | -- | -- | -- | -- | **30** | -- | -- | **780** |
| MW-72 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW72-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW72-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.8** | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | *DUP* FC-CCR-FD02-81017 | **610** | <6.0 | <6.0 | **610** | <6.0 | -- | **2,600** | -- | -- | -- | -- | -- | **30** | -- | -- | **800** |
| MW-72 | URS/CWTP | Background | 8/10/2017 | *DUP* FC-CCR-FD02-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 8/10/2017 | *DUP* FC-CCR-FD02-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.7** | -- |
| MW-72 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW72-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.1** | -- |
| MW-72 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW72-81717 | **610** | <6.0 | <6.0 | **610** | <6.0 | -- | **2,300** | -- | -- | -- | -- | -- | **33** | -- | -- | **790** |
| MW-72 | URS/CWTP | Background | 8/17/2017 | *DUP* FC-CCR-FD02-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** | **2.1** | -- |
| MW-72 | URS/CWTP | Background | 8/17/2017 | *DUP* FC-CCR-FD02-81717 | **600** | <6.0 | <6.0 | **600** | <6.0 | -- | **2,400** | -- | -- | -- | -- | -- | **32** | -- | -- | **770** |
| MW-72 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW72-91017 | **610** | <6.0 | <6.0 | **610** | <6.0 | -- | **2,300** | -- | -- | -- | -- | -- | **28** | -- | -- | **730** |
| MW-72 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW72-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW72-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.3** | -- |
| MW-72 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW72-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **2.4** | -- |
| MW-72 | URS/CWTP | Background | 10/13/2017 | FC-CCR-MW72-101317 | **610** | <6.0 | <6.0 | **610** | <6.0 | -- | **2,300** | -- | -- | -- | -- | -- | **28** | -- | -- | **740** |
| MW-72 | URS/CWTP | Background | 11/29/2017 | FC-CCR-MW72-112917 | **590** | <6.0 | <6.0 | **590** | <6.0 | -- | **2,300** | -- | -- | -- | -- | -- | **28** | -- | -- | **760** |
| MW-72 | URS/CWTP | Background | 3/16/2018 | FC-CCR-MW72-31618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <1.0 | **1.9** | -- |
| MW-72 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-72-6218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.8** | -- |
| MW-72 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-72-6218 | **610** | <6.0 | <6.0 | **610** | <6.0 | -- | **2,300** | -- | -- | -- | -- | -- | **26** | -- | -- | **670** |
| MW-72 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW72-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW72-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.0** | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW72-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD02-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 11/3/2018 | *DUP* FC-CCR-FD02-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **1.5** | -- |
| MW-72 | URS/CWTP | Background | 3/17/2019 | FC-CCR-MW72-031719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 3/17/2019 | FC-CCR-MW72-031719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **2.4** | -- |
| MW-72 | URS/CWTP | Background | 5/7/2019 | FC-CCR-MW72-5719 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **3.4** | -- |
| MW-72 | URS/CWTP | Background | 12/2/2019 | FC-CCR-MW72-120219 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 6/19/2020 | FC-CCR-MW72-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.9** | **2.6** | -- |
| MW-72 | URS/CWTP | Background | 11/5/2020 | FC-CCR-MW72-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.7** | -- |
| MW-72 | URS/CWTP | Background | 4/22/2021 | FC-CCR-MW72-0421 | | | | | | -- | -- | -- | -- | -- | -- | -- | | **0.7** | **1.5** | |
| MW-72 | URS/CWTP | Background | 11/12/2021 | FC-CCR-MW72-1121 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** | **2.4** | -- |
| MW-72 | URS/CWTP | Background | 5/22/2022 | FC-CCR-MW72-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.2** | -- |
| MW-72 | URS/CWTP | Background | 8/13/2022 | FC-CCR-MW72-0822 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 11/13/2022 | FC-CCR-MW72-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.9** | -- |
| MW-72 | URS/CWTP | Background | 01/27/2023 | FC-CCR-MW72-0123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-72 | URS/CWTP | Background | 05/08/2023 | FC-CCR-MW72-0523 | -- | -- | -- | -- | -- | -- | -- | -- | **0.0047** | -- | -- | -- | -- | <0.4 | **4.0** | -- |
| MW-72 | URS/CWTP | Background | 06/27/2023 | FC-CCR-MW72-0623 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **1.4** | -- |
| MW-72 | URS/CWTP | Background | 11/08/2023 | FC-CCR-MW72-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **4.5** | -- |
| MW-72 | URS/CWTP | Background | 05/16/2024 | FC-CCR-MW72-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.42 | **3.1** | -- |
| MW-72 | URS/CWTP | Background | 10/24/2024 | FC-CCR-MW72-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **1.3** | -- |
| MW-73 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW73-117 | **560** | <6.0 | <6.0 | **560** | <6.0 | -- | **580** | -- | -- | -- | -- | -- | **28** | -- | -- | **1,100** |
| MW-73 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW73-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 2/2/2017 | FC-CCR-MW73-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | **2.2** | -- |
| MW-73 | URS/CWTP | Background | 4/18/2017 | FC-CCR-MW73-41817 | **650** | <6.0 | <6.0 | **650** | <6.0 | -- | **630** | -- | -- | -- | -- | -- | **29** | -- | -- | **1,200** |
| MW-73 | URS/CWTP | Background | 4/18/2017 | FC-CCR-MW73-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.1** | -- |
| MW-73 | URS/CWTP | Background | 4/18/2017 | FC-CCR-MW73-41817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW73-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 5/2/2017 | FC-CCR-MW73-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **1.8** | -- |
| MW-73 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW73-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 5/29/2017 | FC-CCR-MW73-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-73 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW73-62217 | **780** | <6.0 | <6.0 | **780** | <6.0 | -- | **750** | -- | -- | -- | -- | -- | **34** | -- | -- | **1,600** |
| MW-73 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW73-62217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 6/22/2017 | FC-CCR-MW73-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** | **1.6** | -- |
| MW-73 | URS/CWTP | Background | 7/22/2017 | FC-CCR-MW73-72217 | **800** | <6.0 | <6.0 | **800** | <6.0 | -- | **840** | -- | -- | -- | -- | -- | **37** | -- | -- | **1,800** |
| MW-73 | URS/CWTP | Background | 7/22/2017 | FC-CCR-MW73-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 7/22/2017 | FC-CCR-MW73-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **2.0** | -- |
| MW-73 | URS/CWTP | Background | 7/22/2017 | *DUP* FC-CCR-FD02-72217 | **800** | <6.0 | <6.0 | **800** | <6.0 | -- | **850** | -- | -- | -- | -- | -- | **37** | -- | -- | **1,800** |
| MW-73 | URS/CWTP | Background | 7/22/2017 | *DUP* FC-CCR-FD02-72217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.1** | -- |
| MW-73 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW73-81017 | **800** | <6.0 | <6.0 | **800** | <6.0 | -- | **820** | -- | -- | -- | -- | -- | **36** | -- | -- | **1,800** |
| MW-73 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW73-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 8/10/2017 | FC-CCR-MW73-81017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.1** | -- |
| MW-73 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW73-81717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.5** | -- |
| MW-73 | URS/CWTP | Background | 8/17/2017 | FC-CCR-MW73-81717 | **800** | <6.0 | <6.0 | **800** | <6.0 | -- | **860** | -- | -- | -- | -- | -- | **41** | -- | -- | **1,800** |
| MW-73 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW73-91017 | **730** | <6.0 | <6.0 | **730** | <6.0 | -- | **680** | -- | -- | -- | -- | -- | **30** | -- | -- | **1,300** |
| MW-73 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW73-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 9/10/2017 | FC-CCR-MW73-91017 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | **1.3** | -- |
| MW-73 | URS/CWTP | Background | 10/12/2017 | FC-CCR-MW73-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | **0.9** | -- |
| MW-73 | URS/CWTP | Background | 10/12/2017 | FC-CCR-MW73-101217 | **480** | <6.0 | <6.0 | **480** | <6.0 | -- | **440** | -- | -- | -- | -- | -- | **20** | -- | -- | **600** |
| MW-73 | URS/CWTP | Background | 10/12/2017 | *DUP* FC-CCR-FD01-101217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **1.2** | -- |
| MW-73 | URS/CWTP | Background | 10/12/2017 | *DUP* FC-CCR-FD01-101217 | **480** | <6.0 | <6.0 | **480** | <6.0 | -- | **430** | -- | -- | -- | -- | -- | **20** | -- | -- | **590** |
| MW-73 | URS/CWTP | Background | 11/29/2017 | FC-CCR-MW73-112917 | **650** | <6.0 | <6.0 | **650** | <6.0 | -- | **640** | -- | -- | -- | -- | -- | **32** | -- | -- | **1,200** |
| MW-73 | URS/CWTP | Background | 3/16/2018 | FC-CCR-MW73-31618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <1.0 | **2.6** | -- |
| MW-73 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-73-6218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **2.0** | -- |
| MW-73 | URS/CWTP | Background | 6/2/2018 | FC-CCR-MW-73-6218 | **800** | <6.0 | <6.0 | **800** | <6.0 | -- | **710** | -- | -- | -- | -- | -- | **34** | -- | -- | **1,600** |
| MW-73 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW73-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 11/3/2018 | FC-CCR-MW73-11318 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** | **1.4** | -- |
| MW-73 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW73-031819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 3/18/2019 | FC-CCR-MW73-031819 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.6** | -- |
| MW-73 | URS/CWTP | Background | 5/6/2019 | FC-CCR-MW73-5619 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.7** | -- |
| MW-73 | URS/CWTP | Background | 12/2/2019 | FC-CCR-MW73-120219 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 12/2/2019 | *DUP* FC-CCR-FD01-120219 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 6/20/2020 | FC-CCR-MW73-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** | **1.9** | -- |
| MW-73 | URS/CWTP | Background | 11/5/2020 | FC-CCR-MW73-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **2.2** | -- |
| MW-73 | URS/CWTP | Background | 4/22/2021 | FC-CCR-MW73-0421 | | | | | | -- | -- | -- | -- | -- | -- | -- | | **0.7** | **1.1** | |
| MW-73 | URS/CWTP | Background | 11/13/2021 | FC-CCR-MW73-1121 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | **1.8** | -- |
| MW-73 | URS/CWTP | Background | 5/22/2022 | FC-CCR-MW73-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.4** | -- |
| MW-73 | URS/CWTP | Background | 8/13/2022 | FC-CCR-MW73-0822 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 11/14/2022 | FC-CCR-MW73-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.7** | **2.2** | -- |
| MW-73 | URS/CWTP | Background | 01/27/2023 | FC-CCR-MW73-0123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-73 | URS/CWTP | Background | 05/07/2023 | FC-CCR-MW73-0523 | -- | -- | -- | -- | -- | -- | -- | -- | **0.013** | -- | -- | -- | -- | <0.49 | **0.8** | |
| MW-73 | URS/CWTP | Background | 06/27/2023 | FC-CCR-MW73-0623 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** | **1.7** | -- |
| MW-73 | URS/CWTP | Background | 11/08/2023 | FC-CCR-MW73-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.44 | **2.3** | -- |
| MW-73 | URS/CWTP | Background | 05/16/2024 | FC-CCR-MW73-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **2.6** | -- |
| MW-73 | URS/CWTP | Background | 10/24/2024 | FC-CCR-MW73-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | **3.7** | -- |

**Table G-9**
**Groundwater Sampling Results for the CWTP Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Manganese | Nickel | Nitrate as N | Nitrate Nitrite as N | Nitrite (as N) | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *CWTP BTV (applicable to MW-62)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP BTV (applicable to MW-63)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP BTV (applicable to MW-64)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP BTV (applicable to MW-65)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | |
| MW-62 | CWTP | Downgradient Boundary | 11/9/2015 | FC-CCR-MW62-110915 | **1,100** | <5.0 | -- | **1,100** | -- | -- | **340** | **--** | -- | -- | -- | -- | **11** | -- | -- | **710** |
| MW-62 | CWTP | Downgradient Boundary | 11/9/2015 | FC-CCR-MW62-110915 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.0145 | **1.59** | -- |
| MW-62 | CWTP | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-62-042716 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | <0.8 | -- |
| MW-62 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW62-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.1** | -- |
| MW-62 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW62-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW62-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW62-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW62-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.2 | **1.4** | -- |
| MW-62 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW62-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW62-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW62-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.3** | -- |
| MW-62 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW62-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW62-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.9** | -- |
| MW-62 | CWTP | Downgradient Boundary | 2/1/2017 | FC-CCR-MW62-117 | **740** | <6.0 | <6.0 | **740** | <6.0 | -- | **340** | **--** | -- | -- | -- | -- | **10** | -- | -- | **660** |
| MW-62 | CWTP | Downgradient Boundary | 2/1/2017 | FC-CCR-MW62-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 2/1/2017 | FC-CCR-MW62-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **1.5** | -- |
| MW-62 | CWTP | Downgradient Boundary | 4/16/2017 | FC-CCR-MW62-41617 | **800** | <6.0 | <6.0 | **800** | <6.0 | -- | **350** | **--** | -- | -- | -- | -- | **9.4** | -- | -- | **710** |
| MW-62 | CWTP | Downgradient Boundary | 4/16/2017 | FC-CCR-MW62-41617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-62 | CWTP | Downgradient Boundary | 4/16/2017 | FC-CCR-MW62-41617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 5/1/2017 | FC-CCR-MW62-5117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 5/1/2017 | FC-CCR-MW62-5117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-62 | CWTP | Downgradient Boundary | 5/29/2017 | FC-CCR-MW62-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 5/29/2017 | FC-CCR-MW62-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | **0.8** | -- |
| MW-62 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW62-62117 | **850** | <6.0 | <6.0 | **850** | <6.0 | -- | **360** | **--** | -- | -- | -- | -- | **9.3** | -- | -- | **710** |
| MW-62 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW62-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW62-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.6 | -- |
| MW-62 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW62-72117 | **760** | <6.0 | <6.0 | **760** | <6.0 | -- | **340** | **--** | -- | -- | -- | -- | **10** | -- | -- | **650** |
| MW-62 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW62-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW62-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.6 | -- |
| MW-62 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW62-8917 | **770** | <6.0 | <6.0 | **770** | <6.0 | -- | **330** | **--** | -- | -- | -- | -- | **10** | -- | -- | **640** |
| MW-62 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW62-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW62-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- |
| MW-62 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW62-81617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **1.0** | -- |
| MW-62 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW62-81617 | **760** | <6.0 | <6.0 | **760** | <6.0 | -- | **340** | **--** | -- | -- | -- | -- | **12** | -- | -- | **640** |
| MW-62 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW62-9917 | **800** | <6.0 | <6.0 | **800** | <6.0 | -- | **340** | **--** | -- | -- | -- | -- | **10** | -- | -- | **640** |
| MW-62 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW62-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW62-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-62 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW62-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.7** | -- |
| MW-62 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW62-101317 | **850** | <6.0 | <6.0 | **850** | <6.0 | -- | **340** | **--** | -- | -- | -- | -- | **10** | -- | -- | **680** |
| MW-62 | CWTP | Downgradient Boundary | 11/30/2017 | FC-CCR-MW62-113017 | **800** | <6.0 | <6.0 | **800** | <6.0 | -- | **360** | **--** | -- | -- | -- | -- | **10** | -- | -- | **740** |
| MW-62 | CWTP | Downgradient Boundary | 4/6/2018 | FC-CCR-MW62-4618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 6/3/2018 | FC-CCR-MW-62-6318 | **750** | <6.0 | <6.0 | **750** | <6.0 | -- | **320** | **--** | -- | -- | -- | -- | **8.5** | -- | -- | **640** |
| MW-62 | CWTP | Downgradient Boundary | 11/2/2018 | FC-CCR-MW62-11218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 4/1/2019 | FC-CCR-MW62-4119 | **690** | -- | -- | **690** | -- | -- | **350** | **--** | -- | **0.61** | **--** | <0.10 | **9.5** | -- | -- | **690** |
| MW-62 | CWTP | Downgradient Boundary | 5/7/2019 | FC-CCR-MW62-5719-01 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 12/3/2019 | FC-CCR-MW62-120319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 6/19/2020 | FC-CCR-MW62-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 11/5/2020 | FC-CCR-MW62-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 1/14/2021 | FC-CCR-MW62-011421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 4/22/2021 | FC-CCR-MW62-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-62 | CWTP | Downgradient Boundary | 11/15/2021 | FC-CCR-MW62-1121 | **850** | <6 | <6 | **850** | <6 | -- | **480** | **--** | -- | <0.1 | <0.1 | <0.1 | **9.3** | **0.4** | **0.7** | **670** |
| MW-62 | CWTP | Downgradient Boundary | 5/20/2022 | FC-CCR-MW62-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-62 | CWTP | Downgradient Boundary | 11/13/2022 | FC-CCR-MW62-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **0.6** | -- |
| MW-62 | CWTP | Downgradient Boundary | 01/27/2023 | FC-CCR-MW62-0123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-62 | CWTP | Downgradient Boundary | 05/07/2023 | FC-CCR-MW62-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0045** | -- | -- | -- | <0.36 | **0.9** | |
| MW-62 | CWTP | Downgradient Boundary | 06/28/2023 | FC-CCR-MW62-0623 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.42 | **0.9** | -- |
| MW-62 | CWTP | Downgradient Boundary | 11/06/2023 | FC-CCR-MW62-1123 | **940** | <6 | <6 | **940** | <6 | **24 J** | **520** | **8.9** | -- | -- | -- | -- | **10** | <0.44 | <0.75 | **840** |
| MW-62 | CWTP | Downgradient Boundary | 05/22/2024 | FC-CCR-MW62-0524 | **910** | <6 | <6 | **910** | <6 | **23** | **460** | **6.4** | | | | | **10** | <0.49 | <0.75 | **760** |
| MW-62 | CWTP | Downgradient Boundary | 10/23/2024 | FC-CCR-MW62-1024 | **1,120** | <20 | -- | -- | -- | **12.2** | **474** | **5.03** | -- | -- | -- | -- | **12.3** | **0.4** | **1.5** | **780** |
| MW-63 | CWTP | Downgradient Boundary | 11/4/2015 | FC-CCR-MW63-110415 | **540** | <5.0 | -- | **540** | -- | -- | **260** | -- | -- | -- | -- | -- | **7.4** | -- | -- | **410** |
| MW-63 | CWTP | Downgradient Boundary | 11/4/2015 | FC-CCR-MW63-110415 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.408** | **0.89** | -- |
| MW-63 | CWTP | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-63-042716 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | <0.8 | -- |
| MW-63 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW63-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.8 | -- |
| MW-63 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW63-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW63-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW63-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW63-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.3** | **1.8** | -- |
| MW-63 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW63-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW63-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW63-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.0** | -- |
| MW-63 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW63-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW63-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.2 | <0.7 | -- |
| MW-63 | CWTP | Downgradient Boundary | 10/20/2016 | FC-CCR-MW100-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 10/20/2016 | FC-CCR-MW100-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **1.4** | -- |
| MW-63 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW63-117 | **470** | <6.0 | <6.0 | **470** | <6.0 | -- | **260** | **--** | -- | -- | -- | -- | **5.6** | -- | -- | **360** |
| MW-63 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW63-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW63-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.7** | -- |
| MW-63 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW100-117 | **470** | <6.0 | <6.0 | **470** | <6.0 | -- | **260** | **--** | -- | -- | -- | -- | **5.5** | -- | -- | **350** |
| MW-63 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW100-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW100-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.7** | -- |
| MW-63 | CWTP | Downgradient Boundary | 4/17/2017 | FC-CCR-MW63-41717 | **500** | <6.0 | <6.0 | **500** | <6.0 | -- | **270** | **--** | -- | -- | -- | -- | **5.7** | -- | -- | **360** |
| MW-63 | CWTP | Downgradient Boundary | 4/17/2017 | FC-CCR-MW63-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-63 | CWTP | Downgradient Boundary | 4/17/2017 | FC-CCR-MW63-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 5/2/2017 | FC-CCR-MW63-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 5/2/2017 | FC-CCR-MW63-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.8** | -- |
| MW-63 | CWTP | Downgradient Boundary | 5/28/2017 | FC-CCR-MW63-52817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 5/28/2017 | FC-CCR-MW63-52817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | <0.6 | -- |
| MW-63 | CWTP | Downgradient Boundary | 5/28/2017 | *DUP* FC-CCR-FD01-52817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 5/28/2017 | *DUP* FC-CCR-FD01-52817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-63 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW63-62117 | **500** | <6.0 | <6.0 | **500** | <6.0 | -- | **280** | **--** | -- | -- | -- | -- | **6.3** | -- | -- | **380** |
| MW-63 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW63-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW63-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | <0.6 | -- |
| MW-63 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW63-72117 | **480** | <6.0 | <6.0 | **480** | <6.0 | -- | **280** | **--** | -- | -- | -- | -- | **6.9** | -- | -- | **380** |
| MW-63 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW63-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW63-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | **0.8** | -- |
| MW-63 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW63-8917 | **490** | <6.0 | <6.0 | **490** | <6.0 | -- | **280** | **--** | -- | -- | -- | -- | **6.9** | -- | -- | **390** |
| MW-63 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW63-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW63-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- |
| MW-63 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW63-81617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- |
| MW-63 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW63-81617 | **490** | <6.0 | <6.0 | **490** | <6.0 | -- | **300** | **--** | -- | -- | -- | -- | **7.7** | -- | -- | **400** |

**Table G-9**
**Groundwater Sampling Results for the CWTP Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Manganese | Nickel | Nitrate as N | Nitrate Nitrite as N | Nitrite (as N) | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *CWTP BTV (applicable to MW-62)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP BTV (applicable to MW-63)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP BTV (applicable to MW-64)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP BTV (applicable to MW-65)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | |
| MW-63 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW63-9917 | **490** | <6.0 | <6.0 | **490** | <6.0 | -- | **270** | **--** | -- | -- | -- | -- | **6.9** | -- | -- | **360** |
| MW-63 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW63-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW63-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.7** | -- |
| MW-63 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW63-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | **1.2** | -- |
| MW-63 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW63-101317 | **490** | <6.0 | <6.0 | **490** | <6.0 | -- | **250** | **--** | -- | -- | -- | -- | **6.7** | -- | -- | **340** |
| MW-63 | CWTP | Downgradient Boundary | 11/30/2017 | FC-CCR-MW63-113017 | **500** | <6.0 | <6.0 | **500** | <6.0 | -- | **270** | **--** | -- | -- | -- | -- | **6.6** | -- | -- | **360** |
| MW-63 | CWTP | Downgradient Boundary | 4/6/2018 | FC-CCR-MW63-4618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 6/3/2018 | FC-CCR-MW-63-6318 | **500** | <6.0 | <6.0 | **500** | <6.0 | -- | **260** | **--** | -- | -- | -- | -- | **5.4** | -- | -- | **320** |
| MW-63 | CWTP | Downgradient Boundary | 11/2/2018 | FC-CCR-MW63-112818 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 4/1/2019 | FC-CCR-MW63-4119 | **430** | -- | -- | **430** | -- | -- | **260** | -- | -- | <0.10 | - | <0.10 | **4.9** | -- | -- | **280** |
| MW-63 | CWTP | Downgradient Boundary | 5/7/2019 | FC-CCR-MW63-5719-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 12/3/2019 | FC-CCR-MW63-120319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 12/3/2019 | *DUP* FC-CCR-FD01-120319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 6/19/2020 | FC-CCR-MW63-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 11/5/2020 | FC-CCR-MW63-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 4/22/2021 | FC-CCR-MW63-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-63 | CWTP | Downgradient Boundary | 7/8/2021 | FC-CCR-MW63-0721 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 11/15/2021 | FC-CCR-MW63-1121 | **330** | <6 | <6 | **330** | <6 | -- | **160** | **--** | -- | **20** | **20** | **0.15** | **5.5** | <0.3 | <0.6 | **250** |
| MW-63 | CWTP | Downgradient Boundary | 5/20/2022 | FC-CCR-MW63-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-63 | CWTP | Downgradient Boundary | 8/14/2022 | FC-CCR-MW63-0822 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-63 | CWTP | Downgradient Boundary | 11/13/2022 | FC-CCR-MW63-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-63 | CWTP | Downgradient Boundary | 05/07/2023 | FC-CCR-MW63-0523 | -- | -- | -- | -- | -- | -- | -- | -- | <0.003 | -- | -- | -- | -- | <0.36 | **0.8** | -- |
| MW-63 | CWTP | Downgradient Boundary | 06/27/2023 | FC-CCR-MW63-0623 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.41 | <0.61 | -- |
| MW-63 | CWTP | Downgradient Boundary | 11/06/2023 | FC-CCR-MW63-1123 | **320** | <8 | <8 | **320** | <6 | **0.19 J** | **150** | **3.0** | -- | -- | -- | -- | **6.6** | <0.43 | <0.75 | **290** |
| MW-63 | CWTP | Downgradient Boundary | 05/22/2024 | FC-CCR-MW63-0524 | **260** | <6 | <6 | **260** | <6 | <0.1 | **150** | **1.8** | | | | | <5 | <0.48 | **1.4** | **290** |
| MW-63 | CWTP | Downgradient Boundary | 10/23/2024 | FC-CCR-MW63-1024 | **227** | <20 | -- | **--** | -- | <0.05 | **110** | **2.2** | -- | -- | -- | -- | **6.68** | **0.6** | <0.8 | **202** |
| MW-64 | CWTP | Downgradient Boundary | 11/5/2015 | FC-CCR-MW64-110515 | **320** | <5.0 | -- | **320** | -- | -- | **34** | **--** | -- | -- | -- | -- | **6.1** | -- | -- | **120** |
| MW-64 | CWTP | Downgradient Boundary | 11/5/2015 | FC-CCR-MW64-110515 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.339** | <0.392 | -- |
| MW-64 | CWTP | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-64-042716 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.8 | -- |
| MW-64 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW64-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.8 | -- |
| MW-64 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW64-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW64-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW64-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW64-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.7 | -- |
| MW-64 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW64-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW64-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW64-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.8** | -- |
| MW-64 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW64-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW64-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.5 | -- |
| MW-64 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW64-117 | **230** | <6.0 | <6.0 | **230** | <6.0 | -- | **34** | **--** | -- | -- | -- | -- | **5.7** | -- | -- | **120** |
| MW-64 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW64-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 1/31/2017 | FC-CCR-MW64-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.7** | -- |
| MW-64 | CWTP | Downgradient Boundary | 4/17/2017 | FC-CCR-MW64-41717 | **220** | <6.0 | <6.0 | **220** | <6.0 | -- | **35** | **--** | -- | -- | -- | -- | **5.8** | -- | -- | **120** |
| MW-64 | CWTP | Downgradient Boundary | 4/17/2017 | FC-CCR-MW64-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-64 | CWTP | Downgradient Boundary | 4/17/2017 | FC-CCR-MW64-41717 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/2/2017 | FC-CCR-MW64-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/2/2017 | FC-CCR-MW64-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.7** | <0.6 | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/2/2017 | *DUP* FC-CCR-FD02-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/2/2017 | *DUP* FC-CCR-FD02-5217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/28/2017 | FC-CCR-MW64-52817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/28/2017 | FC-CCR-MW64-52817 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-64 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW64-62117 | **220** | <6.0 | <6.0 | **220** | <6.0 | -- | **36** | **--** | -- | -- | -- | -- | **5.8** | -- | -- | **120** |
| MW-64 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW64-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW64-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.6 | -- |
| MW-64 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW64-72117 | **210** | <6.0 | <6.0 | **210** | <6.0 | -- | **37** | **--** | -- | -- | -- | -- | **6.2** | -- | -- | **130** |
| MW-64 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW64-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW64-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.6 | -- |
| MW-64 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW64-8917 | **220** | <6.0 | <6.0 | **220** | <6.0 | -- | **37** | **--** | -- | -- | -- | -- | **6.0** | -- | -- | **130** |
| MW-64 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW64-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW64-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | **0.8** | -- |
| MW-64 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW64-81617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | <0.7 | -- |
| MW-64 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW64-81617 | **230** | <6.0 | <6.0 | **230** | <6.0 | -- | **36** | **--** | -- | -- | -- | -- | **6.1** | -- | -- | **120** |
| MW-64 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW64-9917 | **230** | <6.0 | <6.0 | **230** | <6.0 | -- | **35** | **--** | -- | -- | -- | -- | **5.8** | -- | -- | **120** |
| MW-64 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW64-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW64-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-64 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW64-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-64 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW64-101317 | **230** | <6.0 | <6.0 | **230** | <6.0 | -- | **33** | **--** | -- | -- | -- | -- | **5.7** | -- | -- | **120** |
| MW-64 | CWTP | Downgradient Boundary | 11/30/2017 | FC-CCR-MW64-113017 | **230** | <6.0 | <6.0 | **230** | <6.0 | -- | **34** | **--** | -- | -- | -- | -- | **5.9** | -- | -- | **120** |
| MW-64 | CWTP | Downgradient Boundary | 6/3/2018 | FC-CCR-MW-64-6318 | **190** | <6.0 | <6.0 | **190** | <6.0 | -- | **34** | **--** | -- | -- | -- | -- | **5.4** | -- | -- | **110** |
| MW-64 | CWTP | Downgradient Boundary | 11/2/2018 | FC-CCR-MW64-11218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 4/1/2019 | FC-CCR-MW64-4119 | **200** | -- | -- | **200** | -- | -- | **33** | -- | -- | <0.10 | -- | <0.10 | **5.3** | -- | -- | **110** |
| MW-64 | CWTP | Downgradient Boundary | 5/7/2019 | FC-CCR-MW64-5719-03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/7/2019 | *DUP* FC-CCR-FD03-5719-04 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 12/3/2019 | FC-CCR-MW64-120319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 6/19/2020 | FC-CCR-MW64-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 11/5/2020 | FC-CCR-MW64-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 4/22/2021 | FC-CCR-MW64-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-64 | CWTP | Downgradient Boundary | 11/15/2021 | FC-CCR-MW64-1121 | **230** | <6 | <6 | **230** | <6 | -- | **29** | -- | -- | **1.3** | **1.5** | **0.15** | **5.4** | <0.3 | <0.6 | **95** |
| MW-64 | CWTP | Downgradient Boundary | 5/20/2022 | FC-CCR-MW64-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-64 | CWTP | Downgradient Boundary | 5/20/2022 | FC-CCR-SS01-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-64 | CWTP | Downgradient Boundary | 11/13/2022 | FC-CCR-MW64-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** | <0.6 | -- |
| MW-64 | CWTP | Downgradient Boundary | 05/07/2023 | FC-CCR-MW64-0523 | -- | -- | -- | -- | -- | -- | -- | -- | <0.003 | -- | -- | -- | -- | <0.36 | <0.58 | -- |
| MW-64 | CWTP | Downgradient Boundary | 06/27/2023 | FC-CCR-MW64-0623 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **1.2** | -- |
| MW-64 | CWTP | Downgradient Boundary | 11/06/2023 | FC-CCR-MW64-1123 | **260** | <6 | <6 | **260** | <6 | **0.48 J** | **34** | **0.38** | -- | -- | -- | -- | **6.4** | <0.43 | <0.75 | **130** |
| MW-64 | CWTP | Downgradient Boundary | 05/22/2024 | FC-CCR-MW64-0524 | **370** | <6 | <6 | **370** | <6 | **0.16** | **91** | **1.6** | | | | | **6.3** | <0.47 | **1.0** | **250** |
| MW-64 | CWTP | Downgradient Boundary | 10/23/2024 | FC-CCR-MW64-1024 | **108** | <20 | -- | **--** | -- | **0.74** | **6.39** | **0.0457** | -- | -- | -- | -- | **3.63** | **0.6** | <0.8 | **24.5** |
| MW-65 | CWTP | Downgradient Boundary | 11/5/2015 | FC-CCR-MW65-110515 | **390** | <5.0 | -- | **390** | -- | -- | **59** | **--** | -- | -- | -- | -- | **3.2** | -- | -- | **140** |
| MW-65 | CWTP | Downgradient Boundary | 11/5/2015 | FC-CCR-MW65-110515 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.0704 | <0.408 | -- |
| MW-65 | CWTP | Downgradient Boundary | 4/27/2016 | FC-CCR-MW-65-042716 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.8 | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW65-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.8 | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/5/2016 | FC-CCR-MW65-616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW65-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW65-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/20/2016 | FC-CCR-MW65-816 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.4 | -- |
| MW-65 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW65-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW65-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 9/12/2016 | FC-CCR-MW65-916 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.0** | -- |
| MW-65 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW65-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 10/19/2016 | FC-CCR-MW65-1016 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.5 | -- |
| MW-65 | CWTP | Downgradient Boundary | 2/1/2017 | FC-CCR-MW65-117 | **310** | <6.0 | <6.0 | **310** | <6.0 | -- | **56** | **--** | -- | -- | -- | -- | **3.6** | -- | -- | **140** |

**Table G-9**
**Groundwater Sampling Results for the CWTP Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Manganese | Nickel | Nitrate as N | Nitrate Nitrite as N | Nitrite (as N) | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *CWTP BTV (applicable to MW-62)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP BTV (applicable to MW-63)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP BTV (applicable to MW-64)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP BTV (applicable to MW-65)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | |
| MW-65 | CWTP | Downgradient Boundary | 2/1/2017 | FC-CCR-MW65-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 2/1/2017 | FC-CCR-MW65-117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.4** | **1.5** | -- |
| MW-65 | CWTP | Downgradient Boundary | 4/16/2017 | FC-CCR-MW65-41617 | **320** | <6.0 | <6.0 | **320** | <6.0 | -- | **62** | -- | -- | -- | -- | -- | **4.0** | -- | -- | **170** |
| MW-65 | CWTP | Downgradient Boundary | 4/16/2017 | FC-CCR-MW65-41617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **0.7** | -- |
| MW-65 | CWTP | Downgradient Boundary | 4/16/2017 | FC-CCR-MW65-41617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/1/2017 | FC-CCR-MW65-5117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/1/2017 | FC-CCR-MW65-5117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/1/2017 | *DUP* FC-CCR-FD01-5117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/1/2017 | *DUP* FC-CCR-FD01-5117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/29/2017 | FC-CCR-MW65-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table G-9**
**Groundwater Sampling Results for the CWTP Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Manganese | Nickel | Nitrate as N | Nitrate Nitrite as N | Nitrite (as N) | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| | | | | *CWTP BTV (applicable to MW-62)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP BTV (applicable to MW-63)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP BTV (applicable to MW-64)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP BTV (applicable to MW-65)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| | | | | *CWTP GWPS (applicable to downgradient wells)* | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | -- | -- | -- | -- | -- |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | |
| MW-65 | CWTP | Downgradient Boundary | 5/29/2017 | FC-CCR-MW65-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/29/2017 | *DUP* FC-CCR-FD02-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 5/29/2017 | *DUP* FC-CCR-FD02-52917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW65-62117 | **320** | <8.0 | <8.0 | **320** | <8.0 | -- | **73** | -- | -- | -- | -- | -- | **3.9** | -- | -- | **190** |
| MW-65 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW65-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/21/2017 | FC-CCR-MW65-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.6 | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/21/2017 | *DUP* FC-CCR-FD01-62117 | **330** | <8.0 | <8.0 | **330** | <8.0 | -- | **76** | -- | -- | -- | -- | -- | **4.0** | -- | -- | **200** |
| MW-65 | CWTP | Downgradient Boundary | 6/21/2017 | *DUP* FC-CCR-FD01-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/21/2017 | *DUP* FC-CCR-FD01-62117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5** | **1.8** | | |
| MW-65 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW65-72117 | **310** | <8.0 | <8.0 | **310** | <8.0 | -- | **63** | -- | -- | -- | -- | -- | **3.7** | -- | -- | **150** |
| MW-65 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW65-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 7/21/2017 | FC-CCR-MW65-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.6 | -- |
| MW-65 | CWTP | Downgradient Boundary | 7/21/2017 | *DUP* FC-CCR-FD01-72117 | **310** | <8.0 | <8.0 | **310** | <8.0 | -- | **63** | -- | -- | -- | -- | -- | **3.7** | -- | -- | **150** |
| MW-65 | CWTP | Downgradient Boundary | 7/21/2017 | *DUP* FC-CCR-FD01-72117 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.6 | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW65-8917 | **310** | <8.0 | <8.0 | **310** | <8.0 | -- | **63** | -- | -- | -- | -- | -- | **3.6** | -- | -- | **150** |
| MW-65 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW65-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/9/2017 | FC-CCR-MW65-8917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.5 | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW65-81617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/16/2017 | FC-CCR-MW65-81617 | **320** | <8.0 | <8.0 | **320** | <8.0 | -- | **63** | -- | -- | -- | -- | -- | **4.0** | -- | -- | **150** |
| MW-65 | CWTP | Downgradient Boundary | 8/16/2017 | *DUP* FC-CCR-FD01-81617 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/16/2017 | *DUP* FC-CCR-FD01-81617 | **310** | <8.0 | <8.0 | **310** | <8.0 | -- | **62** | -- | -- | -- | -- | -- | **3.9** | -- | -- | **150** |
| MW-65 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW65-9917 | **320** | <8.0 | <8.0 | **320** | <8.0 | -- | **59** | -- | -- | -- | -- | -- | **3.4** | -- | -- | **140** |
| MW-65 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW65-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 9/9/2017 | FC-CCR-MW65-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-65 | CWTP | Downgradient Boundary | 9/9/2017 | *DUP* FC-CCR-FD01-9917 | **320** | <8.0 | <8.0 | **320** | <8.0 | -- | **60** | -- | -- | -- | -- | -- | **3.5** | -- | -- | **140** |
| MW-65 | CWTP | Downgradient Boundary | 9/9/2017 | *DUP* FC-CCR-FD01-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 9/9/2017 | *DUP* FC-CCR-FD01-9917 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.6 | -- |
| MW-65 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW65-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.6 | -- |
| MW-65 | CWTP | Downgradient Boundary | 10/13/2017 | FC-CCR-MW65-101317 | **330** | <8.0 | <8.0 | **330** | <8.0 | -- | **54** | -- | -- | -- | -- | -- | **3.6** | -- | -- | **130** |
| MW-65 | CWTP | Downgradient Boundary | 10/13/2017 | *DUP* FC-CCR-FD02-101317 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.3 | <0.6 | -- |
| MW-65 | CWTP | Downgradient Boundary | 10/13/2017 | *DUP* FC-CCR-FD02-101317 | **330** | <8.0 | <8.0 | **330** | <8.0 | -- | **55** | -- | -- | -- | -- | -- | **3.5** | -- | -- | **140** |
| MW-65 | CWTP | Downgradient Boundary | 11/30/2017 | FC-CCR-MW65-113017 | **330** | <8.0 | <8.0 | **330** | <8.0 | -- | **57** | -- | -- | -- | -- | -- | **3.5** | -- | -- | **140** |
| MW-65 | CWTP | Downgradient Boundary | 6/3/2018 | FC-CCR-MW-65-6318 | **290** | <8.0 | <8.0 | **290** | <8.0 | -- | **56** | -- | -- | -- | -- | -- | **3.3** | -- | -- | **130** |
| MW-65 | CWTP | Downgradient Boundary | 11/2/2018 | FC-CCR-MW65-11218 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 4/1/2019 | FC-CCR-MW65-4119 | **290** | -- | -- | **290** | -- | -- | **51** | -- | -- | **0.10** | -- | <0.10 | **3.5** | -- | -- | **130** |
| MW-65 | CWTP | Downgradient Boundary | 4/1/2019 | *DUP* FC-CCR-FD1-4119 | **300** | -- | -- | **300** | -- | -- | **50** | -- | -- | **0.10** | -- | <0.10 | **3.5** | -- | -- | **120** |
| MW-65 | CWTP | Downgradient Boundary | 5/7/2019 | FC-CCR-MW65-5719-05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 12/3/2019 | FC-CCR-MW65-120319 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 6/19/2020 | FC-CCR-MW65-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 11/5/2020 | FC-CCR-MW65-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 4/22/2021 | FC-CCR-MW65-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| MW-65 | CWTP | Downgradient Boundary | 7/8/2021 | FC-CCR-MW65-0721 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 11/15/2021 | FC-CCR-MW65-1121 | **320** | <6 | <6 | **330** | <6 | -- | **53** | -- | -- | **0.22** | **0.48** | **0.26** | **4.2** | <0.3 | <0.6 | **130** |
| MW-65 | CWTP | Downgradient Boundary | 5/20/2022 | FC-CCR-MW65-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.1** | -- |
| MW-65 | CWTP | Downgradient Boundary | 8/14/2022 | FC-CCR-MW65-0822 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-65 | CWTP | Downgradient Boundary | 11/13/2022 | FC-CCR-MW65-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.6 | -- |
| MW-65 | CWTP | Downgradient Boundary | 05/07/2023 | FC-CCR-MW65-0523 | -- | -- | -- | -- | -- | -- | -- | -- | **0.0031** | -- | -- | -- | -- | <0.36 | <0.58 | |
| MW-65 | CWTP | Downgradient Boundary | 06/28/2023 | FC-CCR-MW65-0623 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.41 | **0.7** | -- |
| MW-65 | CWTP | Downgradient Boundary | 11/06/2023 | FC-CCR-MW65-1123 | **340** | <6 | <6 | **340** | <6 | <0.1 | **53** | **1.3** | -- | -- | -- | -- | **5.9** | <0.42 | <0.75 | **160** |
| MW-65 | CWTP | Downgradient Boundary | 05/22/2024 | FC-CCR-MW65-0524 | **340** | <6 | <6 | **340** | <6 | <0.1 | **100** | **2.2** | | | | | **6.3** | <0.47 | <0.75 | **220** |
| MW-65 | CWTP | Downgradient Boundary | 10/23/2024 | FC-CCR-MW65-1024 | **348** | <20 | -- | **--** | -- | <0.05 | **81.8** | **1.69** | -- | -- | -- | -- | **5.3** | <0.4 | <0.8 | **160** |

*Notes:*
BTV exceedances are shown in grey shaded cells. GWPS exceedences are shown in red text.

*Abbreviations and Data Qualifiers:*
< = less than
BTV = Background Threshold Value
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
mg/L = milligrams per liter
NJ = The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the sample.
pCi/L = Picocuries per liter
su = standard units
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

**Table G-10**
**Groundwater Sampling Results for the CWTP Surface Water Samples - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| SW-1 | CWTP | Surface Water | 4/1/2019 | FC-CCR-SW1-4119 | **0.31** | **83** | **48** | **0.81** | **8.38** | **8.3** | **410** | **760** |
| SW-1 | CWTP | Surface Water | 11/15/2021 | FC-CCR-SW1-1121 | **0.31** | **77** | **46** | **0.76** | **6.73** | **8.5 J** | **420** | **810** |
| SW-1 | CWTP | Surface Water | 2/9/2022 | FC-CCR-SW1-0222 | **--** | **--** | **--** | **--** | **8.39** | **8.5 J** | **--** | **--** |
| SW-1 | CWTP | Surface Water | 5/24/2022 | FC-CCR-SW1-0522 | **0.32** | **78** | **46** | **0.80** | **8.82** | **8.28 J** | **390** | **770** |
| SW-1 | CWTP | Surface Water | 5/24/2022 | FC-CCR-FD08-0522 | **0.31** | **79** | **46** | **0.81** | **8.82** | **8.31 J** | **390** | **750** |
| SW-1 | CWTP | Surface Water | 5/24/2022 | FC-CCR-FD10-0522 | **0.345** | **85** | **42.7** | **0.888 J** | **8.82** | **8.50 J** | **403** | **740** |
| SW-1 | CWTP | Surface Water | 5/24/2022 | FC-CCR-SS02-0522 | **0.326** | **85.6** | **43.3** | **0.881 J / 0.83** | **8.82** | **8.5 J** | **409** | **766** |
| SW-1 | CWTP | Surface Water | 8/14/2022 | FC-CCR-SW1-0822 | **0.31** | **--** | **--** | **--** | **8.60** | **8.7 J** | **--** | **--** |
| SW-1 | CWTP | Surface Water | 11/16/2022 | FC-CCR-SW1-1122 | **0.35** | **89** | **48** | <2 | **8.64** | **8.6 J** | **470** | **780** |
| SW-1 | CWTP | Surface Water | 11/16/2022 | *DUP* FC-CCR-FD08-1122 | **0.34** | **87** | **46** | <2 | **8.64** | **8.7 J** | **430** | **810** |
| SW-1 | CWTP | Surface Water | 01/27/2023 | FC-CCR-SW1-0123 | **0.31** | **90** | -- | -- | -- | -- | -- | -- |
| SW-1 | CWTP | Surface Water | 05/07/2023 | FC-CCR-SW1-0523 | **0.34** | **100** | **52** | **0.91** | **8.78** | **8.6 J** | **450** | **910** |
| SW-1 | CWTP | Surface Water | 05/07/2023 | *DUP* FC-CCR-FD08-0523 | **0.35** | **110** | **52** | **0.85** | -- | **8.7 J** | **460** | **860** |
| SW-1 | CWTP | Surface Water | 05/07/2023 | *DUP* FC-CCR-SWFD08-0523 | **--** | -- | -- | -- | -- | -- | -- | -- |
| SW-1 | CWTP | Surface Water | 06/28/2023 | FC-CCR-SW1-0623 | **0.34** | **84** | **51** | **0.83** | **8.56** | **8.6 J** | **450** | **820** |
| SW-1 | CWTP | Surface Water | 06/28/2023 | *DUP* FC-CCR-FD01-0623 | **0.35** | **89** | **51** | **0.84** | **8.56** | **8.5 J** | **450** | **800** |
| SW-1 | CWTP | Surface Water | 11/13/2023 | FC-CCR-SW1-1123 | **0.55** | **90** | **50** | **0.97** | **8.50** | **8.6 J** | **430** | **780** |
| SW-1 | CWTP | Surface Water | 11/13/2023 | *DUP* FC-CCR-FD08-1123 | **0.31** | **88** | **50** | **0.94** | **8.50** | **8.5 J** | **440** | **800** |
| SW-1 | CWTP | Surface Water | 05/23/2024 | FC-CCR-SW1-0524 | **0.36** | **97** | **46** | **0.73** | **8.59** | **8.2 J** | **310 J** | **840** |
| SW-1 | CWTP | Surface Water | 05/23/2024 | *DUP* FC-CCR-FD09-0524 | **0.34** | **100** | **46** | **0.79** | **8.59** | **8.2 J** | **390 J** | **820** |
| SW-1 | CWTP | Surface Water | 10/24/2024 | FC-CCR-SW1-1024 | **0.335** | **73.2** | **49.4** | **0.806** | **8.67** | **8.44 J** | **419** | **797** |
| SW-2 | CWTP | Surface Water | 4/1/2019 | FC-CCR-SW2-4119 | **0.36** | **87** | **50** | **0.91** | **8.04** | **8.0** | **450** | **810** |
| SW-2 | CWTP | Surface Water | 2/9/2022 | FC-CCR-SW2-0222 | **--** | **--** | **--** | **--** | **7.84** | **8.2 J** | **--** | **--** |
| SW-2 | CWTP | Surface Water | 11/15/2021 | FC-CCR-SW2-1121 | **0.33** | **83** | **48** | **0.79** | **6.17** | **8.0 J** | **430** | **670 J** |
| SW-2 | CWTP | Surface Water | 5/24/2022 | FC-CCR-SW2-0522 | **0.33** | **82** | **48** | **0.83** | **8.64** | **8.15** | **400** | **800** |
| SW-2 | CWTP | Surface Water | 8/14/2022 | FC-CCR-SW2-0822 | **0.31** | **--** | **--** | **--** | **8.42** | **8.5 J** | **--** | **--** |
| SW-2 | CWTP | Surface Water | 8/14/2022 | *DUP* FC-CCR-FD02-0822 | **0.33** | **--** | **--** | **--** | **--** | **8.5 J** | **--** | **--** |
| SW-2 | CWTP | Surface Water | 11/16/2022 | FC-CCR-SW2-1122 | **0.37** | **89** | **53** | <2 | **8.31** | **8.2 J** | **510** | **870** |
| SW-2 | CWTP | Surface Water | 01/27/2023 | FC-CCR-SW2-0123 | **0.45** | **110** | -- | -- | -- | -- | -- | -- |
| SW-2 | CWTP | Surface Water | 05/07/2023 | FC-CCR-SW2-0523 | **0.41** | **110** | **55** | **0.98** | **8.38** | **8.6 J** | **490** | **940** |
| SW-2 | CWTP | Surface Water | 06/27/2023 | FC-CCR-SW2-0623 | **0.40** | **92** | **53** | **0.87** | **8.87** | **8.6 J** | **470** | **840** |
| SW-2 | CWTP | Surface Water | 11/13/2023 | FC-CCR-SW2-1123 | **0.62** | **98** | **50** | **0.93** | **8.45** | **8.5 J** | **440** | **820** |
| SW-2 | CWTP | Surface Water | 05/22/2024 | FC-CCR-SW2-0524 | **0.46** | **110** | **48** | **0.79** | **8.53** | **8.1 J** | **410** | **880** |
| SW-2 | CWTP | Surface Water | 10/23/2024 | FC-CCR-SW2-1024 | **0.356** | **80.8** | **52** | **1.12** | **8.68** | **8.42 J** | **439** | **793** |
| SW-3 | CWTP | Surface Water | 4/1/2019 | FC-CCR-SW3-4119 | **0.33** | **86** | **48** | **0.81** | **8.37** | **8.3** | **400** | **760** |
| SW-3 | CWTP | Surface Water | 2/9/2022 | FC-CCR-SW3-0222 | **--** | **--** | **--** | **--** | **8.17** | **8.5 J** | **--** | **--** |
| SW-3 | CWTP | Surface Water | 11/15/2021 | FC-CCR-SW3-1121 | **0.31** | **80** | **46** | **0.75** | **6.68** | **7.9 J** | **420** | **680** |

**Table G-10**
**Groundwater Sampling Results for the CWTP Surface Water Samples - Appendix III Constituents**

| | | | | | Appendix III Constituents | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | |
| SW-3 | CWTP | Surface Water | 5/24/2022 | FC-CCR-SW3-0522 | **0.31** | **77** | **46** | **0.80** | **9.21** | **8.23** | **390** | **770** |
| SW-3 | CWTP | Surface Water | 8/14/2022 | FC-CCR-SW3-0822 | **0.31** | **--** | **--** | **--** | **8.27** | **8.5 J** | **--** | **--** |
| SW-3 | CWTP | Surface Water | 11/16/2022 | FC-CCR-SW3-1122 | **0.34** | **88** | **48** | <2 | **8.52** | **8.5 J** | **460** | **810** |
| SW-3 | CWTP | Surface Water | 01/27/2023 | FC-CCR-SW3-0123 | **0.31** | **88** | **--** | **--** | **--** | **--** | **--** | **--** |
| SW-3 | CWTP | Surface Water | 01/27/2023 | *DUP* FC-CCR-FD01-0123 | **0.31** | **89** | **--** | **--** | **--** | **--** | **--** | **--** |
| SW-3 | CWTP | Surface Water | 05/07/2023 | FC-CCR-SW3-0523 | **0.35** | **100** | **51** | **0.83** | **8.49** | **8.7 J** | **440** | **850 J** |
| SW-3 | CWTP | Surface Water | 06/27/2023 | FC-CCR-SW3-0623 | **0.37** | **96** | **50** | **0.83** | **8.85** | **8.4 J** | **450** | **800** |
| SW-3 | CWTP | Surface Water | 11/13/2023 | FC-CCR-SW3-1123 | **0.33** | **91** | **50** | **0.92** | **8.42** | **8.3 J** | **440** | **810** |
| SW-3 | CWTP | Surface Water | 05/22/2024 | FC-CCR-SW3-0524 | **0.34** | **100** | **46** | **0.75** | **8.50** | **8.2 J** | **390** | **820** |
| SW-3 | CWTP | Surface Water | 10/23/2024 | FC-CCR-SW3-1024 | **0.315** | **75.3** | **49.7** | **0.889** | **8.64** | **8.42 J** | **426** | **784** |
| SW-4 | CWTP | Surface Water | 4/1/2019 | FC-CCR-SW4-4119 | **0.33** | **87** | **48** | **0.81** | **8.45** | **8.4** | **410** | **760** |
| SW-5 | CWTP | Surface Water | 4/1/2019 | FC-CCR-SW5-4119 | **0.38** | **89** | **53** | **0.94** | **8.13** | **8.1** | **450** | **850** |
| SW-6 | CWTP | Surface Water | 4/1/2019 | FC-CCR-SW6-4119 | **0.31** | **84** | **48** | **0.82** | **8.37** | **8.4** | **410** | **770** |

*Abbreviations and Data Qualifiers:*
< = less than reporting limit (or the method detection limit for beryllium results)
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
mg/L = milligrams per liter
pCi/L = Picocuries per liter
su = standard units
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

**Table G-11**
**Groundwater Sampling Results for the CWTP Surface Water Samples - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Total Radium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | |
| SW-1 | CWTP | Surface Water | 4/1/2019 | FC-CCR-SW1-4119 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SW-1 | CWTP | Surface Water | 11/15/2021 | FC-CCR-SW1-1121 | **0.00068 J** | <0.001 | **0.20** | <0.001 | <0.0002 | <0.002 | **0.00023 J** | **0.76** | <0.001 | **0.082** | <0.0002 | **0.0057** | <0.001 | <0.0002 | <0.6 |
| SW-1 | CWTP | Surface Water | 2/9/2022 | FC-CCR-SW1-0222 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SW-1 | CWTP | Surface Water | 5/24/2022 | FC-CCR-SW1-0522 | <0.002 | **0.0015** | **0.18** | <0.001 | <0.0002 | <0.002 | <0.001 | **0.80** | <0.001 | **0.086** | <0.0002 | **0.0061** | <0.001 | <0.0002 | <0.7 |
| SW-1 | CWTP | Surface Water | 5/24/2022 | FC-CCR-FD08-0522 | <0.002 | **0.0016** | **0.18** | <0.001 | <0.0002 | <0.002 | <0.001 | **0.81** | <0.001 | **0.087** | <0.0002 | **0.0061** | <0.001 | <0.0002 | <0.7 |
| SW-1 | CWTP | Surface Water | 5/24/2022 | FC-CCR-FD10-0522 | **0.00065 J** | **0.0022** | **0.176** | <0.00025 | <0.00025 | <0.002 | **0.000416** | **0.888 J** | **0.00024 J** | **0.0851** | <0.001 | **0.00616** | **0.00079** | <0.0005 | -- |
| SW-1 | CWTP | Surface Water | 5/24/2022 | FC-CCR-SS02-0522 | **0.00072 J** | **0.00151** | **0.194** | <0.00025 | <0.00025 | <0.002 | **0.000273** | **0.881 J / 0.83** | **0.00018 J** | **0.09** | <0.001 | **0.00604** | **0.00051** | <0.0005 | -- |
| SW-1 | CWTP | Surface Water | 8/14/2022 | FC-CCR-SW1-0822 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SW-1 | CWTP | Surface Water | 11/16/2022 | FC-CCR-SW1-1122 | <0.001 | **0.0023** | **0.22** | <0.001 | <0.0001 | <0.001 | <0.0005 | <2 | <0.0005 | **0.085** | <0.0002 | **0.0053** | <0.0005 | <0.0001 | <0.7 |
| SW-1 | CWTP | Surface Water | 11/16/2022 | *DUP* FC-CCR-FD08-1122 | <0.001 | **0.0021** | **0.21** | <0.001 | <0.0001 | <0.001 | <0.0005 | <2 | <0.0005 | **0.085** | **0.0002** | **0.0051** | <0.0005 | <0.0001 | **0.6** |
| SW-1 | CWTP | Surface Water | 01/27/2023 | FC-CCR-SW1-0123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SW-1 | CWTP | Surface Water | 05/07/2023 | FC-CCR-SW1-0523 | <0.002 | <0.005 | **0.20** | <0.001 | <0.001 | <0.003 | <0.001 | **0.91** | <0.001 | **0.087** | <0.0002 | **0.0061** | <0.005 | <0.001 | <0.6 |
| SW-1 | CWTP | Surface Water | 05/07/2023 | *DUP* FC-CCR-FD08-0523 | <0.002 | <0.005 | **0.19** | <0.001 | <0.001 | <0.003 | <0.001 | **0.85** | <0.001 | **0.092** | <0.0002 | **0.0065** | <0.005 | <0.001 | -- |
| SW-1 | CWTP | Surface Water | 05/07/2023 | *DUP* FC-CCR-SWFD08-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.8** |
| SW-1 | CWTP | Surface Water | 06/28/2023 | FC-CCR-SW1-0623 | <0.001 | **0.0031** | **0.18** | <0.001 | <0.0001 | <0.001 | <0.0005 | **0.83** | <0.0005 | **0.093** | <0.0002 | **0.0065** | **0.00066** | **0.00013** | <0.6 |
| SW-1 | CWTP | Surface Water | 06/28/2023 | *DUP* FC-CCR-FD01-0623 | <0.001 | **0.0033** | **0.17** | <0.001 | <0.0001 | <0.001 | <0.0005 | **0.84** | <0.0005 | **0.095** | <0.0002 | **0.0065** | **0.00092** | <0.0001 | <0.6 |
| SW-1 | CWTP | Surface Water | 11/13/2023 | FC-CCR-SW1-1123 | <0.01 | **0.0095** | **0.17** | <0.005 | <0.001 | <0.01 | <0.005 | **0.97** | <0.005 | **0.10** | <0.0002 | **0.0062** | <0.005 | <0.001 | <0.49 |
| SW-1 | CWTP | Surface Water | 11/13/2023 | *DUP* FC-CCR-FD08-1123 | <0.01 | **0.0089** | **0.18** | <0.005 | <0.001 | <0.01 | <0.005 | **0.94** | <0.005 | **0.10** | <0.0002 | **0.0064** | <0.005 | <0.001 | <0.48 |
| SW-1 | CWTP | Surface Water | 05/23/2024 | FC-CCR-SW1-0524 | **0.00074 J** | **0.0068** | **0.17 J** | <0.001 | <0.001 | <0.01 | <0.005 | **0.73** | <0.005 | **0.090** | <0.0002 | **0.0062** | <0.005 | <0.001 | <0.8 |
| SW-1 | CWTP | Surface Water | 05/23/2024 | *DUP* FC-CCR-FD09-0524 | **0.00086 J** | **0.0070** | **0.17 J** | <0.001 | <0.001 | <0.01 | <0.005 | **0.79** | <0.005 | **0.094** | <0.0002 | **0.0060** | <0.005 | <0.001 | <0.8 |
| SW-1 | CWTP | Surface Water | 10/24/2024 | FC-CCR-SW1-1024 | **0.00053 J** | **0.0018 J** | **0.156** | <0.00044 | <0.00008 | <0.002 | <0.0005 | **0.806** | <0.0005 | **0.081** | <0.0002 | **0.0051 J** | **0.0005 J** | <0.0001 | **0.4** |
| SW-2 | CWTP | Surface Water | 4/1/2019 | FC-CCR-SW2-4119 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SW-2 | CWTP | Surface Water | 2/9/2022 | FC-CCR-SW2-0222 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SW-2 | CWTP | Surface Water | 11/15/2021 | FC-CCR-SW2-1121 | **0.00064 J** | **0.0010** | **0.18** | <0.001 | <0.0002 | <0.002 | **0.00013 J** | **0.79** | <0.001 | **0.074** | <0.0002 | **0.0056** | <0.001 | <0.0002 | <0.6 |
| SW-2 | CWTP | Surface Water | 5/24/2022 | FC-CCR-SW2-0522 | <0.002 | **0.0022** | **0.21** | <0.001 | <0.0002 | <0.002 | <0.001 | **0.83** | <0.001 | **0.090** | <0.0002 | **0.0065** | <0.001 | <0.0002 | <0.7 |
| SW-2 | CWTP | Surface Water | 8/14/2022 | FC-CCR-SW2-0822 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SW-2 | CWTP | Surface Water | 8/14/2022 | *DUP* FC-CCR-FD02-0822 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SW-2 | CWTP | Surface Water | 11/16/2022 | FC-CCR-SW2-1122 | <0.001 | **0.0021** | **0.21** | <0.001 | <0.0001 | <0.001 | <0.0005 | <2 | **0.00063** | **0.090** | <0.0002 | **0.0076** | <0.0005 | <0.0001 | <0.7 |
| SW-2 | CWTP | Surface Water | 01/27/2023 | FC-CCR-SW2-0123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SW-2 | CWTP | Surface Water | 05/07/2023 | FC-CCR-SW2-0523 | **0.0024** | <0.005 | **0.15** | <0.001 | <0.001 | <0.003 | <0.001 | **0.98** | <0.001 | **0.085** | <0.0002 | **0.020** | <0.005 | <0.001 | **1.7** |
| SW-2 | CWTP | Surface Water | 06/27/2023 | FC-CCR-SW2-0623 | **0.0087** | **0.0049** | **0.30** | <0.001 | <0.0001 | **0.0027** | **0.0015** | **0.87** | **0.0034** | **0.10** | <0.0002 | **0.011** | **0.0015** | <0.0001 | **1.7** |
| SW-2 | CWTP | Surface Water | 11/13/2023 | FC-CCR-SW2-1123 | <0.01 | **0.010** | **0.47** | <0.005 | <0.001 | <0.01 | <0.005 | **0.93** | <0.005 | **0.10** | <0.0002 | **0.0066** | <0.005 | <0.001 | <0.48 |
| SW-2 | CWTP | Surface Water | 05/22/2024 | FC-CCR-SW2-0524 | **0.00094 J** | **0.0071** | **0.17 J** | <0.001 | <0.001 | <0.01 | **0.00069 J** | **0.79** | <0.005 | **0.097** | <0.0002 | **0.0080** | <0.005 | <0.001 | <0.8 |
| SW-2 | CWTP | Surface Water | 10/23/2024 | FC-CCR-SW2-1024 | **0.00060** | **0.0015** | **0.126** | <0.00044 | <0.00008 | <0.002 | <0.0005 | **1.12** | <0.0005 | **0.087** | <0.0002 | **0.0064** | <0.0005 | <0.0001 | **0.4** |
| SW-3 | CWTP | Surface Water | 4/1/2019 | FC-CCR-SW3-4119 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SW-3 | CWTP | Surface Water | 2/9/2022 | FC-CCR-SW3-0222 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SW-3 | CWTP | Surface Water | 11/15/2021 | FC-CCR-SW3-1121 | **0.00082 J** | **0.00054 J** | **0.22** | <0.001 | <0.0002 | <0.002 | **0.00024 J** | **0.75** | **0.00044 J** | **0.079** | <0.0002 | **0.0060** | <0.001 | <0.0002 | **1.3** |
| SW-3 | CWTP | Surface Water | 5/24/2022 | FC-CCR-SW3-0522 | <0.002 | **0.0016** | **0.18** | <0.001 | <0.0002 | <0.002 | <0.001 | **0.80** | <0.001 | **0.086** | <0.0002 | **0.0061** | <0.001 | <0.0002 | <0.7 |
| SW-3 | CWTP | Surface Water | 8/14/2022 | FC-CCR-SW3-0822 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SW-3 | CWTP | Surface Water | 11/16/2022 | FC-CCR-SW3-1122 | <0.001 | **0.0022** | **0.22** | <0.001 | <0.0001 | <0.001 | <0.0005 | <2 | <0.0005 | **0.085** | <0.0002 | **0.0054** | <0.0005 | <0.0001 | <0.7 |
| SW-3 | CWTP | Surface Water | 01/27/2023 | FC-CCR-SW3-0123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SW-3 | CWTP | Surface Water | 01/27/2023 | *DUP* FC-CCR-FD01-0123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SW-3 | CWTP | Surface Water | 05/07/2023 | FC-CCR-SW3-0523 | <0.002 | <0.005 | **0.19** | <0.001 | <0.001 | <0.003 | <0.001 | **0.83** | <0.001 | **0.089** | <0.0002 | **0.0065** | <0.005 | <0.001 | <0.6 |
| SW-3 | CWTP | Surface Water | 06/27/2023 | FC-CCR-SW3-0623 | <0.001 | **0.0031** | **0.17** | <0.001 | <0.0001 | <0.001 | <0.0005 | **0.83** | <0.0005 | **0.094** | <0.0002 | **0.0063** | **0.00092** | <0.0001 | **0.6** |
| SW-3 | CWTP | Surface Water | 11/13/2023 | FC-CCR-SW3-1123 | <0.01 | **0.0091** | **0.18** | <0.005 | <0.001 | <0.01 | <0.005 | **0.92** | <0.005 | **0.11** | <0.0002 | **0.0064** | <0.005 | <0.001 | <0.48 |
| SW-3 | CWTP | Surface Water | 05/22/2024 | FC-CCR-SW3-0524 | **0.00098 J** | **0.0070** | **0.18 J** | <0.001 | <0.001 | <0.01 | <0.005 | **0.75** | <0.005 | **0.094** | <0.0002 | **0.0064** | <0.005 | <0.001 | <0.8 |
| SW-3 | CWTP | Surface Water | 10/23/2024 | FC-CCR-SW3-1024 | **0.00050** | **0.0018** | **0.151** | <0.00044 | <0.00008 | <0.002 | <0.0005 | **0.889** | <0.0005 | **0.0756** | <0.0002 | **0.0049** | <0.0005 | <0.0001 | **0.5** |
| SW-4 | CWTP | Surface Water | 4/1/2019 | FC-CCR-SW4-4119 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SW-5 | CWTP | Surface Water | 4/1/2019 | FC-CCR-SW5-4119 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SW-6 | CWTP | Surface Water | 4/1/2019 | FC-CCR-SW6-4119 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

*Abbreviations and Data Qualifiers:*
< = less than reporting limit (or the method detection limit for beryllium results)
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
mg/L = milligrams per liter
pCi/L = Picocuries per liter
su = standard units
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

**Table G-12**
**Groundwater Sampling Results for the CWTP Surface Water Samples - Additional Analyses**

| | | | | | Additional Analyses | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Alkalinity Bicarbonate | Alkalinity Carbonate | Alkalinity Hydroxide | Alkalinity(as CaCO3) | Alkalinity, Phenolphthalein, as CaCO3 | Iron | Magnesium | Manganese | Nickel | Nitrate as N | Nitrate Nitrite as N | Nitrite as N | Potassium | Radium 226 | Radium 228 | Sodium |
| | | | | Filtered: | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | pCi/L | mg/L |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | |
| SW-1 | CWTP | Surface Water | 4/1/2019 | FC-CCR-SW1-4119 | **120** | -- | -- | **120** | -- | -- | **29** | **--** | **--** | <0.10 | -- | <0.10 | **6.5** | -- | -- | **100** |
| SW-1 | CWTP | Surface Water | 11/15/2021 | FC-CCR-SW1-1121 | **110** | <6 | <6 | **110** | <6 | -- | **30** | **--** | **--** | **0.073** | **0.073** | <0.05 | **7.1** | <0.3 | <0.6 | **99** |
| SW-1 | CWTP | Surface Water | 2/9/2022 | FC-CCR-SW1-0222 | **--** | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | -- | -- | **--** |
| SW-1 | CWTP | Surface Water | 5/24/2022 | FC-CCR-SW1-0522 | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| SW-1 | CWTP | Surface Water | 5/24/2022 | FC-CCR-FD08-0522 | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| SW-1 | CWTP | Surface Water | 5/24/2022 | FC-CCR-FD10-0522 | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | -- | -- | -- |
| SW-1 | CWTP | Surface Water | 5/24/2022 | FC-CCR-SS02-0522 | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | -- | -- | -- |
| SW-1 | CWTP | Surface Water | 8/14/2022 | FC-CCR-SW1-0822 | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | -- | -- | -- |
| SW-1 | CWTP | Surface Water | 11/16/2022 | FC-CCR-SW1-1122 | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | <0.3 | <0.7 | -- |
| SW-1 | CWTP | Surface Water | 11/16/2022 | *DUP* FC-CCR-FD08-1122 | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | **0.6** | <0.7 | -- |
| SW-1 | CWTP | Surface Water | 01/27/2023 | FC-CCR-SW1-0123 | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | -- | -- | -- |
| SW-1 | CWTP | Surface Water | 05/07/2023 | FC-CCR-SW1-0523 | -- | -- | -- | -- | -- | -- | -- | -- | <0.003 | -- | -- | -- | -- | <0.36 | <0.58 | |
| SW-1 | CWTP | Surface Water | 05/07/2023 | *DUP* FC-CCR-FD08-0523 | -- | -- | -- | -- | -- | -- | -- | -- | <0.003 | -- | -- | -- | -- | -- | -- | |
| SW-1 | CWTP | Surface Water | 05/07/2023 | *DUP* FC-CCR-SWFD08-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.36 | **0.8** | |
| SW-1 | CWTP | Surface Water | 06/28/2023 | FC-CCR-SW1-0623 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.41 | <0.61 | -- |
| SW-1 | CWTP | Surface Water | 06/28/2023 | *DUP* FC-CCR-FD01-0623 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | <0.61 | -- |
| SW-1 | CWTP | Surface Water | 11/13/2023 | FC-CCR-SW1-1123 | **110** | <6 | <6 | **110** | <6 | <0.5 | **36** | <0.05 | -- | -- | -- | -- | **8.5** | <0.82 | <0.8 | **130** |
| SW-1 | CWTP | Surface Water | 11/13/2023 | *DUP* FC-CCR-FD08-1123 | **110** | <6 | <6 | **110** | <6 | <0.5 | **33** | <0.05 | -- | -- | -- | -- | **8.1** | <0.82 | <0.8 | **120** |
| SW-1 | CWTP | Surface Water | 05/23/2024 | FC-CCR-SW1-0524 | **130** | <6 | <6 | **130** | <6 | <0.1 UJ | **33** | <0.01 | | | | | **7.3** | <0.46 | <0.75 | **110** |
| SW-1 | CWTP | Surface Water | 05/23/2024 | *DUP* FC-CCR-FD09-0524 | **130** | <6 | <6 | **130** | <6 | **0.29 J** | **35** | <0.01 | | | | | **8.4** | <0.45 | <0.75 | **130** |
| SW-1 | CWTP | Surface Water | 10/24/2024 | FC-CCR-SW1-1024 | **108** | <20 | -- | **--** | -- | **0.147** | **29.8** | **0.0121** | -- | -- | -- | -- | **7.6** | **0.4** | <0.8 | **103** |
| SW-2 | CWTP | Surface Water | 4/1/2019 | FC-CCR-SW2-4119 | **120** | -- | -- | **120** | -- | -- | **31** | **--** | **--** | **0.21** | -- | <0.10 | **7.0** | -- | -- | **110** |
| SW-2 | CWTP | Surface Water | 2/9/2022 | FC-CCR-SW2-0222 | **--** | -- | -- | -- | -- | -- | **--** | **--** | **--** | **--** | -- | -- | -- | -- | -- | **--** |
| SW-2 | CWTP | Surface Water | 11/15/2021 | FC-CCR-SW2-1121 | **130** | <6 | <6 | **130** | <6 | -- | **33** | **--** | **--** | **0.081** | **0.081** | <0.05 | **7.8** | <0.3 | <0.6 | **110** |
| SW-2 | CWTP | Surface Water | 5/24/2022 | FC-CCR-SW2-0522 | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| SW-2 | CWTP | Surface Water | 8/14/2022 | FC-CCR-SW2-0822 | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | -- | -- | -- |
| SW-2 | CWTP | Surface Water | 8/14/2022 | *DUP* FC-CCR-FD02-0822 | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | -- | -- | -- |
| SW-2 | CWTP | Surface Water | 11/16/2022 | FC-CCR-SW2-1122 | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | <0.3 | <0.7 | -- |
| SW-2 | CWTP | Surface Water | 01/27/2023 | FC-CCR-SW2-0123 | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | -- | -- | -- |
| SW-2 | CWTP | Surface Water | 05/07/2023 | FC-CCR-SW2-0523 | -- | -- | -- | -- | -- | -- | -- | -- | <0.003 | -- | -- | -- | -- | **0.8** | **0.9** | |
| SW-2 | CWTP | Surface Water | 06/27/2023 | FC-CCR-SW2-0623 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.4 | **1.7** | -- |
| SW-2 | CWTP | Surface Water | 11/13/2023 | FC-CCR-SW2-1123 | **110** | <6 | <6 | **110** | <6 | **3.7 J** | **39** | **0.14** | -- | -- | -- | -- | **9.3** | <0.82 | <0.8 | **140** |
| SW-2 | CWTP | Surface Water | 05/22/2024 | FC-CCR-SW2-0524 | **130** | <6 | <6 | **130** | <6 | **1.1** | **38** | **0.053** | | | | | **8.0** | <0.46 | <0.75 | **130** |
| SW-2 | CWTP | Surface Water | 10/23/2024 | FC-CCR-SW2-1024 | **109** | <20 | -- | **--** | -- | **0.138** | **33.2** | **0.0161** | -- | -- | -- | -- | **8.1** | **0.4** | <0.8 | **114** |
| SW-3 | CWTP | Surface Water | 4/1/2019 | FC-CCR-SW3-4119 | **120** | -- | -- | **120** | -- | -- | **30** | **--** | **--** | <0.10 | -- | <0.10 | **6.8** | -- | -- | **100** |
| SW-3 | CWTP | Surface Water | 2/9/2022 | FC-CCR-SW3-0222 | **--** | -- | -- | **--** | -- | -- | -- | -- | **--** | -- | -- | -- | -- | -- | -- | -- |
| SW-3 | CWTP | Surface Water | 11/15/2021 | FC-CCR-SW3-1121 | **100** | <6 | <6 | **100** | <6 | -- | **30** | **--** | **--** | <0.05 | <0.05 | <0.05 | **7.4** | **0.7** | **0.6** | **97** |
| SW-3 | CWTP | Surface Water | 5/24/2022 | FC-CCR-SW3-0522 | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | <0.4 | <0.7 | -- |
| SW-3 | CWTP | Surface Water | 8/14/2022 | FC-CCR-SW3-0822 | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | -- | -- | -- |
| SW-3 | CWTP | Surface Water | 11/16/2022 | FC-CCR-SW3-1122 | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | <0.3 | <0.7 | -- |
| SW-3 | CWTP | Surface Water | 01/27/2023 | FC-CCR-SW3-0123 | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | -- | -- | -- |
| SW-3 | CWTP | Surface Water | 01/27/2023 | *DUP* FC-CCR-FD01-0123 | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | -- | -- | -- |
| SW-3 | CWTP | Surface Water | 05/07/2023 | FC-CCR-SW3-0523 | -- | -- | -- | -- | -- | -- | -- | -- | <0.003 | -- | -- | -- | -- | <0.36 | <0.58 | |
| SW-3 | CWTP | Surface Water | 06/27/2023 | FC-CCR-SW3-0623 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.6** | <0.61 | -- |
| SW-3 | CWTP | Surface Water | 11/13/2023 | FC-CCR-SW3-1123 | **110** | <6 | <6 | **110** | <6 | <0.5 | **35** | <0.05 | -- | -- | -- | -- | **8.7** | **0.9** | **0.9** | **130** |
| SW-3 | CWTP | Surface Water | 05/22/2024 | FC-CCR-SW3-0524 | **130** | <6 | <6 | **130** | <6 | <0.1 | **34** | <0.01 | | | | | **8.3** | <0.45 | <0.75 | **130** |
| SW-3 | CWTP | Surface Water | 10/23/2024 | FC-CCR-SW3-1024 | **106** | <20 | -- | **--** | -- | **0.123** | **30.7** | **0.0123** | -- | -- | -- | -- | **7.83** | **0.5** | <0.8 | **107** |
| SW-4 | CWTP | Surface Water | 4/1/2019 | FC-CCR-SW4-4119 | **120** | -- | -- | **120** | -- | -- | **30** | **--** | **--** | <0.10 | -- | <0.10 | **6.9** | -- | -- | **110** |
| SW-5 | CWTP | Surface Water | 4/1/2019 | FC-CCR-SW5-4119 | **120** | -- | -- | **120** | -- | -- | **31** | **--** | **--** | **0.19** | -- | <0.10 | **6.8** | -- | -- | **110** |
| SW-6 | CWTP | Surface Water | 4/1/2019 | FC-CCR-SW6-4119 | **130** | -- | -- | **130** | -- | -- | **29** | **--** | **--** | <0.10 | -- | <0.10 | **6.6** | -- | -- | **100** |

*Abbreviations and Data Qualifiers:*
< = less than reporting limit (or the method detection limit for beryllium results)
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
mg/L = milligrams per liter
pCi/L = Picocuries per liter
su = standard units
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

# Table G-13
## Groundwater Sampling Results for the Additional Monitoring Wells - Appendix III Constituents

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| Well ID | CCR Unit | Well Designation | Sample Date | Sample ID | | | | | | | | | | |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 4/20/1992 | DMX-1_4/20/1992 | -- | 5.42 | -- | 466 | 700 | 0.87 | -- | 7.7 | 12,000 | 21,000 |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 3/18/2015 | FCPP-DMX1-031815 | 140 | -- | 450 | -- | 3,000 | <0.80 | -- | -- | 12,000 | 20,000 |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 6/24/2015 | DMX-1 | 140 | -- | 420 | -- | 1,600 | <8.0 | -- | 7.1 | 11,000 | 21,000 |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 8/28/2015 | FCPP-DMX1-082815 | 140 | -- | 430 | -- | 1,400 | <2.0 | -- | 7.07 | 12,000 | 21,000 |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 11/4/2015 | FC DMX-1-(041115) | 140 | -- | 420 | -- | 1,200 | <2.0 | -- | 7.1 | 9,800 | 20,000 |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 6/21/2016 | FC-SEEPS-DMX-1-062116 | 130 | -- | 420 | -- | 1,500 | 0.67 | -- | 7.02 | 12,000 | 20,000 |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 4/25/2021 | FC-CCR-DMX01-0421 | 89 | -- | -- | -- | -- | -- | 7.63 | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 11/14/2021 | FC-CCR-DMX01 | 99 | -- | -- | -- | -- | -- | 6.88 | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 11/14/2021 | FC-CCR-FD06 | 100 | -- | -- | -- | -- | -- | 6.88 | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-DMX01-0522 | 66 | -- | -- | -- | -- | -- | 6.85 | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 11/11/2022 | FC-CCR-DMX01-1122 | 80 | -- | -- | -- | -- | -- | 6.94 | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 11/11/2022 | *DUP* FC-CCR-FD04-1122 | 83 | -- | -- | -- | -- | -- | 6.94 | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 5/3/2023 | FC-CCR-DMX01-0523 | 77 | -- | -- | -- | -- | -- | 6.84 | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 5/3/2023 | *DUP* FC-CCR-FD04-0523 | 87 | -- | -- | -- | -- | -- | 6.84 | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 11/10/2023 | FC-CCR-DMX01-1123 | 90 | -- | -- | -- | -- | -- | 7.01 | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 11/10/2023 | *DUP* FC-CCR-FD04-1123 | 92 | -- | -- | -- | -- | -- | 7.01 | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 05/17/2024 | FC-CCR-DMX01-0524 | 100 J | -- | -- | -- | -- | -- | 6.96 | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 05/17/2024 | *DUP* FC-CCR-FD04-0524 | 140 J | -- | -- | -- | -- | -- | 6.96 | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 10/26/2024 | FC-CCR-DMX01-1024 | 62.2 | -- | -- | -- | -- | -- | 6.91 | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 10/26/2024 | FC-CCR-FD06-1024 | 58.6 | -- | -- | -- | -- | -- | 6.91 | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/28/1987 | MW-1_9/28/1987 | -- | 13 | -- | 430 | 570 | 0.90 | 7.33 | 7.4 | 9,000 | 15,000 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 6/27/1988 | MW-1-19880627 | -- | -- | 436 | -- | 619 | 0.90 | 7.17 | -- | 8,644 | 14,582 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/21/1988 | MW-1-19880921 | 11.5 | -- | 411 | -- | 597 | 0.90 | 6.93 | -- | 8,398 | 15,405 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/20/1988 | MW-1-19881120 | 9.9 | -- | 414 | -- | 463 | 0.80 | 7.15 | -- | 7,922 | 14,475 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 3/6/1989 | MW-1-19890306 | 12 | -- | 432 | -- | 734 | 0.80 | 7.00 | -- | 9,295 | 15,490 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/11/1989 | MW-1-19890911 | 13.7 | -- | 360 | -- | 678 | 0.90 | 7.18 | -- | 8,299 | 14,710 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 3/26/1990 | MW-1-19900326 | 14.9 | -- | 380 | -- | 608 | 0.80 | 7.20 | -- | 8,327 | 13,790 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/18/1990 | MW-1-19900918 | 25 | -- | 370 | -- | 578 | 0.50 | 7.20 | -- | 7,982 | 13,565 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 3/27/1991 | MW-1-19910327 | 24.1 | -- | 360 | -- | 788 | 0.50 | 7.11 | -- | 9,495 | 13,460 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/11/1991 | MW-1-19910911 | 22.6 | -- | 427 | -- | 779 | 0.60 | 7.21 | -- | 10,440 | 13,450 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/30/1992 | MW-1-19920430 | 30.8 | -- | 360 | -- | 651 | 0.60 | 7.23 | -- | 8,840 | 12,720 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 10/27/1992 | MW-1-19921027 | 41 | -- | 400 | -- | 569 | 0.80 | 7.23 | -- | 7,500 | 11,910 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/21/1993 | MW-1-19930421 | 36 | -- | 390 | -- | 639 | 0.60 | 7.20 | -- | 8,230 | 12,670 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/23/1993 | MW-1-19931123 | 46 | -- | 380 | -- | 627 | 0.70 | 7.12 | -- | 8,650 | 12,850 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/20/1994 | MW-1-19940420 | 38 | -- | 430 | -- | 728 | 0.70 | 7.20 | -- | 8,250 | 14,340 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 8/11/1994 | MW-1-19940811 | 41 | -- | 440 | -- | 662 | 0.70 | 7.16 | -- | 7,626 | 12,450 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/6/1995 | MW-1-19950406 | 43 | -- | 410 | -- | 777 | 0.60 | 7.14 | -- | 7,930 | 13,800 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/19/1995 | MW-1-19951119 | 62.3 | -- | 400 | -- | 603 | 0.80 | 7.26 | -- | 7,034 | 12,130 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 8/13/1996 | MW-1-19960813 | 54.1 | -- | 320 | -- | 575.6 | 0.70 | 7.34 | -- | 7,034 | 12,210 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/23/1997 | MW-1-19970423 | 51.2 | -- | 300 | -- | 590.5 | 0.70 | 7.24 | -- | 6,845 | 11,850 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 10/20/1997 | MW-1-19971020 | 57.7 | -- | 380 | -- | 549.5 | 1.0 | 7.48 | -- | 7,003 | 11,890 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/6/1998 | MW-1-19980406 | -- | -- | -- | -- | 644 | 0.80 | 7.33 | -- | 7,334 | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 10/19/1998 | MW-1-19981019 | 55.1 | -- | 380 | -- | 591.9 | 0.70 | 7.36 | -- | 7,345 | 11,666 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 6/9/1999 | MW-1-19990609 | 48.6 | -- | 360 | -- | 650.7 | 0.70 | 7.39 | -- | 7,480 | 13,130 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 12/6/1999 | MW-1-19991206 | 60 | -- | 440 | -- | 493 | 1.0 | 7.37 | -- | 6,334 | 110,940 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 5/24/2000 | MW-1-20000524 | 55.3 | -- | 416 | -- | 680.1 | 0.90 | 7.13 | -- | 7,484 | 11,410 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/14/2000 | MW-1-20001114 | 67.4 | -- | 2,460 | -- | 463.5 | 1.2496 | 7.02 | -- | 6,052 | 10,690 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 8/22/2001 | MW-1-20010822 | 55.3 | -- | 400 | -- | 540 | 1.1 | 7.27 | -- | 5,494 | 10,790 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 12/5/2001 | MW-1-20011205 | 69.3 | -- | 360 | -- | 536.5 | 1.0 | 7.17 | -- | 6,121 | 10,710 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 6/11/2002 | MW-1-20020611 | 68.1 | -- | 400 | -- | 535 | 1.7 | 7.59 | -- | 5,928 | 10,910 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 12/17/2002 | MW-1-20021217 | 65.7 | -- | 390 | -- | 530.5 | 1.3 | 7.27 | -- | 5,879 | 11,360 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 5/28/2003 | MW-1-20030528 | 70.5 | -- | 380 | -- | 400.5 | 1.3 | 7.15 | -- | 4,102 | 11,490 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 12/24/2003 | MW-1-20031224 | 65.9 | -- | 350 | -- | 670 | 7.8 | 7.18 | -- | 6,574 | 10,620 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/21/2004 | MW-1-20040421 | -- | -- | 410 | -- | 517 | 1.4 | 7.20 | -- | 5,337 | 10,690 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/29/2004 | MW-1-20041129 | 69.6 | -- | 450 | -- | 1,840 | 1.8 | 7.24 | -- | 10,277 | 10,680 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 6/5/2005 | MW-1-20050605 | 64.8 | -- | 440 | -- | 556.5 | 1.2 | 7.25 | -- | 5,145 | 10,120 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 12/12/2005 | MW-1-20051212 | 65.3 | -- | 460 | -- | 568.5 | -- | 7.08 | -- | 5,050 | 10,630 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 5/17/2006 | MW-1-20060517 | 66.9 | -- | 441 | -- | 574 | 1.83 | 7.20 | -- | 5,790 | 10,400 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 10/12/2006 | MW-1-20061012 | 67.6 | -- | 443 | -- | 673 | 1.8 | 7.22 | -- | 6,880 | 10,600 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/19/2007 | MW-1-20070419 | 70.7 | -- | 431 | -- | 623 | 1.72 | 7.24 | -- | 5,870 | 10,600 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/19/2007 | MW-1-20071119 | 57.8 | -- | 362 | -- | 690 | 2.0 | 7.16 | -- | 6,600 | 11,000 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 5/8/2008 | MW-1-20080508 | 61.7 | -- | 371 | -- | 660 | 1.92 | 7.36 | -- | 7,000 | 10,600 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/27/2012 | MW-1-092712-04 | 62 | -- | 410 | -- | 710 | 2.6 | -- | -- | 6,400 | 11,000 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/27/2012 | MW-1-092712-01 | 62 | -- | 390 | -- | 730 | 2.6 | -- | -- | 6,500 | 11,000 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/18/2013 | FC-DUP-111813 | 69 | -- | 470 | -- | 720 | 3.8 | -- | -- | 6,400 | 11,000 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/18/2013 | FC-01-111813 | 63 | -- | 470 | -- | 710 | 3.6 | -- | -- | 6,200 | 11,000 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/9/2014 | FCPP-01MS-090914 | 63 | -- | 390 | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/9/2014 | FCPP-01-090914 | 61 | -- | 410 | -- | 650 | 1.5 | -- | -- | 6,100 | 10,000 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 3/17/2015 | FCPP-01-031715 | 65 | -- | 420 | -- | 630 | 1.8 | -- | -- | 6,100 | 9,900 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 6/30/2015 | MW-1 | 65 | -- | 390 | -- | 680 | 2.5 | -- | 7.29 | 5,700 | 10,000 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 8/27/2015 | FCPP-1-082715 | 66 | -- | 440 | -- | 550 | 4.2 | -- | 7.16 | 6,000 | 9,600 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 6/17/2016 | FC-Seep-MW1-616 | 61 | -- | 420 | -- | 760 | 3.1 | -- | 7.55 | 6,100 | 10,000 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/15/2016 | FC-Seep-MW1-916 | 64 | -- | 420 | -- | 560 | 3.7 | -- | 7.2 | 6,600 | 9,800 |
| MW-01 | Closed Ash Pond 6 | Supplementary | 6/21/2020 | FC-CCR-MW01-0620 | -- | -- | -- | -- | -- | -- | 6.90 | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 6/21/2020 | *DUP* FC-CCR-FD03-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/8/2020 | FC-CCR-MW01-1120 | 56 | -- | -- | -- | -- | -- | 7.06 | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/8/2020 | *DUP* FC-CCR-FD03-1120 | 56 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/24/2021 | FC-CCR-MW01-0421 | 56 | -- | -- | -- | -- | -- | 7.67 | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/24/2021 | FC-CCR-FD03-0421 | 56 | -- | -- | -- | -- | -- | 7.67 | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/13/2021 | FC-CCR-MW01 | 63 | -- | -- | -- | -- | -- | 6.84 | -- | -- | -- |

# Table G-13
## Groundwater Sampling Results for the Additional Monitoring Wells - Appendix III Constituents

| | | | | | Appendix III Constituents | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| Well ID | CCR Unit | Well Designation | Sample Date | Sample ID | | | | | | | | | | |
| MW-01 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-MW01-0522 | 55 | -- | -- | -- | -- | -- | 6.96 | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | *DUP* FC-CCR-FD05-0522 | 54 | -- | -- | -- | -- | -- | 6.96 | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/10/2022 | FC-CCR-MW01-1122 | 54 | -- | -- | -- | -- | -- | 6.97 | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 5/2/2023 | FC-CCR-MW01-0523 | 60 | -- | -- | -- | -- | -- | 6.89 | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/09/2023 | FC-CCR-MW01-1123 | 54 | -- | -- | -- | -- | -- | 6.97 | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 05/16/2024 | FC-CCR-MW01-0524 | 64 | -- | -- | -- | -- | -- | 6.92 | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 10/25/2024 | FC-CCR-MW01-1024 | 50.2 | -- | -- | -- | -- | -- | 6.88 | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/1/1987 | MW-3_4/1/1987 | -- | 1.2 | -- | 460 | 1,100 | 0.50 | 7.60 | 7.1 | 30,000 | 43,000 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/29/1987 | MW-3_9/29/1987 | -- | 1.6 | -- | 470 | 1,300 | <0.5 | 6.99 | 7.2 | 36,000 | 58,000 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 6/28/1988 | MW-3-19880628 | -- | -- | 472 | -- | 1,152 | 1.2 | 7.41 | -- | 30,437 | 60,998 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/21/1988 | MW-3-19880921 | 2.0 | -- | 405 | -- | 1,006 | 1.2 | 7.29 | -- | 31,759 | 55,105 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/20/1988 | MW-3-19881120 | 1.0 | -- | 476 | -- | 792 | 1.5 | 7.34 | -- | 34,816 | 56,200 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 2/27/1989 | MW-3-19890227 | 2.0 | -- | 448 | -- | 1,127 | 1.2 | 7.37 | -- | 35,052 | 55,715 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/13/1989 | MW-3-19890913 | 2.0 | -- | 460 | -- | 1,336 | 1.4 | 7.21 | -- | 35,948 | 56,820 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 3/22/1990 | MW-3-19900322 | 1.0 | -- | 500 | -- | 1,211 | 1.3 | 7.20 | -- | 32,683 | 56,340 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 10/30/1990 | MW-3-19901030 | 1.0 | -- | 300 | -- | 1,409 | 0.40 | 7.32 | -- | 38,450 | 56,485 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/4/1991 | MW-3-19910404 | 1.0 | -- | 240 | -- | 1,350 | 0.30 | 7.21 | -- | 37,010 | 51,680 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/30/1991 | MW-3-19910930 | 1.0 | -- | 204 | -- | 1,276 | 0.30 | 7.38 | -- | 43,130 | 58,250 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 5/7/1992 | MW-3-19920507 | 1.0 | -- | 180 | -- | 1,290 | 0.30 | 7.39 | -- | 33,170 | 52,020 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/5/1992 | MW-3-19921105 | 1.0 | -- | 220 | -- | 1,170 | 0.30 | 7.17 | -- | 31,495 | 48,580 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/28/1993 | MW-3-19930428 | 1.0 | -- | 350 | -- | 1,249 | 0.26 | 7.20 | -- | 31,345 | 47,800 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/30/1993 | MW-3-19931130 | 2.0 | -- | 280 | -- | 1,216 | 0.30 | 7.22 | -- | 31,475 | 48,630 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/21/1994 | MW-3-19940421 | 1.0 | -- | 340 | -- | 1,151 | 0.30 | 7.28 | -- | 30,190 | 46,580 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/20/1994 | MW-3-19940920 | 2.0 | -- | 380 | -- | 1,171 | 0.30 | 7.23 | -- | 28,895 | 45,520 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 12/14/1994 | MW-3-19941214 | -- | -- | 430 | -- | -- | -- | 7.03 | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/6/1995 | MW-3-19950406 | 1.0 | -- | 360 | -- | 1,183 | 0.20 | 7.05 | -- | 28,085 | 43,870 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 12/12/1995 | MW-3-19951212 | 1.41 | -- | 400 | -- | 1,066 | 0.30 | 7.23 | -- | 26,745 | 41,150 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 8/14/1996 | MW-3-19960814 | 1.16 | -- | 300 | -- | 1,110 | 0.20 | 7.22 | -- | 25,150 | 40,430 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/23/1997 | MW-3-19970423 | 1.6 | -- | 260 | -- | 1,083 | 0.20 | 7.21 | -- | 24,100 | 39,420 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 10/13/1997 | MW-3-19971013 | <0.05 | -- | 300 | -- | 1,164 | 0.20 | 7.27 | -- | 25,154 | 38,450 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/15/1998 | MW-3-19980415 | 1.73 | -- | 320 | -- | 1,052 | 0.20 | 7.20 | -- | 22,542 | 39,920 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/29/1998 | MW-3-19980929 | 1.73 | -- | 70 | -- | 1,228 | 0.20 | 7.24 | -- | 25,071 | 38,140 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 5/10/1999 | MW-3-19990510 | 4.1 | -- | 50 | -- | 1,075 | 0.30 | 7.23 | -- | 22,883 | 38,650 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 12/8/1999 | MW-3-19991208 | 3.8 | -- | 170 | -- | 990 | 0.30 | 6.89 | -- | 20,512 | 34,270 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 5/10/2000 | MW-3-20000510 | 4.72 | -- | 457 | -- | 1,309 | 0.30 | 7.13 | -- | 29,283 | 35,180 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/27/2000 | MW-3-20001127 | 6.01 | -- | 180 | -- | 971.2 | 0.5938 | 7.23 | -- | 16,024 | 36,290 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 8/20/2001 | MW-3-20010820 | 5.96 | -- | 210 | -- | 942.2 | 0.30 | 7.16 | -- | 27,067 | 31,650 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 12/4/2001 | MW-3-20011204 | 3.9 | -- | 180 | -- | 1,142 | 0.50 | 6.52 | -- | 20,827 | 33,270 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 6/12/2002 | MW-3-20020612 | 4.93 | -- | 180 | -- | 970.2 | 0.40 | 7.38 | -- | 20,675 | 33,320 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 12/17/2002 | MW-3-20021217 | 4.34 | -- | 200 | -- | 1,059 | 0.30 | 7.23 | -- | 18,595 | 32,590 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 6/3/2003 | MW-3-20030603 | -- | -- | 190 | -- | 918.4 | 0.30 | 7.12 | -- | 18,531 | 33,050 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/24/2003 | MW-3-20030924 | 3.86 | -- | 215 | -- | 975.6 | 0.54 | 6.65 | -- | 17,891 | 32,470 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 6/16/2004 | MW-3-20040616 | -- | -- | 250 | -- | 1,062 | 0.30 | 7.03 | -- | 18,085 | 32,180 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/9/2004 | MW-3-20041109 | 4.2 | -- | 455 | -- | 992.4 | 0.40 | 7.25 | -- | 16,893 | 31,490 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 5/12/2005 | MW-3-20050512 | 3.64 | -- | 320 | -- | 1,087 | 0.30 | 7.43 | -- | 17,858 | 30,930 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/1/2005 | MW-3-20051101 | 3.96 | -- | 422 | -- | 1,027 | 0.40 | 7.03 | -- | 16,628 | 30,270 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 5/16/2006 | MW-3-20060516 | 4.28 | -- | 423 | -- | 932 | 0.466 | 7.19 | -- | 19,300 | 29,900 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 10/12/2006 | MW-3-20061012 | 4.55 | -- | 461 | -- | 1,020 | 0.359 | 7.15 | -- | 19,700 | 28,300 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/18/2007 | MW-3-20070418 | 5.47 | -- | 427 | -- | 1,190 | 0.209 | 7.18 | -- | 18,400 | 29,400 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/19/2007 | MW-3-20071119 | 4.11 | -- | 326 | -- | 970 | 0.40 | 7.11 | -- | 15,000 | 28,600 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 5/7/2008 | MW-3-20080507 | 4.9 | -- | 346 | -- | 940 | 0.40 | 7.05 | -- | 16,400 | 28,400 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 12/3/2009 | MW-3-20091203 | 5.7 | -- | 363 | -- | 880 | 0.40 | 7.00 | -- | 15,800 | 26,600 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/28/2012 | MW-3-092812-01 | 8.8 | -- | 380 | -- | 900 | <8.0 | -- | -- | 14,000 | 23,000 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/29/2012* | MW-3-092912-03 | <0.20 | -- | <2.0 | -- | <2.0 | <0.40 | -- | -- | <2.0 | 26 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 3/11/2014 | FC-03-031114 | 7.4 | -- | 410 | -- | 940 | <0.80 | -- | -- | 14,000 | 23,000 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/9/2014 | FCPP-03-090914 | 7.7 | -- | 380 | -- | 1,000 | <0.80 | -- | -- | 17,000 | 12,000 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 3/18/2015 | FCPP-03-031815 | 7.1 | -- | 390 | -- | 1,000 | <0.80 | -- | -- | 19,000 | 22,000 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/2/2015 | FC-GF-3-0415 | -- | -- | -- | -- | 1,700 | -- | -- | -- | 3,350 | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 6/24/2015 | MW-3 | 7.7 | -- | 380 | -- | 930 | <8.0 | -- | 7.18 | 14,000 | 23,000 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 8/28/2015 | FCPP-03-082815 | 8.2 | -- | 410 | -- | 850 | <2.0 | -- | 7.36 | 14,000 | 22,000 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/4/2015 | FC MW-3-(041115) | 8.2 | -- | 440 | -- | -- | -- | -- | 7.23 | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/12/2015 | FC MW-3-(121115) | 7.4 | -- | 360 | -- | 860 | <2.0 | -- | 7.25 | 14,000 | 22,000 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 6/20/2016 | FC-Seep-MW3-616 | 7.8 | -- | 420 | -- | 1,000 | 0.43 | -- | 7.25 | 14,000 | 17,000 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/15/2016 | FC-Seep-MW3-916 | 8.1 | -- | 390 | -- | 850 | 0.45 | -- | 7.2 | 14,000 | 22,000 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/15/2016 | FC-Seep-MW105-916 | 7.7 | -- | 370 | -- | 840 | 0.44 | -- | 7.1 | 14,000 | 22,000 |
| MW-03 | Closed Ash Pond 6 | Supplementary | 6/21/2020 | FC-CCR-MW03-0620 | -- | -- | -- | -- | -- | -- | 6.91 | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/8/2020 | FC-CCR-MW03-1120 | 7.5 | -- | -- | -- | -- | -- | 7.09 | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/24/2021 | FC-CCR-MW03-0421 | 7.8 | -- | -- | -- | -- | -- | 7.75 | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/13/2021 | FC-CCR-MW03 | 8.4 | -- | -- | -- | -- | -- | 6.93 | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-MW03-0522 | 8.0 | -- | -- | -- | -- | -- | 7.07 | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-SS08-0522 | 8.17 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/10/2022 | FC-CCR-MW03-1122 | 8.0 | -- | -- | -- | -- | -- | 7.02 | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 5/2/2023 | FC-CCR-MW03-0523 | 9.9 | -- | -- | -- | -- | -- | 6.98 | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/09/2023 | FC-CCR-MW03-1123 | 11 | -- | -- | -- | -- | -- | 7.09 | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 05/16/2024 | FC-CCR-MW03-0524 | 15 | -- | -- | -- | -- | -- | 7.02 | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 10/28/2024 | FC-CCR-MW03-1024 | 9.14 | -- | -- | -- | -- | -- | 7.11 | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 9/29/1987 | MW-19_9/29/1987 | -- | 1.6 | -- | 480 | 1,200 | <0.5 | 7.03 | 7.2 | 34,000 | 56,000 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 6/14/1988 | MW-19-19880614 | -- | -- | 488 | -- | 1,518 | 1.1 | 6.90 | -- | 45,210 | 75,052 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 9/18/1988 | MW-19-19880918 | 2.0 | -- | 476 | -- | 1,555 | -- | 6.97 | -- | 46,211 | 74,798 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/20/1988 | MW-19-19881120 | 2.0 | -- | 417 | -- | 1,306 | 1.1 | 6.91 | -- | 43,079 | 71,375 |

# Table G-13
## Groundwater Sampling Results for the Additional Monitoring Wells - Appendix III Constituents

| | | | | | Appendix III Constituents | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| Well ID | CCR Unit | Well Designation | Sample Date | Sample ID | | | | | | | | | | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 2/28/1989 | MW-19-19890228 | 2.0 | -- | 467 | -- | 1,643 | 1.2 | 7.02 | -- | 49,042 | 75,830 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 9/12/1989 | MW-19-19890912 | 2.0 | -- | 353 | -- | 1,248 | 1.3 | 6.92 | -- | 46,881 | 71,520 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 3/22/1990 | MW-19-19900322 | 1.0 | -- | 500 | -- | 1,466 | 1.0 | 7.00 | -- | 46,993 | 69,850 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 10/30/1990 | MW-19-19901030 | 1.0 | -- | 240 | -- | 1,405 | 0.20 | 6.98 | -- | 42,450 | 63,223 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 4/3/1991 | MW-19-19910403 | 1.0 | -- | 240 | -- | 1,393 | 0.20 | 6.88 | -- | 37,150 | 56,700 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 9/25/1991 | MW-19-19910925 | 1.0 | -- | 200 | -- | 1,302 | 0.20 | 7.12 | -- | 38,110 | 55,580 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/7/1992 | MW-19-19920507 | 1.0 | -- | 160 | -- | 1,255 | 0.20 | 7.10 | -- | 34,900 | 54,340 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/5/1992 | MW-19-19921105 | 1.0 | -- | 220 | -- | 1,404 | 0.20 | 7.01 | -- | 34,160 | 53,370 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 4/27/1993 | MW-19-19930427 | 1.0 | -- | 280 | -- | 1,220 | 0.18 | 7.05 | -- | 34,080 | 47,880 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 12/1/1993 | MW-19-19931201 | 1.0 | -- | 260 | -- | 1,156 | 0.20 | 6.83 | -- | 33,720 | 49,160 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/10/1994 | MW-19-19940510 | 1.0 | -- | 200 | -- | 2,243 | 0.20 | 6.94 | -- | 82,450 | 128,180 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/16/1994 | MW-19-19941116 | 1.0 | -- | 200 | -- | 1,155 | 0.20 | 6.98 | -- | 25,590 | 45,940 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 4/6/1995 | MW-19-19950406 | 2.0 | -- | 240 | -- | 1,192 | 0.20 | 6.94 | -- | 30,250 | 45,710 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 12/12/1995 | MW-19-19951212 | 1.43 | -- | 260 | -- | 1,048 | 0.20 | 6.98 | -- | 27,010 | 41,820 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 8/15/1996 | MW-19-19960815 | 1.62 | -- | 220 | -- | 1,001 | 0.20 | 7.04 | -- | 24,511 | 34,210 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 4/14/1997 | MW-19-19970414 | 2.51 | -- | 280 | -- | 911.2 | 0.20 | 6.98 | -- | 23,746 | 41,090 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 10/13/1997 | MW-19-19971013 | <0.05 | -- | 220 | -- | 1,007 | 0.20 | 7.04 | -- | 24,366 | 38,360 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/10/1999 | MW-19-19990510 | 5.1 | -- | 70 | -- | 925.5 | 0.20 | 7.06 | -- | 20,743 | 36,410 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 12/1/1999 | MW-19-19991201 | 5.6 | -- | 210 | -- | 873 | 0.20 | 6.91 | -- | 19,252 | 32,430 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/30/2000 | MW-19-20000530 | 6.45 | -- | 451 | -- | 1,956 | 0.30 | 6.87 | -- | 28,225 | 30,950 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/27/2000 | MW-19-20001127 | 7.25 | -- | 230 | -- | 601.5 | 0.2564 | 6.96 | -- | 13,598 | 31,870 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 8/21/2001 | MW-19-20010821 | 5.99 | -- | 200 | -- | 869 | 0.26 | 7.11 | -- | 19,006 | 35,660 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 12/4/2001 | MW-19-20011204 | 2.0 | -- | 210 | -- | 952.5 | 0.30 | 6.58 | -- | 6,704 | 11,340 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 6/11/2002 | MW-19-20020611 | 6.49 | -- | 200 | -- | 760 | 0.40 | 7.01 | -- | 16,328 | 28,580 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 12/17/2002 | MW-19-20021217 | 6.3 | -- | 250 | -- | 745 | 0.20 | 6.98 | -- | 15,539 | 128,070 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/29/2003 | MW-19-20030529 | 5.93 | -- | 220 | -- | 977 | 0.21 | 6.89 | -- | 14,745 | 28,620 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 12/15/2003 | MW-19-20031215 | 0.89 | -- | 220 | -- | 1,763 | 0.45 | 6.86 | -- | 26,266 | 28,170 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 6/18/2004 | MW-19-20040618 | -- | -- | 300 | -- | 930.5 | 0.30 | 6.92 | -- | 17,053 | 28,730 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/30/2004 | MW-19-20041130 | 5.2 | -- | 260 | -- | 952.5 | 0.26 | 6.98 | -- | 11,112 | 30,210 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 6/14/2005 | MW-19-20050614 | 4.63 | -- | 320 | -- | 972 | 0.29 | 7.08 | -- | 16,135 | 29,650 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 12/12/2005 | MW-19-20051212 | 4.52 | -- | 468 | -- | 1,193 | 0.30 | 7.03 | -- | 17,202 | 30,250 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/15/2006 | MW-19-20060515 | 3.42 | -- | 477 | -- | 1,430 | 0.176 | 6.96 | -- | 25,400 | 37,700 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 4/17/2007 | MW-19-20070417 | 2.99 | -- | 484 | -- | 2,310 | 0.754 | 7.02 | -- | 26,200 | 40,700 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/8/2008 | MW-19-20080508 | 1.3 | -- | 353 | -- | 1,900 | 0.30 | 7.14 | -- | 34,500 | 43,400 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/18/2013 | FC-19-111813 | 2.2 | -- | 550 | -- | 4,300 | <8.0 | -- | -- | 28,000 | 41,000 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 3/11/2014 | FC-19-031114 | 2.0 | -- | 430 | -- | 2,700 | <4.0 | -- | -- | 24,000 | 33,000 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 9/9/2014 | FCPP-19-090914 | 2.2 | -- | 440 | -- | 2,900 | <2.0 | -- | -- | 27,000 | 39,000 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 12/8/2014 | FCPP-MW19-12914 | 1.8 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 3/18/2015 | FCPP-19-031815 | 1.9 | -- | 440 | -- | 1,800 | <2.0 | -- | -- | 24,000 | 35,000 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 6/30/2015 | MW-19 | 1.8 | -- | 400 | -- | 1,900 | <4.0 | -- | 7.13 | 23,000 | 36,000 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 8/25/2015 | FCPP-19-082515 | 1.9 | -- | 430 | -- | 2,600 | <2.0 | -- | 7.0 | 25,000 | 38,000 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/3/2015 | FC MW-19-(031115) | 1.8 | -- | 480 | -- | 2,200 | <2.0 | -- | 7.08 | 24,000 | 18,000 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 6/17/2016 | FC-Seep-MW19-616 | 2.1 | -- | 450 | -- | 2,400 | <0.40 | -- | 7.3 | 22,000 | 37,000 |
| MW-19 | Closed Ash Pond 6 | Supplementary | 6/21/2020 | FC-CCR-MW19-0620 | -- | -- | -- | -- | -- | -- | 6.69 | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/7/2020 | FC-CCR-MW19-1120 | 1.9 | -- | -- | -- | -- | -- | 6.84 | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 4/25/2021 | FC-CCR-MW19-0421 | 2.0 | -- | -- | -- | -- | -- | 7.50 | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 4/25/2021 | FC-CCR-FD05-0421 | 2.0 | -- | -- | -- | -- | -- | 7.50 | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/14/2021 | FC-CCR-MW19 | 2.1 | -- | -- | -- | -- | -- | 6.76 | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-MW19-0522 | 1.9 | -- | -- | -- | -- | -- | 6.78 | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/11/2022 | FC-CCR-MW19-1122 | 1.9 | -- | -- | -- | -- | -- | 6.84 | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/11/2022 | *DUP* FC-CCR-FD05-1122 | 1.9 | -- | -- | -- | -- | -- | 6.84 | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/3/2023 | FC-CCR-MW19-0523 | 2.3 | -- | -- | -- | -- | -- | 6.81 | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/3/2023 | *DUP* FC-CCR-FD05-0523 | 2.5 | -- | -- | -- | -- | -- | 6.81 | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/13/2023 | FC-CCR-MW19-1123 | 2.1 | -- | -- | -- | -- | -- | 6.86 | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/13/2023 | *DUP* FC-CCR-FD05-1123 | 2.1 | -- | -- | -- | -- | -- | 6.86 | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 05/20/2024 | FC-CCR-MW19-0524 | 2.5 | -- | -- | -- | -- | -- | 6.92 | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 05/20/2024 | *DUP* FC-CCR-FD05-0524 | 2.6 | -- | -- | -- | -- | -- | 6.92 | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 10/28/2024 | FC-CCR-MW19-1024 | 2.2 | -- | -- | -- | -- | -- | 6.94 | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 10/28/2024 | FC-CCR-FD07-1024 | 2.57 | -- | -- | -- | -- | -- | 6.94 | -- | -- | -- |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/27/1987 | MW-21_9/27/1987 | -- | 0.99 | -- | 480 | 2,000 | <0.5 | 7.37 | 7.4 | 76,000 | 130,000 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/18/1988 | MW-21-19880918 | 3.0 | -- | 420 | -- | 992 | -- | 7.27 | -- | 33,755 | 58,160 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/20/1988 | MW-21-19881120 | 3.0 | -- | 402 | -- | 1,007 | 0.90 | 7.14 | -- | 39,264 | 66,155 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 3/6/1989 | MW-21-19890306 | 2.0 | -- | 399 | -- | 2,142 | 0.80 | 7.20 | -- | 50,033 | 76,561 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/12/1989 | MW-21-19890912 | 3.0 | -- | 440 | -- | 1,151 | 0.60 | 7.21 | -- | 32,940 | 53,450 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 3/22/1990 | MW-21-19900322 | 2.0 | -- | 500 | -- | 1,918 | 0.80 | 7.00 | -- | 61,686 | 96,620 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/18/1990 | MW-21-19900918 | 2.0 | -- | 500 | -- | 1,847 | 0.20 | 7.13 | -- | 54,660 | 84,090 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 3/20/1991 | MW-21-19910320 | 1.0 | -- | 640 | -- | 2,914 | 0.20 | 7.24 | -- | 65,480 | 102,930 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/24/1991 | MW-21-19910924 | 1.0 | -- | 500 | -- | 2,018 | 0.20 | 7.27 | -- | 58,620 | 87,230 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 5/1/1992 | MW-21-19920501 | 2.0 | -- | 400 | -- | 2,292 | 0.20 | 7.21 | -- | 67,080 | 101,350 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/2/1992 | MW-21-19921102 | 1.0 | -- | 400 | -- | 2,696 | 0.20 | 7.23 | -- | 67,700 | 104,070 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 4/21/1993 | MW-21-19930421 | 1.0 | -- | 500 | -- | 3,022 | 0.20 | 7.16 | -- | 48,280 | 104,360 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 12/1/1993 | MW-21-19931201 | 1.0 | -- | 500 | -- | 2,222 | 0.20 | 7.06 | -- | 58,790 | 93,480 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 4/27/1994 | MW-21-19940427 | 2.0 | -- | 400 | -- | 2,393 | 0.20 | 7.14 | -- | 63,230 | 96,380 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/19/1994 | MW-21-19940919 | 1.0 | -- | 400 | -- | 2,316 | 0.20 | 7.02 | -- | 62,880 | 97,530 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 12/14/1994 | MW-21-19941214 | -- | -- | 230 | -- | -- | -- | 6.85 | -- | -- | -- |
| MW-21 | Closed Ash Pond 6 | Supplementary | 4/5/1995 | MW-21-19950405 | 2.0 | -- | 400 | -- | 1,663 | 0.10 | 6.90 | -- | 45,380 | 71,370 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 12/12/1995 | MW-21-19951212 | 2.7 | -- | 400 | -- | 1,752 | 0.10 | 6.97 | -- | 47,460 | 71,300 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 8/15/1996 | MW-21-19960815 | 2.49 | -- | 400 | -- | 1,765 | 0.10 | 6.98 | -- | 46,169 | 73,760 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 6/23/1997 | MW-21-19970623 | 11 | -- | 400 | -- | 1,235 | 0.10 | 6.85 | -- | 41,615 | 53,930 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 10/14/1997 | MW-21-19971014 | <0.05 | -- | 400 | -- | 1,217 | 0.20 | 6.91 | -- | 31,146 | 52,640 |

# Table G-13
## Groundwater Sampling Results for the Additional Monitoring Wells - Appendix III Constituents

| | | | | | Appendix III Constituents | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| Well ID | CCR Unit | Well Designation | Sample Date | Sample ID | | | | | | | | | | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 4/13/1998 | MW-21-19980413 | -- | -- | 500 | -- | 1,328 | 0.10 | 6.65 | -- | 35,131 | 63,190 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 5/10/1999 | MW-21-19990510 | 7.4 | -- | 40 | -- | 1,669 | 0.20 | 7.13 | -- | 48,635 | 77,990 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 12/6/1999 | MW-21-19991206 | 7.0 | -- | 150 | -- | 1,737 | 0.10 | 6.81 | -- | 49,104 | 75,480 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 5/24/2000 | MW-21-20000524 | 7.17 | -- | 467 | -- | 2,499 | 0.20 | 6.79 | -- | 47,049 | 73,200 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/13/2000 | MW-21-20001113 | 8.84 | -- | 110 | -- | 831 | 0.1919 | 7.03 | -- | 28,681 | 82,430 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 8/20/2001 | MW-21-20010820 | 16.6 | -- | 162 | -- | 756.5 | 0.24 | 7.00 | -- | 18,654 | 46,920 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 12/4/2001 | MW-21-20011204 | 15.6 | -- | 120 | -- | 1,215 | 0.20 | 6.62 | -- | 31,761 | 50,600 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 6/12/2002 | MW-21-20020612 | 12.6 | -- | 130 | -- | 1,350 | 0.30 | 7.00 | -- | 35,750 | 56,570 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 12/17/2002 | MW-21-20021217 | 9.55 | -- | 160 | -- | 1,559 | 0.20 | 7.04 | -- | 39,708 | 64,480 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 6/2/2003 | MW-21-20030602 | -- | -- | 210 | -- | 6,733 | 0.30 | 6.88 | -- | 39,722 | 68,000 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 6/3/2003 | MW-21-20030603 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/23/2003 | MW-21-20030923 | 8.19 | -- | 150 | -- | 1,407 | 0.37 | 6.33 | -- | 38,682 | 66,970 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 6/14/2004 | MW-21-20040614 | -- | -- | 160 | -- | 2,278 | 0.20 | 6.98 | -- | 52,477 | 74,110 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/8/2004 | MW-21-20041108 | 8.7 | -- | 533 | -- | 2,120 | 0.20 | 6.69 | -- | 51,000 | 74,500 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 5/11/2005 | MW-21-20050511 | 7.51 | -- | 280 | -- | 1,948 | 0.30 | 6.93 | -- | 45,323 | 69,780 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 10/31/2005 | MW-21-20051031 | 7.81 | -- | 480 | -- | 1,951 | 0.20 | 6.73 | -- | 43,537 | 70,840 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 5/15/2006 | MW-21-20060515 | 7.06 | -- | 484 | -- | 1,920 | <0.5 | 6.96 | -- | 43,400 | 74,500 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 10/11/2006 | MW-21-20061011 | 7.15 | -- | 496 | -- | 2,090 | <5000 | 7.00 | -- | 50,800 | 71,300 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 4/17/2007 | MW-21-20070417 | 7.54 | -- | 477 | -- | 2,450 | <0.2 | 6.94 | -- | 52,600 | 74,200 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/20/2007 | MW-21-20071120 | 4.55 | -- | 314 | -- | 2,260 | 0.30 | 6.97 | -- | 58,000 | 77,000 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 4/30/2008 | MW-21-20080430 | 4.4 | -- | 325 | -- | 2,140 | 0.20 | 6.99 | -- | 53,700 | 74,100 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 12/4/2009 | MW-21-20091204 | 17.2 | -- | 355 | -- | 1,580 | 0.20 | 6.89 | -- | 31,000 | 52,000 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 12/29/2009 | MW-21-20091229 | 10.7 | -- | 480 | -- | 1,920 | 0.30 | 7.15 | -- | 31,000 | 66,200 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/29/2012 | MW21-092912-01 | 35 | -- | 310 | -- | 1,300 | <8.0 | -- | -- | 18,000 | 28,000 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/20/2013 | FC-21-112013 | 4.1 | -- | 550 | -- | 5,500 | <8.0 | -- | -- | 83,000 | 83,000 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 3/11/2014 | FC-21-031114 | 6.1 | -- | 430 | -- | 2,600 | <4.0 | -- | -- | 49,000 | 68,000 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/9/2014 | FCPP-21-090914 | 26 | -- | 430 | -- | 1,200 | <2.0 | -- | -- | 27,000 | 36,000 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 12/9/2014 | FCPP-MW21-12914 | 7.4 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-21 | Closed Ash Pond 6 | Supplementary | 3/18/2015 | FCPP-21-031815 | 7.6 | -- | 460 | -- | 2,200 | <2.0 | -- | -- | 45,000 | 68,000 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 6/24/2015 | MW-21 | 7.6 | -- | 450 | -- | 2,500 | <8.0 | -- | 6.98 | 46,000 | 68,000 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 8/28/2015 | FCPP-21-082815 | 25 | -- | 410 | -- | 1,200 | <2.0 | -- | 6.92 | 23,000 | 36,000 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/4/2015 | FC MW-21-(041115) | 6.3 | -- | 320 | -- | -- | -- | -- | 6.97 | -- | -- |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/13/2015 | FC MW-21-(131115) | 2.9 | -- | 130 | -- | 2,000 | <4.0 | -- | 7.04 | 43,000 | 65,000 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/13/2015 | *DUP* FC FD-5-(131115) | 3.0 | -- | 290 | -- | 2,000 | <4.0 | -- | 7.06 | 44,000 | 65,000 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/15/2016 | FC-Seep-MW21-916 | 6.0 | -- | 350 | -- | 4,500 | <0.40 | -- | 6.9 | 40,000 | 61,000 |
| MW-21 | Closed Ash Pond 6 | Supplementary | 6/21/2020 | FC-CCR-MW21-0620 | -- | -- | -- | -- | -- | -- | 6.68 | -- | -- | -- |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/8/2020 | FC-CCR-MW21-1120 | 4.6 | -- | -- | -- | -- | -- | 6.84 | -- | -- | -- |
| MW-21 | Closed Ash Pond 6 | Supplementary | 4/24/2021 | FC-CCR-MW21-0421 | 4.5 | -- | -- | -- | -- | -- | 7.40 | -- | -- | -- |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/13/2021 | FC-CCR-MW21 | 4.8 | -- | -- | -- | -- | -- | 6.70 | -- | -- | -- |
| MW-21 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-MW21-0522 | 4.3 J | -- | -- | -- | -- | -- | 6.79 | -- | -- | -- |
| MW-21 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | *DUP* FC-CCR-FD06-0522 | 0.90 J | -- | -- | -- | -- | -- | 6.79 | -- | -- | -- |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/10/2022 | FC-CCR-MW21-1122 | 4.4 | -- | -- | -- | -- | -- | 6.82 | -- | -- | -- |
| MW-21 | Closed Ash Pond 6 | Supplementary | 5/2/2023 | FC-CCR-MW21-0523 | 5.2 | -- | -- | -- | -- | -- | 6.78 | -- | -- | -- |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/09/2023 | FC-CCR-MW-21-1123 | 6.2 | -- | -- | -- | -- | -- | 6.78 | -- | -- | -- |
| MW-21 | Closed Ash Pond 6 | Supplementary | 05/16/2024 | FC-CCR-MW21-0524 | 7.5 | -- | -- | -- | -- | -- | 6.77 | -- | -- | -- |
| MW-21 | Closed Ash Pond 6 | Supplementary | 10/28/2024 | FC-CCR-MW21-1024 | 4.75 | -- | -- | -- | -- | -- | 6.90 | -- | -- | -- |
| MW-30 | Closed Ash Pond 6 | Supplementary | 11/20/2013 | FC-30-112013 | 47 | -- | 480 | -- | 770 | <4.0 | -- | -- | 9,400 | 16,000 |
| MW-30 | Closed Ash Pond 6 | Supplementary | 3/11/2014 | FC-30-031114 | 33 | -- | 450 | -- | 790 | <0.80 | -- | -- | 9,800 | 17,000 |
| MW-30 | Closed Ash Pond 6 | Supplementary | 9/8/2014 | FCPP-30-090814 | 36 | -- | 470 | -- | 940 | <0.80 | -- | -- | 12,000 | 18,000 |
| MW-30 | Closed Ash Pond 6 | Supplementary | 12/9/2014 | FCPP-MW30-12914 | 42 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-30 | Closed Ash Pond 6 | Supplementary | 3/16/2015 | FCPP-30-031615 | 43 | -- | 430 | -- | 740 | <0.80 | -- | -- | 9,800 | 15,000 |
| MW-30 | Closed Ash Pond 6 | Supplementary | 6/24/2015 | MW-30 | 38 | -- | 390 | -- | 800 | <0.40 | -- | 7.15 | 9,600 | 16,000 |
| MW-30 | Closed Ash Pond 6 | Supplementary | 8/28/2015 | FCPP-30-082815 | 41 | -- | 410 | -- | 780 | <2.0 | -- | 7.17 | 9,400 | 15,000 |
| MW-30 | Closed Ash Pond 6 | Supplementary | 11/4/2015 | FC MW-30-(041115) | 23 | -- | 490 | -- | 1,300 | <2.0 | -- | 7.04 | 14,000 | 23,000 |
| MW-30 | Closed Ash Pond 6 | Supplementary | 6/21/2016 | FC-SEEPS-MW-30-062116 | 37 | -- | 430 | -- | 900 | 0.51 | -- | 7.33 | 9,300 | 16,000 |
| MW-30 | Closed Ash Pond 6 | Supplementary | 4/25/2021 | FC-CCR-MW30-0421 | 28 | -- | -- | -- | -- | -- | 7.48 | -- | -- | -- |
| MW-30 | Closed Ash Pond 6 | Supplementary | 11/13/2021 | FC-CCR-MW30 | 23 | -- | -- | -- | -- | -- | 6.52 | -- | -- | -- |
| MW-30 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-MW30-0522 | 25 | -- | -- | -- | -- | -- | 6.62 | -- | -- | -- |
| MW-30 | Closed Ash Pond 6 | Supplementary | 11/10/2022 | FC-CCR-MW30-1122 | 22 | -- | -- | -- | -- | -- | 6.64 | -- | -- | -- |
| MW-30 | Closed Ash Pond 6 | Supplementary | 11/10/2022 | *DUP* FC-CCR-FD06-1122 | 22 | -- | -- | -- | -- | -- | 6.64 | -- | -- | -- |
| MW-30 | Closed Ash Pond 6 | Supplementary | 5/3/2023 | FC-CCR-MW30-0523 | 26 | -- | -- | -- | -- | -- | 6.62 | -- | -- | -- |
| MW-30 | Closed Ash Pond 6 | Supplementary | 5/3/2023 | *DUP* FC-CCR-FD06-0523 | 24 | -- | -- | -- | -- | -- | 6.62 | -- | -- | -- |
| MW-30 | Closed Ash Pond 6 | Supplementary | 11/10/2023 | FC-CCR-MW30-1123 | 25 J | -- | -- | -- | -- | -- | 6.67 | -- | -- | -- |
| MW-30 | Closed Ash Pond 6 | Supplementary | 11/10/2023 | *DUP* FC-CCR-FD06-1123 | 26 J | -- | -- | -- | -- | -- | 6.67 | -- | -- | -- |
| MW-30 | Closed Ash Pond 6 | Supplementary | 05/17/2024 | FC-CCR-MW30-0524 | 37 | -- | -- | -- | -- | -- | 6.71 | -- | -- | -- |
| MW-30 | Closed Ash Pond 6 | Supplementary | 05/17/2024 | *DUP* FC-CCR-FD06-0524 | 32 | -- | -- | -- | -- | -- | 6.71 | -- | -- | -- |
| MW-30 | Closed Ash Pond 6 | Supplementary | 10/26/2024 | RC-CCR-MW30-1024 | 56.4 | -- | -- | -- | -- | -- | 6.68 | -- | -- | -- |
| MW-30 | Closed Ash Pond 6 | Supplementary | 10/26/2024 | RC-CCR-FD04-1024 | 47.6 | -- | -- | -- | -- | -- | 6.68 | -- | -- | -- |
| MW-77S | Closed Ash Pond 6 | Supplementary | 6/22/2019 | FC-NIT-MW77S-62219 | 9.6 | -- | 440 | -- | 2,100 | 1.1 | -- | -- | 13,000 | 23,000 |
| MW-77S | Closed Ash Pond 6 | Supplementary | 4/24/2021 | FC-CCR-MW77S-0421 | 11 | -- | -- | -- | -- | -- | 7.72 | -- | -- | -- |
| MW-77S | Closed Ash Pond 6 | Supplementary | 11/13/2021 | FC-CCR-MW77S | 11 | -- | -- | -- | -- | -- | 6.83 | -- | -- | -- |
| MW-77S | Closed Ash Pond 6 | Supplementary | 11/13/2021 | FC-CCR-FD07 | 12 | -- | -- | -- | -- | -- | 6.83 | -- | -- | -- |
| MW-77S | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-MW77S-0522 | 9.9 | -- | -- | -- | -- | -- | 6.93 | -- | -- | -- |
| MW-77S | Closed Ash Pond 6 | Supplementary | 5/23/2022 | *DUP* FC-CCR-FD07-0522 | 9.9 | -- | -- | -- | -- | -- | 6.93 | -- | -- | -- |
| MW-77S | Closed Ash Pond 6 | Supplementary | 11/10/2022 | FC-CCR-MW77S-1122 | 9.7 | -- | -- | -- | -- | -- | 6.97 | -- | -- | -- |
| MW-77S | Closed Ash Pond 6 | Supplementary | 5/3/2023 | FC-CCR-MW77S-0523 | 11 | -- | -- | -- | -- | -- | 6.90 | -- | -- | -- |
| MW-77S | Closed Ash Pond 6 | Supplementary | 11/10/2023 | FC-CCR-MW77S-1123 | 10 | -- | -- | -- | -- | -- | 6.96 | -- | -- | -- |
| MW-77S | Closed Ash Pond 6 | Supplementary | 05/17/2024 | FC-CCR-MW77S-0524 | 12 | -- | -- | -- | -- | -- | 7.01 | -- | -- | -- |
| MW-77S | Closed Ash Pond 6 | Supplementary | 10/26/2024 | -- | -- | -- | -- | -- | -- | -- | 7.00 | -- | -- | -- |
| MW-78S | Closed Ash Pond 6 | Supplementary | 6/21/2020 | FC-CCR-MW78S-0620 | -- | -- | -- | -- | -- | -- | 6.67 | -- | -- | -- |

# Table G-13
## Groundwater Sampling Results for the Additional Monitoring Wells - Appendix III Constituents

| | | | | | Appendix III Constituents | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| Well ID | CCR Unit | Well Designation | Sample Date | Sample ID | | | | | | | | | | |
| MW-78S | Closed Ash Pond 6 | Supplementary | 4/24/2021 | FC-CCR-MW78S-0421 | 1.5 | -- | -- | -- | -- | -- | 7.34 | -- | -- | -- |
| MW-78S | Closed Ash Pond 6 | Supplementary | 11/14/2021 | FC-CCR-MW78S | 1.6 | -- | -- | -- | -- | -- | 6.65 | -- | -- | -- |
| MW-78S | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-MW78S-0522 | 1.4 | -- | -- | -- | -- | -- | 6.67 | -- | -- | -- |
| MW-78S | Closed Ash Pond 6 | Supplementary | 11/10/2022 | FC-CCR-MW78S-1122 | 1.5 | -- | -- | -- | -- | -- | 6.74 | -- | -- | -- |
| MW-78S | Closed Ash Pond 6 | Supplementary | 5/3/2023 | FC-CCR-MW78S-0523 | 1.6 | -- | -- | -- | -- | -- | 6.69 | -- | -- | -- |
| MW-78S | Closed Ash Pond 6 | Supplementary | 11/10/2023 | FC-CCR-MW78S-1123 | 1.6 | -- | -- | -- | -- | -- | 6.76 | -- | -- | -- |
| MW-78S | Closed Ash Pond 6 | Supplementary | 05/17/2024 | FC-CCR-MW78S-0524 | <2.5 | -- | -- | -- | -- | -- | 6.80 | -- | -- | -- |
| MW-78S | Closed Ash Pond 6 | Supplementary | 12/12/2024 | FC-CCR-MW78S-1224 | 1.42 | -- | -- | -- | -- | -- | 6.80 | -- | -- | -- |
| MW-79S | Closed Ash Pond 6 | Supplementary | 6/22/2019 | *DUP* FC-NIT-FD01-62219 | 37 | -- | 420 | -- | 850 | <0.80 | -- | -- | 8,500 | 15,000 |
| MW-79S | Closed Ash Pond 6 | Supplementary | 6/22/2019 | FC-NIT-MW79S-62219 | 38 | -- | 440 | -- | 850 | <0.80 | -- | -- | 8,500 | 15,000 |
| MW-79S | Closed Ash Pond 6 | Supplementary | 4/24/2021 | FC-CCR-MW79S-0421 | 17 | -- | -- | -- | -- | -- | 7.51 | -- | -- | -- |
| MW-79S | Closed Ash Pond 6 | Supplementary | 11/14/2021 | FC-CCR-MW79S | 16 | -- | -- | -- | -- | -- | 6.80 | -- | -- | -- |
| MW-79S | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-MW79S-0522 | 13 | -- | -- | -- | -- | -- | 6.78 | -- | -- | -- |
| MW-79S | Closed Ash Pond 6 | Supplementary | 11/10/2022 | FC-CCR-MW79S-1122 | 11 | -- | -- | -- | -- | -- | 6.76 | -- | -- | -- |
| MW-79S | Closed Ash Pond 6 | Supplementary | 5/3/2023 | FC-CCR-MW79S-0523 | 8.7 | -- | -- | -- | -- | -- | 6.69 | -- | -- | -- |
| MW-79S | Closed Ash Pond 6 | Supplementary | 11/10/2023 | FC-CCR-MW79S-1123 | 8.3 | -- | -- | -- | -- | -- | 6.75 | -- | -- | -- |
| MW-79S | Closed Ash Pond 6 | Supplementary | 05/17/2024 | FC-CCR-MW79S-0524 | 9.1 | -- | -- | -- | -- | -- | 6.78 | -- | -- | -- |
| MW-79S | Closed Ash Pond 6 | Supplementary | 12/12/2024 | FC-CCR-MW79S-1224 | 4.62 | -- | -- | -- | -- | -- | 6.60 | -- | -- | -- |
| MW-81 | Closed Ash Pond 6 | Supplementary | 6/22/2019 | FC-NIT-MW81-62219 | 21 | -- | 410 | -- | 780 | <0.80 | -- | -- | 8,500 | 15,000 |
| MW-81 | Closed Ash Pond 6 | Supplementary | 6/21/2020 | FC-CCR-MW81-0620 | -- | -- | -- | -- | -- | -- | 6.73 | -- | -- | -- |
| MW-81 | Closed Ash Pond 6 | Supplementary | 11/8/2020 | FC-CCR-MW81-1120 | 38 | -- | -- | -- | -- | -- | 6.92 | -- | -- | -- |
| MW-81 | Closed Ash Pond 6 | Supplementary | 4/24/2021 | FC-CCR-MW81-0421 | 38 | -- | -- | -- | -- | -- | 7.52 | -- | -- | -- |
| MW-81 | Closed Ash Pond 6 | Supplementary | 4/24/2021 | FC-CCR-FD061-0421 | 40 | -- | -- | -- | -- | -- | 7.52 | -- | -- | -- |
| MW-81 | Closed Ash Pond 6 | Supplementary | 11/14/2021 | FC-CCR-MW81 | 45 | -- | -- | -- | -- | -- | 6.74 | -- | -- | -- |
| MW-81 | Closed Ash Pond 6 | Supplementary | 11/14/2021 | FC-CCR-FD05 | 43 | -- | -- | -- | -- | -- | 6.74 | -- | -- | -- |
| MW-81 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-MW81-0522 | 42 | -- | -- | -- | -- | -- | 6.76 | -- | -- | -- |
| MW-81 | Closed Ash Pond 6 | Supplementary | 11/10/2022 | FC-CCR-MW81-1122 | 43 | -- | -- | -- | -- | -- | 6.84 | -- | -- | -- |
| MW-81 | Closed Ash Pond 6 | Supplementary | 11/10/2022 | *DUP* FC-CCR-FD07-1122 | 42 | -- | -- | -- | -- | -- | 6.84 | -- | -- | -- |
| MW-81 | Closed Ash Pond 6 | Supplementary | 5/3/2023 | FC-CCR-MW81-0523 | 49 | -- | -- | -- | -- | -- | 6.78 | -- | -- | -- |
| MW-81 | Closed Ash Pond 6 | Supplementary | 5/3/2023 | *DUP* FC-CCR-FD07-0523 | 49 | -- | -- | -- | -- | -- | 6.78 | -- | -- | -- |
| MW-81 | Closed Ash Pond 6 | Supplementary | 11/10/2023 | FC-CCR-MW81-1123 | 50 J | -- | -- | -- | -- | -- | 6.88 | -- | -- | -- |
| MW-81 | Closed Ash Pond 6 | Supplementary | 11/10/2023 | *DUP* FC-CCR-FD07-1123 | 47 J | -- | -- | -- | -- | -- | 6.88 | -- | -- | -- |
| MW-81 | Closed Ash Pond 6 | Supplementary | 05/17/2024 | FC-CCR-MW81-0524 | 61 | -- | -- | -- | -- | -- | 6.89 | -- | -- | -- |
| MW-81 | Closed Ash Pond 6 | Supplementary | 05/17/2024 | *DUP* FC-CCR-FD07-0524 | 56 | -- | -- | -- | -- | -- | 6.89 | -- | -- | -- |
| MW-81 | Closed Ash Pond 6 | Supplementary | 12/12/2024 | FC-CCR-MW81-1224 | 44.4 | -- | -- | -- | -- | -- | 6.76 | -- | -- | -- |
| MW-81 | Closed Ash Pond 6 | Supplementary | 12/12/2024 | FC-CCR-FD05-1224 | 42.7 | -- | -- | -- | -- | -- | 6.76 | -- | -- | -- |
| MW-11 | DFADA | Supplementary | 11/18/2021 | FC-CCR-MW11-1121 | 0.50 | | 510 | | 5,600 | 2.9 | 6.56 | 7.1 J | 140,000 | 79,000 |
| MW-11 | DFADA | Supplementary | 5/26/2022 | FC-CCR-MW11-0522 | <1 | -- | 560 | -- | 7,900 | <0.8 | 6.64 | 7.12 J | 62,000 | 85,000 |
| MW-11 | DFADA | Supplementary | 11/16/2022 | FC-CCR-MW11-1122 | 0.52 | -- | 510 | -- | 3,300 | <40 | 6.60 | 6.9 J | 69,000 | 96,000 |
| MW-11 | DFADA | Supplementary | 5/5/2023 | FC-CCR-MW11-0523 | <2.5 | -- | 400 | -- | 3,000 | <80 | 6.56 | 6.8 J | 60,000 | 100,000 |
| MW-11 | DFADA | Supplementary | 11/15/2023 | FC-CCR-MW11-1123 | <0.5 | -- | 530 | -- | 5,500 | <0.8 | 6.57 | 7.0 J | 7,900 | 76,000 |
| MW-11 | DFADA | Supplementary | 05/23/2024 | FC-CCR-MW11-0524 | 0.54 | -- | 530 | -- | 5,000 | <0.4 | 6.63 | 7.0 J | 3,000 | 87,000 |
| MW-11 | DFADA | Supplementary | 11/14/2024 | FC-CCR-MW11-1124 | <0.75 | -- | 403 | -- | 2,920 | <0.38 | 6.70 | 7.29 J | 60,000 | 90,800 |
| EW-11R | Extraction Monitoring | -- | 11/16/2023 | FC-CCR-EW11R-1123 | 29 | -- | -- | -- | 600 | <0.8 | 6.76 | -- | 5,200 | 8,200 J |
| EW-11R | Extraction Monitoring | -- | 05/17/2024 | FC-CCR-EW11R-0524 | 34 | -- | 560 | -- | 530 | 0.78 | 6.69 | 7.3 J | 4,700 | 8,800 |
| EW-11R | Extraction Monitoring | -- | 10/26/2024 | FC-CCR-EW11R-1024 | 28.6 | -- | 388 | -- | 541 | <0.761 | 6.64 | 7.03 J | 4,900 | 8,570 |
| EW-12R | Extraction Monitoring | -- | 11/16/2023 | FC-CCR-EW12R-1123 | 49 | -- | -- | -- | 860 | <0.8 | 7.33 | -- | 7,100 | 12000 J |
| EW-12R | Extraction Monitoring | -- | 05/17/2024 | FC-CCR-EW12R-0524 | 56 | -- | 600 | -- | 870 | 1.1 | 7.35 | 7.4 J | 6,900 | 13,000 |
| EW-12R | Extraction Monitoring | -- | 10/28/2024 | FC-CCR-EW12R-1024 | 42.8 | -- | 366 | -- | 839 | 0.80 | 7.32 | 7.32 J | 6,980 | 10,000 |
| EW-17 | Extraction Monitoring | -- | 5/8/2023 | FC-CCR-EW17-0523 | 45 | -- | -- | -- | 740 | -- | 7.24 | -- | -- | 12,000 |
| EW-17 | Extraction Monitoring | -- | 11/15/2023 | FC-CCR-EW17-1123 | 36 | -- | -- | -- | 970 | <0.8 | 6.87 | -- | 9,400 | 16,000 |
| EW-17 | Extraction Monitoring | -- | 05/17/2024 | FC-CCR-EW17-0524 | 45 | -- | 570 | -- | -- | -- | 7.02 | 7.2 J | -- | 11,000 |
| EW-17 | Extraction Monitoring | -- | 11/14/2024 | -- | -- | -- | -- | -- | -- | -- | 7.63 | -- | -- | -- |
| IP-03 | SIT | Supplementary | 6/29/2015 | IP-3 | 3.8 | -- | 380 | -- | 1,000 | <4.0 | -- | 7.5 | 13,000 | 21,000 |
| IP-05 | SIT | Supplementary | 6/29/2015 | IP-5 | 0.59 | -- | 360 | -- | 1,700 | <4.0 | -- | 7.23 | 19,000 | 24,000 |
| MW-82S | Other Disposal Areas | Supplementary | 6/22/2019 | FC-NIT-MW82S-62219 | 55 | -- | 440 | -- | 620 | <0.80 | -- | -- | 5,600 | 10,000 |
| MW-82S | Other Disposal Areas | Supplementary | 6/21/2020 | FC-CCR-MW82S-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-82S | Other Disposal Areas | Supplementary | 11/8/2020 | FC-CCR-MW82S-1120 | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-82S | Other Disposal Areas | Supplementary | 11/14/2021 | FC-CCR-MW82S | 55 | -- | 420 | -- | 730 | 0.35 J | 6.44 | 7.3 J | 7,700 | 11,000 |
| MW-82S | Other Disposal Areas | Supplementary | 5/23/2022 | FC-CCR-MW82S-0522 | 52 | -- | 430 | -- | 620 | <0.8 | 7.10 | 7.40 J | 6,200 | 10,000 |
| MW-82S | Other Disposal Areas | Supplementary | 5/5/2023 | FC-CCR-MW82S-0523 | 65 | -- | 460 | -- | 670 | <40 | 6.95 | 7.2 J | 6,100 | 9,800 |
| MW-82S | Other Disposal Areas | Supplementary | 11/10/2023 | FC-CCR-MW82S-1123 | 68 | -- | 480 | -- | 610 | <0.8 | 7.05 | 7.3 J | 5,700 | 9,800 |
| MW-82S | Other Disposal Areas | Supplementary | 11/10/2023 | *DUP* FC-CCR-FD02-1123 | 65 | -- | 460 | -- | 620 | <0.8 | 7.05 | 7.2 J | 5,700 | 9,900 |
| MW-82S | Other Disposal Areas | Supplementary | 05/17/2024 | FC-CCR-MW82S-0524 | 62 J | -- | 470 J | -- | 580 | <0.4 | 7.09 | 7.3 J | 5,100 | 9,500 |
| MW-82S | Other Disposal Areas | Supplementary | 05/17/2024 | *DUP* FC-CCR-FD08-0524 | 120 J | -- | 880 J | -- | 540 | 0.56 | 7.09 | 7.4 J | 4,800 | 9,200 |
| MW-82S | Other Disposal Areas | Supplementary | 10/28/2024 | FC-CCR-MW82S-1024 | 60.3 | -- | 395 | -- | 602 | 0.403 J | 7.11 | 7.36 J | 5,520 | 8,970 |
| MW-82S | Other Disposal Areas | Supplementary | 10/28/2024 | FC-CCR-FD08-1024 | 61.3 | -- | 404 | -- | 609 | 0.472 J | 7.11 | 7.38 J | 5,620 | 9,590 |
| Ash Pond | -- | -- | 07/02/2013 | FC-AP-070213 | 270 | -- | -- | 606 | 5,100 | 45.6 | -- | -- | 16,400 | 27,700 |
| Ash Pond | -- | -- | 08/05/2013 | FC-AP-080513 | -- | -- | -- | 671 | 580 | 49.6 | -- | -- | 15,600 | -- |
| Ash Pond | -- | -- | 09/03/2013 | FC-AP-090313 | -- | -- | -- | 637 | 69 | 52.3 | -- | -- | 16,000 | -- |
| Ash Pond | -- | -- | 10/01/2013 | FC-AP-100113 | 356 | -- | -- | 576 | 4,850 | 47.3 | -- | -- | 15,800 | 29,100 |
| Ash Pond | -- | -- | 11/07/2013 | FC-AP-110713 | -- | -- | -- | 632 | 4,850 | 51.3 | -- | -- | 14,600 | -- |
| Ash Pond | -- | -- | 01/07/2015 | FC-AP-010715 | 266 | -- | -- | -- | -- | -- | -- | -- | -- | 26,900 |
| Ash Pond | -- | -- | 04/10/2015 | FC-AP-041015 | 252 | -- | -- | -- | -- | -- | -- | -- | -- | 26,400 |
| Ash Pond | -- | -- | 07/15/2015 | FC-AP-071515 | 250 | -- | -- | 605 | 5,150 | -- | -- | -- | 11,000 | -- |
| Ash Pond | -- | -- | 10/20/2015 | FC-AP-102015 | 250 | -- | -- | 536 | 4,100 | -- | -- | -- | 12,000 | -- |
| Ash Pond | -- | -- | 01/11/2016 | FC-AP-011116 | 231 | -- | -- | -- | -- | -- | -- | -- | -- | 23,500 |
| Ash Pond | -- | -- | 04/25/2016 | FC-AP-042516 | 292 | -- | -- | -- | -- | -- | -- | -- | -- | 25,600 |
| Ash Pond | -- | -- | 5/9/2023 | FC-CCR-APV6-0523 | 46 | -- | 420 | -- | 750 | <2 | -- | 7.3 J | 9,600 | 16,000 |
| Ash Pond | -- | -- | 11/09/2023 | FC-CCR-AshPond6-1123 | 47 | -- | -- | -- | 750 | -- | 7.40 | -- | -- | 16,000 |

# Table G-13
## Groundwater Sampling Results for the Additional Monitoring Wells - Appendix III Constituents

| | | | | | Appendix III Constituents | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| Well ID | CCR Unit | Well Designation | Sample Date | Sample ID | | | | | | | | | | |
| Ash Pond | -- | -- | 05/21/2024 | FC-CCR-AshPond6Vault-0524 | 54 | -- | -- | -- | 610 | -- | 7.27 | -- | -- | 12,000 |
| Ash Pond | -- | -- | 10/30/2024 | FC-CCR-ASHPONDV6-1024 | 40.6 | -- | -- | -- | 673 | -- | -- | -- | -- | 15,400 |
| SUMP-1 | -- | -- | 4/23/2021 | FC-CCR-SUMP1-0421 | 72 | -- | -- | -- | -- | -- | 7.95 | -- | -- | -- |
| SUMP-1 | -- | -- | 11/17/2021 | FC-CCR-SUMP1-1121 | 73 | -- | -- | -- | 510 | -- | 6.06 | -- | -- | 8,000 |
| SUMP-1 | -- | -- | 5/26/2022 | FC-CCR-SUMP1-0522 | 68 | -- | -- | -- | 560 | -- | 6.77 | -- | -- | 8,400 |
| SUMP-1 | -- | -- | 11/15/2022 | FC-CCR-SUMP1-1122 | 72 | -- | -- | -- | 490 | -- | 7.57 | -- | -- | 8,400 J |
| SUMP-1 | -- | -- | 5/5/2023 | FC-CCR-SUMP1-0523 | 79 | -- | -- | -- | 510 | -- | 7.07 | -- | -- | 8,900 |
| SUMP-1 | -- | -- | 11/09/2023 | FC-CCR-SUMP1-1123 | 72 | -- | -- | -- | 510 | -- | 7.62 | -- | -- | 8,300 |
| SUMP-1 | -- | -- | 05/21/2024 | FC-CCR-SUMP1-0524 | 77 | -- | -- | -- | 970 | -- | 7.07 | -- | -- | 8,500 |
| SUMP-1 | -- | -- | 10/30/2024 | FC-CCR-SUMP1-1024 | 68.9 | -- | -- | -- | 499 | -- | -- | -- | -- | 8,380 |
| SUMP-2 | -- | -- | 4/23/2021 | FC-CCR-SUMP2-0421 | 35 | -- | -- | -- | -- | -- | 8.10 | -- | -- | -- |
| SUMP-2 | -- | -- | 11/17/2021 | FC-CCR-SUMP2-1121 | 37 | -- | -- | -- | 530 | -- | 6.69 | -- | -- | 7,100 |
| SUMP-2 | -- | -- | 5/26/2022 | FC-CCR-SUMP2-0522 | 34 | -- | -- | -- | 920 J | -- | 6.99 | -- | -- | 7,600 |
| SUMP-2 | -- | -- | 11/15/2022 | FC-CCR-SUMP2-1122 | 36 | -- | -- | -- | 520 | -- | 8.00 | -- | -- | 7,600 J |
| SUMP-2 | -- | -- | 5/5/2023 | FC-CCR-SUMP2-0523 | 33 | -- | -- | -- | 540 | -- | 7.40 | -- | -- | 7,600 |
| SUMP-2 | -- | -- | 11/09/2023 | FC-CCR-SUMP2-1123 | 38 | -- | -- | -- | 180 | -- | 7.87 | -- | -- | 7,700 |
| SUMP-2 | -- | -- | 05/21/2024 | FC-CCR-SUMP2-0524 | 50 | -- | -- | -- | 970 | -- | 7.11 | -- | -- | 9,600 |
| SUMP-3 | -- | -- | 4/23/2021 | FC-CCR-SUMP3-0421 | 37 | -- | -- | -- | -- | -- | 8.05 | -- | -- | -- |
| SUMP-3 | -- | -- | 11/17/2021 | FC-CCR-SUMP3-1121 | 26 | -- | -- | -- | 960 | -- | 7.01 | -- | -- | 26,000 |
| SUMP-3 | -- | -- | 5/26/2022 | FC-CCR-SUMP3-0522 | 36 | -- | -- | -- | 1,500 | -- | 7.18 | -- | -- | 21,000 |
| SUMP-3 | -- | -- | 11/15/2022 | FC-CCR-SUMP3-1122 | 35 | -- | -- | -- | 680 | -- | 7.33 | -- | -- | 20,000 J |
| SUMP-3 | -- | -- | 5/5/2023 | FC-CCR-SUMP3-0523 | 41 | -- | -- | -- | 700 | -- | 7.13 | -- | -- | 18,000 |
| SUMP-3 | -- | -- | 11/09/2023 | FC-CCR-SUMP3-1123 | 29 | -- | -- | -- | 830 | -- | 7.39 | -- | -- | 23,000 |
| SUMP-3 | -- | -- | 05/21/2024 | FC-CCR-SUMP3-0524 | 43 | -- | -- | -- | 990 | -- | 7.24 | -- | -- | 19,000 |
| SUMP-3 | -- | -- | 10/30/2024 | FC-CCR-SUMP3-1024 | 34.0 | -- | -- | -- | 664 | -- | -- | -- | -- | 18,500 |
| SUMP-7 | -- | -- | 4/23/2021 | FC-CCR-SUMP7-0421 | 56 | -- | -- | -- | -- | -- | 7.80 | -- | -- | -- |
| SUMP-7 | -- | -- | 11/17/2021 | FC-CCR-SUMP7-1121 | 58 | -- | -- | -- | 710 | -- | 6.00 | -- | -- | 9,800 |
| SUMP-7 | -- | -- | 5/26/2022 | FC-CCR-SUMP7-0522 | 57 | -- | -- | -- | 1,300 | -- | 6.98 | -- | -- | 11,000 |
| SUMP-7 | -- | -- | 11/15/2022 | FC-CCR-SUMP7-1122 | 57 | -- | -- | -- | 650 | -- | 7.02 | -- | -- | 9,800 J |
| SUMP-7 | -- | -- | 5/5/2023 | FC-CCR-SUMP7-0523 | 60 | -- | -- | -- | 670 | -- | 7.01 | -- | -- | 10,000 |
| SUMP-7 | -- | -- | 11/09/2023 | FC-CCR-SUMP7-1123 | 59 | -- | -- | -- | 710 | -- | 7.22 | -- | -- | 9,800 |
| SUMP-7 | -- | -- | 05/21/2024 | FC-CCR-SUMP7-0524 | 59 | -- | -- | -- | 920 | -- | 7.17 | -- | -- | 10,000 |
| SUMP-7 | -- | -- | 10/30/2024 | FC-CCR-SUMP7-1024 | 56.2 | -- | -- | -- | 644 | -- | -- | -- | -- | 9,940 |
| SUMP-8 | -- | -- | 4/23/2021 | FC-CCR-SUMP8-0421 | 43 | -- | -- | -- | -- | -- | 7.82 | -- | -- | -- |
| SUMP-8 | -- | -- | 11/17/2021 | FC-CCR-SUMP8-1121 | 46 | -- | -- | -- | 820 | -- | 8.50 | -- | -- | 17,000 |
| SUMP-8 | -- | -- | 11/15/2022 | FC-CCR-SUMP8-1122 | 39 | -- | -- | -- | 750 | -- | 7.12 | -- | -- | 17,000 J |
| SUMP-8 | -- | -- | 5/5/2023 | FC-CCR-SUMP8-0523 | 44 | -- | -- | -- | 770 | -- | 7.23 | -- | -- | 18,000 |
| SUMP-8 | -- | -- | 11/09/2023 | FC-CCR-SUMP8-1123 | 44 | -- | -- | -- | 790 | -- | 7.22 | -- | -- | 17,000 |
| SUMP-8 | -- | -- | 05/21/2024 | FC-CCR-SUMP8-0524 | 46 | -- | -- | -- | 1,100 | -- | 7.50 | -- | -- | 17,000 |
| SUMP-8 | -- | -- | 10/30/2024 | FC-CCR-SUMP8-1024 | 33.2 | -- | -- | -- | 743 | -- | -- | -- | -- | 18,700 |
| SUMP-9 | -- | -- | 4/23/2021 | FC-CCR-SUMP9-0421 | 31 | -- | -- | -- | -- | -- | 7.92 | -- | -- | -- |
| SUMP-9 | -- | -- | 11/17/2021 | FC-CCR-SUMP9-1121 | 31 | -- | -- | -- | 630 | -- | 6.38 | -- | -- | 9,800 |
| SUMP-9 | -- | -- | 5/26/2022 | FC-CCR-SUMP9-0522 | 30 | -- | -- | -- | 890 | -- | 7.10 | -- | -- | 10,000 |
| SUMP-9 | -- | -- | 11/15/2022 | FC-CCR-SUMP9-1122 | 28 | -- | -- | -- | 580 | -- | 7.09 | -- | -- | 10,000 J |
| SUMP-9 | -- | -- | 5/5/2023 | FC-CCR-SUMP9-0523 | 30 | -- | -- | -- | 630 | -- | 7.01 | -- | -- | 10,000 |
| SUMP-9 | -- | -- | 11/09/2023 | FC-CCR-SUMP9-1123 | 26 | -- | -- | -- | 610 | -- | 7.26 | -- | -- | 9,600 |
| SUMP-9 | -- | -- | 05/21/2024 | FC-CCR-SUMP9-0524 | 33 | -- | -- | -- | 530 | -- | 7.33 | -- | -- | 10,000 |
| SUMP-9 | -- | -- | 10/30/2024 | FC-CCR-SUMP9-1024 | 28.4 | -- | -- | -- | 595 | -- | -- | -- | -- | 9,940 |
| SUMP-10 | -- | -- | 4/23/2021 | FC-CCR-SUMP10-0421 | 52 | -- | -- | -- | -- | -- | 7.93 | -- | -- | -- |
| SUMP-10 | -- | -- | 11/17/2021 | FC-CCR-SUMP10-1121 | 55 | -- | -- | -- | 520 | -- | 6.55 | -- | -- | 9,900 |
| SUMP-10 | -- | -- | 5/26/2022 | FC-CCR-SUMP10-0522 | 52 | -- | -- | -- | 900 | -- | 7.13 | -- | -- | 7,700 |
| SUMP-10 | -- | -- | 11/15/2022 | FC-CCR-SUMP10-1122 | 51 | -- | -- | -- | 490 | -- | 7.31 | -- | -- | 7,300 J |
| SUMP-10 | -- | -- | 5/5/2023 | FC-CCR-SUMP10-0523 | 56 | -- | -- | -- | 550 | -- | 7.20 | -- | -- | 7,700 |
| SUMP-10 | -- | -- | 11/09/2023 | FC-CCR-SUMP10-1123 | 48 | -- | -- | -- | 530 | -- | 7.31 | -- | -- | 7,200 |
| SUMP-10 | -- | -- | 05/21/2024 | FC-CCR-SUMP10-0524 | 55 | -- | -- | -- | 440 | -- | 7.54 | -- | -- | 7,700 |
| SUMP-10 | -- | -- | 10/30/2024 | FC-CCR-SUMP10-1024 | 49.8 | -- | -- | -- | 499 | -- | -- | -- | -- | 7,650 |
| SUMP-11 | -- | -- | 4/23/2021 | FC-CCR-SUMP11-0421 | 36 | -- | -- | -- | -- | -- | 8.00 | -- | -- | -- |
| SUMP-11 | -- | -- | 11/17/2021 | FC-CCR-SUMP11-1121 | 53 | -- | -- | -- | 540 | -- | 6.45 | -- | -- | 10,000 |
| SUMP-11 | -- | -- | 5/26/2022 | FC-CCR-SUMP11-0522 | 51 | -- | -- | -- | 950 | -- | 7.00 | -- | -- | 7,800 |
| SUMP-11 | -- | -- | 11/15/2022 | FC-CCR-SUMP11-1122 | 52 | -- | -- | -- | 480 | -- | 7.27 | -- | -- | 7,400 J |
| SUMP-11 | -- | -- | 5/5/2023 | FC-CCR-SUMP11-0523 | 39 | -- | -- | -- | 530 | -- | 7.15 | -- | -- | 8,300 |
| SUMP-11 | -- | -- | 11/09/2023 | FC-CCR-SUMP11-1123 | 41 | -- | -- | -- | 550 | -- | 7.26 | -- | -- | 8,400 |
| SUMP-11 | -- | -- | 05/21/2024 | FC-CCR-SUMP11-0524 | 50 | -- | -- | -- | 460 | -- | 7.42 | -- | -- | 8,000 |
| SUMP-11 | -- | -- | 10/30/2024 | FC-CCR-SUMP11-1024 | 49.4 | -- | -- | -- | 497 | -- | -- | -- | -- | 7,740 |
| SUMP-12 | -- | -- | 4/23/2021 | FC-CCR-SUMP12-0421 | 30 | -- | -- | -- | -- | -- | 7.98 | -- | -- | -- |
| SUMP-12 | -- | -- | 11/17/2021 | FC-CCR-SUMP12-1121 | 54 | -- | -- | -- | 520 | -- | 6.40 | -- | -- | 10,000 |
| SUMP-12 | -- | -- | 5/26/2022 | FC-CCR-SUMP12-0522 | 38 | -- | -- | -- | 900 | -- | 7.10 | -- | -- | 8,900 |
| SUMP-12 | -- | -- | 11/15/2022 | FC-CCR-SUMP12-1122 | 35 | -- | -- | -- | 510 | -- | 7.01 | -- | -- | 8,900 J |
| SUMP-12 | -- | -- | 11/9/2023 | FC-CCR-SUMP12-1123 | 32 | -- | -- | -- | 470 | -- | 7.38 | -- | -- | 7,100 |
| SUMP-12 | -- | -- | 5/5/2023 | FC-CCR-SUMP12-0523 | 34 | -- | -- | -- | 560 | -- | 7.09 | -- | -- | 8,300 |
| SUMP-12 | -- | -- | 05/21/2024 | FC-CCR-SUMP12-0524 | 52 | -- | -- | -- | 440 | -- | 7.27 | -- | -- | 7,600 |
| SUMP-12 | -- | -- | 10/30/2024 | FC-CCR-SUMP12-1024 | 49.5 | -- | -- | -- | 498 | -- | -- | -- | -- | 7,760 |
| SUMP-13 | -- | -- | 4/23/2021 | FC-CCR-SUMP13-0421 | 33 | -- | -- | -- | -- | -- | 7.99 | -- | -- | -- |
| SUMP-13 | -- | -- | 11/17/2021 | FC-CCR-SUMP13-1121 | 37 | -- | -- | -- | 530 | -- | 6.66 | -- | -- | 9,300 |
| SUMP-13 | -- | -- | 5/26/2022 | FC-CCR-SUMP13-0522 | 51 | -- | -- | -- | 710 | -- | 7.21 | -- | -- | 7,100 |
| SUMP-13 | -- | -- | 11/15/2022 | FC-CCR-SUMP13-1122 | 34 | -- | -- | -- | 520 | -- | 7.18 | -- | -- | 8,500 J |
| SUMP-13 | -- | -- | 5/5/2023 | FC-CCR-SUMP13-0523 | 43 | -- | -- | -- | 500 | -- | 7.41 | -- | -- | 7,400 |
| SUMP-13 | -- | -- | 11/9/2023 | FC-CCR-SUMP13-1123 | 40 | -- | -- | -- | 470 | -- | 7.61 | -- | -- | 7,400 |
| SUMP-13 | -- | -- | 05/21/2024 | FC-CCR-SUMP13-0524 | 54 | -- | -- | -- | 450 | -- | 7.45 | -- | -- | 7,600 |
| SUMP-13 | -- | -- | 10/30/2024 | FC-CCR-SUMP13-1024 | 33.2 | -- | -- | -- | 442 | -- | -- | -- | -- | 7,350 |

# Table G-13
## Groundwater Sampling Results for the Additional Monitoring Wells - Appendix III Constituents

| | | | | | Appendix III Constituents | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Boron | Boron | Calcium | Calcium | Chloride | Fluoride | pH (Field Measurement) | pH (Laboratory Measurement) | Sulfate | Total Dissolved Solids |
| | | | | Filtered: | N | Y | N | Y | N | N | N | N | N | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | su | su | mg/L | mg/L |
| Well ID | CCR Unit | Well Designation | Sample Date | Sample ID | | | | | | | | | | |
| SUMP-14 | -- | -- | 4/23/2021 | FC-CCR-SUMP14-0421 | 31 | -- | -- | -- | -- | -- | 8.14 | -- | -- | -- |
| SUMP-14 | -- | -- | 11/17/2021 | FC-CCR-SUMP14-1121 | 31 | -- | -- | -- | 470 | -- | 6.43 | -- | -- | 9,900 |
| SUMP-14 | -- | -- | 5/26/2022 | FC-CCR-SUMP14-0522 | 50 | -- | -- | -- | 710 | -- | 7.05 | -- | -- | 7,800 |
| SUMP-14 | -- | -- | 5/5/2023 | FC-CCR-SUMP14-0523 | 34 | -- | -- | -- | 580 | -- | 7.2 | -- | -- | 8,300 |
| SUMP-14 | -- | -- | 11/9/2023 | FC-CCR-SUMP14-1123 | 39 | -- | -- | -- | 460 | -- | 7.29 | -- | -- | 7,400 |
| SUMP-14 | -- | -- | 05/21/2024 | FC-CCR-SUMP14-0524 | 33 | -- | -- | -- | 390 | -- | 7.47 | -- | -- | 7,300 |
| SUMP-14 | -- | -- | 10/30/2024 | FC-CCR-SUMP14-1024 | 27.7 | -- | -- | -- | 437 | -- | -- | -- | -- | 8,090 |
| SUMP-15 | -- | -- | 4/23/2021 | FC-CCR-SUMP15-0421 | 24 | -- | -- | -- | -- | -- | 8.14 | -- | -- | -- |
| SUMP-15 | -- | -- | 11/17/2021 | FC-CCR-SUMP15-1121 | 5.6 | -- | -- | -- | 1,700 | -- | 6.95 | -- | -- | 38,000 J |
| SUMP-15 | -- | -- | 5/26/2022 | FC-CCR-SUMP15-0522 | 15 | -- | -- | -- | 1,300 | -- | 7.24 | -- | -- | 19,000 |
| SUMP-15 | -- | -- | 11/15/2022 | FC-CCR-SUMP15-1122 | 21 | -- | -- | -- | 610 | -- | 7.39 | -- | -- | 13,000 J |
| SUMP-15 | -- | -- | 5/5/2023 | FC-CCR-SUMP15-0523 | 6.8 | -- | -- | -- | 1,800 | -- | 7.37 | -- | -- | 37,000 J |
| SUMP-15 | -- | -- | 11/9/2023 | FC-CCR-SUMP15-1123 | 5.7 | -- | -- | -- | 1,700 | -- | 7.68 | -- | -- | 38,000 |
| SUMP-15 | -- | -- | 05/21/2024 | FC-CCR-SUMP15-0524 | 19 | -- | -- | -- | 670 | -- | 7.46 | -- | -- | 16,000 |
| SUMP-15 | -- | -- | 10/30/2024 | FC-CCR-SUMP15-1024 | 19.1 | -- | -- | -- | 617 | -- | -- | -- | -- | 11,700 |
| SUMP-16 | -- | -- | 4/23/2021 | FC-CCR-SUMP16-0421 | 23 | -- | -- | -- | -- | -- | 8.19 | -- | -- | -- |
| SUMP-16 | -- | -- | 11/17/2021 | FC-CCR-SUMP16-1121 | 21 | -- | -- | -- | 460 | -- | 6.77 | -- | -- | 8,200 |
| SUMP-16 | -- | -- | 5/26/2022 | FC-CCR-SUMP16-0522 | 13 | -- | -- | -- | 4,000 | -- | 7.29 | -- | -- | 27,000 |
| SUMP-16 | -- | -- | 5/26/2022 | FC-CCR-SS10-0522 | 10.5 | -- | -- | -- | 1,170 J | -- | -- | -- | -- | 20,400 |
| SUMP-16 | -- | -- | 11/15/2022 | FC-CCR-SUMP16-1122 | 10 | -- | -- | -- | 630 | -- | 7.27 | -- | -- | 12,000 J |
| SUMP-16 | -- | -- | 5/5/2023 | FC-CCR-SUMP16-0523 | 21 | -- | -- | -- | 680 | -- | 7.45 | -- | -- | 15,000 |
| SUMP-16 | -- | -- | 11/09/2023 | FC-CCR-SUMP16-1123 | 16 | -- | -- | -- | 820 | -- | 7.63 | -- | -- | 14,000 |
| SUMP-16 | -- | -- | 05/21/2024 | FC-CCR-SUMP16-0524 | 22 | -- | -- | -- | 430 | -- | 7.54 | -- | -- | 7,500 |
| SUMP-16 | -- | -- | 10/30/2024 | FC-CCR-SUMP16-1024 | 11.8 | -- | -- | -- | 1,200 | -- | -- | -- | -- | 27,900 |
| SUMP-17 | -- | -- | 4/23/2021 | FC-CCR-SUMP17-0421 | 18 | -- | -- | -- | -- | -- | 8.07 | -- | -- | -- |
| SUMP-17 | -- | -- | 11/17/2021 | FC-CCR-SUMP17-1121 | 15 | -- | -- | -- | 860 | -- | 6.56 | -- | -- | 15,000 |
| SUMP-17 | -- | -- | 5/26/2022 | FC-CCR-SUMP17-0522 | 5.8 | -- | -- | -- | 3,100 | -- | 7.40 | -- | -- | 30,000 |
| SUMP-17 | -- | -- | 11/15/2022 | FC-CCR-SUMP17-1122 | 5.5 | -- | -- | -- | 1,400 | -- | 7.44 | -- | -- | 34,000 J |
| SUMP-17 | -- | -- | 5/5/2023 | FC-CCR-SUMP17-0523 | 6.6 | -- | -- | -- | 860 | -- | 7.22 | -- | -- | 10,000 |
| SUMP-17 | -- | -- | 11/09/2023 | FC-CCR-SUMP17-1123 | 15 | -- | -- | -- | 730 | -- | 7.37 | -- | -- | 9,400 |
| SUMP-17 | -- | -- | 05/21/2024 | FC-CCR-SUMP17-0524 | 16 | -- | -- | -- | 640 | -- | 7.43 | -- | -- | 8,600 |
| SUMP-17 | -- | -- | 10/30/2024 | FC-CCR-SUMP17-1024 | 13.6 | -- | -- | -- | 831 | -- | -- | -- | -- | 13,700 |
| SUMP-18 | -- | -- | 4/23/2021 | FC-CCR-SUMP18-0421 | 5.3 | -- | -- | -- | -- | -- | 8.25 | -- | -- | -- |
| SUMP-18 | -- | -- | 11/17/2021 | FC-CCR-SUMP18-1121 | 4.6 | -- | -- | -- | 1,700 | -- | 7.07 | -- | -- | 37,000 |
| SUMP-18 | -- | -- | 11/17/2021 | FC-CCR-FD07-1121 | 5.4 | -- | -- | -- | 1,700 | -- | 7.07 | -- | -- | 38,000 |
| SUMP-18 | -- | -- | 5/26/2022 | FC-CCR-SUMP18-0522 | 5.6 | -- | -- | -- | 2,600 | -- | 7.31 | -- | -- | 31,000 |
| SUMP-18 | -- | -- | 11/15/2022 | FC-CCR-SUMP18-1122 | 4.9 | -- | -- | -- | 1,500 | -- | 7.46 | -- | -- | 38,000 J |
| SUMP-18 | -- | -- | 5/5/2023 | FC-CCR-SUMP18-0523 | <0.1 | -- | -- | -- | 2,000 | -- | 7.42 | -- | -- | 41,000 |
| SUMP-18 | -- | -- | 11/09/2023 | FC-CCR-SUMP18-1123 | 4.6 | -- | -- | -- | 1,600 J | -- | 7.71 | -- | -- | 40,000 J |
| SUMP-18 | -- | -- | 05/21/2024 | FC-CCR-SUMP18-0524 | 6.0 | -- | -- | -- | 1,400 | -- | 7.42 | -- | -- | 33,000 |
| SUMP-18 | -- | -- | 10/30/2024 | FC-CCR-SUMP18-1024 | 5.9 | -- | -- | -- | 1,450 | -- | -- | -- | -- | 36,100 |
| POND3PUMPHOUSE | -- | -- | 05/21/2024 | FC-Pond3PumpHouse-0524 | 38 | -- | -- | -- | 510 | -- | 7.67 | -- | -- | 12,000 |
| POND3PUMPHOUSE | -- | -- | 10/30/2024 | FC-CCR-POND3PUMP-1024 | 42.9 | -- | -- | -- | 721 | -- | -- | -- | -- | 16,300 |

*Abbreviations and Data Qualifiers:*

*data appear anomalous

< = less than reporting limit (or the method detection limit for fluoride and beryllium results)

degrees C = degrees Celsius

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

mg/L = milligrams per liter

pCi/L = Picocuries per liter

su = standard units

U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

**Table G-14**
**Groundwater Sampling Results for the Additional Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Constituent: | | | | | Antimony | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Molybdenum | Selenium | Selenium | Thallium | Thallium | Total Radium |
| Filtered: | | | | | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | N | Y | N | N | Y | N | Y | N | Y | N | Y | N |
| Units: | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 4/20/1992 | DMX-1_4/20/1992 | -- | -- | -- | <0.05 | -- | **0.023** | -- | <0.005 | -- | <0.005 | -- | <0.010 | -- | -- | **0.87** | -- | **0.011** | -- | -- | <0.0002 | -- | -- | -- | **0.080** | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 3/18/2015 | FCPP-DMX1-031815 | -- | -- | <0.0050 | -- | -- | -- | -- | -- | -- | -- | <0.013 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- | <0.015 | -- | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 6/24/2015 | DMX-1 | -- | -- | <0.15 | -- | -- | -- | -- | -- | -- | -- | <0.15 | -- | -- | -- | <8.0 | -- | -- | -- | -- | -- | -- | -- | <0.15 | -- | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 8/28/2015 | FCPP-DMX1-082815 | -- | -- | <0.012 | -- | -- | -- | -- | -- | <0.0020 | -- | <0.012 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- | **0.016** | -- | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 11/4/2015 | FC DMX-1-(041115) | <0.0050 | -- | <0.0010 | -- | **0.023** | -- | <0.0010 | -- | <0.00050 | -- | <0.0025 | -- | **0.0031** | -- | <2.0 | <0.00050 | -- | <5.0 | <0.00020 | -- | **0.0068** | -- | **0.007** | -- | <0.00050 | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 6/21/2016 | FC-SEEPS-DMX-1-062116 | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | **0.67** | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 4/25/2021 | FC-CCR-DMX01-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.00089 J** | -- | -- | -- | -- | -- | -- | -- | **0.014** | -- | -- | -- | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 11/14/2021 | FC-CCR-DMX01 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.00073 J** | -- | -- | -- | -- | -- | -- | -- | **0.019** | -- | -- | -- | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 11/14/2021 | FC-CCR-FD06 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.001 J** | -- | -- | -- | -- | -- | -- | -- | **0.021** | -- | -- | -- | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-DMX01-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0020** | -- | -- | -- | -- | -- | -- | -- | **0.012** | -- | -- | -- | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 11/11/2022 | FC-CCR-DMX01-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.00064** | -- | -- | -- | -- | -- | -- | -- | **0.0094** | -- | -- | -- | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 11/11/2022 | *DUP* FC-CCR-FD04-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.00052** | -- | -- | -- | -- | -- | -- | -- | **0.0085** | -- | -- | -- | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 5/3/2023 | FC-CCR-DMX01-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.002 J** | -- | -- | -- | -- | -- | -- | -- | **0.011** | -- | -- | -- | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 5/3/2023 | *DUP* FC-CCR-FD04-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0017** | -- | -- | -- | -- | -- | -- | -- | **0.011** | -- | -- | -- | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 11/10/2023 | FC-CCR-DMX01-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | **0.023** | -- | -- | -- | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 11/10/2023 | *DUP* FC-CCR-FD04-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | **0.022** | -- | -- | -- | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 05/17/2024 | FC-CCR-DMX01-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | **0.022** | -- | -- | -- | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 05/17/2024 | *DUP* FC-CCR-FD04-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | **0.023** | -- | -- | -- | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 10/26/2024 | FC-CCR-DMX01-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | -- | -- | **0.0117** | -- | -- | -- | -- | -- | -- |
| DMX-01 | Closed Ash Pond 6 | Supplementary | 10/26/2024 | FC-CCR-FD06-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | -- | -- | **0.0117** | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/28/1987 | MW-1_9/28/1987 | -- | -- | -- | <0.05 | -- | **0.23** | -- | -- | -- | <0.005 | -- | <0.005 | -- | -- | **0.90** | -- | **0.060** | -- | -- | <0.0001 | -- | -- | -- | <0.05 | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 6/27/1988 | MW-1-9880627 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.90** | -- | -- | -- | <0.01 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/21/1988 | MW-1-19880921 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.90** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/20/1988 | MW-1-19881120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.80** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 3/6/1989 | MW-1-19890306 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.80** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/11/1989 | MW-1-19890911 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.90** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 3/26/1990 | MW-1-19900326 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.80** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/18/1990 | MW-1-19900918 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 3/27/1991 | MW-1-19910327 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/11/1991 | MW-1-19910911 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.60** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/30/1992 | MW-1-19920430 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.60** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 10/27/1992 | MW-1-19921027 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.80** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/21/1993 | MW-1-19930421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.60** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/23/1993 | MW-1-19931123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.70** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/20/1994 | MW-1-19940420 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.70** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 8/11/1994 | MW-1-19940811 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.70** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/6/1995 | MW-1-19950406 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.60** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/19/1995 | MW-1-19951119 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.80** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 8/13/1996 | MW-1-19960813 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.70** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/23/1997 | MW-1-19970423 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.70** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 10/20/1997 | MW-1-19971020 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/6/1998 | MW-1-19980406 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.80** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 10/19/1998 | MW-1-19981019 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.70** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 6/9/1999 | MW-1-19990609 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.70** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 12/6/1999 | MW-1-19991206 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 5/24/2000 | MW-1-20000524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.90** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/14/2000 | MW-1-20001114 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2496** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 8/22/2001 | MW-1-20010822 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 12/5/2001 | MW-1-20011205 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 6/11/2002 | MW-1-20020611 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.7** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 12/17/2002 | MW-1-20021217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 5/28/2003 | MW-1-20030528 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 12/24/2003 | MW-1-20031224 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **7.8** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/21/2004 | MW-1-20040421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.4** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/29/2004 | MW-1-20041129 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.8** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 6/5/2005 | MW-1-20050605 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 12/12/2005 | MW-1-20051212 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 5/17/2006 | MW-1-20060517 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.83** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 10/12/2006 | MW-1-20061012 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.8** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/19/2007 | MW-1-20070419 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.72** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/19/2007 | MW-1-20071119 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **2.0** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 5/8/2008 | MW-1-20080508 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.92** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/27/2012 | MW-1-092712-04 | -- | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | **0.0018** | -- | -- | -- | **2.6** | -- | -- | -- | -- | -- | -- | -- | **0.0016** | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/27/2012 | MW-1-092712-01 | -- | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | **0.0014** | -- | -- | -- | **2.6** | -- | -- | -- | -- | -- | -- | -- | **0.0018** | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/18/2013 | FC-DUP-111813 | -- | -- | **0.00030** | -- | -- | -- | -- | -- | -- | -- | **0.0018** | -- | -- | -- | **3.8** | -- | -- | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/18/2013 | FC-01-111813 | -- | -- | **0.00051** | -- | -- | -- | -- | -- | -- | -- | **0.0019** | -- | -- | -- | **3.6** | -- | -- | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/9/2014 | FCPP-01MS-090914 | -- | -- | **0.00031** | -- | -- | -- | -- | -- | -- | -- | **0.0015** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0010** | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/9/2014 | FCPP-01-090914 | -- | -- | **0.00043** | -- | -- | -- | -- | -- | -- | -- | **0.0016** | -- | -- | -- | **1.5** | -- | -- | -- | -- | -- | -- | -- | **0.00084** | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 3/17/2015 | FCPP-01-031715 | -- | -- | **0.00039** | -- | -- | -- | -- | -- | -- | -- | **0.0016** | -- | -- | -- | **1.8** | -- | -- | -- | -- | -- | -- | -- | **0.00092** | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 6/30/2015 | MW-1 | -- | -- | <0.012 | -- | -- | -- | -- | -- | -- | -- | <0.012 | -- | -- | -- | **2.5** | -- | -- | -- | -- | -- | -- | -- | <0.012 | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 8/27/2015 | FCPP-1-082715 | -- | -- | <0.0030 | -- | -- | -- | -- | -- | **0.0027** | -- | <0.030 | -- | -- | -- | **4.2** | -- | -- | -- | -- | -- | -- | -- | **0.0056** | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 6/17/2016 | FC-Seep-MW1-616 | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | **3.1** | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 9/15/2016 | FC-Seep-MW1-916 | -- | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | **3.7** | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 6/21/2020 | FC-CCR-MW01-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.073** | -- | -- | -- | -- | -- | -- | -- | **0.045** | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 6/21/2020 | *DUP* FC-CCR-FD03-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.073** | -- | -- | -- | -- | -- | -- | -- | **0.041** | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/8/2020 | FC-CCR-MW01-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0015 J** | -- | -- | -- | -- | -- | -- | -- | **0.00051 J** | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/8/2020 | *DUP* FC-CCR-FD03-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.00035 J** | -- | -- | -- | -- | -- | -- | -- | **0.055 J** | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/24/2021 | FC-CCR-MW01-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.066** | -- | -- | -- | -- | -- | -- | -- | **0.031** | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 4/24/2021 | FC-CCR-FD03-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.070** | -- | -- | -- | -- | -- | -- | -- | **0.034** | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/13/2021 | FC-CCR-MW01 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.074** | -- | -- | -- | -- | -- | -- | -- | **0.036** | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-MW01-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.056** | -- | -- | -- | -- | -- | -- | -- | **0.025** | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | *DUP* FC-CCR-FD05-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.057** | -- | -- | -- | -- | -- | -- | -- | **0.025** | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/10/2022 | FC-CCR-MW01-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.047** | -- | -- | -- | -- | -- | -- | -- | **0.024** | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 5/2/2023 | FC-CCR-MW01-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.047** | -- | -- | -- | -- | -- | -- | -- | **0.023** | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 11/09/2023 | FC-CCR-MW01-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.040** | -- | -- | -- | -- | -- | -- | -- | **0.020** | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 05/16/2024 | FC-CCR-MW01-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.043** | -- | -- | -- | -- | -- | -- | -- | **0.023** | -- | -- | -- | -- | -- | -- |
| MW-01 | Closed Ash Pond 6 | Supplementary | 10/25/2024 | FC-CCR-MW01-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/1/1987 | MW-3_4/1/1987 | -- | -- | -- | <0.1 | -- | <0.005 | -- | -- | -- | <0.005 | -- | <0.005 | -- | -- | **0.50** | -- | <0.05 | -- | -- | <0.0001 | -- | -- | -- | **0.64** | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/29/1987 | MW-3_9/29/1987 | -- | -- | -- | <0.05 | -- | **0.59** | -- | -- | -- | <0.005 | -- | <0.005 | -- | -- | <0.5 | -- | **0.090** | -- | -- | <0.0001 | -- | -- | -- | <0.05 | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 6/28/1988 | MW-3-19880628 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/21/1988 | MW-3-19880921 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/20/1988 | MW-3-19881120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.5** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 2/27/1989 | MW-3-19890227 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/13/1989 | MW-3-19890913 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.4** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 3/22/1990 | MW-3-19900322 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 10/30/1990 | MW-3-19901030 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/4/1991 | MW-3-19910404 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table G-14**
**Groundwater Sampling Results for the Additional Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Constituent: | | | | | Antimony | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Molybdenum | Selenium | Selenium | Thallium | Thallium | Total Radium |
| Filtered: | | | | | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | N | Y | N | N | Y | N | Y | N | Y | N | Y | N |
| Units: | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/30/1991 | MW-3-19910930 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 5/7/1992 | MW-3-19920507 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/5/1992 | MW-3-19921105 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/28/1993 | MW-3-19930428 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.26** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/30/1993 | MW-3-19931130 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/21/1994 | MW-3-19940421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/20/1994 | MW-3-19940920 | -- | -- | **0.080** | -- | <0.5 | -- | -- | -- | <0.0005 | -- | <0.02 | -- | -- | -- | **0.30** | <0.1 | -- | -- | -- | -- | <0.01 | -- | **0.51** | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 12/14/1994 | MW-3-19941214 | <0.3 | -- | <0.05 | -- | <1 | -- | <0.025 | -- | <0.025 | -- | <0.05 | -- | <0.25 | -- | -- | <0.015 | -- | -- | <0.0002 | -- | -- | -- | <0.025 | -- | <0.05 | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/6/1995 | MW-3-19950406 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 12/12/1995 | MW-3-19951212 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 8/14/1996 | MW-3-19960814 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/23/1997 | MW-3-19970423 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 10/13/1997 | MW-3-19971013 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/15/1998 | MW-3-19980415 | -- | -- | <0.005 | -- | **0.020** | -- | -- | -- | <0.001 | -- | <0.01 | -- | -- | -- | **0.20** | <0.005 | -- | -- | -- | -- | **0.010** | -- | <0.005 | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/29/1998 | MW-3-19980929 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 5/10/1999 | MW-3-19990510 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 12/8/1999 | MW-3-19991208 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 5/10/2000 | MW-3-20000510 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/27/2000 | MW-3-20001127 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.5938** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 8/20/2001 | MW-3-20010820 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 12/4/2001 | MW-3-20011204 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.50** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 6/12/2002 | MW-3-20020612 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 12/17/2002 | MW-3-20021217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 6/3/2003 | MW-3-20030603 | -- | -- | -- | -- | **0.011** | -- | **0.010** | **0.011** | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | **0.27** | **0.29** | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/24/2003 | MW-3-20030924 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.54** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 6/16/2004 | MW-3-20040616 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/9/2004 | MW-3-20041109 | -- | -- | **0.0031** | -- | **0.0438** | -- | -- | -- | <0.0005 | -- | **0.011** | -- | -- | -- | **0.40** | **0.0051** | -- | -- | -- | -- | **0.01055** | -- | **0.215** | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 5/12/2005 | MW-3-20050512 | -- | -- | **0.014** | -- | **0.038** | -- | <0.005 | -- | <0.001 | -- | **0.010** | -- | **0.0055** | -- | **0.30** | **0.0050** | -- | -- | <0.0002 | -- | -- | -- | **0.23** | -- | **0.0022** | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/1/2005 | MW-3-20051101 | -- | -- | **0.034** | -- | **0.0036** | -- | -- | -- | -- | -- | **0.0050** | -- | **0.0040** | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | **0.21** | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 5/16/2006 | MW-3-20060516 | -- | -- | **0.073** | -- | **0.014** | -- | **0.0010** | -- | <0.006 | -- | <0.004 | -- | **0.0040** | -- | **0.466** | <0.012 | -- | -- | -- | -- | <0.006 | -- | **0.227** | -- | **0.037** | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 10/12/2006 | MW-3-20061012 | -- | -- | **0.026** | -- | **0.015** | -- | <0.003 | -- | <0.002 | -- | <0.002 | -- | <0.008 | -- | **0.359** | <0.009 | -- | -- | -- | -- | <0.012 | -- | **0.185** | -- | <0.025 | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/18/2007 | MW-3-20070418 | -- | -- | **0.128** | -- | **0.020** | -- | <0.003 | -- | <0.002 | -- | <0.002 | -- | **0.0040** | -- | **0.209** | <0.009 | -- | -- | <0.0022 | -- | <0.012 | -- | **0.219** | -- | **0.0090** | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/19/2007 | MW-3-20071119 | -- | -- | **0.0074** | -- | **0.0126** | -- | <0.5 | -- | <0.05 | -- | **0.015** | -- | **0.00193** | -- | **0.40** | <0.1 | -- | -- | -- | -- | **0.0023** | -- | **0.217** | -- | **0.00025** | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 5/7/2008 | MW-3-20080507 | -- | -- | **0.0075** | -- | **0.0155** | -- | <0.0005 | -- | <0.00005 | -- | **0.0050** | -- | **0.00245** | -- | **0.40** | **0.00020** | -- | -- | -- | -- | **0.0017** | -- | **0.166** | -- | **0.00034** | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 12/3/2009 | MW-3-20091203 | -- | -- | **0.0077** | -- | **0.0129** | -- | <0.0005 | -- | **0.00058** | -- | **0.0090** | -- | **0.00138** | -- | **0.40** | <0.0001 | -- | -- | <0.0002 | -- | **0.0017** | -- | **0.219** | -- | **0.00042** | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/28/2012 | MW-3-092812-01 | -- | -- | <0.020 | -- | -- | -- | -- | -- | -- | -- | **0.020** | -- | -- | -- | <8.0 | -- | -- | -- | -- | -- | -- | -- | **0.16** | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/29/2012* | MW-3-092912-03 | -- | -- | <0.00050 | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 3/11/2014 | FC-03-031114 | -- | -- | **0.0016** | -- | -- | -- | -- | -- | -- | -- | **0.021** | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- | **0.084** | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/9/2014 | FCPP-03-090914 | -- | -- | **0.00065** | -- | -- | -- | -- | -- | -- | -- | <0.0010 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- | **0.11** | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 3/18/2015 | FCPP-03-031815 | -- | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- | **0.079** | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/2/2015 | FC-GF-3-0415 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 6/24/2015 | MW-3 | -- | -- | <0.030 | -- | -- | -- | -- | -- | -- | -- | <0.030 | -- | -- | -- | <8.0 | -- | -- | -- | -- | -- | -- | -- | **0.13** | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 8/28/2015 | FCPP-03-082815 | -- | -- | <0.012 | -- | -- | -- | -- | -- | <0.0040 | -- | <0.012 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- | **0.13** | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/4/2015 | FC MW-3-(041115) | -- | -- | <0.0050 | -- | -- | -- | -- | -- | <0.0025 | -- | <0.013 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.077** | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/12/2015 | FC MW-3-(121115) | -- | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | **0.0048** | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- | **0.10** | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 6/20/2016 | FC-Seep-MW3-616 | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | **0.43** | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/15/2016 | FC-Seep-MW3-916 | -- | -- | <0.0020 | -- | -- | -- | -- | -- | -- | -- | <0.0050 | -- | -- | -- | **0.45** | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 9/15/2016 | FC-Seep-MW105-916 | -- | -- | <0.0020 | -- | -- | -- | -- | -- | -- | -- | <0.0050 | -- | -- | -- | **0.44** | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 6/21/2020 | FC-CCR-MW03-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | -- | -- | **0.0037** | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/8/2020 | FC-CCR-MW03-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0031** | -- | -- | -- | -- | -- | -- | -- | **0.003** | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 4/24/2021 | FC-CCR-MW03-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.00054 J** | -- | -- | -- | -- | -- | -- | -- | **0.0022** | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/13/2021 | FC-CCR-MW03 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.00031 J** | -- | -- | -- | -- | -- | -- | -- | **0.0022** | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-MW03-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.00055** | -- | -- | -- | -- | -- | -- | -- | **0.0014** | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-SS08-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.00165 J** | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/10/2022 | FC-CCR-MW03-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.0005 | -- | -- | -- | -- | -- | -- | -- | **0.0023** | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 5/2/2023 | FC-CCR-MW03-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | -- | -- | <0.002 | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 11/09/2023 | FC-CCR-MW03-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0015** | -- | -- | -- | -- | -- | -- | -- | **0.0018** | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 05/16/2024 | FC-CCR-MW03-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- |
| MW-03 | Closed Ash Pond 6 | Supplementary | 10/28/2024 | FC-CCR-MW03-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 9/29/1987 | MW-19_9/29/1987 | -- | -- | -- | <0.05 | -- | **0.60** | -- | -- | -- | <0.005 | -- | <0.005 | -- | -- | <0.5 | -- | **0.11** | -- | -- | <0.0001 | -- | -- | -- | <0.05 | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 6/14/1988 | MW-19-19880614 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 9/18/1988 | MW-19-19880918 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/20/1988 | MW-19-19881120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.1** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 2/28/1989 | MW-19-19890228 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.2** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 9/12/1989 | MW-19-19890912 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.3** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 3/22/1990 | MW-19-19900322 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **1.0** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 10/30/1990 | MW-19-19901030 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 4/3/1991 | MW-19-19910403 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 9/25/1991 | MW-19-19910925 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/7/1992 | MW-19-19920507 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/5/1992 | MW-19-19921105 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 4/27/1993 | MW-19-19930427 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.18** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 12/1/1993 | MW-19-19931201 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/10/1994 | MW-19-19940510 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/16/1994 | MW-19-19941116 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 4/6/1995 | MW-19-19950406 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 12/12/1995 | MW-19-19951212 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 8/15/1996 | MW-19-19960815 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 4/14/1997 | MW-19-19970414 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 10/13/1997 | MW-19-19971013 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/10/1999 | MW-19-19990510 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 12/1/1999 | MW-19-19991201 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/30/2000 | MW-19-20000530 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/27/2000 | MW-19-20001127 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.2564** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 8/21/2001 | MW-19-20010821 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.26** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 12/4/2001 | MW-19-20011204 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 6/11/2002 | MW-19-20020611 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.40** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 12/17/2002 | MW-19-20021217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/29/2003 | MW-19-20030529 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.21** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 12/15/2003 | MW-19-20031215 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.45** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 6/18/2004 | MW-19-20040618 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/30/2004 | MW-19-20041130 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.26** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 6/14/2005 | MW-19-20050614 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.29** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 12/12/2005 | MW-19-20051212 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/15/2006 | MW-19-20060515 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.176** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 4/17/2007 | MW-19-20070417 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.754** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/8/2008 | MW-19-20080508 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table G-14**
**Groundwater Sampling Results for the Additional Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Constituent: | | | | | Antimony | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Molybdenum | Selenium | Selenium | Thallium | Thallium | Total Radium | |
| Filtered: | | | | | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | N | Y | N | N | Y | N | Y | N | Y | N | Y | | |
| Units: | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/18/2013 | FC-19-111813 | -- | -- | **0.00072** | -- | -- | -- | -- | -- | -- | -- | <0.0010 | -- | -- | -- | <8.0 | -- | -- | -- | -- | -- | -- | -- | **0.014** | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 3/11/2014 | FC-19-031114 | -- | -- | <0.00040 | -- | -- | -- | -- | -- | -- | -- | <0.0010 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | -- | **0.013** | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 9/9/2014 | FCPP-19-090914 | -- | -- | **0.00078** | -- | -- | -- | -- | -- | -- | -- | **0.0014** | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- | **0.015** | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 12/8/2014 | FCPP-MW19-12914 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 3/18/2015 | FCPP-19-031815 | -- | -- | <0.0050 | -- | -- | -- | -- | -- | -- | -- | <0.013 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- | <0.015 | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 6/30/2015 | MW-19 | -- | -- | <0.012 | -- | -- | -- | -- | -- | -- | -- | <0.012 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | -- | **0.022** | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 8/25/2015 | FCPP-19-082515 | -- | -- | <0.030 | -- | -- | -- | -- | -- | -- | -- | <0.030 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- | <0.030 | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/3/2015 | FC MW-19-(031115) | <0.0025 | -- | <0.0010 | -- | **0.018** | -- | <0.0010 | -- | <0.00050 | -- | <0.0025 | -- | <0.0010 | -- | <2.0 | <0.00050 | -- | <5.0 | <0.00020 | -- | **0.0016** | -- | **0.011** | -- | <0.00050 | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 6/17/2016 | FC-Seep-MW19-616 | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 6/21/2020 | FC-CCR-MW19-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0015** | -- | -- | -- | -- | -- | -- | -- | **0.014** | -- | -- | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/7/2020 | FC-CCR-MW19-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.002** | -- | -- | -- | -- | -- | -- | -- | **0.0061** | -- | -- | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 4/25/2021 | FC-CCR-MW19-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.00052** | -- | -- | -- | -- | -- | -- | -- | **0.0030** | -- | -- | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 4/25/2021 | FC-CCR-FD05-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0013 J** | -- | -- | -- | -- | -- | -- | -- | **0.0040** | -- | -- | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/14/2021 | FC-CCR-MW19 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0016** | -- | -- | -- | -- | -- | -- | -- | **0.0032** | -- | -- | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-MW19-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0031** | -- | -- | -- | -- | -- | -- | -- | **0.0034** | -- | -- | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/11/2022 | FC-CCR-MW19-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0013** | -- | -- | -- | -- | -- | -- | -- | **0.0033** | -- | -- | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/11/2022 | *DUP* FC-CCR-FD05-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0013** | -- | -- | -- | -- | -- | -- | -- | **0.0034** | -- | -- | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/3/2023 | FC-CCR-MW19-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0014** | -- | -- | -- | -- | -- | -- | -- | **0.0033** | -- | -- | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 5/3/2023 | *DUP* FC-CCR-FD05-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0014** | -- | -- | -- | -- | -- | -- | -- | **0.0032** | -- | -- | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/13/2023 | FC-CCR-MW19-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 11/13/2023 | *DUP* FC-CCR-FD05-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 05/20/2024 | FC-CCR-MW19-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 05/20/2024 | *DUP* FC-CCR-FD05-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 10/28/2024 | FC-CCR-MW19-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | -- | |
| MW-19 | Closed Ash Pond 6 | Supplementary | 10/28/2024 | FC-CCR-FD07-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/27/1987 | MW-21_9/27/1987 | -- | -- | -- | <0.05 | -- | **0.88** | -- | -- | -- | <0.005 | -- | <0.005 | -- | -- | <0.5 | -- | **0.12** | -- | -- | <0.0001 | -- | -- | -- | <0.05 | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/18/1988 | MW-21-19880918 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/20/1988 | MW-21-19881120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.90** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 3/6/1989 | MW-21-19890306 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.80** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/12/1989 | MW-21-19890912 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.60** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 2/22/1990 | MW-21-19900322 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.80** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/18/1990 | MW-21-19900918 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 3/20/1991 | MW-21-19910320 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/24/1991 | MW-21-19910924 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 5/1/1992 | MW-21-19920501 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/2/1992 | MW-21-19921102 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 4/21/1993 | MW-21-19930421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 12/1/1993 | MW-21-19931201 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 4/27/1994 | MW-21-19940427 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/19/1994 | MW-21-19940919 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 12/14/1994 | MW-21-19941214 | <0.3 | -- | <0.2 | -- | <2 | -- | <0.025 | -- | <0.025 | -- | <0.05 | -- | <0.25 | -- | -- | <0.06 | -- | -- | <0.001 | -- | -- | -- | **0.058** | -- | <0.1 | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 4/5/1995 | MW-21-19950405 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.10** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 12/12/1995 | MW-21-19951212 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.10** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 8/15/1996 | MW-21-19960815 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.10** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 6/23/1997 | MW-21-19970623 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.10** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 10/14/1997 | MW-21-19971014 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 4/13/1998 | MW-21-19980413 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.10** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 5/10/1999 | MW-21-19990510 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 12/6/1999 | MW-21-19991206 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.10** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 5/24/2000 | MW-21-20000524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/13/2000 | MW-21-20001113 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.1919** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 8/20/2001 | MW-21-20010820 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.24** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 12/4/2001 | MW-21-20011204 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 6/12/2002 | MW-21-20020612 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 12/17/2002 | MW-21-20021217 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 6/2/2003 | MW-21-20030602 | -- | -- | -- | -- | **0.011** | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.30** | -- | -- | -- | -- | -- | -- | -- | **0.68** | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 6/3/2003 | MW-21-20030603 | -- | -- | -- | -- | -- | -- | **0.011** | **0.011** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.74** | **0.68** | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/23/2003 | MW-21-20030923 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.37** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 6/14/2004 | MW-21-20040614 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/8/2004 | MW-21-20041108 | -- | -- | **0.0097** | -- | **0.023** | -- | -- | -- | <0.00005 | -- | **0.0050** | -- | -- | -- | **0.20** | **0.00060** | -- | -- | -- | -- | **0.00179** | -- | **0.512** | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 5/11/2005 | MW-21-20050511 | -- | -- | **0.02** | -- | **0.021** | -- | <0.005 | -- | <0.001 | -- | **0.020** | -- | **0.0018** | -- | **0.30** | <0.001 | -- | -- | <0.0002 | -- | -- | -- | **0.57** | -- | <0.0005 | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 10/31/2005 | MW-21-20051031 | -- | -- | **0.060** | -- | **0.025** | -- | -- | -- | -- | -- | -- | -- | **0.0040** | -- | **0.20** | -- | -- | -- | -- | -- | -- | -- | **0.542** | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 5/15/2006 | MW-21-20060515 | -- | -- | **0.092** | -- | **0.020** | -- | <0.001 | -- | <0.006 | -- | <0.004 | -- | **0.0040** | -- | <0.5 | <0.012 | -- | -- | -- | -- | <0.006 | -- | **0.59** | -- | **0.057** | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 10/11/2006 | MW-21-20061011 | -- | -- | **0.037** | -- | **0.022** | -- | <0.003 | -- | <0.002 | -- | <0.002 | -- | <0.008 | -- | <5000 | <0.009 | -- | -- | -- | -- | <0.012 | -- | **0.526** | -- | <0.025 | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 4/17/2007 | MW-21-20070417 | <0.028 | -- | **0.041** | -- | **0.028** | -- | <0.003 | -- | <0.002 | -- | <0.002 | -- | <0.008 | -- | <0.2 | <0.009 | -- | -- | <0.0022 | -- | <0.012 | -- | **0.549** | -- | <0.025 | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/20/2007 | MW-21-20071120 | **0.0060** | -- | **0.015** | -- | **0.027** | -- | <0.5 | -- | <0.0005 | -- | **0.028** | -- | **0.0027** | -- | **0.30** | <0.001 | -- | -- | -- | -- | <0.005 | -- | **0.421** | -- | <0.0005 | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 4/30/2008 | MW-21-20080430 | <0.0005 | -- | **0.0144** | -- | **0.0224** | -- | <0.0005 | -- | <0.0005 | -- | **0.018** | -- | **0.00296** | -- | **0.20** | **0.00020** | -- | -- | -- | -- | **0.00060** | -- | **0.42** | -- | <0.00005 | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 12/4/2009 | MW-21-20091204 | <0.01 | -- | **0.02** | -- | **0.040** | -- | <0.01 | -- | **0.0010** | -- | **0.060** | -- | **0.0020** | -- | **0.20** | <0.002 | -- | -- | <0.0002 | -- | <0.01 | -- | **0.35** | -- | <0.001 | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 12/29/2009 | MW-21-20091229 | <0.005 | -- | **0.016** | -- | **0.025** | -- | <0.005 | -- | **0.0011** | -- | **0.040** | -- | **0.0029** | -- | **0.30** | <0.001 | -- | -- | <0.0002 | -- | <0.005 | -- | **0.31** | -- | <0.0005 | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/29/2012 | MW21-092912-01 | -- | -- | **0.02** | -- | -- | -- | -- | -- | -- | -- | <0.020 | -- | -- | -- | <8.0 | -- | -- | -- | -- | -- | -- | -- | **0.19** | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/20/2013 | FC-21-112013 | -- | -- | **0.00060** | -- | -- | -- | -- | -- | -- | -- | **0.0046** | -- | -- | -- | <8.0 | -- | -- | -- | -- | -- | -- | -- | **0.14** | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 3/11/2014 | FC-21-031114 | -- | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | **0.014** | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | -- | **0.16** | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/9/2014 | FCPP-21-090914 | -- | -- | **0.00044** | -- | -- | -- | <0.0005 | -- | -- | -- | <0.0010 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- | **0.11** | -- | <0.0005 | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 12/9/2014 | FCPP-MW21-12914 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 3/18/2015 | FCPP-21-031815 | -- | -- | <0.0050 | -- | -- | -- | -- | -- | -- | -- | <0.013 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- | **0.12** | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 6/24/2015 | MW-21 | -- | -- | <0.15 | -- | -- | -- | -- | -- | -- | -- | <0.15 | -- | -- | -- | <8.0 | -- | -- | -- | -- | -- | -- | -- | **0.18** | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 8/28/2015 | FCPP-21-082815 | -- | -- | <0.030 | -- | -- | -- | -- | -- | <0.010 | -- | <0.030 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- | **0.18** | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/4/2015 | FC MW-21-(041115) | -- | -- | <0.0020 | -- | -- | -- | -- | -- | <0.0010 | -- | <0.0050 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.14** | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/13/2015 | FC MW-21-(131115) | -- | -- | <0.0020 | -- | -- | -- | -- | -- | -- | -- | <0.0050 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | -- | **0.16** | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/13/2015 | *DUP* FC FD-5-(131115) | -- | -- | <0.0020 | -- | -- | -- | -- | -- | -- | -- | <0.0050 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | -- | **0.14** | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 9/15/2016 | FC-Seep-MW21-916 | -- | -- | <0.0020 | -- | -- | -- | -- | -- | -- | -- | <0.0050 | -- | -- | -- | <0.40 | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 6/21/2020 | FC-CCR-MW21-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0046** | -- | -- | -- | -- | -- | -- | -- | **0.0053** | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/8/2020 | FC-CCR-MW21-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0054** | -- | -- | -- | -- | -- | -- | -- | **0.0035** | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 4/24/2021 | FC-CCR-MW21-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0052** | -- | -- | -- | -- | -- | -- | -- | **0.0029** | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/13/2021 | FC-CCR-MW21 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0059** | -- | -- | -- | -- | -- | -- | -- | **0.0039** | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-MW21-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0055** | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | *DUP* FC-CCR-FD06-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0048** | -- | -- | -- | -- | -- | -- | -- | **0.0024** | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/10/2022 | FC-CCR-MW21-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0048** | -- | -- | -- | -- | -- | -- | -- | **0.0024** | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 5/2/2023 | FC-CCR-MW21-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0045** | -- | -- | -- | -- | -- | -- | -- | **0.0022** | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 11/09/2023 | FC-CCR-MW-21-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0045** | -- | -- | -- | -- | -- | -- | -- | **0.0022** | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 05/16/2024 | FC-CCR-MW21-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0051** | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | |
| MW-21 | Closed Ash Pond 6 | Supplementary | 10/28/2024 | FC-CCR-MW21-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0043** | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | -- | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 11/20/2013 | FC-30-112013 | -- | -- | **0.0081** | -- | -- | -- | -- | -- | -- | -- | **0.013** | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | -- | **0.016** | -- | -- | -- | -- | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 3/11/2014 | FC-30-031114 | -- | -- | **0.022** | -- | -- | -- | -- | -- | -- | -- | **0.05** | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- | **0.014** | -- | -- | -- | -- | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 9/8/2014 | FCPP-30-090814 | -- | -- | <0.0010 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- | **0.0094** | -- | -- | -- | -- | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 12/9/2014 | FCPP-MW30-12914 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 3/16/2015 | FCPP-30-031615 | -- | -- | **0.00033** | -- | -- | -- | -- | -- | -- | -- | <0.00050 | -- | -- | -- | <0.80 | -- | -- | -- | -- | -- | -- | -- | **0.0071** | -- | -- | -- | -- | |

**Table G-14**
**Groundwater Sampling Results for the Additional Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Constituent: | | | | | Antimony | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Molybdenum | Selenium | Selenium | Thallium | Thallium | Total Radium | | | | | | |
| Filtered: | | | | | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | N | Y | N | N | Y | N | Y | N | Y | N | Y | N | | | | | | |
| Units: | | | | | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | | | | | | |
| Well ID | CCR Unit | Well Designation | Sample Date | Sample ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 6/24/2015 | MW-30 | -- | -- | <0.030 | -- | -- | -- | -- | -- | -- | -- | <0.030 | -- | -- | -- | <0.40 | -- | -- | -- | -- | -- | -- | -- | <0.030 | -- | -- | -- | -- | | | | | | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 8/28/2015 | FCPP-30-082815 | -- | -- | <0.0030 | -- | -- | -- | -- | -- | <0.0020 | -- | <0.0030 | -- | -- | -- | <2.0 | -- | -- | -- | -- | -- | -- | -- | **0.051** | -- | -- | -- | -- | | | | | | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 11/4/2015 | FC MW-30-(041115) | <0.0025 | -- | <0.0010 | -- | **0.029** | -- | <0.0010 | -- | <0.00050 | -- | <0.0025 | -- | **0.0062** | -- | <2.0 | **0.0012** | -- | <5.0 | <0.00020 | -- | **0.0075** | -- | **0.015** | -- | **0.00066** | -- | -- | | | | | | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 6/21/2016 | FC-SEEPS-MW-30-062116 | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | **0.0034** | -- | -- | **0.51** | -- | -- | -- | <0.00020 | -- | -- | -- | -- | -- | -- | -- | -- | | | | | | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 4/25/2021 | FC-CCR-MW30-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0025** | -- | -- | -- | -- | -- | -- | -- | **0.0065** | -- | -- | -- | -- | -- | | | | | | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 11/13/2021 | FC-CCR-MW30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0042** | -- | -- | -- | -- | -- | -- | -- | **0.015** | -- | -- | -- | -- | -- | | | | | | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-MW30-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0013** | -- | -- | -- | -- | -- | -- | -- | **0.0066** | -- | -- | -- | -- | -- | | | | | | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 11/10/2022 | FC-CCR-MW30-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0016** | -- | -- | -- | -- | -- | -- | -- | **0.0056** | -- | -- | -- | -- | -- | | | | | | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 11/10/2022 | *DUP* FC-CCR-FD06-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0015** | -- | -- | -- | -- | -- | -- | -- | **0.006** | -- | -- | -- | -- | -- | | | | | | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 5/3/2023 | FC-CCR-MW30-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0013** | -- | -- | -- | -- | -- | -- | -- | **0.0048** | -- | -- | -- | -- | -- | | | | | | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 5/3/2023 | *DUP* FC-CCR-FD06-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0012** | -- | -- | -- | -- | -- | -- | -- | **0.0048** | -- | -- | -- | -- | -- | | | | | | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 11/10/2023 | FC-CCR-MW30-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 11/10/2023 | *DUP* FC-CCR-FD06-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 05/17/2024 | FC-CCR-MW30-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 05/17/2024 | *DUP* FC-CCR-FD06-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 10/26/2024 | RC-CCR-MW30-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0289** | -- | -- | -- | -- | -- | -- | -- | **0.015** | -- | -- | -- | -- | -- | | | | | | |
| MW-30 | Closed Ash Pond 6 | Supplementary | 10/26/2024 | RC-CCR-FD04-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | | | | | | |
| MW-77S | Closed Ash Pond 6 | Supplementary | 6/22/2019 | FC-NIT-MW77S-62219 | **0.0015** | -- | **0.0053** | -- | **0.023** | -- | <0.0010 | -- | **0.00012** | -- | **0.0015** | -- | **0.0065** | -- | **1.1** | <0.00050 | -- | **1.3** | <0.00020 | -- | **0.051** | -- | <0.0020 | -- | <0.00010 | -- | -- | | | | | | |
| MW-77S | Closed Ash Pond 6 | Supplementary | 4/24/2021 | FC-CCR-MW77S-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0053** | -- | -- | -- | -- | -- | -- | -- | **0.028** | -- | -- | -- | -- | -- | | | | | | |
| MW-77S | Closed Ash Pond 6 | Supplementary | 11/13/2021 | FC-CCR-MW77S | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0058** | -- | -- | -- | -- | -- | -- | -- | **0.020** | -- | -- | -- | -- | -- | | | | | | |
| MW-77S | Closed Ash Pond 6 | Supplementary | 11/13/2021 | FC-CCR-FD07 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0057** | -- | -- | -- | -- | -- | -- | -- | **0.020** | -- | -- | -- | -- | -- | | | | | | |
| MW-77S | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-MW77S-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0066** | -- | -- | -- | -- | -- | -- | -- | **0.017** | -- | -- | -- | -- | -- | | | | | | |
| MW-77S | Closed Ash Pond 6 | Supplementary | 5/23/2022 | *DUP* FC-CCR-FD07-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0066** | -- | -- | -- | -- | -- | -- | -- | **0.018** | -- | -- | -- | -- | -- | | | | | | |
| MW-77S | Closed Ash Pond 6 | Supplementary | 11/10/2022 | FC-CCR-MW77S-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0071** | -- | -- | -- | -- | -- | -- | -- | **0.017** | -- | -- | -- | -- | -- | | | | | | |
| MW-77S | Closed Ash Pond 6 | Supplementary | 5/3/2023 | FC-CCR-MW77S-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0073** | -- | -- | -- | -- | -- | -- | -- | **0.021** | -- | -- | -- | -- | -- | | | | | | |
| MW-77S | Closed Ash Pond 6 | Supplementary | 11/10/2023 | FC-CCR-MW77S-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0069** | -- | -- | -- | -- | -- | -- | -- | **0.017** | -- | -- | -- | -- | -- | | | | | | |
| MW-77S | Closed Ash Pond 6 | Supplementary | 05/17/2024 | FC-CCR-MW77S-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0069** | -- | -- | -- | -- | -- | -- | -- | **0.017** | -- | -- | -- | -- | -- | | | | | | |
| MW-77S | Closed Ash Pond 6 | Supplementary | 10/26/2024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | -- | -- | -- | **--** | -- | -- | -- | -- | -- | | | | | | |
| MW-78S | Closed Ash Pond 6 | Supplementary | 6/21/2020 | FC-CCR-MW78S-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0063** | -- | -- | -- | -- | -- | -- | -- | **0.039** | -- | -- | -- | -- | -- | | | | | | |
| MW-78S | Closed Ash Pond 6 | Supplementary | 4/24/2021 | FC-CCR-MW78S-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.019** | -- | -- | -- | -- | -- | -- | -- | **0.022** | -- | -- | -- | -- | -- | | | | | | |
| MW-78S | Closed Ash Pond 6 | Supplementary | 11/14/2021 | FC-CCR-MW78S | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0071** | -- | -- | -- | -- | -- | -- | -- | **0.013** | -- | -- | -- | -- | -- | | | | | | |
| MW-78S | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-MW78S-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0033** | -- | -- | -- | -- | -- | -- | -- | **0.0092** | -- | -- | -- | -- | -- | | | | | | |
| MW-78S | Closed Ash Pond 6 | Supplementary | 11/10/2022 | FC-CCR-MW78S-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0035** | -- | -- | -- | -- | -- | -- | -- | **0.0098** | -- | -- | -- | -- | -- | | | | | | |
| MW-78S | Closed Ash Pond 6 | Supplementary | 5/3/2023 | FC-CCR-MW78S-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0066** | -- | -- | -- | -- | -- | -- | -- | **0.017** | -- | -- | -- | -- | -- | | | | | | |
| MW-78S | Closed Ash Pond 6 | Supplementary | 11/10/2023 | FC-CCR-MW78S-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | **0.0074** | -- | -- | -- | -- | -- | | | | | | |
| MW-78S | Closed Ash Pond 6 | Supplementary | 05/17/2024 | FC-CCR-MW78S-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0084** | -- | -- | -- | -- | -- | -- | -- | **0.017** | -- | -- | -- | -- | -- | | | | | | |
| MW-78S | Closed Ash Pond 6 | Supplementary | 12/12/2024 | FC-CCR-MW78S-1224 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.002 | -- | -- | -- | -- | -- | -- | -- | **0.00671** | -- | -- | -- | -- | -- | | | | | | |
| MW-79S | Closed Ash Pond 6 | Supplementary | 6/22/2019 | *DUP* FC-NIT-FD01-62219 | <0.0010 | -- | **0.0031** | -- | **0.022** | -- | <0.0010 | -- | **0.00014** | -- | **0.0016** | -- | **0.0023** | -- | <0.80 | <0.00050 | -- | **0.9** | <0.00020 | -- | **0.0028** | -- | <0.00050 | -- | **0.00053** | -- | -- | | | | | | |
| MW-79S | Closed Ash Pond 6 | Supplementary | 6/22/2019 | FC-NIT-MW79S-62219 | <0.0010 | -- | **0.0026** | -- | **0.022** | -- | <0.0010 | -- | **0.00016** | -- | **0.0015** | -- | **0.0027** | -- | <0.80 | <0.00050 | -- | **0.93** | <0.00020 | -- | **0.0029** | -- | <0.00050 | -- | **0.00054** | -- | -- | | | | | | |
| MW-79S | Closed Ash Pond 6 | Supplementary | 4/24/2021 | FC-CCR-MW79S-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0038** | -- | -- | -- | -- | -- | -- | -- | **0.011** | -- | -- | -- | -- | -- | | | | | | |
| MW-79S | Closed Ash Pond 6 | Supplementary | 11/14/2021 | FC-CCR-MW79S | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0036** | -- | -- | -- | -- | -- | -- | -- | **0.0092** | -- | -- | -- | -- | -- | | | | | | |
| MW-79S | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-MW79S-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0036** | -- | -- | -- | -- | -- | -- | -- | **0.0070** | -- | -- | -- | -- | -- | | | | | | |
| MW-79S | Closed Ash Pond 6 | Supplementary | 11/10/2022 | FC-CCR-MW79S-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0042** | -- | -- | -- | -- | -- | -- | -- | **0.0050** | -- | -- | -- | -- | -- | | | | | | |
| MW-79S | Closed Ash Pond 6 | Supplementary | 5/3/2023 | FC-CCR-MW79S-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0035 J** | -- | -- | -- | -- | -- | -- | -- | **0.0044** | -- | -- | -- | -- | -- | | | | | | |
| MW-79S | Closed Ash Pond 6 | Supplementary | 11/10/2023 | FC-CCR-MW79S-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| MW-79S | Closed Ash Pond 6 | Supplementary | 05/17/2024 | FC-CCR-MW79S-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| MW-79S | Closed Ash Pond 6 | Supplementary | 12/12/2024 | FC-CCR-MW79S-1224 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.01 | -- | -- | -- | -- | -- | -- | -- | <0.025 | -- | -- | -- | -- | -- | | | | | | |
| MW-81 | Closed Ash Pond 6 | Supplementary | 6/22/2019 | FC-NIT-MW81-62219 | <0.0010 | -- | **0.0044** | -- | **0.021** | -- | <0.0010 | -- | **0.00018** | -- | **0.0012** | -- | **0.011** | -- | <0.80 | **0.00099** | -- | **0.93** | <0.00020 | -- | **0.017** | -- | <0.00050 | -- | <0.00010 | -- | -- | | | | | | |
| MW-81 | Closed Ash Pond 6 | Supplementary | 6/21/2020 | FC-CCR-MW81-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.021** | -- | -- | -- | -- | -- | -- | -- | **0.027** | -- | -- | -- | -- | -- | | | | | | |
| MW-81 | Closed Ash Pond 6 | Supplementary | 11/8/2020 | FC-CCR-MW81-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.018** | -- | -- | -- | -- | -- | -- | -- | **0.0077** | -- | -- | -- | -- | -- | | | | | | |
| MW-81 | Closed Ash Pond 6 | Supplementary | 4/24/2021 | FC-CCR-MW81-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.020** | -- | -- | -- | -- | -- | -- | -- | **0.0072** | -- | -- | -- | -- | -- | | | | | | |
| MW-81 | Closed Ash Pond 6 | Supplementary | 4/24/2021 | FC-CCR-FD061-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.020** | -- | -- | -- | -- | -- | -- | -- | **0.0073** | -- | -- | -- | -- | -- | | | | | | |
| MW-81 | Closed Ash Pond 6 | Supplementary | 11/14/2021 | FC-CCR-MW81 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.023** | -- | -- | -- | -- | -- | -- | -- | **0.0035** | -- | -- | -- | -- | -- | | | | | | |
| MW-81 | Closed Ash Pond 6 | Supplementary | 11/14/2021 | FC-CCR-FD05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.022** | -- | -- | -- | -- | -- | -- | -- | **0.0034** | -- | -- | -- | -- | -- | | | | | | |
| MW-81 | Closed Ash Pond 6 | Supplementary | 5/23/2022 | FC-CCR-MW81-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.022** | -- | -- | -- | -- | -- | -- | -- | **0.0017** | -- | -- | -- | -- | -- | | | | | | |
| MW-81 | Closed Ash Pond 6 | Supplementary | 11/10/2022 | FC-CCR-MW81-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.020** | -- | -- | -- | -- | -- | -- | -- | **0.0025** | -- | -- | -- | -- | -- | | | | | | |
| MW-81 | Closed Ash Pond 6 | Supplementary | 11/10/2022 | *DUP* FC-CCR-FD07-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.023** | -- | -- | -- | -- | -- | -- | -- | **0.0025** | -- | -- | -- | -- | -- | | | | | | |
| MW-81 | Closed Ash Pond 6 | Supplementary | 5/3/2023 | FC-CCR-MW81-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.019** | -- | -- | -- | -- | -- | -- | -- | **0.0021** | -- | -- | -- | -- | -- | | | | | | |
| MW-81 | Closed Ash Pond 6 | Supplementary | 5/3/2023 | *DUP* FC-CCR-FD07-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.020** | -- | -- | -- | -- | -- | -- | -- | **0.0024** | -- | -- | -- | -- | -- | | | | | | |
| MW-81 | Closed Ash Pond 6 | Supplementary | 11/10/2023 | FC-CCR-MW81-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.022** | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| MW-81 | Closed Ash Pond 6 | Supplementary | 11/10/2023 | *DUP* FC-CCR-FD07-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.021** | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| MW-81 | Closed Ash Pond 6 | Supplementary | 05/17/2024 | FC-CCR-MW81-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.023** | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| MW-81 | Closed Ash Pond 6 | Supplementary | 05/17/2024 | *DUP* FC-CCR-FD07-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.025** | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| MW-81 | Closed Ash Pond 6 | Supplementary | 12/12/2024 | FC-CCR-MW81-1224 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0179** | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| MW-81 | Closed Ash Pond 6 | Supplementary | 12/12/2024 | FC-CCR-FD05-1224 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0172** | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| MW-11 | DFADA | Supplementary | 11/18/2021 | FC-CCR-MW11-1121 | | -- | | | | | | | | | | | **0.022** | -- | **2.9** | | | | | | **0.0034** | -- | -- | -- | -- | -- | | | | | | |
| MW-11 | DFADA | Supplementary | 5/26/2022 | FC-CCR-MW11-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.022** | -- | <0.8 | -- | -- | -- | -- | -- | <0.002 | -- | -- | -- | -- | -- | | | | | | |
| MW-11 | DFADA | Supplementary | 11/16/2022 | FC-CCR-MW11-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.019** | -- | <40 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | | | | | | |
| MW-11 | DFADA | Supplementary | 5/5/2023 | FC-CCR-MW11-0523 | -- | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | **0.022** | -- | <80 | -- | -- | -- | -- | -- | <0.002 | -- | -- | -- | -- | -- | | | | | | |
| MW-11 | DFADA | Supplementary | 11/15/2023 | FC-CCR-MW11-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.025** | -- | <0.8 | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| MW-11 | DFADA | Supplementary | 05/23/2024 | FC-CCR-MW11-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.019** | -- | <0.4 | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| MW-11 | DFADA | Supplementary | 11/14/2024 | FC-CCR-MW11-1124 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0211** | -- | <0.38 | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | | | | | | |
| EW-11R | Extraction Monitoring | -- | 11/16/2023 | FC-CCR-EW11R-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0061** | -- | <0.8 | -- | -- | -- | -- | -- | **0.019** | -- | -- | -- | -- | -- | | | | | | |
| EW-11R | Extraction Monitoring | -- | 05/17/2024 | FC-CCR-EW11R-0524 | <0.01 | -- | **0.0083** | -- | **0.021 J** | -- | <0.05 | -- | <0.001 | -- | <0.01 | -- | **0.01** | -- | **0.78** | <0.005 | -- | **0.63** | -- | -- | <0.005 | -- | **0.0054** | -- | <0.001 | -- | **2.1** | | | | | | |
| EW-11R | Extraction Monitoring | -- | 10/26/2024 | FC-CCR-EW11R-1024 | <0.0025 | -- | <0.0025 | -- | **0.0145** | -- | <0.005 | -- | <0.0004 | -- | <0.01 | -- | **0.0096** | -- | <0.761 | <0.0025 | -- | **0.508** | -- | -- | <0.0025 | -- | <0.0025 | -- | <0.0005 | -- | **1.7** | | | | | | |
| EW-12R | Extraction Monitoring | -- | 11/16/2023 | FC-CCR-EW12R-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | <0.8 | -- | -- | -- | -- | -- | **0.069** | -- | -- | -- | -- | -- | | | | | | |
| EW-12R | Extraction Monitoring | -- | 05/17/2024 | FC-CCR-EW12R-0524 | <0.01 | -- | **0.0081** | -- | **0.021 J** | -- | <0.05 | -- | <0.001 | -- | <0.01 | -- | <0.005 | -- | **1.1** | <0.005 | -- | **0.89** | -- | -- | **0.012** | -- | **0.0070** | -- | <0.001 | -- | <0.9 | | | | | | |
| EW-12R | Extraction Monitoring | -- | 10/28/2024 | FC-CCR-EW12R-1024 | <0.0025 | -- | <0.0025 | -- | **0.0156** | -- | <0.005 | -- | <0.0004 | -- | <0.01 | -- | <0.0025 | -- | **0.80** | <0.0025 | -- | **0.727** | -- | -- | **0.0067** | -- | <0.0025 | -- | <0.0005 | -- | **2.6** | | | | | | |
| EW-17 | Extraction Monitoring | -- | 5/8/2023 | FC-CCR-EW17-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.0002 | -- | -- | -- | -- | -- | -- | -- | | | | | | |
| EW-17 | Extraction Monitoring | -- | 11/15/2023 | FC-CCR-EW17-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.011** | -- | <0.8 | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| EW-17 | Extraction Monitoring | -- | 05/17/2024 | FC-CCR-EW17-0524 | <0.01 | -- | **0.0079** | -- | **0.016 J** | -- | <0.05 | -- | <0.001 | -- | <0.01 | -- | **0.017** | -- | -- | <0.005 | -- | **1.0** | -- | -- | <0.005 | -- | **0.0066** | -- | <0.001 | -- | -- | | | | | | |
| EW-17 | Extraction Monitoring | -- | 11/14/2024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | | | | | |
| IP-03 | SIT | Supplementary | 6/29/2015 | IP-3 | -- | -- | <0.0030 | -- | -- | -- | -- | -- | -- | -- | <0.0030 | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | -- | **0.11** | -- | -- | -- | -- | | | | | | |
| IP-05 | SIT | Supplementary | 6/29/2015 | IP-5 | -- | -- | <0.0030 | -- | -- | -- | -- | -- | -- | -- | **0.0041** | -- | -- | -- | <4.0 | -- | -- | -- | -- | -- | -- | -- | **0.59** | -- | -- | -- | -- | | | | | | |
| MW-82S | Other Disposal Areas | Supplementary | 6/22/2019 | FC-NIT-MW82S-62219 | <0.0010 | -- | **0.0014** | -- | **0.019** | -- | <0.0010 | -- | **0.0015** | -- | **0.0037** | -- | **0.12** | -- | <0.80 | **0.0034** | -- | **0.75** | <0.00020 | -- | **0.0036** | -- | <0.00050 | -- | **0.00038** | -- | -- | | | | | | |
| MW-82S | Other Disposal Areas | Supplementary | 6/21/2020 | FC-CCR-MW82S-0620 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.13** | -- | -- | -- | -- | -- | -- | -- | **0.0044** | -- | -- | -- | -- | -- | | | | | | |
| MW-82S | Other Disposal Areas | Supplementary | 11/8/2020 | FC-CCR-MW82S-1120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.10** | -- | -- | -- | -- | -- | -- | -- | **0.0028** | -- | -- | -- | -- | -- | | | | | | |
| MW-82S | Other Disposal Areas | Supplementary | 11/14/2021 | FC-CCR-MW82S | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.060** | -- | **0.35 J** | -- | -- | -- | -- | -- | **0.00048 J** | -- | -- | -- | -- | -- | | | | | | |
| MW-82S | Other Disposal Areas | Supplementary | 5/23/2022 | FC-CCR-MW82S-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.063** | -- | <0.8 | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | | | | | | |
| MW-82S | Other Disposal Areas | Supplementary | 5/5/2023 | FC-CCR-MW82S-0523 | -- | -- | -- | -- | -- | -- | <0.01 | -- | -- | -- | -- | -- | **0.096** | -- | <40 | -- | -- | -- | -- | -- | **0.0065** | -- | -- | -- | -- | -- | | | | | | |
| MW-82S | Other Disposal Areas | Supplementary | 11/10/2023 | FC-CCR-MW82S-1123 | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | **0.10** | -- | <0.8 | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| MW-82S | Other Disposal Areas | Supplementary | 11/10/2023 | *DUP* FC-CCR-FD02-1123 | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | **0.11** | -- | <0.8 | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| MW-82S | Other Disposal Areas | Supplementary | 05/17/2024 | FC-CCR-MW82S-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.11** | -- | <0.4 | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| MW-82S | Other Disposal Areas | Supplementary | 05/17/2024 | *DUP* FC-CCR-FD08-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.10** | -- | **0.56** | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | | | | | | |
| MW-82S | Other Disposal Areas | Supplementary | 10/28/2024 | FC-CCR-MW82S-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0909** | -- | **0.403 J** | -- | -- | -- | -- | -- | **0.0027** | -- | -- | -- | -- | -- | | | | | | |
| MW-82S | Other Disposal Areas | Supplementary | 10/28/2024 | FC-CCR-FD08-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0873** | -- | **0.472 J** | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | | | | | | |
| Ash Pond | -- | -- | 07/02/2013 | FC-AP-070213 | **0.0451** | -- | -- | **0.301** | -- | **0.0307** | -- | <0.0100 | -- | <0.0020 | -- | <0.0200 | -- | <0.0020 | **45.6** | -- | <0.0100 | -- | -- | <0.0002 | -- | **0.0177** | -- | **0.0591** | -- | <0.0020 | -- | | | | | | |

**Table G-14**
**Groundwater Sampling Results for the Additional Monitoring Wells - Appendix IV Constituents**

| | | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Constituent: | Antimony | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Molybdenum | Selenium | Selenium | Thallium | Thallium | Total Radium |
| | | | | Filtered: | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | N | Y | N | N | Y | N | Y | N | Y | N | Y | N |
| | | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| **Well ID** | **CCR Unit** | **Well Designation** | **Sample Date** | **Sample ID** | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ash Pond | -- | -- | 08/05/2013 | FC-AP-080513 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **49.6** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Ash Pond | -- | -- | 09/03/2013 | FC-AP-090313 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **52.3** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Ash Pond | -- | -- | 10/01/2013 | FC-AP-100113 | <0.0250 | -- | -- | **0.57** | -- | **0.0274** | -- | <0.0250 | -- | <0.0050 | -- | **0.0532** | -- | <0.0050 | **47.3** | -- | <0.0250 | -- | -- | <0.0002 | -- | <0.0250 | -- | **0.265** | -- | **0.0086** | -- |
| Ash Pond | -- | -- | 11/07/2013 | FC-AP-110713 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **51.3** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Ash Pond | -- | -- | 01/07/2015 | FC-AP-010715 | **0.136** | -- | -- | **1.21** | -- | **0.021** | -- | <0.0100 | -- | <0.0020 | -- | <0.0200 | -- | <0.0020 | -- | -- | <0.0100 | -- | -- | <0.0002 | -- | **0.0255** | -- | **0.413** | -- | <0.0020 | -- |
| Ash Pond | -- | -- | 04/10/2015 | FC-AP-041015 | **0.022** | -- | -- | **0.0363** | -- | **0.0237** | -- | <0.0100 | -- | <0.0020 | -- | <0.0200 | -- | <0.0020 | -- | -- | <0.0100 | -- | -- | <0.0002 | -- | <0.0100 | -- | **0.354** | -- | <0.0020 | -- |
| Ash Pond | -- | -- | 07/15/2015 | FC-AP-071515 | **0.0329** | -- | -- | **0.139** | -- | **0.0224** | -- | <0.0100 | -- | <0.0020 | -- | **0.0227** | -- | <0.0020 | -- | -- | <0.0100 | -- | -- | <0.0002 | -- | **0.0167** | -- | **0.0804** | -- | **0.0050** | -- |
| Ash Pond | -- | -- | 10/20/2015 | FC-AP-102015 | <0.0250 | -- | -- | **0.182** | -- | **0.0353** | -- | <0.0250 | -- | <0.0050 | -- | <0.0500 | -- | <0.0050 | -- | -- | <0.0250 | -- | -- | <0.0002 | -- | **0.0253** | -- | **0.0604** | -- | <0.0050 | -- |
| Ash Pond | -- | -- | 01/11/2016 | FC-AP-011116 | <0.0250 | -- | -- | **0.258** | -- | <0.0250 | -- | <0.0250 | -- | <0.0050 | -- | <0.0500 | -- | <0.0050 | -- | -- | <0.0250 | -- | -- | <0.0002 | -- | **0.0585** | -- | **0.171** | -- | <0.0050 | -- |
| Ash Pond | -- | -- | 04/25/2016 | FC-AP-042516 | **0.0507** | -- | -- | **1.28** | -- | <0.0250 | -- | <0.0250 | -- | <0.0050 | -- | <0.0500 | -- | <0.0050 | -- | -- | <0.0250 | -- | -- | <0.0002 | -- | **0.0379** | -- | **1.49** | -- | <0.0050 | -- |
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| SUMP-14 | -- | -- | 4/23/2021 | FC-CCR-SUMP14-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.11** | -- | -- | -- | -- | -- | -- | -- | **0.021** | -- | -- | -- | -- | -- | -- |
| SUMP-14 | -- | -- | 11/17/2021 | FC-CCR-SUMP14-1121 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.061** | -- | -- | -- | -- | -- | -- | -- | **0.0032** | -- | -- | -- | -- | -- | -- |
| SUMP-14 | -- | -- | 5/26/2022 | FC-CCR-SUMP14-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.17** | -- | -- | -- | -- | -- | -- | -- | **0.0013** | -- | -- | -- | -- | -- | -- |

**Table G-14**
**Groundwater Sampling Results for the Additional Monitoring Wells - Appendix IV Constituents**

| | | | | Appendix IV Constituents | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Constituent: | Antimony | Antimony | Arsenic | Arsenic | Barium | Barium | Beryllium | Beryllium | Cadmium | Cadmium | Chromium | Chromium | Cobalt | Cobalt | Fluoride | Lead | Lead | Lithium | Mercury | Mercury | Molybdenum | Molybdenum | Selenium | Selenium | Thallium | Thallium | Total Radium | | | |
| | | | Filtered: | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | Y | N | N | Y | N | N | Y | N | Y | N | Y | N | Y | N | | | |
| | | | Units: | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L | | | |
| Well ID | CCR Unit | Well Designation | Sample Date | Sample ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SUMP-14 | -- | -- | 5/5/2023 | FC-CCR-SUMP14-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.067** | -- | -- | -- | -- | -- | -- | -- | **0.0043** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-14 | -- | -- | 11/9/2023 | FC-CCR-SUMP14-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.096** | -- | -- | -- | -- | -- | -- | -- | **0.0076** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-14 | -- | -- | 05/21/2024 | FC-CCR-SUMP14-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.034** | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | | | |
| SUMP-14 | -- | -- | 10/30/2024 | FC-CCR-SUMP14-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0759** | -- | -- | -- | -- | -- | -- | -- | **0.0182** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-15 | -- | -- | 4/23/2021 | FC-CCR-SUMP15-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.18** | -- | -- | -- | -- | -- | -- | -- | **0.0020** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-15 | -- | -- | 11/17/2021 | FC-CCR-SUMP15-1121 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0015** | -- | -- | -- | -- | -- | -- | -- | **0.0032** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-15 | -- | -- | 5/26/2022 | FC-CCR-SUMP15-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.031** | -- | -- | -- | -- | -- | -- | -- | **0.0019** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-15 | -- | -- | 11/15/2022 | FC-CCR-SUMP15-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.084** | -- | -- | -- | -- | -- | -- | -- | **0.013** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-15 | -- | -- | 5/5/2023 | FC-CCR-SUMP15-0523 | -- | -- | -- | -- | , | -- | -- | -- | -- | -- | -- | -- | **0.0051** | -- | -- | -- | -- | -- | -- | -- | **0.0028** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-15 | -- | -- | 11/9/2023 | FC-CCR-SUMP15-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0038** | -- | -- | -- | -- | -- | -- | -- | **0.0035** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-15 | -- | -- | 05/21/2024 | FC-CCR-SUMP15-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.089** | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | | | |
| SUMP-15 | -- | -- | 10/30/2024 | FC-CCR-SUMP15-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0364** | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | -- | | | |
| SUMP-16 | -- | -- | 4/23/2021 | FC-CCR-SUMP16-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.082** | -- | -- | -- | -- | -- | -- | -- | **0.0011 J** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-16 | -- | -- | 11/17/2021 | FC-CCR-SUMP16-1121 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.029** | -- | -- | -- | -- | -- | -- | -- | **0.0029** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-16 | -- | -- | 5/26/2022 | FC-CCR-SUMP16-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.025** | -- | -- | -- | -- | -- | -- | -- | **0.0020** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-16 | -- | -- | 5/26/2022 | FC-CCR-SS10-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0225** | -- | -- | -- | -- | -- | -- | -- | <0.01 | -- | -- | -- | -- | -- | -- | | | |
| SUMP-16 | -- | -- | 11/15/2022 | FC-CCR-SUMP16-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.018** | -- | -- | -- | -- | -- | -- | -- | **0.0023** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-16 | -- | -- | 5/5/2023 | FC-CCR-SUMP16-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.051** | -- | -- | -- | -- | -- | -- | -- | <0.002 | -- | -- | -- | -- | -- | -- | | | |
| SUMP-16 | -- | -- | 11/09/2023 | FC-CCR-SUMP16-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.014** | -- | -- | -- | -- | -- | -- | -- | **0.0014** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-16 | -- | -- | 05/21/2024 | FC-CCR-SUMP16-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.065** | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | | | |
| SUMP-16 | -- | -- | 10/30/2024 | FC-CCR-SUMP16-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0151** | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | -- | | | |
| SUMP-17 | -- | -- | 4/23/2021 | FC-CCR-SUMP17-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0013 J** | -- | -- | -- | -- | -- | -- | -- | **0.0015 J** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-17 | -- | -- | 11/17/2021 | FC-CCR-SUMP17-1121 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0011** | -- | -- | -- | -- | -- | -- | -- | **0.0016** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-17 | -- | -- | 5/26/2022 | FC-CCR-SUMP17-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.002 | -- | -- | -- | -- | -- | -- | -- | **0.0030** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-17 | -- | -- | 11/15/2022 | FC-CCR-SUMP17-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.00097** | -- | -- | -- | -- | -- | -- | -- | **0.0032** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-17 | -- | -- | 5/5/2023 | FC-CCR-SUMP17-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | -- | -- | <0.002 | -- | -- | -- | -- | -- | -- | | | |
| SUMP-17 | -- | -- | 11/09/2023 | FC-CCR-SUMP17-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.00091** | -- | -- | -- | -- | -- | -- | -- | **0.0010** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-17 | -- | -- | 05/21/2024 | FC-CCR-SUMP17-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | | | |
| SUMP-17 | -- | -- | 10/30/2024 | FC-CCR-SUMP17-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | -- | | | |
| SUMP-18 | -- | -- | 4/23/2021 | FC-CCR-SUMP18-0421 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0011 J** | -- | -- | -- | -- | -- | -- | -- | **0.0033** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-18 | -- | -- | 11/17/2021 | FC-CCR-SUMP18-1121 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0013** | -- | -- | -- | -- | -- | -- | -- | **0.0036** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-18 | -- | -- | 11/17/2021 | FC-CCR-FD07-1121 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0011** | -- | -- | -- | -- | -- | -- | -- | **0.0032** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-18 | -- | -- | 5/26/2022 | FC-CCR-SUMP18-0522 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.002 | -- | -- | -- | -- | -- | -- | -- | **0.0032** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-18 | -- | -- | 11/15/2022 | FC-CCR-SUMP18-1122 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.00089** | -- | -- | -- | -- | -- | -- | -- | **0.0034** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-18 | -- | -- | 5/5/2023 | FC-CCR-SUMP18-0523 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.001 | -- | -- | -- | -- | -- | -- | -- | **0.0032** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-18 | -- | -- | 11/09/2023 | FC-CCR-SUMP18-1123 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.002 | -- | -- | -- | -- | -- | -- | -- | **0.0030** | -- | -- | -- | -- | -- | -- | | | |
| SUMP-18 | -- | -- | 05/21/2024 | FC-CCR-SUMP18-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | -- | <0.005 | -- | -- | -- | -- | -- | -- | | | |
| SUMP-18 | -- | -- | 10/30/2024 | FC-CCR-SUMP18-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | -- | -- | <0.0025 | -- | -- | -- | -- | -- | -- | | | |
| POND3PUMPHOUSE | -- | -- | 05/21/2024 | FC-Pond3PumpHouse-0524 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.073** | -- | -- | -- | -- | -- | -- | -- | **0.0210** | -- | -- | -- | -- | -- | -- | | | |
| POND3PUMPHOUSE | -- | -- | 10/30/2024 | FC-CCR-POND3PUMP-1024 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **0.0279** | -- | -- | -- | -- | -- | -- | -- | **0.0074** | -- | -- | -- | -- | -- | -- | | | |

*Abbreviations and Data Qualifiers:*
*data appear anomalous
< = less than reporting limit (or the method detection limit for fluoride and beryllium results)
degrees C = degrees Celsius
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
mg/L = milligrams per liter
pCi/L = Picocuries per liter
su = standard units
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

**Table G-15**
**Groundwater Sampling Results for the Additional Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | |

**Table G-15**
**Groundwater Sampling Results for the Additional Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | |

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**Table G-15**
**Groundwater Sampling Results for the Additional Monitoring Wells - Additional Analyses**

| | | | | | Additional Analyses | | | | |

# APPENDIX

# H

## WSP TECHNICAL MEMORANDUM DOCUMENTING THE STATISTICAL ANALYSIS BTVS FOR THE URS

# TECHNICAL MEMORANDUM

| | | | |
|---|---|---|---|
| **To:** | Arizona Public Service Company | **Project No.** | US0023513.6155-US-2024 APS FC CCR Compliance SVC |
| **By:** | Samantha O'Shea | **Reviewed by:** | Maren Henley, PE |
| **Tel:** | 480-966-8295 | **CC:** | File |
| **Date:** | January 17, 2025 | | |

**Re:** **CCR GROUNDWATER ASSESSMENT MONITORING**
**STATISTICAL ANALYSIS FOR THE UPPER RETENTION SUMP**
**BACKGROUND THRESHOLD VALUE UPDATE**
**Arizona Public Service Company Four Corners Power Plant – Fruitland, New Mexico**

## 1.0 INTRODUCTION

This Technical Memorandum (Tech Memo) presents an update to the background statistical evaluation for groundwater at the Upper Retention Sump (URS) at the Arizona Public Service Company (APS) Four Corners Power Plant (Site) in Fruitland, New Mexico. The statistical evaluation was performed by Geosciences Consulting LLC (Geosciences Consulting), a subcontractor to WSP USA Environment and Infrastructure, Inc. (WSP) pursuant to Coal Combustion Residuals (CCR) Rule requirements for groundwater monitoring and corrective action detailed in 40 Code of Federal Regulations Sections 257.90 through 257.98 (CCR Rule) (Federal Register, 2020) as part of an analysis performed for the Combine Waste Treatment Pond (CWTP) (WSP, 2024).

The URS CCR unit at the Site is undergoing corrective action and is in the assessment monitoring program. The URS is in corrective action based concentrations of fluoride exceeding the groundwater protection standard (GWPS) in wells MW-66, MW-67, MW-68, and MW-69 (Wood, 2018). The URS groundwater monitoring well network consists of three background monitoring wells (MW-71, MW-72 and MW-73) which are also the background monitoring wells for the CWTP.

The statistical evaluation documented herein incorporates Appendix IV constituent data collected from URS/CWTP background monitoring wells (MW-71, MW-72 and MW-73) through November 2023 (the Fall 2023 event). The BTVs presented in this Tech Memo were updated in accordance with the Statistical Data Analysis Work Plan (SDAWP) for the Site (WSP, 2023a) including data through November 2023.

## 2.0 STATISTICAL EVALUATION RESULTS

The statistical evaluation conducted by Geosciences Consulting was presented in the *Statistical Analysis and Results for the CWTP Appendix IV Constituent Data Collected through November 2023 Technical Memorandum* (WSP, 2024). The Technical Memorandum documented updates to the BTVs and GWPS for assessment monitoring (i.e., Appendix IV Constituents) groundwater data associated with the CWTP background wells. Since both units use the same monitoring locations as background the BTVs were deemed to be representative of background conditions for the URS and **Table 1** presents the results of the Geosciences statistically analysis with the updated BTV values for each Appendix IV constituents.

The methods applied in the statistical analysis were performed in accordance with the Four Corners SDAWP (WSP, 2023a) and the Groundwater Protection Standards (GWPSs) established in October 2023 Tech Memo (WSP, 2023b). **Table 1** summarizes the GWPSs for the URS/CWTP Appendix IV constituents and their respective method of calculation. The GWPS constitutes either/or: 1) the statistically calculated BTV, 2) the United States Environmental Protection Agency's (USEPA) promulgated Maximum

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Contaminant Level (MCL) (40 CFR. Part 141), or 3) the risk-based alternative GWPS identified for constituents without MCLs (40 CFR 257.95(h)(2)), whichever value is highest.

The GWPS selection changed for antimony, cobalt, fluoride, lithium, and selenium and the BTVs were updated for all constituents excluding barium, mercury, and molybdenum (**Table 1**). The changes were the following:

- BTV for antimony was lowered from 0.010 to 0.00027 mg/L and the GWPS selection was changed to the US EPA MCL of 0.0060 mg/L.
- BTV for chromium was lowered from 0.010 to 0.0014 mg/L and the GWPS remained at the US EPA MCL of 0.10 mg/L.
- BTV for cobalt was lowered from 0.016 to 0.014 mg/L.
- BTV for lead was lowered from 0.005 to 0.0011 mg/L.
- BTV for thallium was lowered from 0.0014 to 0.0012 mg/L.
- BTV for combined radium was lowered to 4.16 mg/L and the GWPS selection was changed to the US EPA MCL of 5.0 mg/L.
- BTV for fluoride was increased from 4.0 to 4.2 mg/L and the GWPS selection was changed to the BTV.
- BTV for beryllium was increased from 0.0010 to 0.0022 mg/L.
- BTV for cadmium was lowered from 0.0010 to 0.00021 mg/L.
- BTV for lithium was increased from 0.80 to 0.89 mg/L.
- BTV for selenium was increased from 0.45 to 0.47 mg/L.

## 3.0 RECOMMENDATIONS

Based on the results of the statistical evaluation presented in the CWTP Tech Memo (WSP, 2024) and pursuant to the CCR Rule, the BTVs and the GWPSs should be updated routinely (i.e., every 2 to 3 years). Additionally, the laboratory should achieve reporting limits below the U.S. EPA's promulgated MCLs and maintain a constant reporting limit for each analyte over time for all monitoring wells – background and compliance.

## 4.0 REFERENCES


- Federal Register, 2020. 40 Code of Federal Regulations Part 257 – Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities; Final Rule promulgated at 80 FR 21468 on April 17, 2015 with amendments issued through November 12, 2020 at 85 FR 72539 (A Holistic Approach to Closure Part B: Alternate Demonstration for Unlined Surface Impoundments).
- United States Environmental Protection Agency (USEPA), 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance. EPA 530/R-09-007*. Environmental Protection Agency Office of Resource Conservation and Recovery.
- Wood Environment & Infrastructure Solutions, Inc. (Wood), 2018. CCR Groundwater Assessment Monitoring Statistical Analysis and Results for the URS. Four Corners Power Plant, Fruitland, New Mexico. Prepared for Arizona Public Service. October 15, 2018.
- WSP USA Environment & Infrastructure, Inc. (WSP), 2023a. *Statistical Data Analysis Work Plan*. Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Four Corners Power Plant, Fruitland, New Mexico. Prepared for Arizona Public Service. January 10, 2023.
- WSP USA Environment & Infrastructure, Inc. (WSP), 2024. CCR Groundwater Assessment Monitoring Statistical Analysis and Results for the CWTP. Appendix IV Constituent Data Collected Through November 2023, Four Corners Power Plant, Fruitland, New Mexico. Prepared for Arizona Public Service. April 8, 2024.

# TABLE 1

Table 1
GWPS Selection - FCPP URS
Appendix IV Statistical
Comparison

| Grouped Background Wells | Constituent | US EPA MCL | Alternative Risk-Based GWPS | Background Threshold Value (Calculation Method[1,2,3]) | Units | GWPS Selection[4] |
|---|---|---|---|---|---|---|
| MW-71, MW-72, MW-73 | Antimony | **0.006** | --- | 0.00027 (NP-UTL) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Arsenic | 0.01 | --- | **0.013 (P-UTLT)** | mg/L | BTV |
| MW-71, MW-72, MW-73 | Barium | **2** | --- | 0.051 (NP-UTL) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Beryllium | **0.004** | --- | 0.0022 (NP-UTL) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Cadmium | **0.005** | --- | 0.00021 (NP-UTL) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Chromium | **0.1** | --- | 0.0014 (NP-UTL) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Cobalt | --- | 0.006 | **0.014 (P-UTL)** | mg/L | BTV |
| MW-71, MW-72, MW-73 | Fluoride | 4 | --- | **4.2 (NP-UTL)** | mg/L | BTV |
| MW-71, MW-72, MW-73 | Lead | --- | **0.015** | 0.0011 (NP-UTL) | mg/L | Alternative Risk-Based GWPS |
| MW-71, MW-72, MW-73 | Lithium | --- | 0.04 | **0.89 (NP-UTL)** | mg/L | BTV |
| MW-71, MW-72, MW-73 | Mercury | **0.002** | --- | 0.0002 (DQR) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Molybdenum | --- | **0.1** | 0.011 (NP-UTL) | mg/L | Alternative Risk-Based GWPS |
| MW-71, MW-72, MW-73 | Selenium | 0.05 | --- | **0.47 (P-UTLT)** | mg/L | BTV |
| MW-71, MW-72, MW-73 | Thallium | **0.002** | --- | 0.0012 (NP-UTL) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Combined Radium | **5** | --- | 4.16 (P-UTL) | pCi/L | US EPA MCL |

**Notes:**

BTV = Background Threshold Value

GWPS = Groundwater Protection Standard

US EPA MCL = United States Environmental Protection Agency Maximum Contaminant Level under the Safe Drinking Water Act

[1] Double Quantification Rule (DQR), Parametric Upper Tolerance Limit (P-UTL), Non-Parametric Upper Tolerance Limit (NP-UTL), Parametric Upper Tolerance Limit with a trend (P-UTLT)

[2] The DQR BTV represents the maximum reporting limit value

[3] Background Threshold Values were updated in September 2023.

[4] The GWPS selection represents the highest value between the US EPA MCL, the Alternative Risk-Based GWPS and the BTV

# APPENDIX

## I

## WSP TECHNICAL MEMORANDUM DOCUMENTING THE STATISTICAL ANALYSIS BTVS FOR THE MU

# TECHNICAL MEMORANDUM

| | | | |
|---|---|---|---|
| **To:** | Arizona Public Service Company | **Project No.** | US0023513.6155-US-2024 APS FC CCR Compliance SVC |
| **By:** | Samantha O'Shea | **Reviewed by:** | Maren Henley, PE |
| **Tel:** | 480-966-8295 | **CC:** | File |
| **Date:** | January 27, 2025 | | |

**Re:** **CCR GROUNDWATER ASSESSMENT MONITORING STATISTICAL ANALYSIS FOR THE MULTIUNIT 1 BACKGROUND THRESHOLD VALUES UPDATE**
**Arizona Public Service Company Four Corners Power Plant – Fruitland, New Mexico**

## 1.0 INTRODUCTION

This Technical Memorandum (Tech Memo) presents an update to the background statistical evaluation for groundwater at the CCR multiunit referred to as Multiunit 1 comprised of the Lined Ash Impoundment (LAI) and the lined Decant Water Pond (LDWP) located at the Arizona Public Service Company (APS) Four Corners Plant (Site) in Fruitland, New Mexico. The statistical evaluation was performed by Geosciences Consulting LLC (Geosciences Consulting), pursuant to Coal Combustion Residuals (CCR) Rule requirements for groundwater monitoring and corrective action detailed in 40 Code of Federal Regulations Sections 257.90 through 257.98 (CCR Rule) (Federal Register, 2020) and the Site's certified the Statistical Data Analysis Work Plan (SDAWP).

The Multiunit 1 is following an assessment monitoring program and is undergoing corrective action. Groundwater corrective action is based on concentrations of cobalt and molybdenum exceeding the groundwater protection standard (GWPS) at various monitoring wells downgradient of the unit (Wood, 2018). The Multiunit 1 closure is projected to be completed in 2028 (WSP, 2023).

The statistical evaluation documented herein provides an update to the background threshold values (BTVs) established in 2018 (Wood, 2018) by incorporating additional Appendix IV constituent data collected from Multiunit 1 background monitoring wells (including MW-12R1, MW-43, MW-49A, MW-51, MW-50A, MW-55R, and MW-74) through May 2024 (the Spring 2024 event). The BTVs presented in this Tech Memo were updated in accordance with the SDAWP for the Site (WSP, 2023).

## 2.0 STATISTICAL EVALUATION RESULTS

**Attachment A** presents the statistical methods and evaluation conducted by Geosciences Consulting and summarizes the updated GWPS selection for each Appendix IV constituent.

As described in 40 CFR § 257.95(h)(1-3), the GWPS is:

- The maximum contaminant level (MCL) established under §§141.62 and 141.66 of this title.
- Where an MCL has not been established, Regional Screening Levels (RSLs) have been specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), or molybdenum (0.100 mg/L).

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- The respective background level for a constituent when the background level is higher than the MCL or rule identified GWPS.

In accordance with the rule requirements, background concentrations were evaluated to establish Site-specific GWPS for statistical comparison of Appendix IV constituents. Based on the analysis, the GWPS has been updated for each of the Appendix IV constituents. Table 1 in **Attachment A** presents a summary of the comparison criteria and the established GWPS using pooled data from MW-49A and MW-74. The spatial heterogeneity observed in the pooled M-49A and MW-74 data should be evaluated, and BTVs updated as necessary in a subsequent review. The updated GWPS are as follows:

- **Antimony:** Adjusted from the previous BTV of 0.01 mg/L to the US EPA MCL of 0.006 mg/L.
- **Cobalt:** Adjusted from the previous BTV of 0.01 mg/L to the alternative risk-based GWPS of 0.006 mg/L.
- **Fluoride:** Adjusted from the previous BTV of 5 mg/L to the US EPA MCL of 4 mg/L.
- **Selenium:** Adjusted from the previous BTV of 0.017 mg/L to the updated BTV of 0.12 mg/L. For reference, the preliminary single-well BTV calculated in 2022 for selenium, but never adopted, and using sample data from M-74 (Geosciences, 2022) was 0.19 mg/L.
- **Thallium:** Adjusted from the previous BTV of 0.017 mg/L to the US EPA MCL of 0.002 mg/L.
- **Lithium:** Adjusted from the previous BTV of 1.80 mg/L to the updated BTV of 1.54 mg/L. For reference, the preliminary single-well BTV calculated in 2022 (Geosciences, 2022) was 1.53 mg/L.
- **Molybdenum:** the updated BTV is now matches the alternative risk-based GWPS; however, the GWPS concentration remains unchanged.

## 3.0 REFERENCES


- Federal Register, 2020. 40 Code of Federal Regulations Part 257 – Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities; Final Rule promulgated at 80 FR 21468 on April 17, 2015 with amendments issued through November 12, 2020 at 85 FR 72539 (A Holistic Approach to Closure Part B: Alternate Demonstration for Unlined Surface Impoundments).
- Geosciences Consulting Strategies LLC., 2022. Statistical Evaluation of lithium and selenium Multiunit 1 Data, Preliminary GWPS Calculation and Statistical Comparisons. Arizona Public Service Company Four Corners Power Plant – Fruitland, New Mexico. August 16, 2022.
- United States Environmental Protection Agency (USEPA), 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance. EPA 530/R-09-007*. Environmental Protection Agency Office of Resource Conservation and Recovery.
- Wood Environment & Infrastructure Solutions, Inc. (Wood), 2018. CCR Groundwater Assessment Monitoring Statistical Analysis and Results for Multiunit 1. Four Corners Power Plant, Fruitland, New Mexico. Prepared for Arizona Public Service. October 15, 2018.
- WSP USA Environment & Infrastructure, Inc. (WSP), 2023. *Statistical Data Analysis Work Plan*. Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Four Corners Power Plant, Fruitland, New Mexico. Prepared for Arizona Public Service. January 10, 2023.

# ATTACHMENT A

Memorandum for file.
Multiunit 1 CCR Assessment Monitoring Background Threshold Values Update October 2024 – Geoscience Consulting Strategies LLC

# Technical Memorandum

**To:** Maren Henley, PE
Wood Environment & Infrastructure Solutions, Inc.

**From:** Carla Landrum, PhD
Geoscience Consulting Strategies LLC

**Date:** October 31, 2024

**Subject:** **Memorandum for File**
**Multiunit 1 CCR Assessment Monitoring Background Threshold Values Update**
**October 2024**
**Arizona Public Service Company Four Corners Power Plant – Fruitland, New Mexico**

## 1.0 INTRODUCTION

This Memorandum for File (Memo) documents updates to the Background Threshold Values (BTVs) for assessment monitoring (i.e., Appendix IV constituents) groundwater data associated with the Multiunit 1 (Multiunit) located at the Arizona Public Service Company (APS) Four Corners Power Plant (FCPP) in Fruitland, New Mexico. This statistical evaluation is completed by Geoscience Consulting Strategies LLC in accordance with the Statistical Data Analysis Work Plan (SDAWP) for the FCPP (WSP USA Environment & Infrastructure Inc [WSP], 2023).

The groundwater protection standards (GWPSs) for Appendix IV constituents for the Multiunit constitute either: 1) statistically-driven BTVs, 2) the applicable U.S. Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL) promulgated under the Safe Drinking Water Act, or 3) alternative risk-based GWPSs established in the statute, whichever is higher (40 Code of Federal Regulations [CFR] Section [§] 257.95(h) [Federal Register, 2020]). Updates to the statistically-driven BTVs will initiate the re-selection of GWPSs, as necessary.

The Multiunit is in the corrective action phase and has an estimated planned closure date for 2028 (WSP, 2023). The closure plan for the Lined Ash Impoundment (LAI) and the Lined Decant Water Pond (LDWP) is applicable to the Multiunit and states, in part, that the coal combustion residual (CCR) in these units will be closed in place and capped with an evapotranspiration cover. Dewatering of CCR Unit(s) must occur prior to capping to safely construct the final cover system. A pilot dewatering well study was completed in July 2023 (WSP,2024).

The following sections detail data inputs, methods, results and recommendations.

## 2.0 DATA INPUTS

The Multiunit 1 CCR groundwater monitoring well network consists of seven background monitoring wells (MW-74, MW-12R1, MW-43, MW-49A, MW-50A, MW-51 and MW-55R). The FCPP SDAWP (WSP, 2023) identifies five background wells (MW-12R1, MW-43, MW-50A, MW-51 and MW-55R) are routinely dry of have insufficient saturated thickness that precludes sampling. The Multiunit has six compliance (i.e.,

downgradient) monitoring wells (MW-7, MW-8, MW-61, MW-75, MW-40R and MW-76) and two of these monitoring wells (MW-40R and MW-76) are routinely dry or have limited saturated thickness that precludes sampling.

The period of data evaluation ranges from September 2014 to May 2024. Appendix A contains the sample data for the subject update. Depending on the Appendix IV constituent, the minimal sample number for this statistical evaluation ranges between 35 to 50.

Data inputs for this statistical analysis were prepared, and provided by, WSP. As shown in Appendix A, the Appendix IV analytes are listed by name or chemical symbol as column headers as required by the statistical software (i.e., ProUCL) (EPA, 2015). By convention, each analyte has a corresponding data column (indicated with a "D_" prefix) that indicates if the analyte was detected or not at a concentration that exceeds the analytical reporting limit, where detectable concentrations are symbolized by a "1" and non-detectable concentrations are symbolized by a "0." For consistency purposes, the data were pooled from background wells MW-49A and M-74 to complete this analysis.

## 3.0 METHODS

To establish current GWPSs for the Multiunit, updates to the Appendix IV BTVs are necessary. In accordance with the Unified Guidance (U.S. EPA, 2009) and CCR Rule (40 C.F.R. § 257.93(f)(3)), the FCPP SDAWP (WSP, 2023) identifies the upper tolerance limit (UTL) method as the prescribed approach for establishing BTVs for assessment monitoring. The advantage of selecting the UTL method is its ability to serve as a single-sample statistical comparison. The statistical hypothesis structure for a single-sample comparison is reversible, such that the same fixed background level can be used for assessment monitoring and later for corrective action comparison testing, if necessary. The UTL tests are applicable for analytes that exhibit non-detectable frequencies of less than 100%.

The U.S. EPA's Unified Guidance (2009) and the FCPP SDAWP (WSP, 2023) promotes the use of the Double Quantification Rule (DQR) to calculate the UTL in cases where the background non-detection frequency is equal to 100%.

The following section describes the statistical methods used to update the Multiunit BTVs.

### 3.1 EDA Workflow Procedures

EDA is a data diagnostic step that generates qualitative and quantitative information necessary to select a defensible statistical method to determine if there is a SSI over the GWPS. Figure 1 generalizes the EDA workflow, including assessment of spatial heterogeneity, trend detection, data distribution assessment, and outlier detection. Sample number, monitoring well network configuration, sampling frequency and non-detect frequency determine which EDA methods are most useful. The final EDA step is selecting an adequate and appropriate statistical method. Notably, the EDA workflow procedure is standard between detection monitoring and assessment monitoring.

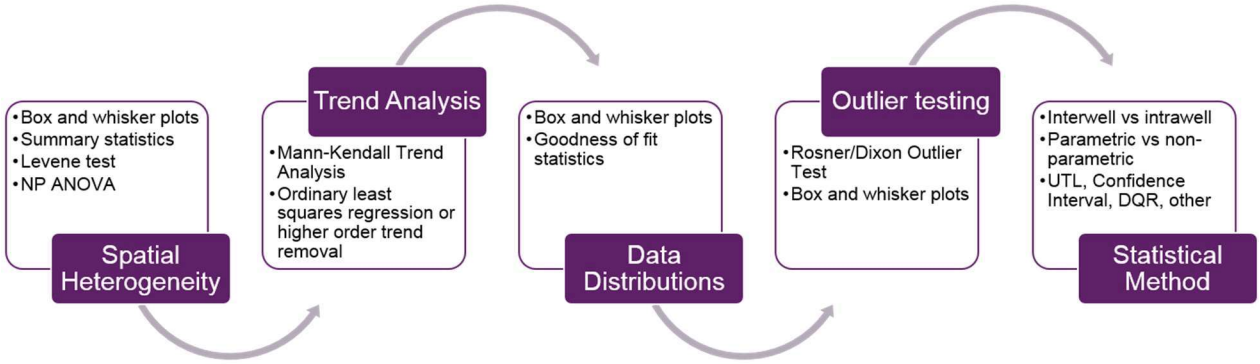


**Figure 1. Assessment monitoring EDA and statistical method workflow procedures.** Each box represent as separate step in the EDA workflow process. The items listed in each box identifies the statistical method(s) applied for each step. Both quantitative and qualitative methods are listed.

There are a number of different types of tolerance limit and confidence interval quantification methods to select from, depending on the statistical distribution, the presence of a temporal trend, the type of statistical comparison (e.g. interwell or intrawell) and the quantity of non-detect values in the background sample data. The following subsections describe these methods and criteria for their selection.

Non-detect values can introduce subjective uncertainty into the trend analysis, mainly through changes in the reporting limits over time since they are often substituted as the sample analytical value. To avoid this subjective uncertainty, constituents with a non-detect frequency greater than 50% were excluded from the trend analysis.

## 3.2 Establishing Background Threshold Values

As stated in Section 1.0, BTVs can serve as the GWPS, if appropriate. For this reason, the BTVs were updated as part of this statistical evaluation. Four statistical tests are applicable for updating BTVs for Appendix IV constituents at the FCPP: the parametric interwell upper tolerance limit, the parametric interwell upper tolerance limit with a trend, non-parametric interwell upper tolerance limit and the Double Quantification Rule. This work assumes that background well locations are adequate and thereby declare interwell comparisons appropriate. Each statistical test is described below.

### 3.2.1 Parametric Interwell Upper Tolerance Limit (P-UTL)

An interwell UTL represents an upper boundary, or threshold concentration value, that contains a pre-specified proportion, or coverage, of the underlying groundwater statistical population. For example, this coverage can range from 95% to 99% of all possible sample measurements in the underlying background statistical population, depending on the data characteristics. Because the monitoring program cannot sample everywhere, there is inherent uncertainty in defining the true underlying statistical population. For this reason, statistical confidence in this coverage is incorporated into the UTL equation using a tolerance coefficient (U.S. EPA, 2009). Oftentimes a tolerance coefficient of at least 95% is used, which corresponds to a significance level ($\alpha$) equal to 5% (U.S. EPA, 2009). Table 17-3 within the Unified Guidance (U.S. EPA, 2009) combines the coverage and confidence to calculate the UTL.

A parametric interwell upper tolerance limit (P-UTL) is an adequate method if the background sample data met the following criteria, which are tested using procedures declared in the SDAWP (WSP, 2023):

1. Temporal stationarity (no trend in concentration through time)
2. Normal or transformed normal data distribution
3. Spatial heterogeneity is minimal
4. Sample outliers have been removed
5. Sample data are statistically independent and identically distributed

The P-UTLs were calculated using a 95% coverage with a 95% confidence.

The UTL coverage assumes the background sample data set is adequate and representative of intrinsic spatial and temporal variability in groundwater constituent concentrations beneath the Multiunit for Appendix IV constituents. Factors that can violate this assumption include: 1) background wells completed in a different water-bearing unit than compliance wells (i.e., spatial heterogeneity), 2) background wells that have not been sampled during times of extreme potentiometric level (e.g., drought, etc.), and 3) structurally-compromised wells that do not produce representative groundwater samples. Reference to the conceptual site model and professional judgement/interpretation are necessary to confirm the adequacy of background well designations for this statistical evaluation.

Table 1 lists background analytes and wells that are subject to the P-UTL method.

### 3.2.2 Non-Parametric Interwell Upper Tolerance Limit (NP-UTL)

A non-parametric interwell tolerance limit (NP-UTL) was calculated if the upgradient sample data met the following diagnostic criteria:

1. Temporal stationarity
2. No discernable data distribution
3. Spatial heterogeneity is minimal
4. Sample outliers have been removed
5. Statistical independence

Criterion Number 2, where a parametric distribution is not discernable from the sample data, primarily drives the NP-UTL selection. A NP-UTL uses the first or second highest-ranked background concentration value to establish the UTL, depending on the number of data points. "Ranked" means the grouped background concentration values are ordered in decreasing order and assigned a rank based on this order, where a rank equal to one represents the maximum concentration value. Table 17-4 in the Unified Guidance (U.S. EPA, 2009) provides minimum coverage levels for the first and second ordered sample values with 95% confidence for different background sample numbers. Table 17-4 illustrates that the sample number controls the coverage for the NP-UTL and higher sample numbers are necessary to achieve a higher coverage. Overall, the non-parametric tolerance limit is less powerful in comparison to its parametric counterparts (but more appropriate when parametric assumptions are not met).

The NP-UTL uses the maximum ranked value in the background well, which can constitute a reporting limit value if the reporting limit is higher than detectable concentrations.

Table 1 lists background analytes and wells that are subject to the NP-UTL method.

### 3.2.3 Calculating the Trend-Dependent Upper Tolerance Limit (P-UTLT)

The threshold limit tests are sensitive to temporal trends, which can inflate the standard deviation that unduly increases the UTL. If the temporal Mann-Kendall trend was significant ($p<0.05$), and the data exhibit a parametric distribution, the 95% upper tolerance limit was calculated around the temporal trend (P-LCLT). If a trend was significant ($p<0.05$) but the data distribution was non-parametric, then a NP-LCL was calculated. The P-LCLT was calculated in ProUCL 5.1 using the ordinary least squares (OLS) module and applying the UTL calculation to the time series data, which incorporates the use of Tables 16-1 and 17-3 in the Unified Guidance (US EPA, 2009) to determine the Student's t statistic and k value, respectively.

The P-UTLTs were calculated using a 95% coverage with a 95% confidence.

Table 1 lists background analytes and wells that are subject to the P-UTLT method.

### 3.2.4 Double Quantification Rule

The DQR is appropriate when the analyte exhibits 100% non-detectable concentrations in the background data set. The DQR states that, for any given compliance well analyte, two consecutive detectable concentrations that are above the maximum reporting limit are sufficient evidence to declare an SSI.

It should be noted that implications exist when there are inconsistencies in reporting limit values over time and between monitoring wells. For example, when the downgradient wells reflect a higher maximum reporting limit in comparison to the background well, applying the DQR leads to uncertainty in identifying a real SSI (i.e., the statistical test results in a false negative SSI). In other cases, it is possible to have lower reporting limit values in downgradient wells, resulting in higher detections, which can trigger a false positive SSI. For these reasons, it is highly recommended that the laboratory establishes achievable and consistent analytical reporting limit values among all wells throughout the duration of the monitoring program.

Table 1 lists background analytes and wells that subject to the DQR.

### 3.2.5 BTV Updates

The BTV updates are completed in accordance with Section 8 and Section 2.5.2 of the FCPP SDAWP.

## 4.0 Results

Appendix B summarizes the results of the EDA of the Appendix IV groundwater data.

Table 1 summarizes the GWPS selection for each Appendix IV constituent. The GWPS constitutes either: 1) the statistically calculated BTV, 2) the U.S. EPA's promulgated MCL, or 3) the risk-based alternative GWPS identified for constituents without MCLs, whichever value is higher. This round of BTV updates resulted in the GWPS changing from the calculated BTV to the US EPA MCL or the Alternative Risk-Based GWPS, whichever is relevant, for antimony, cobalt, fluoride, and thallium. For molybdenum, the updated BTV is

equal to the Alternative Risk-Based GWPS, making both equally relevant. For lithium, the BTV remains as the GWPS and decreased from 1.8 milligrams per liter to 1.54 milligrams per liter. For selenium, the BTV remains as the GWPS increased from 0.017 milligrams per liter to 0.12 milligrams per liter.

This BTV update supports previous findings of spatial heterogeneity within the grouped background wells (MW-49A and MW-74) for lithium and selenium, as initially defined in a 2018 CCR Groundwater Assessment Monitoring Report for the Multiunit (Wood, 2018). In response to the 2018 CCR Groundwater Assessment Monitoring Report (Wood, 2018), a preliminary investigation into the BTV calculation for lithium and selenium ensued in August 2022 (Geosciences Consulting Strategies, LLC, 2022), where BTVs for lithium and selenium were evaluated using sample data from each background well (i.e., MW-49A and MW-74), respectively. The 2022 preliminary investigation was completed, in part, to demonstrate a proof of concept for a single well BTV calculation and to help facilitate an appropriate BTV selection. The BTVs resulting from the 2022 preliminary investigation were equal to 0.19 milligrams per liter for selenium using sample data from M-74 and 1.53 milligrams per liter for lithium using sample data from MW-49A. The 2022 preliminary investigation did not declare a well designation for establishing BTVs for lithium and selenium at the Multiunit (see Section 5.0 for further discussion). The BTVs using pooled data from MW-49A and MW-74 from this evaluation, as shown in Table 1, for lithium and selenium, respectively, are of the same order of magnitude, but generally lower, in comparison to the respective BTVs produced during the 2022 preliminary investigation. This is because the background well concentrations used in MW-49A (for selenium) and M-74 (for lithium) are significantly higher and thereby dominate in establishing the respective BTVs when pooling the two background wells' data together. The pooling of background data, however, likely bias the BTVs for these constituents low due to the presence of significantly lower constituent concentrations from the other background well (i.e., MW-49A in the case of lithium and MW-74 in the case of selenium).

## 5.0 Recommendations

The FCPP SDAWP (WSP, 2023) suggests that MW-49A is suspect to contamination based on its proximity to the Multiunit. This requires further address to determine if current background well designations are appropriate for the Multiunit. If MW-49A is deemed susceptible to contamination from the Multiunit, this background well should be removed from consideration when calculating BTVs for the Multiunit.

The pooling of background data is not recommended in cases where spatial heterogeneity exists, which remains the case for lithium and selenium. Based on the results from this round of BTV updates for the Multiunit, the recommendation made on page 8 in the 2018 Technical Memorandum (Wood, 2018), which was reiterated later in Section 4.0 of the 2022 Preliminary Assessment (Geosciences Consulting Strategies, LLC, 2022), stating "reference to the conceptual site model and professional judgement/interpretation are necessary to confirm adequacy and representativeness of background well designations for Multiunit 1.", still stands. Factors such as groundwater geochemistry, groundwater flow regimes and nearby alternative sources need consideration when selecting an adequate and representative background well designation at the Multiunit for selenium and lithium; this designation should be made before future BTV updates are made for the Multiunit.

The laboratory should achieve reporting limits below the U.S. EPA's promulgated MCLs and maintain a constant reporting limit for each analyte over time for all monitoring wells – background and compliance. This recommendation will improve the certainty of detection of temporal trends in the groundwater sample data while also decreasing the probability for declaring a false negative or false positive SSIs when applying statistical tests, especially the DQR.

## 6.0 REFERENCES

WSP USA Environment & Infrastructure Inc (WSP), 2023. *Statistical Data Analysis Work Plan*. Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Four Corners Power Plant, Fruitland, New Mexico. Prepared for Arizona Public Service. January 10.

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Wood, 2018. CCR Groundwater Assessment Monitoring Statistical Analysis and Results for Multiunit 1. October 15.

Geosciences Consulting Strategies, LLC, 2022. Statistical Evaluation of Lithium and Selenium Multiunit 1 Data, Preliminary GWPS Calculation and Statistical Comparisons. Arizona Public Service Company Four Corners Power Plant – Fruitland, New Mexico. August 16.

## ATTACHMENTS

Table 1 – GWPS selection for the Multiunit

Appendix A – ProUCL Data Upload Table
Appendix B – ProUCL Output Files

# TABLES

Table 1
GWPS Selection - Four Corners Power Plant Multiunit 1
Appendix IV Statistical Comparison

| Grouped Background Wells | Constituent | US EPA MCL | Alternative Risk-Based GWPS | Background Threshold Value (Calculation Method[1,2,3]) | Units | GWPS Selection[4] |
|---|---|---|---|---|---|---|
| MW-49A & MW-74 | Antimony | **0.006** | --- | 0.002 (NP-UTL) | mg/L | US EPA MCL |
| MW-49A & MW-74 | Arsenic | **0.01** | --- | 0.0065 (P-UTL) | mg/L | US EPA MCL |
| MW-49A & MW-74 | Barium | **2** | --- | 0.029 (P-UTL) | mg/L | US EPA MCL |
| MW-49A & MW-74 | Beryllium | **0.004** | --- | 0.00075 (NP-UTL) | mg/L | US EPA MCL |
| MW-49A & MW-74 | Cadmium | **0.005** | --- | 0.00031 (NP-UTL) | mg/L | US EPA MCL |
| MW-49A & MW-74 | Chromium | **0.1** | --- | 0.0063 (NP-UTL) | mg/L | US EPA MCL |
| MW-49A & MW-74 | Cobalt | --- | **0.006** | 0.0045 (P-UTL) | mg/L | Alternative Risk-Based GWPS |
| MW-49A & MW-74 | Fluoride | **4** | --- | 2.4 (NP-UTL) | mg/L | US EPA MCL |
| MW-49A & MW-74 | Lead | --- | **0.015** | 0.01 (DQR) | mg/L | Alternative Risk-Based GWPS |
| MW-49A & MW-74 | Lithium | --- | 0.04 | **1.54 (P-UTL)** | mg/L | BTV |
| MW-49A & MW-74 | Mercury | **0.002** | --- | 0.0004 (NP-UTL) | mg/L | US EPA MCL |
| MW-49A & MW-74 | Molybdenum | --- | **0.1** | **0.1 (P-UTL)** | mg/L | Alternative Risk-Based GWPS or BTV |
| MW-49A & MW-74 | Selenium | 0.05 | --- | **0.12 (NP-UTL)** | mg/L | BTV |
| MW-49A & MW-74 | Thallium | **0.002** | --- | 0.0017 (NP-UTL) | mg/L | US EPA MCL |
| MW-49A & MW-74 | Combined Radium | **5** | --- | 3.6 (P-UTLT) | pCi/L | US EPA MCL |

**Notes:**

BTV = Background Threshold Value
GWPS = Groundwater Protection Standard
US EPA MCL = United States Environmental Protection Agency Maximum Contaminant Level under the Safe Drinking Water Act
mg/L= milligrams per liter
pCi/L = picocuries per liter

[1] Double Quantification Rule (DQR), Parametric Upper Tolerance Limit (P-UTL), Non-Parametric Upper Tolerance Limit (NP-UTL), Parametric Upper Tolerance Limit with a trend (P-UTLT)

[2] The DQR BTV represents the maximum reporting limit value

[3] Background Threshold Values were updated in October 2024.

[4] The GWPS selection represents the highest value between the US EPA MCL, the Alternative Risk-Based GWPS and the BTV

# APPENDIX A

## PROUCL DATA UPLOAD TABLE

Appendix A

Multiunit ProUCL Upload Table

| Well | Sample Date | Antimony | D_Antimony | Arsenic | D_Arsenic | Barium | D_Barium | Beryllium | D_Beryllium | Cadmium | D_Cadmium |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-49A | 9/10/2014 | | | 0.0013 | 1 | | | | | | |
| MW-49A | 3/19/2015 | | | 0.002 | 0 | | | | | | |
| MW-49A | 7/1/2015 | | | 0.06 | 0 | | | | | | |
| MW-49A | 8/29/2015 | | | 0.03 | 0 | | | | | 0.01 | 0 |
| MW-49A | 12/1/2015 | 0.00033 | 1 | 0.0016 | 1 | 0.042 | 1 | 0.00075 | 1 | 0.00018 | 1 |
| MW-49A | 4/26/2016 | 0.005 | 0 | 0.001 | 0 | 0.025 | 1 | 0.001 | 0 | 0.0002 | 0 |
| MW-49A | 6/7/2016 | 0.00035 | 1 | 0.0013 | 1 | 0.028 | 1 | 0.001 | 0 | 0.00012 | 1 |
| MW-49A | 8/21/2016 | 0.00035 | 1 | 0.0011 | 1 | 0.022 | 1 | 0.001 | 0 | 0.0003 | 1 |
| MW-49A | 9/13/2016 | 0.005 | 0 | 0.004 | 0 | 0.029 | 1 | 0.001 | 0 | 0.002 | 0 |
| MW-49A | 10/20/2016 | | | | | | | | | | |
| MW-49A | 2/2/2017 | 0.001 | 0 | 0.00092 | 1 | 0.02 | 1 | 0.001 | 0 | 0.00031 | 1 |
| MW-49A | 4/18/2017 | 0.004 | 0 | 0.002 | 0 | 0.022 | 1 | 0.001 | 0 | 0.0004 | 0 |
| MW-49A | 5/3/2017 | 0.001 | 0 | 0.00088 | 1 | 0.022 | 1 | 0.001 | 0 | 0.00023 | 1 |
| MW-49A | 5/30/2017 | 0.001 | 0 | 0.0011 | 1 | 0.022 | 1 | 0.001 | 0 | 0.00024 | 1 |
| MW-49A | 6/22/2017 | 0.001 | 0 | 0.0011 | 1 | 0.021 | 1 | 0.001 | 0 | 0.00024 | 1 |
| MW-49A | 7/22/2017 | 0.002 | 1 | 0.0049 | 0 | 0.021 | 1 | 0.001 | 0 | 0.00023 | 0 |
| MW-49A | 8/10/2017 | 0.01 | 0 | 0.002 | 0 | 0.02 | 1 | 0.001 | 0 | 0.001 | 0 |
| MW-49A | 8/17/2017 | | | | | | | | | | |
| MW-49A | 9/10/2017 | 0.004 | 0 | 0.002 | 0 | 0.02 | 1 | 0.001 | 0 | 0.0004 | 0 |
| MW-49A | 10/12/2017 | 0.004 | 0 | 0.005 | 0 | 0.019 | 1 | 0.001 | 0 | 0.0004 | 0 |
| MW-49A | 11/30/2017 | | | | | | | | | | |
| MW-49A | 3/17/2018 | | | | | | | | | | |
| MW-49A | 6/1/2018 | | | 0.01 | 0 | 0.022 | 1 | | | 0.002 | 0 |
| MW-49A | 11/4/2018 | | | 0.0012 | 1 | 0.02 | 1 | | | 0.00027 | 1 |
| MW-49A | 3/19/2019 | 0.001 | 0 | 0.0011 | 1 | 0.027 | 1 | 0.001 | 0 | 0.0001 | 0 |
| MW-49A | 5/14/2019 | | | 0.00068 | 1 | 0.025 | 1 | | | 0.00011 | 1 |
| MW-49A | 11/19/2019 | 0.001 | 0 | 0.0011 | 1 | 0.022 | 1 | 0.001 | 0 | 0.00025 | 1 |
| MW-49A | 6/23/2020 | 0.001 | 0 | 0.0012 | 1 | 0.022 | 1 | | | 0.00015 | 1 |
| MW-49A | 11/6/2020 | 0.00064 | 1 | 0.0025 | 1 | 0.02 | 0 | 0.001 | 0 | 0.00023 | 1 |
| MW-49A | 4/27/2021 | 0.001 | 0 | 0.002 | 0 | 0.023 | 1 | 0.001 | 0 | 0.0001 | 0 |
| MW-49A | 11/15/2021 | 0.00018 | 1 | 0.001 | 0 | 0.025 | 1 | 0.001 | 0 | 0.00027 | 1 |
| MW-49A | 5/26/2022 | 0.001 | 0 | 0.0005 | 0 | 0.023 | 1 | 0.001 | 0 | 0.0003 | 1 |
| MW-49A | 11/16/2022 | 0.002 | 0 | 0.0019 | 1 | 0.025 | 1 | 0.001 | 0 | 0.0002 | 0 |
| MW-49A | 5/8/2023 | 0.002 | 0 | 0.005 | 0 | 0.021 | 1 | 0.001 | 0 | 0.001 | 0 |
| MW-49A | 11/15/2023 | 0.01 | 0 | 0.0076 | 1 | 0.028 | 1 | 0.001 | 0 | 0.001 | 0 |
| MW-49A | 5/23/2024 | 0.01 | 0 | 0.0053 | 1 | 0.022 | 1 | 0.001 | 0 | 0.001 | 0 |
| MW-74 | 2/2/2017 | 0.002 | 0 | 0.0035 | 1 | 0.036 | 1 | 0.001 | 0 | 0.0002 | 0 |
| MW-74 | 4/18/2017 | 0.004 | 0 | 0.0029 | 1 | 0.018 | 1 | 0.001 | 0 | 0.0004 | 0 |
| MW-74 | 5/2/2017 | 0.002 | 0 | 0.0028 | 1 | 0.018 | 1 | 0.001 | 0 | 0.0002 | 0 |
| MW-74 | 5/29/2017 | 0.01 | 0 | 0.005 | 0 | 0.022 | 1 | 0.001 | 0 | 0.001 | 0 |
| MW-74 | 6/22/2017 | 0.004 | 0 | 0.0032 | 1 | 0.02 | 1 | 0.001 | 0 | 0.0004 | 0 |
| MW-74 | 7/22/2017 | 0.004 | 0 | 0.0028 | 1 | 0.018 | 1 | 0.001 | 0 | 0.0004 | 0 |
| MW-74 | 8/10/2017 | 0.01 | 0 | 0.0022 | 1 | 0.019 | 1 | 0.001 | 0 | 0.001 | 0 |
| MW-74 | 9/10/2017 | 0.004 | 0 | 0.0043 | 1 | 0.023 | 1 | 0.001 | 0 | 0.0004 | 0 |
| MW-74 | 10/11/2017 | 0.01 | 0 | 0.005 | 0 | 0.023 | 1 | 0.001 | 0 | 0.001 | 0 |
| MW-74 | 11/30/2017 | | | | | | | | | | |
| MW-74 | 3/17/2018 | | | | | | | | | | |
| MW-74 | 6/1/2018 | | | 0.01 | 0 | 0.019 | 1 | | | 0.002 | 0 |
| MW-74 | 3/19/2019 | 0.001 | 0 | 0.0049 | 1 | 0.014 | 1 | 0.001 | 0 | 0.0001 | 0 |
| MW-74 | 5/13/2019 | | | 0.0044 | 1 | 0.016 | 1 | | | 0.0001 | 0 |
| MW-74 | 6/20/2020 | 0.001 | 0 | 0.0049 | 1 | 0.014 | 1 | | | 0.00029 | 1 |
| MW-74 | 4/23/2021 | 0.002 | 0 | 0.0035 | 0 | 0.015 | 1 | 0.001 | 0 | 0.0002 | 0 |

Appendix A

Multiunit ProUCL Upload Table

| Well | Sample Date | Chromium | D_Chromium | Cobalt | D_Cobalt | Fluoride | D_Fluoride | Lead | D_Lead | Lithium | D_Lithium |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-49A | 9/10/2014 | 0.0025 | 0 | | | 2 | 0 | | | | |
| MW-49A | 3/19/2015 | 0.005 | 0 | | | 2 | 0 | | | | |
| MW-49A | 7/1/2015 | 0.06 | 0 | | | 4 | 0 | | | | |
| MW-49A | 8/29/2015 | 0.03 | 0 | | | 2 | 0 | | | | |
| MW-49A | 12/1/2015 | 0.0035 | 1 | 0.0022 | 1 | 0.25 | 0 | 0.01 | 0 | 0.75 | 1 |
| MW-49A | 4/26/2016 | 0.001 | 0 | 0.0023 | 1 | 2 | 0 | 0.001 | 0 | 1.4 | 1 |
| MW-49A | 6/7/2016 | 0.00091 | 1 | 0.0019 | 1 | 1.1 | 1 | 0.0005 | 0 | 0.9 | 1 |
| MW-49A | 8/21/2016 | 0.00079 | 1 | 0.003 | 1 | 0.8 | 0 | 0.0005 | 0 | 1.8 | 1 |
| MW-49A | 9/13/2016 | 0.01 | 0 | 0.004 | 0 | 0.65 | 1 | 0.002 | 0 | 1.2 | 1 |
| MW-49A | 10/20/2016 | | | | | 0.4 | 0 | | | | |
| MW-49A | 2/2/2017 | 0.00079 | 1 | 0.004 | 1 | 0.4 | 0 | 0.0005 | 0 | 1.4 | 1 |
| MW-49A | 4/18/2017 | 0.002 | 0 | 0.0045 | 1 | 2 | 0 | 0.002 | 0 | 1.3 | 1 |
| MW-49A | 5/3/2017 | 0.00065 | 1 | 0.0037 | 1 | 13 | 0 | 0.0005 | 0 | 1.1 | 1 |
| MW-49A | 5/30/2017 | 0.00069 | 1 | 0.0036 | 1 | 2 | 0 | 0.0005 | 0 | 1.1 | 1 |
| MW-49A | 6/22/2017 | 0.00088 | 1 | 0.0039 | 1 | 2 | 0 | 0.0005 | 0 | 1.1 | 1 |
| MW-49A | 7/22/2017 | 0.0087 | 0 | 0.0035 | 1 | 4 | 0 | 0.0022 | 0 | 1.1 | 1 |
| MW-49A | 8/10/2017 | 0.004 | 0 | 0.0029 | 1 | 4 | 0 | 0.005 | 0 | 1.1 | 1 |
| MW-49A | 8/17/2017 | | | | | 4 | 0 | | | | |
| MW-49A | 9/10/2017 | 0.004 | 0 | 0.0026 | 1 | 4 | 0 | 0.002 | 0 | 0.9 | 1 |
| MW-49A | 10/12/2017 | 0.01 | 0 | 0.005 | 0 | 4 | 0 | 0.005 | 0 | 0.92 | 1 |
| MW-49A | 11/30/2017 | | | | | 4 | 0 | | | | |
| MW-49A | 3/17/2018 | | | | | | | | | | |
| MW-49A | 6/1/2018 | | | 0.01 | 0 | 0.8 | 0 | 0.01 | 0 | 1.1 | 1 |
| MW-49A | 11/4/2018 | | | 0.002 | 1 | 0.8 | 0 | 0.0005 | 0 | 1.2 | 1 |
| MW-49A | 3/19/2019 | 0.0036 | 1 | 0.0005 | 0 | 0.92 | 1 | 0.0005 | 0 | 0.56 | 1 |
| MW-49A | 5/14/2019 | | | 0.0005 | 0 | 1.2 | 1 | 0.0005 | 0 | 0.71 | 1 |
| MW-49A | 11/19/2019 | 0.002 | 1 | 0.001 | 1 | 0.8 | 0 | 0.0005 | 0 | 0.77 | 1 |
| MW-49A | 6/23/2020 | 0.001 | 0 | 0.00077 | 1 | 0.8 | 0 | 0.0005 | 0 | 1.5 | 1 |
| MW-49A | 11/6/2020 | 0.002 | 0 | 0.0014 | 1 | 0.66 | 1 | 0.001 | 0 | 0.83 | 1 |
| MW-49A | 4/27/2021 | 0.00082 | 1 | 0.00089 | 1 | 0.47 | 1 | 0.0005 | 0 | 0.9 | 1 |
| MW-49A | 11/15/2021 | 0.0038 | 1 | 0.0014 | 1 | 0.51 | 1 | 0.001 | 0 | 1 | 1 |
| MW-49A | 5/26/2022 | 0.004 | 1 | 0.0016 | 1 | 0.8 | 0 | 0.0005 | 0 | 0.82 | 1 |
| MW-49A | 11/16/2022 | 0.0038 | 1 | 0.0014 | 1 | 4 | 0 | 0.001 | 0 | 1 | 1 |
| MW-49A | 5/8/2023 | 0.003 | 0 | 0.002 | 1 | 20 | 0 | 0.001 | 0 | 1.1 | 1 |
| MW-49A | 11/15/2023 | 0.01 | 0 | 0.005 | 0 | 0.8 | 0 | 0.005 | 0 | 0.96 | 1 |
| MW-49A | 5/23/2024 | 0.01 | 0 | 0.005 | 0 | 0.4 | 0 | 0.005 | 0 | 1.1 | 1 |
| MW-74 | 2/2/2017 | 0.0026 | 1 | 0.001 | 0 | 1.7 | 1 | 0.0005 | 0 | 0.39 | 1 |
| MW-74 | 4/18/2017 | 0.002 | 0 | 0.002 | 0 | 1.8 | 1 | 0.002 | 0 | 0.4 | 1 |
| MW-74 | 5/2/2017 | 0.001 | 0 | 0.001 | 0 | 13 | 0 | 0.001 | 0 | 0.38 | 1 |
| MW-74 | 5/29/2017 | 0.005 | 0 | 0.005 | 0 | 1.9 | 1 | 0.005 | 0 | 0.37 | 1 |
| MW-74 | 6/22/2017 | 0.002 | 0 | 0.002 | 0 | 1.9 | 1 | 0.002 | 0 | 0.38 | 1 |
| MW-74 | 7/22/2017 | 0.002 | 0 | 0.001 | 0 | 1.9 | 1 | 0.002 | 0 | 0.41 | 1 |
| MW-74 | 8/10/2017 | 0.004 | 0 | 0.002 | 0 | 2 | 1 | 0.005 | 0 | 0.43 | 1 |
| MW-74 | 9/10/2017 | 0.004 | 0 | 0.002 | 0 | 2 | 1 | 0.002 | 0 | 0.48 | 1 |
| MW-74 | 10/11/2017 | 0.01 | 0 | 0.005 | 0 | 2.1 | 1 | 0.005 | 0 | 0.48 | 1 |
| MW-74 | 11/30/2017 | | | | | 1.9 | 1 | | | | |
| MW-74 | 3/17/2018 | | | | | | | | | | |
| MW-74 | 6/1/2018 | | | 0.01 | 0 | 2.1 | 1 | 0.01 | 0 | 0.49 | 1 |
| MW-74 | 3/19/2019 | 0.0063 | 1 | 0.0005 | 0 | 2.4 | 1 | 0.0005 | 0 | 0.65 | 1 |
| MW-74 | 5/13/2019 | | | 0.0005 | 0 | 1.9 | 1 | 0.0005 | 0 | 0.73 | 1 |
| MW-74 | 6/20/2020 | 0.0019 | 1 | 0.0005 | 0 | 1.1 | 1 | 0.0005 | 0 | 1.7 | 1 |
| MW-74 | 4/23/2021 | 0.005 | 1 | 0.00056 | 1 | 1.5 | 1 | 0.002 | 0 | 0.9 | 1 |

Appendix A

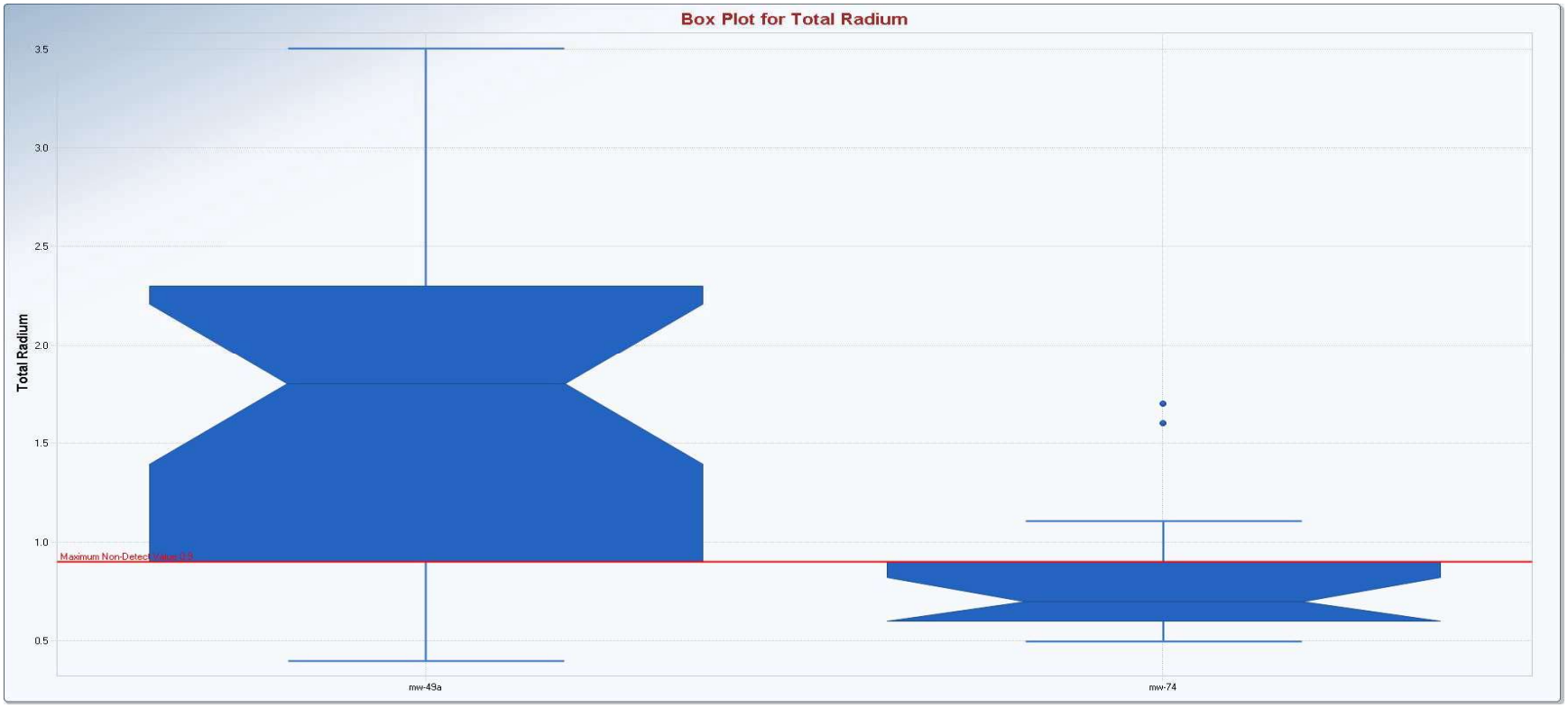
Multiunit ProUCL Upload Table

| Well | Sample Date | Mercury | D_Mercury | Molybdenum | D_Molybdenum | Selenium | D_Selenium | Thallium | D_Thallium | Total Radium | D_Total Radium |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-49A | 9/10/2014 | | | | | 0.0041 | 1 | | | | |
| MW-49A | 3/19/2015 | | | | | 0.006 | 0 | | | | |
| MW-49A | 7/1/2015 | | | | | 0.06 | 0 | | | | |
| MW-49A | 8/29/2015 | | | | | 0.03 | 0 | | | | |
| MW-49A | 12/1/2015 | 0.0001 | 1 | 0.096 | 1 | 0.0021 | 1 | 0.0014 | 1 | | |
| MW-49A | 4/26/2016 | 0.0002 | 0 | 0.027 | 1 | 0.002 | 1 | 0.0013 | 1 | 2.3 | 1 |
| MW-49A | 6/7/2016 | 0.0002 | 0 | 0.069 | 1 | 0.0018 | 1 | 0.0012 | 1 | 2.4 | 1 |
| MW-49A | 8/21/2016 | 0.0002 | 0 | 0.028 | 1 | 0.0018 | 1 | 0.0015 | 1 | 3.5 | 1 |
| MW-49A | 9/13/2016 | 0.0002 | 0 | 0.027 | 1 | 0.012 | 0 | 0.002 | 1 | 1.3 | 1 |
| MW-49A | 10/20/2016 | | | | | | | | | 2.1 | 1 |
| MW-49A | 2/2/2017 | 0.0002 | 0 | 0.042 | 1 | 0.0018 | 1 | 0.0015 | 1 | 3.4 | 1 |
| MW-49A | 4/18/2017 | 0.0002 | 0 | 0.028 | 1 | 0.002 | 0 | 0.0017 | 1 | 2 | 1 |
| MW-49A | 5/3/2017 | 0.0002 | 0 | 0.025 | 1 | 0.0018 | 1 | 0.0014 | 1 | 1.9 | 1 |
| MW-49A | 5/30/2017 | 0.0002 | 0 | 0.028 | 1 | 0.0017 | 1 | 0.0015 | 1 | 2.1 | 1 |
| MW-49A | 6/22/2017 | 0.0002 | 0 | 0.025 | 1 | 0.0017 | 1 | 0.0014 | 1 | 2.7 | 1 |
| MW-49A | 7/22/2017 | 0.0002 | 0 | 0.025 | 1 | 0.0032 | 1 | 0.0013 | 1 | 2.6 | 1 |
| MW-49A | 8/10/2017 | 0.0002 | 0 | 0.029 | 1 | 0.002 | 0 | 0.0014 | 1 | 1.7 | 1 |
| MW-49A | 8/17/2017 | | | | | | | | | 2 | 1 |
| MW-49A | 9/10/2017 | 0.0002 | 0 | 0.034 | 1 | 0.002 | 0 | 0.0013 | 1 | 2.3 | 1 |
| MW-49A | 10/12/2017 | 0.0002 | 0 | 0.032 | 1 | 0.002 | 0 | 0.0013 | 1 | 2.5 | 1 |
| MW-49A | 11/30/2017 | | | | | | | | | | |
| MW-49A | 3/17/2018 | | | | | | | | | 0.8 | 0 |
| MW-49A | 6/1/2018 | | | 0.018 | 1 | 0.01 | 0 | 0.002 | 0 | 1.5 | 1 |
| MW-49A | 11/4/2018 | | | 0.014 | 1 | 0.0016 | 1 | 0.0016 | 1 | 1.4 | 1 |
| MW-49A | 3/19/2019 | 0.0002 | 0 | 0.15 | 1 | 0.0018 | 1 | 0.00083 | 1 | 0.8 | 1 |
| MW-49A | 5/14/2019 | | | 0.1 | 1 | 0.0015 | 1 | 0.0011 | 1 | 0.7 | 0 |
| MW-49A | 11/19/2019 | 0.0002 | 0 | 0.082 | 1 | 0.001 | 1 | 0.0013 | 1 | | |
| MW-49A | 6/23/2020 | | | 0.066 | 1 | 0.0017 | 1 | 0.0013 | 1 | 1.8 | 1 |
| MW-49A | 11/6/2020 | 0.0002 | 0 | 0.058 | 1 | 0.0056 | 1 | 0.0013 | 1 | 0.8 | 0 |
| MW-49A | 4/27/2021 | 0.0002 | 0 | 0.051 | 1 | 0.0022 | 1 | 0.0011 | 1 | 0.8 | 0 |
| MW-49A | 11/15/2021 | 0.0002 | 0 | 0.049 | 1 | 0.0024 | 1 | 0.0014 | 1 | 1.3 | 1 |
| MW-49A | 5/26/2022 | 0.0002 | 0 | 0.037 | 1 | 0.001 | 0 | 0.0016 | 1 | 0.6 | 1 |
| MW-49A | 11/16/2022 | 0.0002 | 0 | 0.034 | 1 | 0.001 | 0 | 0.0014 | 1 | 0.4 | 1 |
| MW-49A | 5/8/2023 | 0.0002 | 0 | 0.029 | 1 | 0.005 | 0 | 0.0014 | 1 | 0.9 | 1 |
| MW-49A | 11/15/2023 | 0.0002 | 0 | 0.045 | 1 | 0.005 | 0 | 0.0021 | 1 | 2.1 | 1 |
| MW-49A | 5/23/2024 | 0.0002 | 0 | | | 0.005 | 0 | 0.0013 | 1 | 1.3 | 1 |
| MW-74 | 2/2/2017 | 0.0002 | 0 | 0.075 | 1 | 0.089 | 1 | 0.0001 | 0 | 1.6 | 1 |
| MW-74 | 4/18/2017 | 0.0002 | 0 | 0.013 | 1 | 0.069 | 1 | 0.0004 | 0 | 0.7 | 1 |
| MW-74 | 5/2/2017 | 0.0002 | 0 | 0.019 | 1 | 0.067 | 1 | 0.0002 | 0 | 0.5 | 1 |
| MW-74 | 5/29/2017 | 0.0002 | 0 | 0.028 | 1 | 0.062 | 1 | 0.001 | 0 | 1.1 | 1 |
| MW-74 | 6/22/2017 | 0.0002 | 0 | 0.02 | 1 | 0.06 | 1 | 0.0004 | 0 | 0.6 | 0 |
| MW-74 | 7/22/2017 | 0.0002 | 0 | 0.016 | 1 | 0.071 | 1 | 0.0004 | 0 | 0.7 | 0 |
| MW-74 | 8/10/2017 | 0.0002 | 0 | 0.018 | 1 | 0.06 | 1 | 0.001 | 0 | 0.9 | 1 |
| MW-74 | 9/10/2017 | 0.0002 | 0 | 0.024 | 1 | 0.092 | 1 | 0.0004 | 0 | 1.7 | 1 |
| MW-74 | 10/11/2017 | 0.0002 | 0 | 0.023 | 1 | 0.081 | 1 | 0.001 | 0 | 0.6 | 0 |
| MW-74 | 11/30/2017 | | | | | | | | | | |
| MW-74 | 3/17/2018 | | | | | | | | | 0.9 | 0 |
| MW-74 | 6/1/2018 | | | 0.015 | 1 | 0.089 | 1 | 0.002 | 0 | 0.7 | 0 |
| MW-74 | 3/19/2019 | 0.0002 | 0 | 0.012 | 1 | 0.14 | 1 | 0.0001 | 0 | 0.7 | 0 |
| MW-74 | 5/13/2019 | | | 0.017 | 1 | 0.14 | 1 | 0.00017 | 1 | 0.7 | 0 |
| MW-74 | 6/20/2020 | | | 0.012 | 1 | 0.049 | 1 | 0.00022 | 1 | 0.6 | 0 |
| MW-74 | 4/23/2021 | 0.0002 | 0 | 0.021 | 1 | 0.12 | 1 | 0.0004 | 0 | 0.8 | 0 |

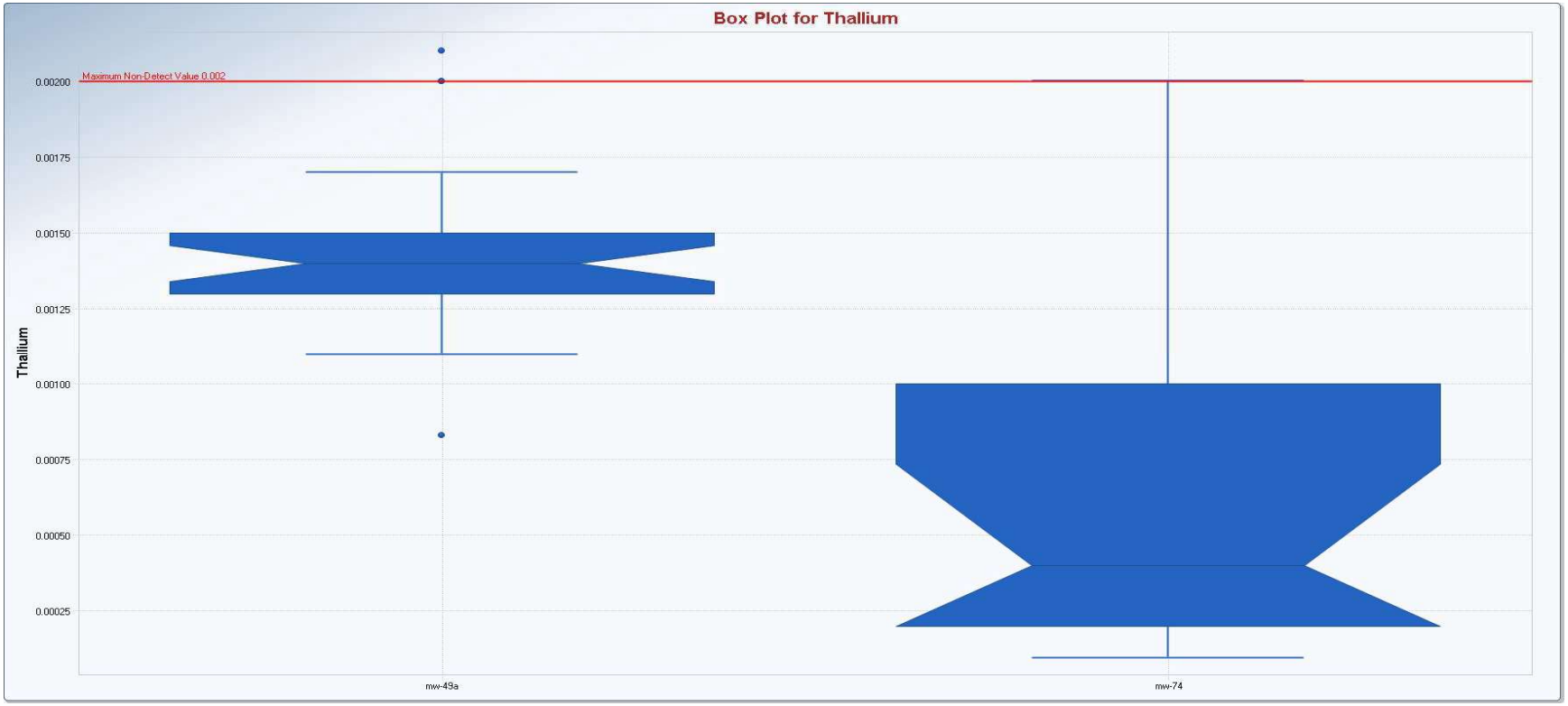
# APPENDIX B

## PROUCL EDA OUTPUT FILES

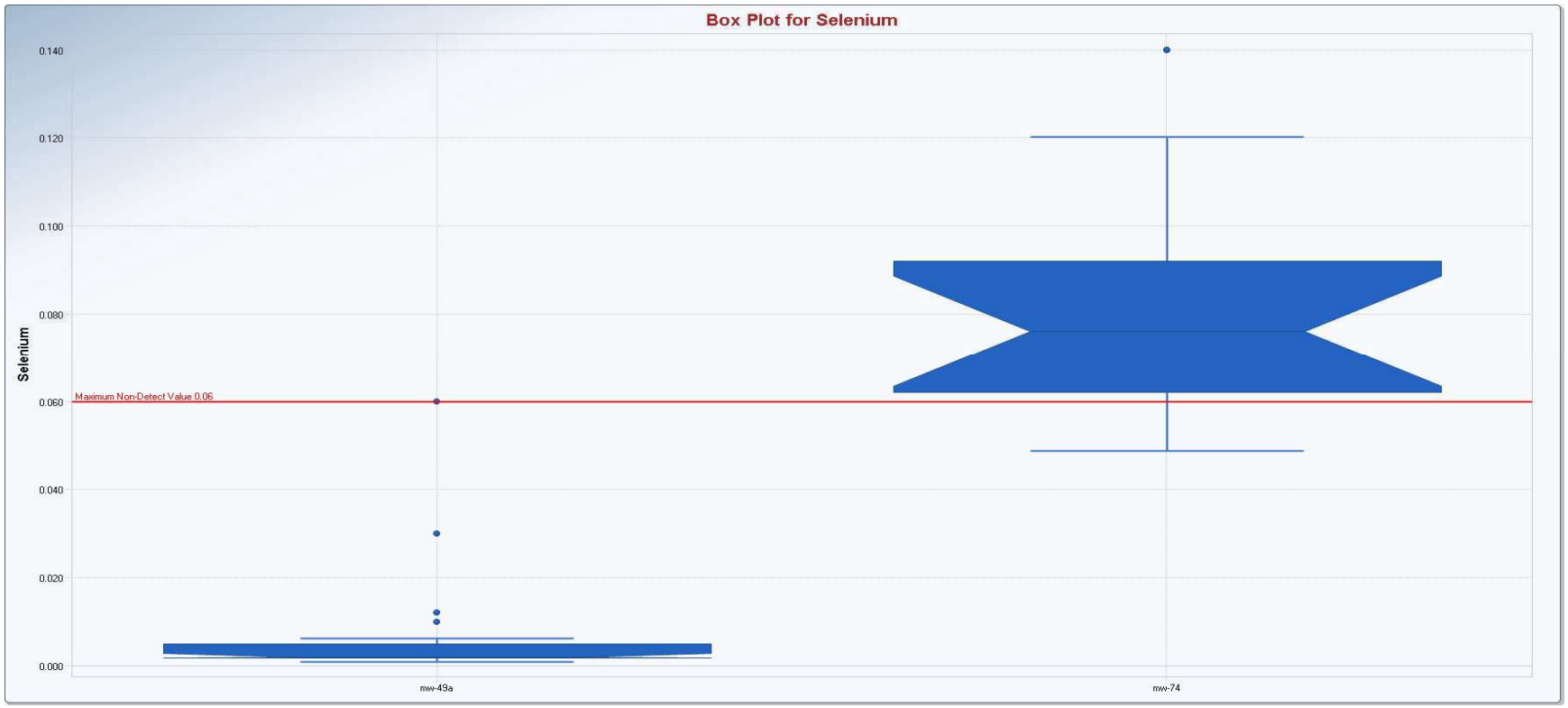
# Appendix B
# Box and Whisker Plots



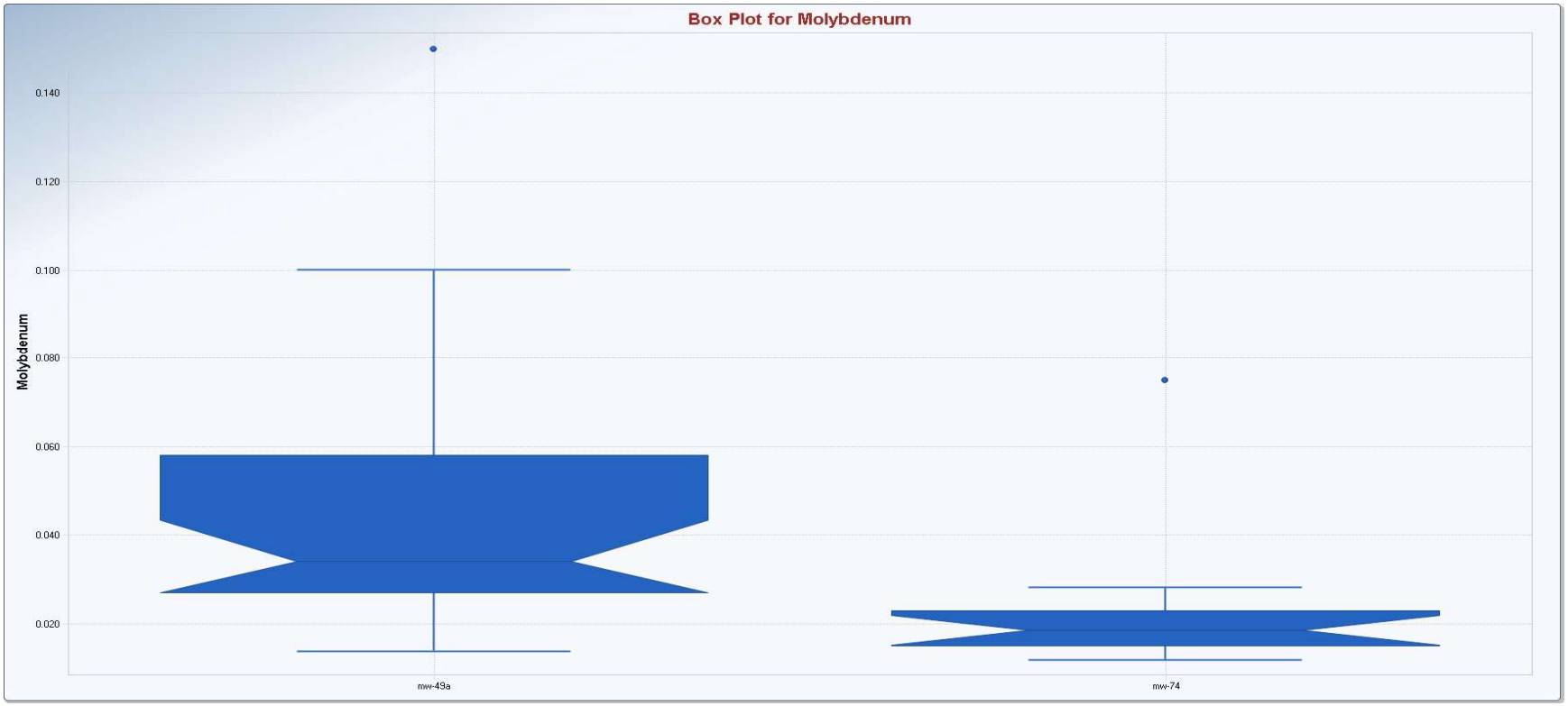
# Appendix B
# Box and Whisker Plots



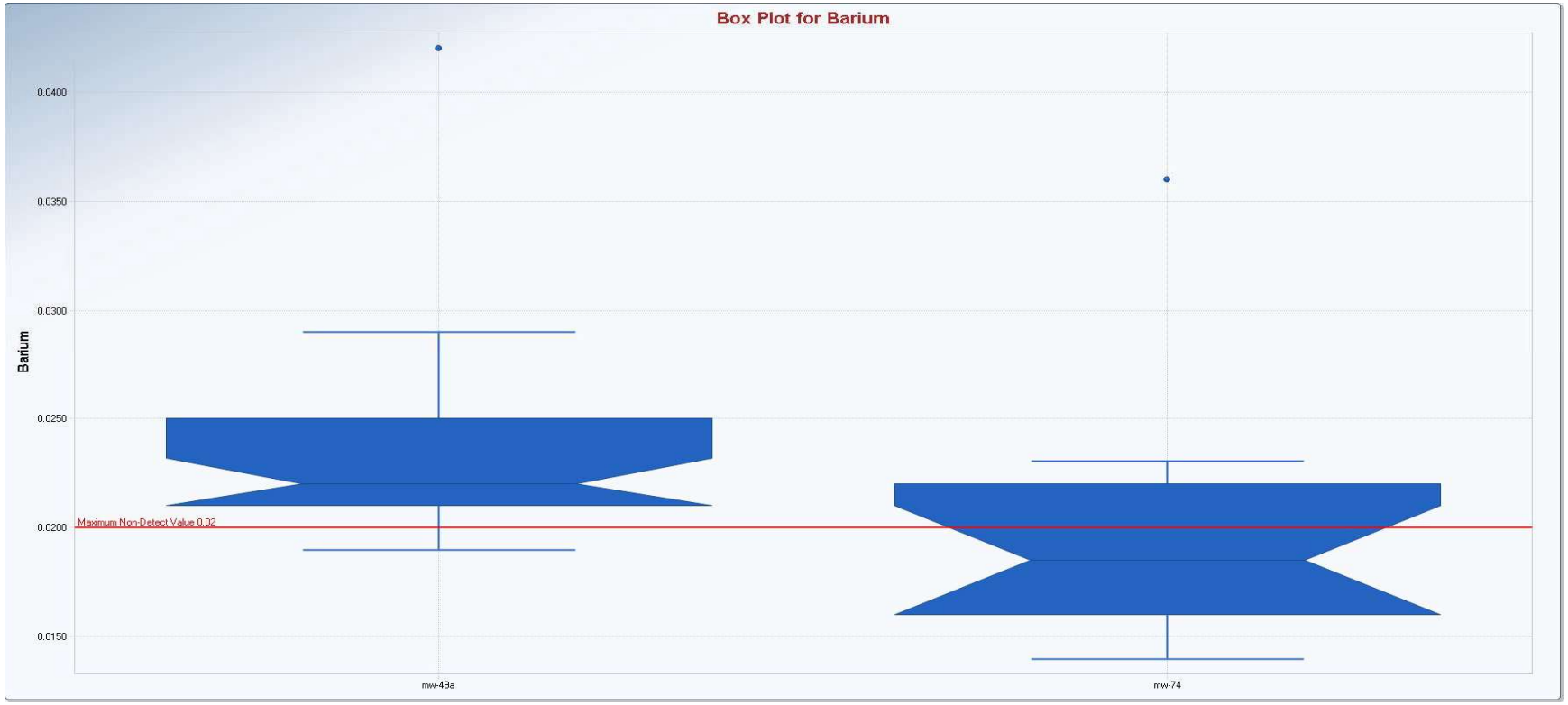
# Appendix B
# Box and Whisker Plots



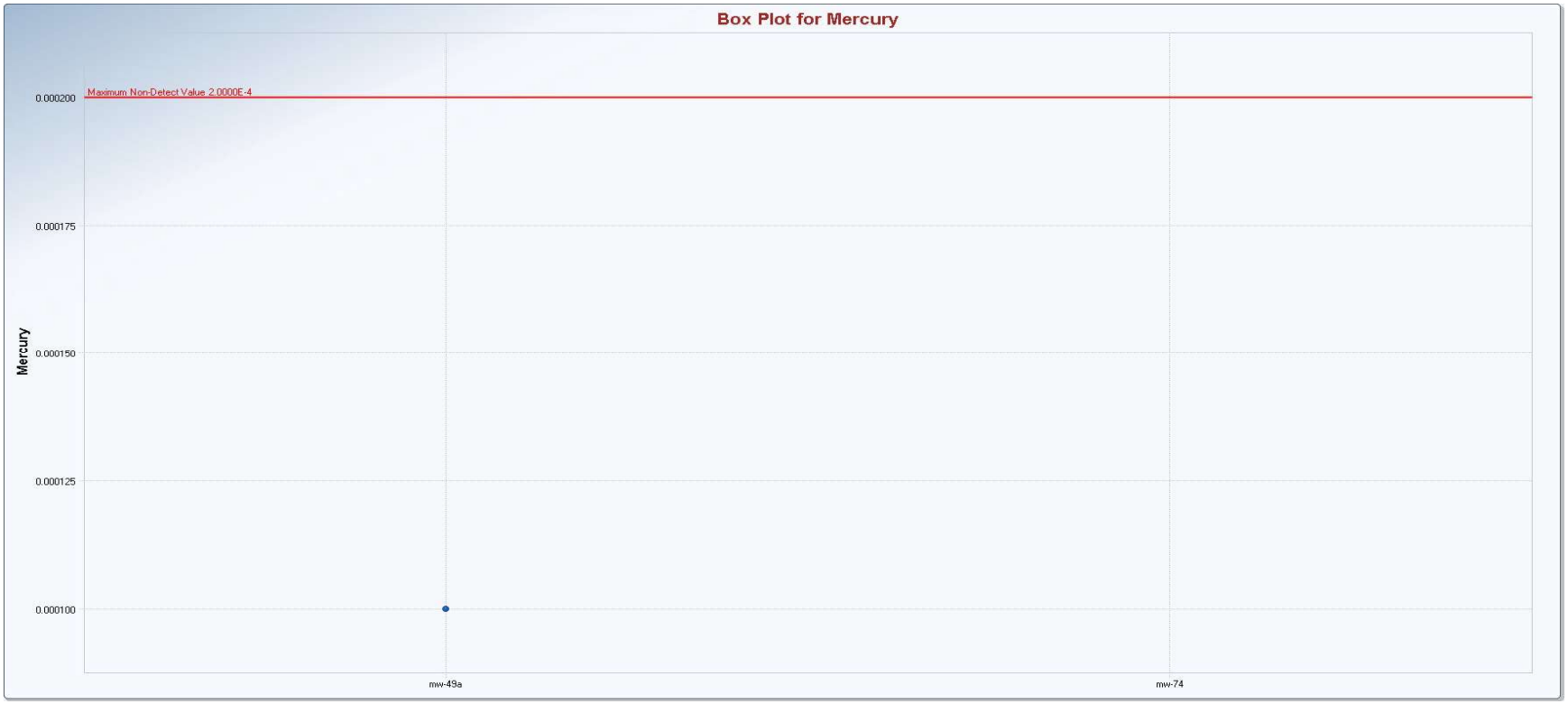
# Appendix B
# Box and Whisker Plots



# Appendix B
# Box and Whisker Plots



# Appendix B
# Box and Whisker Plots



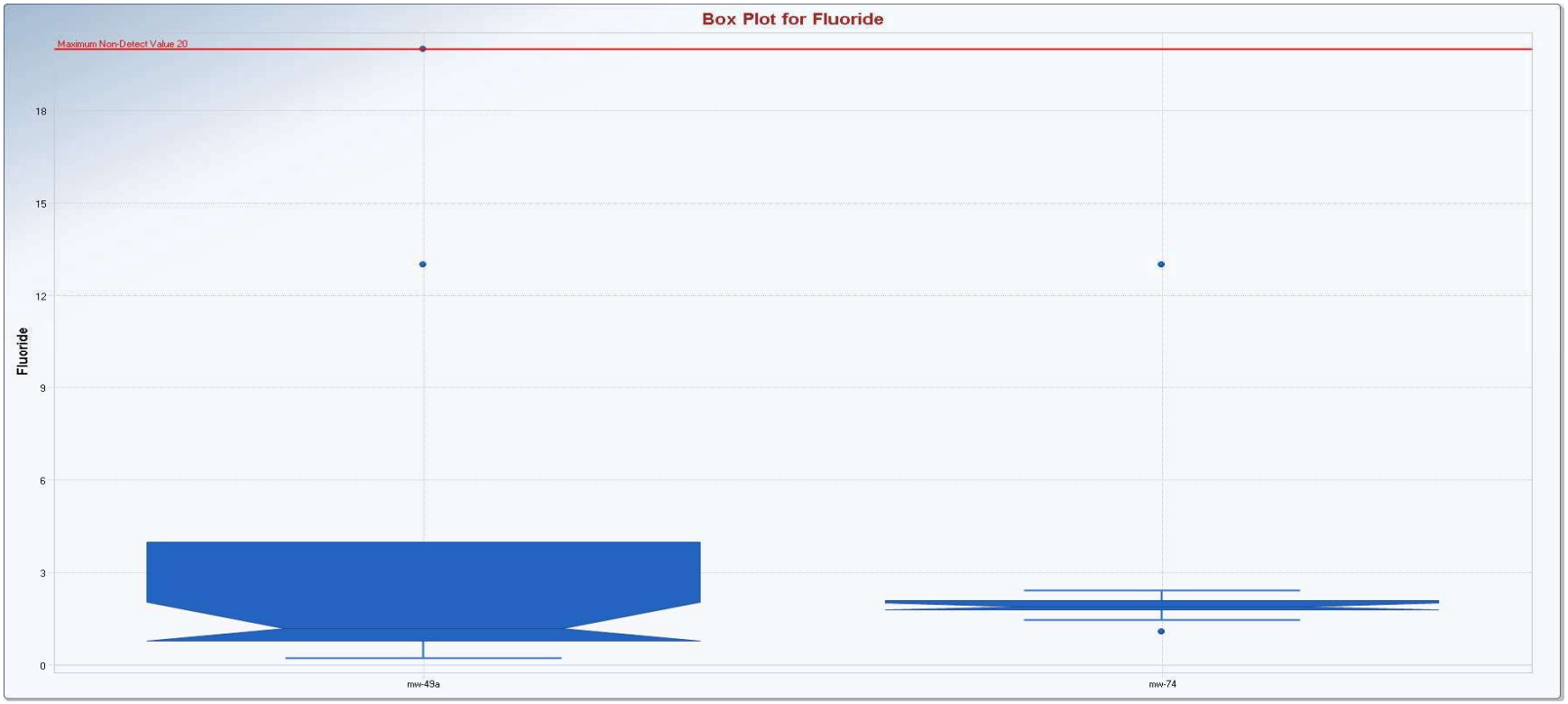
# Appendix B
# Box and Whisker Plots



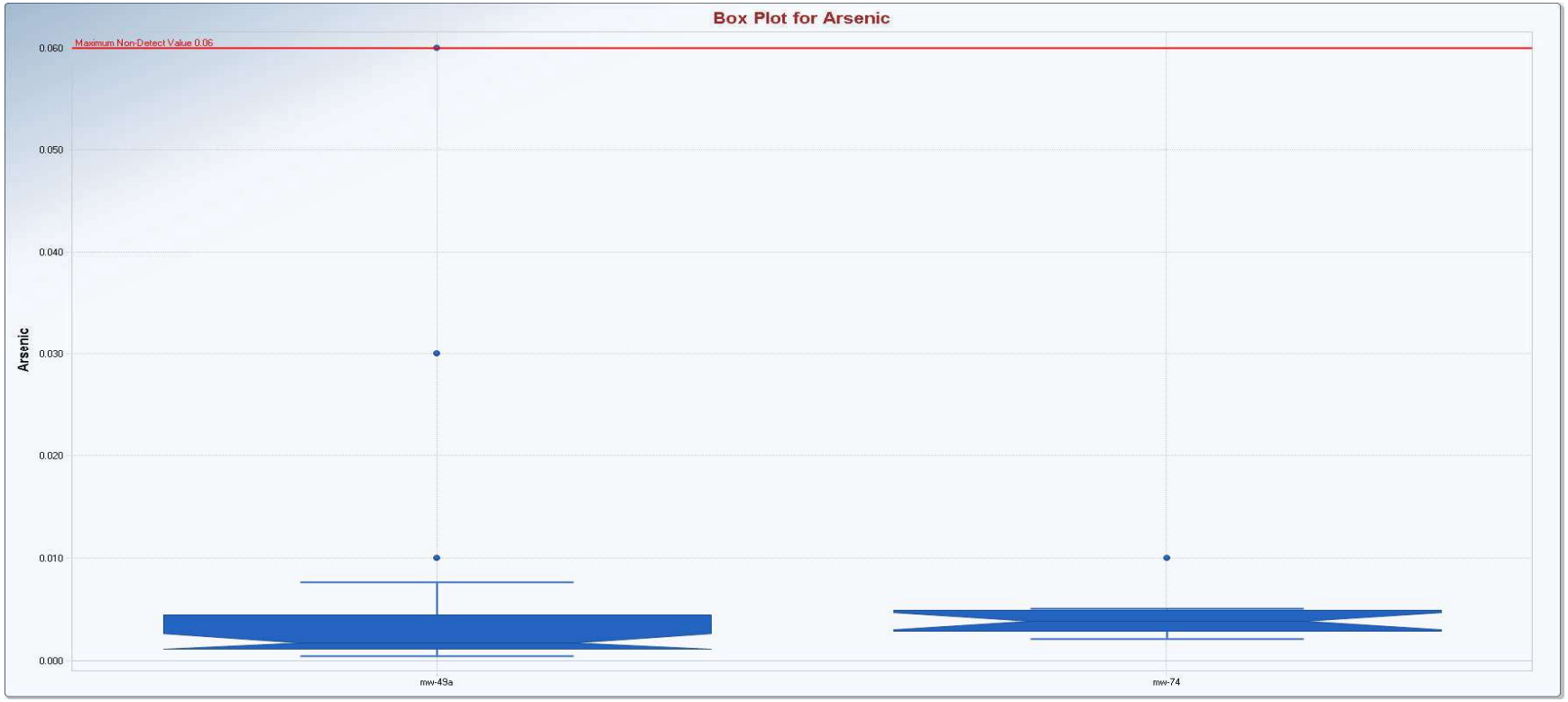
# Appendix B
# Box and Whisker Plots



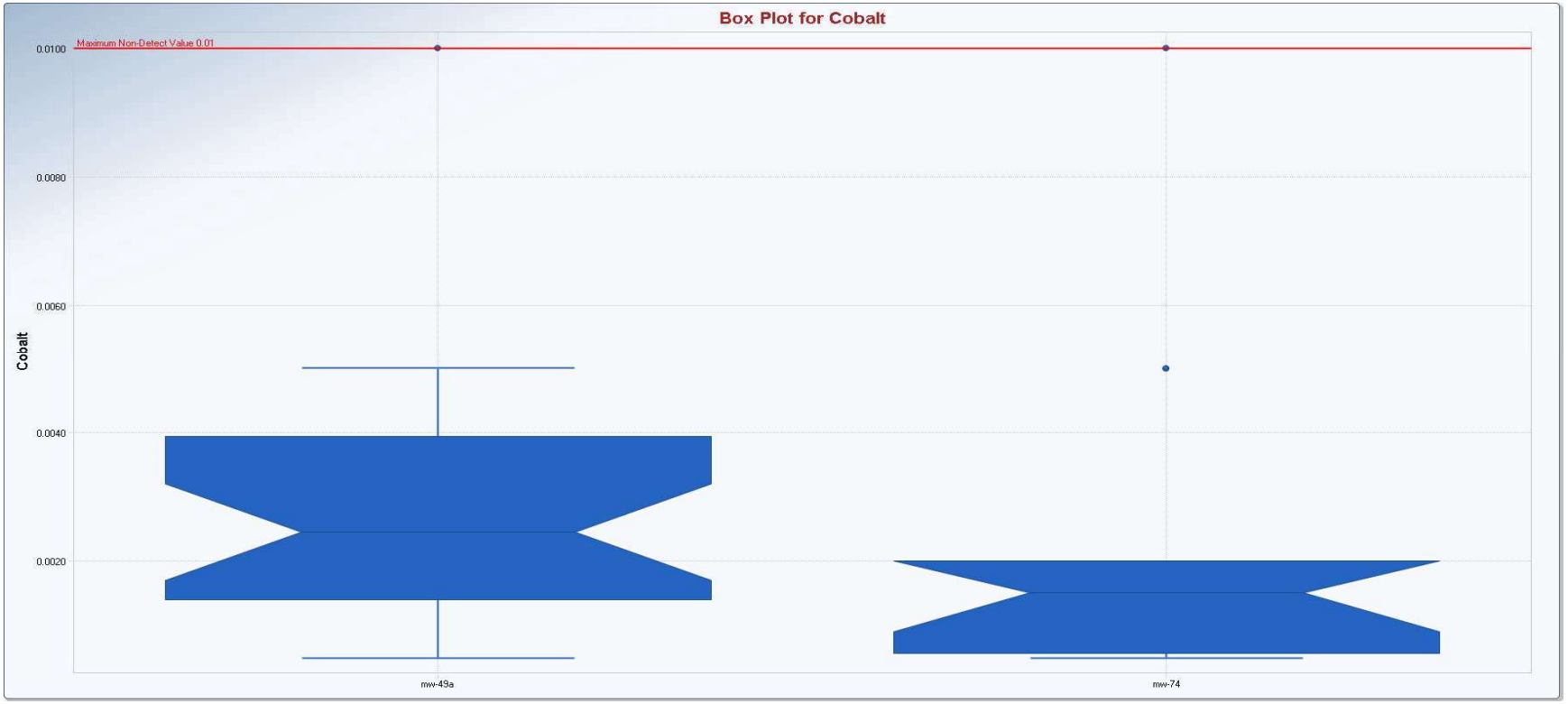
# Appendix B
# Box and Whisker Plots



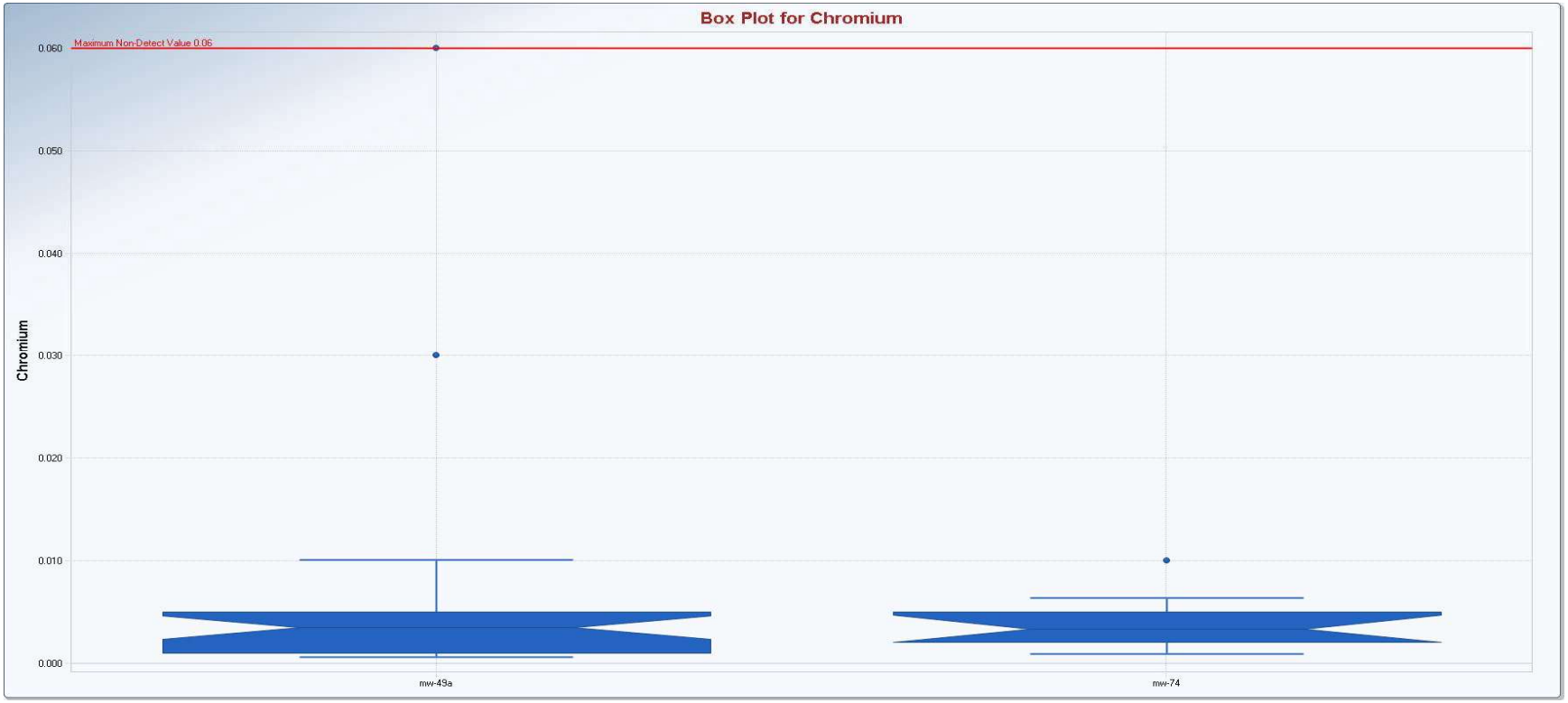
# Appendix B
# Box and Whisker Plots



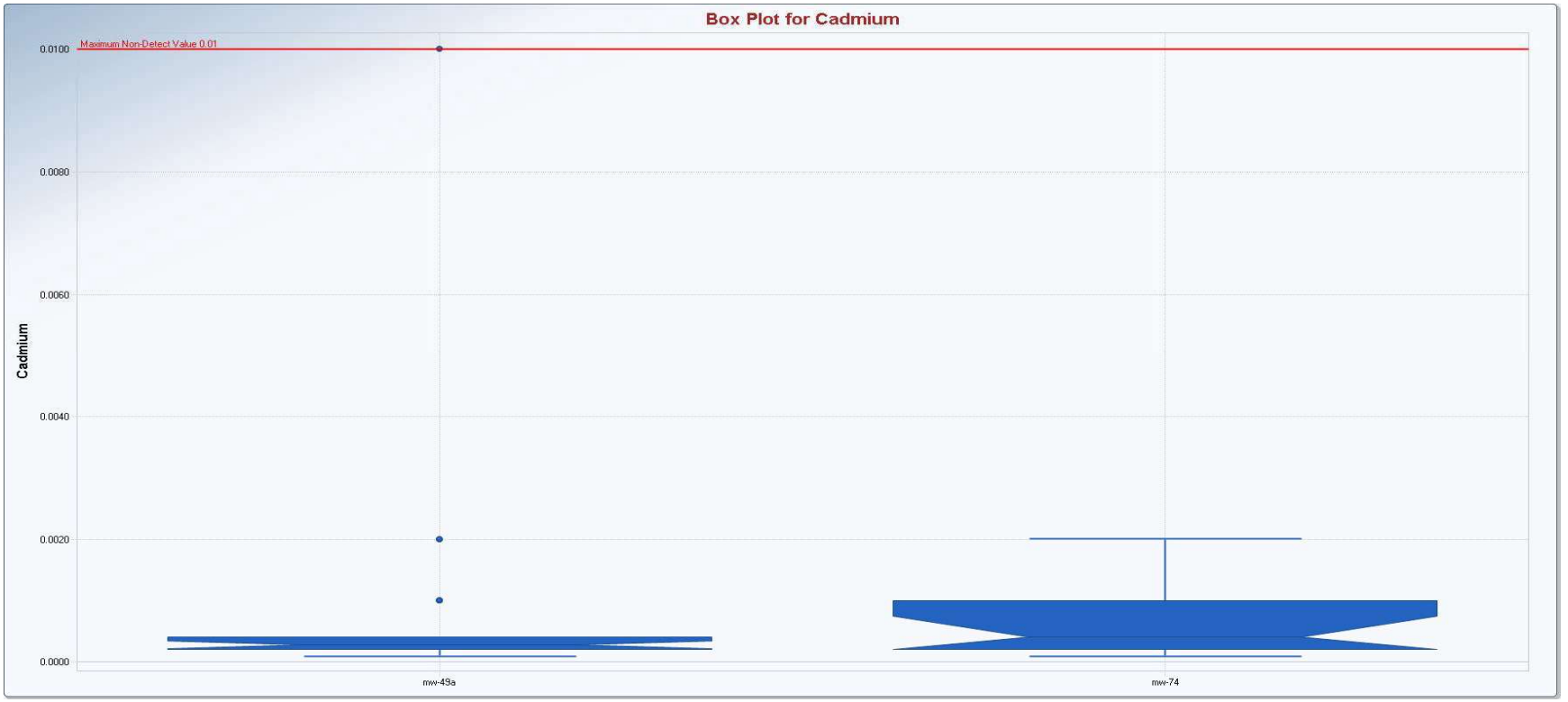
# Appendix B
# Box and Whisker Plots



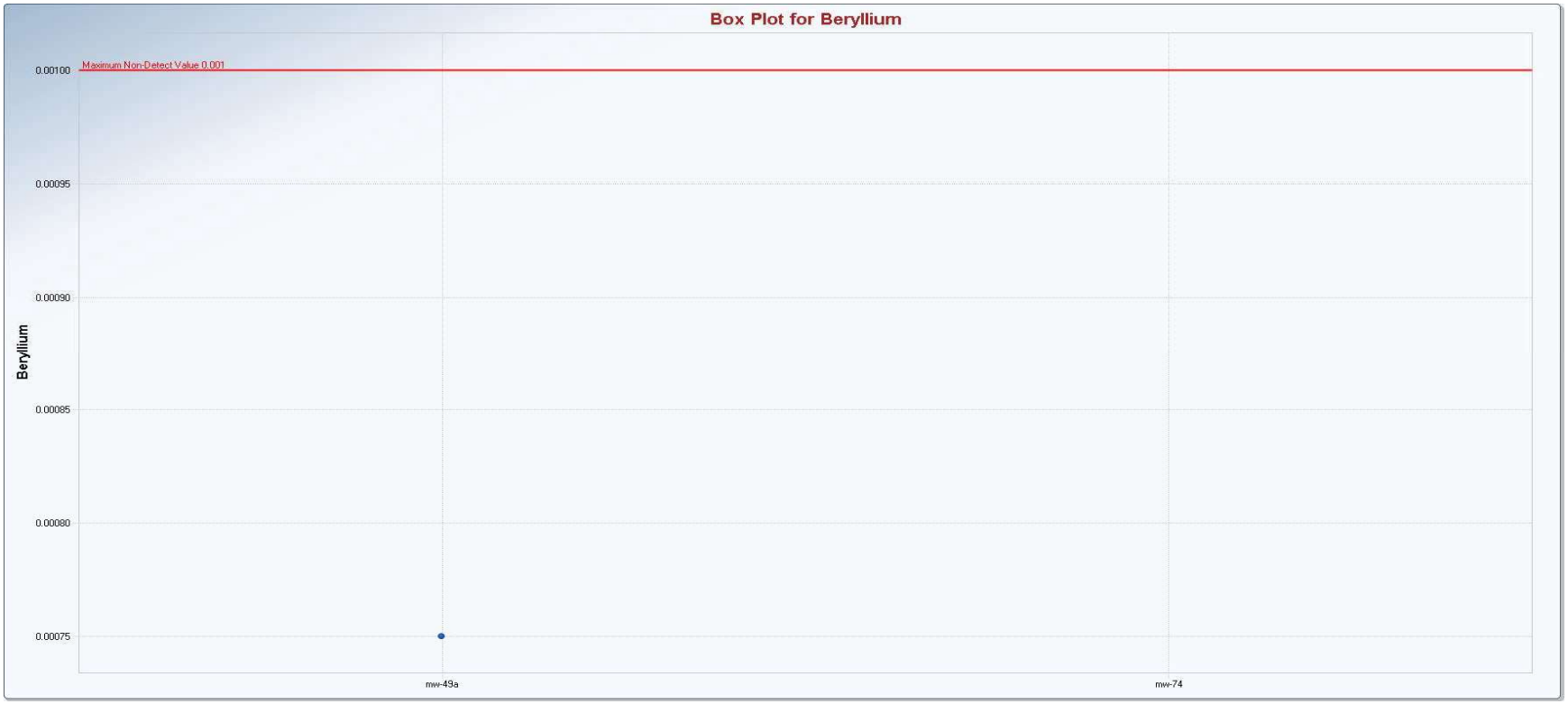
# Appendix B
# Box and Whisker Plots



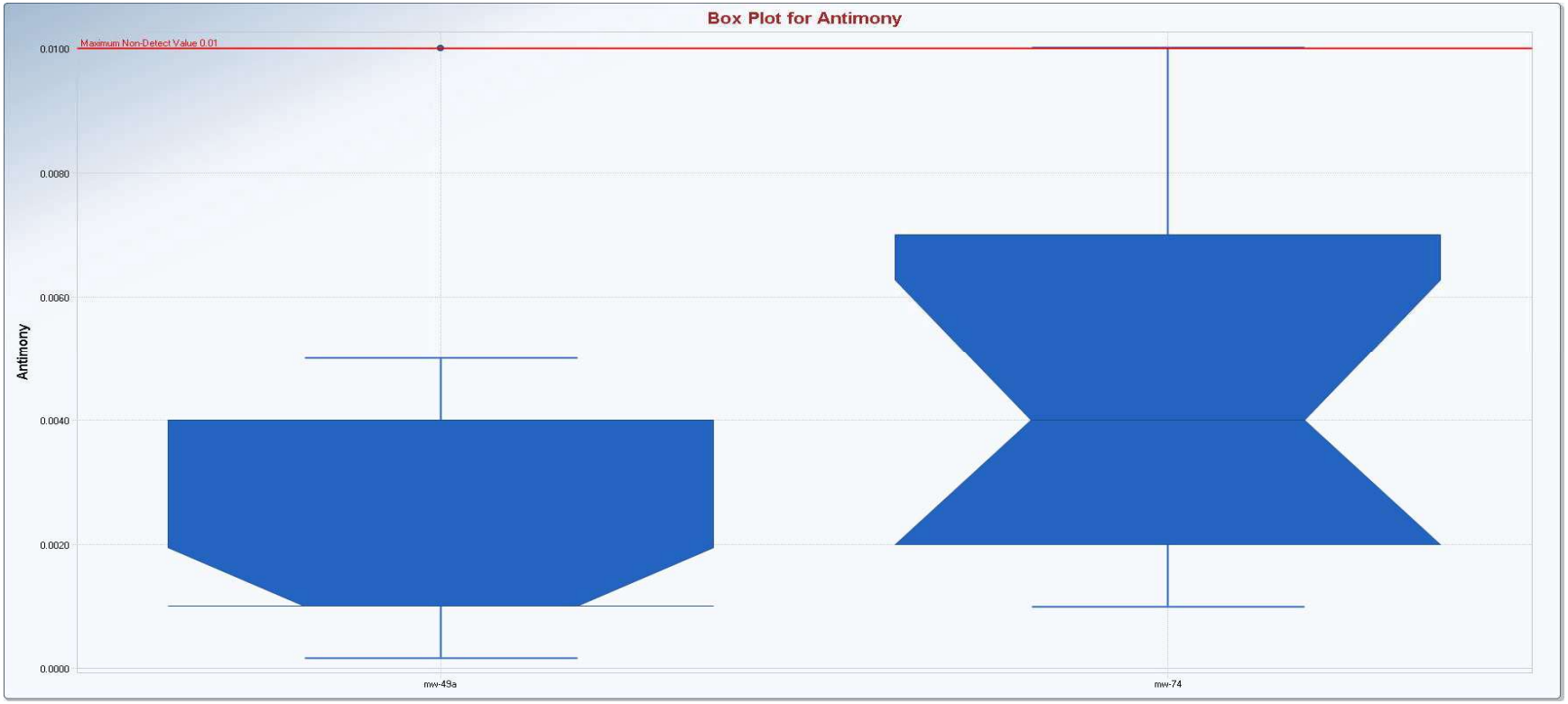
# Appendix B
# Box and Whisker Plots



# Appendix B
# Box and Whisker Plots



# Appendix B
# Box and Whisker Plots



# Appendix B
# Goodness of Fit Statistics

| | Goodness-of-Fit Test Statistics for Data Sets with Non-Detects | | | | | |
|---|---|---|---|---|---|---|
| **User Selected Options** | | | | | | |
| Date/Time of Computation | ProUCL 5.110/10/2024 8:53:15 AM | | | | | |
| From File | FC - MU1_2024Q2_proUCL.xls | | | | | |
| Full Precision | OFF | | | | | |
| Confidence Coefficient | 0.95 | | | | | |

**Antimony**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 15 | 37 | 6 | 31 | 83.78% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 31 | 0.001 | 0.01 | 0.00384 | 0.002 | 0.00335 |
| Statistics (Non-Detects Only) | 6 | 1.8000E-4 | 0.002 | 6.4167E-4 | 3.5000E-4 | 6.8198E-4 |
| Statistics (All: NDs treated as DL value) | 37 | 1.8000E-4 | 0.01 | 0.00332 | 0.002 | 0.00329 |
| Statistics (All: NDs treated as DL/2 value) | 37 | 1.8000E-4 | 0.005 | 0.00171 | 0.001 | 0.00162 |
| Statistics (Normal ROS Imputed Data) | 37 | -3.357E-4 | 0.002 | 4.8892E-4 | 4.4914E-4 | 4.6158E-4 |
| Statistics (Gamma ROS Imputed Data) | 37 | 1.8000E-4 | 0.01 | 0.00848 | 0.01 | 0.00351 |
| Statistics (Lognormal ROS Imputed Data) | 37 | 1.2795E-4 | 0.002 | 4.5176E-4 | 3.5669E-4 | 3.3491E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1.636 | 0.929 | 3.9215E-4 | -7.687 | 0.826 | -0.107 |
| Statistics (NDs = DL) | 1.117 | 1.045 | 0.00297 | -6.218 | 1.084 | -0.174 |
| Statistics (NDs = DL/2) | 1.308 | 1.22 | 0.00131 | -6.799 | 0.95 | -0.14 |
| Statistics (Gamma ROS Estimates) | 1.639 | 1.524 | 0.00518 | -5.105 | 1.192 | -0.234 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.887 | 0.59 | -0.0748 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.811 | 0.88 | 0.876 | 0.974 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.68 | 0.788 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.757 | 0.936 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.75 | 0.936 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.959 | 0.936 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.334 | 0.325 | Data Not Normal |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Lilliefors (NDs = DL) | 0.25 | 0.144 | Data Not Normal | | | | |
| Lilliefors (NDs = DL/2) | 0.237 | 0.144 | Data Not Normal | | | | |
| Lilliefors (Normal ROS Estimates) | 0.0817 | 0.144 | Data Appear Normal | | | | |
| | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | |
| | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | |
| Correlation Coefficient R | 0.943 | 0.93 | 0.93 | 0.468 | | | |
| | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | |
| Anderson-Darling (Detects Only) | 0.661 | 0.707 | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.333 | 0.337 | Detected Data Appear Gamma Distributed | | | | |
| Anderson-Darling (NDs = DL) | 1.295 | 0.774 | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.196 | 0.149 | Data Not Gamma Distributed | | | | |
| Anderson-Darling (NDs = DL/2) | 1.823 | 0.77 | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.209 | 0.148 | Data Not Gamma Distributed | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 10.59 | 0.764 | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.521 | 0.147 | Data Not Gamma Distributed | | | | |
| | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | |
| | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | |
| Correlation Coefficient R | 0.929 | 0.97 | 0.957 | 0.988 | | | |
| | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | |
| Shapiro-Wilk (Detects Only) | 0.882 | 0.788 | Data Appear Lognormal | | | | |
| Shapiro-Wilk (NDs = DL) | 0.927 | 0.936 | Data Not Lognormal | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.9 | 0.936 | Data Not Lognormal | | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.978 | 0.936 | Data Appear Lognormal | | | | |
| Lilliefors (Detects Only) | 0.295 | 0.325 | Data Appear Lognormal | | | | |
| Lilliefors (NDs = DL) | 0.17 | 0.144 | Data Not Lognormal | | | | |
| Lilliefors (NDs = DL/2) | 0.206 | 0.144 | Data Not Lognormal | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.0756 | 0.144 | Data Appear Lognormal | | | | |
| | | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | | |
| | | | | | | | |
| **Arsenic** | | | | | | | |
| | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | |

# Appendix B
## Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 6 | 46 | 27 | 19 | 41.30% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 19 | 5.0000E-4 | 0.06 | 0.00815 | 0.004 | 0.0142 |
| Statistics (Non-Detects Only) | 27 | 6.8000E-4 | 0.0076 | 0.00251 | 0.0019 | 0.00175 |
| Statistics (All: NDs treated as DL value) | 46 | 5.0000E-4 | 0.06 | 0.00484 | 0.00235 | 0.00948 |
| Statistics (All: NDs treated as DL/2 value) | 46 | 2.5000E-4 | 0.03 | 0.00316 | 0.00195 | 0.00474 |
| Statistics (Normal ROS Imputed Data) | 46 | -0.00165 | 0.0076 | 0.00195 | 0.00156 | 0.00169 |
| Statistics (Gamma ROS Imputed Data) | 46 | 6.8000E-4 | 0.01 | 0.0056 | 0.00465 | 0.00396 |
| Statistics (Lognormal ROS Imputed Data) | 46 | 3.8444E-4 | 0.0076 | 0.00201 | 0.00138 | 0.00151 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 2.437 | 2.191 | 0.00103 | -6.206 | 0.67 | -0.108 |
| Statistics (NDs = DL) | 0.952 | 0.904 | 0.00509 | -5.941 | 0.945 | -0.159 |
| Statistics (NDs = DL/2) | 1.205 | 1.141 | 0.00262 | -6.227 | 0.889 | -0.143 |
| Statistics (Gamma ROS Estimates) | 1.532 | 1.446 | 0.00366 | -5.545 | 0.946 | -0.171 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.431 | 0.656 | -0.102 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.925 | 0.606 | 0.678 | 0.96 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.855 | 0.923 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.405 | 0.945 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.498 | 0.945 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.937 | 0.945 | Data Not Normal | | | |
| Lilliefors (Detects Only) | 0.2 | 0.167 | Data Not Normal | | | |
| Lilliefors (NDs = DL) | 0.372 | 0.129 | Data Not Normal | | | |
| Lilliefors (NDs = DL/2) | 0.27 | 0.129 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.139 | 0.129 | Data Not Normal | | | |
| | | | | | | |
| **Gamma GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
| Correlation Coefficient R | 0.984 | 0.821 | 0.86 | 0.812 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.896 | 0.754 | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.203 | 0.17 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL) | 2.894 | 0.78 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.224 | 0.135 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 1.874 | 0.773 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.153 | 0.134 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | 3.265 | 0.767 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.267 | 0.133 | Data Not Gamma Distributed | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 0.972 | 0.961 | 0.976 | 0.988 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.933 | 0.923 | Data Appear Lognormal | | | |
| Shapiro-Wilk (NDs = DL) | 0.931 | 0.945 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.965 | 0.945 | Data Appear Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.971 | 0.945 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | 0.188 | 0.167 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL) | 0.12 | 0.129 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.116 | 0.129 | Data Appear Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.113 | 0.129 | Data Appear Lognormal | | | |
| | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | |
| | | | | | | |
| **Barium** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 52 | 10 | 42 | 41 | 1 | 2.38% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 1 | 0.02 | 0.02 | 0.02 | 0.02 | N/A |
| Statistics (Non-Detects Only) | 41 | 0.014 | 0.042 | 0.0223 | 0.022 | 0.00522 |
| Statistics (All: NDs treated as DL value) | 42 | 0.014 | 0.042 | 0.0222 | 0.022 | 0.00517 |
| Statistics (All: NDs treated as DL/2 value) | 42 | 0.01 | 0.042 | 0.022 | 0.022 | 0.00549 |
| Statistics (Normal ROS Imputed Data) | 42 | 0.014 | 0.042 | 0.0221 | 0.022 | 0.00523 |
| Statistics (Gamma ROS Imputed Data) | 42 | 0.014 | 0.042 | 0.0221 | 0.022 | 0.00523 |
| Statistics (Lognormal ROS Imputed Data) | 42 | 0.014 | 0.042 | 0.0221 | 0.022 | 0.00522 |

# Appendix B
# Goodness of Fit Statistics

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 21.33 | 19.78 | 0.00104 | -3.828 | 0.215 | -0.0563 |
| Statistics (NDs = DL) | 21.72 | 20.19 | 0.00102 | -3.83 | 0.213 | -0.0557 |
| Statistics (NDs = DL/2) | 17.45 | 16.22 | 0.00126 | -3.847 | 0.244 | -0.0635 |
| Statistics (Gamma ROS Estimates) | 20.98 | 19.49 | 0.00105 | -3.835 | 0.217 | -0.0566 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -3.834 | 0.216 | -0.0564 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.923 | 0.92 | 0.937 | 0.925 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.869 | 0.941 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.842 | 0.942 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.879 | 0.942 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.849 | 0.942 | Data Not Normal |
| Lilliefors (Detects Only) | 0.2 | 0.137 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.201 | 0.135 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.188 | 0.135 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.196 | 0.135 | Data Not Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.947 | 0.945 | 0.955 | 0.95 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.999 | 0.747 | |
| Kolmogorov-Smirnov (Detects Only) | 0.168 | 0.138 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 1.06 | 0.747 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.169 | 0.136 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 1.046 | 0.748 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.155 | 0.136 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 0.908 | 0.747 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.163 | 0.136 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

# Appendix B
## Goodness of Fit Statistics

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.967 | 0.965 | 0.96 | 0.97 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.945 | 0.941 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.916 | 0.942 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.921 | 0.942 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.921 | 0.942 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.154 | 0.137 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.155 | 0.135 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.142 | 0.135 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.149 | 0.135 | Data Not Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Beryllium**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 17 | 35 | 1 | 34 | 97.14% |

**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**
**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**

**The data set for variable Beryllium was not processed!**

**Cadmium**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 9 | 43 | 15 | 28 | 65.12% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 28 | 1.0000E-4 | 0.01 | 9.7964E-4 | 4.0000E-4 | 0.00186 |
| Statistics (Non-Detects Only) | 15 | 1.1000E-4 | 3.1000E-4 | 2.3267E-4 | 2.4000E-4 | 6.4859E-5 |
| Statistics (All: NDs treated as DL value) | 43 | 1.0000E-4 | 0.01 | 7.1907E-4 | 2.9000E-4 | 0.00154 |
| Statistics (All: NDs treated as DL/2 value) | 43 | 5.0000E-5 | 0.005 | 4.0012E-4 | 2.3000E-4 | 7.5735E-4 |
| Statistics (Normal ROS Imputed Data) | 43 | 2.5830E-5 | 3.1000E-4 | 1.7848E-4 | 1.7784E-4 | 7.8964E-5 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Statistics (Gamma ROS Imputed Data) | 43 | 1.1000E-4 | 0.01 | 0.00659 | 0.01 | 0.00471 |
| Statistics (Lognormal ROS Imputed Data) | 43 | 8.1058E-5 | 3.1000E-4 | 1.8350E-4 | 1.7014E-4 | 6.9512E-5 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 11.15 | 8.963 | 2.0870E-5 | -8.411 | 0.332 | -0.0394 |
| Statistics (NDs = DL) | 0.867 | 0.822 | 8.2943E-4 | -7.915 | 0.985 | -0.124 |
| Statistics (NDs = DL/2) | 1.057 | 0.999 | 3.7857E-4 | -8.366 | 0.915 | -0.109 |
| Statistics (Gamma ROS Estimates) | 0.668 | 0.637 | 0.00987 | -5.933 | 1.845 | -0.311 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -8.676 | 0.389 | -0.0449 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.955 | 0.581 | 0.587 | 0.984 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.898 | 0.881 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.379 | 0.943 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.387 | 0.943 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.95 | 0.943 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.217 | 0.22 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.343 | 0.134 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.355 | 0.134 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.115 | 0.134 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.918 | 0.8 | 0.782 | 0.545 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.864 | 0.737 | |
| Kolmogorov-Smirnov (Detects Only) | 0.258 | 0.221 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 3.334 | 0.784 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.293 | 0.14 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 2.269 | 0.776 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.211 | 0.139 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 8.375 | 0.797 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.429 | 0.141 | Data Not Gamma Distributed |

# Appendix B
# Goodness of Fit Statistics

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.921 | 0.947 | 0.966 | 0.978 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.84 | 0.881 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.9 | 0.943 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.942 | 0.943 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.937 | 0.943 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.274 | 0.22 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.207 | 0.134 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.121 | 0.134 | Data Appear Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.15 | 0.134 | Data Not Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Chromium**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 11 | 41 | 17 | 24 | 58.54% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 24 | 0.001 | 0.06 | 0.00805 | 0.004 | 0.0126 |
| Statistics (Non-Detects Only) | 17 | 6.5000E-4 | 0.0063 | 0.00247 | 0.002 | 0.00176 |
| Statistics (All: NDs treated as DL value) | 41 | 6.5000E-4 | 0.06 | 0.00574 | 0.0035 | 0.01 |
| Statistics (All: NDs treated as DL/2 value) | 41 | 5.0000E-4 | 0.03 | 0.00338 | 0.002 | 0.00498 |
| Statistics (Normal ROS Imputed Data) | 41 | -2.254E-4 | 0.0063 | 0.00187 | 0.00165 | 0.0014 |
| Statistics (Gamma ROS Imputed Data) | 41 | 6.5000E-4 | 0.01 | 0.00688 | 0.01 | 0.00392 |
| Statistics (Lognormal ROS Imputed Data) | 41 | 5.3189E-4 | 0.0063 | 0.00176 | 0.00127 | 0.00134 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1.939 | 1.636 | 0.00128 | -6.282 | 0.803 | -0.128 |
| Statistics (NDs = DL) | 0.933 | 0.881 | 0.00615 | -5.785 | 1.026 | -0.177 |
| Statistics (NDs = DL/2) | 1.136 | 1.069 | 0.00298 | -6.19 | 0.937 | -0.151 |
| Statistics (Gamma ROS Estimates) | 1.705 | 1.596 | 0.00404 | -5.3 | 0.979 | -0.185 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.563 | 0.645 | -0.0982 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| **Normal GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | |
| Correlation Coefficient R | 0.943 | 0.659 | 0.696 | 0.956 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.877 | 0.892 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL) | 0.469 | 0.941 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.519 | 0.941 | Data Not Normal | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.917 | 0.941 | Data Not Normal | | |
| Lilliefors (Detects Only) | 0.224 | 0.207 | Data Not Normal | | |
| Lilliefors (NDs = DL) | 0.31 | 0.137 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.299 | 0.137 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.147 | 0.137 | Data Not Normal | | |
| | | | | | |
| **Gamma GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | 0.966 | 0.863 | 0.871 | 0.71 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | 0.896 | 0.75 | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.238 | 0.212 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL) | 1.842 | 0.781 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.196 | 0.142 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 1.444 | 0.775 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.153 | 0.142 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 5.083 | 0.763 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.365 | 0.14 | Data Not Gamma Distributed | | |
| | | | | | |
| **Lognormal GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.945 | 0.972 | 0.973 | 0.973 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.872 | 0.892 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.942 | 0.941 | Data Appear Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.942 | 0.941 | Data Appear Lognormal | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.934 | 0.941 | Data Not Lognormal | | | |
| Lilliefors (Detects Only) | 0.227 | 0.207 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL) | 0.107 | 0.137 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.144 | 0.137 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.124 | 0.137 | Data Appear Lognormal | | | |
| | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | |
| | | | | | | |
| **Cobalt** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 52 | 10 | 42 | 22 | 20 | 47.62% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 20 | 5.0000E-4 | 0.01 | 0.00313 | 0.002 | 0.00296 |
| Statistics (Non-Detects Only) | 22 | 5.6000E-4 | 0.0045 | 0.00232 | 0.0021 | 0.00117 |
| Statistics (All: NDs treated as DL value) | 42 | 5.0000E-4 | 0.01 | 0.00271 | 0.002 | 0.00222 |
| Statistics (All: NDs treated as DL/2 value) | 42 | 2.5000E-4 | 0.005 | 0.00196 | 0.00195 | 0.00136 |
| Statistics (Normal ROS Imputed Data) | 42 | -0.00136 | 0.0045 | 0.00149 | 0.0014 | 0.00144 |
| Statistics (Gamma ROS Imputed Data) | 42 | 5.6000E-4 | 0.01 | 0.00598 | 0.00425 | 0.00397 |
| Statistics (Lognormal ROS Imputed Data) | 42 | 3.4397E-4 | 0.0045 | 0.0017 | 0.00137 | 0.00115 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 3.633 | 3.168 | 6.3956E-4 | -6.209 | 0.582 | -0.0938 |
| Statistics (NDs = DL) | 1.755 | 1.646 | 0.00154 | -6.224 | 0.827 | -0.133 |
| Statistics (NDs = DL/2) | 1.712 | 1.606 | 0.00115 | -6.554 | 0.904 | -0.138 |
| Statistics (Gamma ROS Estimates) | 1.683 | 1.579 | 0.00355 | -5.445 | 0.911 | -0.167 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.608 | 0.699 | -0.106 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.983 | 0.903 | 0.97 | 0.994 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.953 | 0.911 | Data Appear Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.783 | 0.942 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.874 | 0.942 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.933 | 0.942 | Data Not Normal | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | |
|---|---|---|---|---|
| Lilliefors (Detects Only) | 0.116 | 0.184 | Data Appear Normal | |
| Lilliefors (NDs = DL) | 0.172 | 0.135 | Data Not Normal | |
| Lilliefors (NDs = DL/2) | 0.141 | 0.135 | Data Not Normal | |
| Lilliefors (Normal ROS Estimates) | 0.0782 | 0.135 | Data Appear Normal | |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.972 | 0.973 | 0.973 | 0.786 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.289 | 0.748 | |
| Kolmogorov-Smirnov (Detects Only) | 0.116 | 0.186 | Detected Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL) | 0.511 | 0.763 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.0959 | 0.138 | Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 0.595 | 0.764 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.111 | 0.139 | Data Appear Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 3.412 | 0.764 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.312 | 0.139 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.978 | 0.981 | 0.963 | 0.988 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.949 | 0.911 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.9 | 0.942 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.861 | 0.942 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.907 | 0.942 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.102 | 0.184 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.0996 | 0.135 | Data Appear Lognormal |
| Lilliefors (NDs = DL/2) | 0.149 | 0.135 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.084 | 0.135 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Fluoride**

# Appendix B
# Goodness of Fit Statistics

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 2 | 50 | 21 | 29 | 58.00% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 29 | 0.25 | 20 | 3.416 | 2 | 4.475 |
| Statistics (Non-Detects Only) | 21 | 0.47 | 2.4 | 1.51 | 1.8 | 0.599 |
| Statistics (All: NDs treated as DL value) | 50 | 0.25 | 20 | 2.615 | 1.9 | 3.534 |
| Statistics (All: NDs treated as DL/2 value) | 50 | 0.125 | 10 | 1.625 | 1.15 | 1.737 |
| Statistics (Normal ROS Imputed Data) | 50 | -0.161 | 2.4 | 1.063 | 0.998 | 0.692 |
| Statistics (Gamma ROS Imputed Data) | 50 | 0.334 | 2.4 | 1.149 | 1.029 | 0.583 |
| Statistics (Lognormal ROS Imputed Data) | 50 | 0.356 | 2.4 | 1.107 | 0.932 | 0.599 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 5.02 | 4.335 | 0.301 | 0.309 | 0.506 | 1.635 |
| Statistics (NDs = DL) | 1.217 | 1.157 | 2.149 | 0.497 | 0.908 | 1.826 |
| Statistics (NDs = DL/2) | 1.426 | 1.353 | 1.14 | 0.0953 | 0.912 | 9.577 |
| Statistics (Gamma ROS Estimates) | 3.754 | 3.542 | 0.306 | -9.149E-5 | 0.55 | N/A |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -0.0493 | 0.565 | -11.45 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.951 | 0.724 | 0.78 | 0.983 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.892 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.551 | 0.947 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.635 | 0.947 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.946 | 0.947 | Data Not Normal |
| Lilliefors (Detects Only) | 0.219 | 0.188 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.318 | 0.125 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.312 | 0.125 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.107 | 0.125 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.9 | 0.891 | 0.901 | 0.967 |

# Appendix B
# Goodness of Fit Statistics

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 1.331 | 0.745 | |
| Kolmogorov-Smirnov (Detects Only) | 0.234 | 0.19 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 2.256 | 0.774 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.229 | 0.128 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 1.636 | 0.769 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.195 | 0.128 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 0.801 | 0.754 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.11 | 0.126 | Detected Data appear Approximate Gamma Distribution |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.92 | 0.972 | 0.965 | 0.975 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.837 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.946 | 0.947 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.932 | 0.947 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.926 | 0.947 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.241 | 0.188 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.154 | 0.125 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.159 | 0.125 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.11 | 0.125 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Lead**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 10 | 42 | 0 | 42 | 100.00% |

**Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!**
**Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!**
**The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).**

**The data set for variable Lead was not processed!**

# Appendix B
## Goodness of Fit Statistics

**Lithium**

| | |
|---|---|
| **Raw Statistics** | |
| Number of Valid Observations | 42 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 27 |
| Minimum | 0.37 |
| Maximum | 1.8 |
| Mean of Raw Data | 0.9 |
| Standard Deviation of Raw Data | 0.37 |
| Khat | 5.614 |
| Theta hat | 0.16 |
| Kstar | 5.229 |
| Theta star | 0.172 |
| Mean of Log Transformed Data | -0.197 |
| Standard Deviation of Log Transformed Data | 0.45 |
| **Normal GOF Test Results** | |
| Correlation Coefficient R | 0.979 |
| Shapiro Wilk Test Statistic | 0.901 |
| Shapiro Wilk Critical (0.05) Value | 0.942 |
| Approximate Shapiro Wilk P Value | 0.0562 |
| Lilliefors Test Statistic | 0.105 |
| Lilliefors Critical (0.05) Value | 0.135 |

**Data appear Approximate Normal at (0.05) Significance Level**

| | |
|---|---|
| **Gamma GOF Test Results** | |
| Correlation Coefficient R | 0.982 |
| A-D Test Statistic | 0.84 |
| A-D Critical (0.05) Value | 0.752 |
| K-S Test Statistic | 0.127 |
| K-S Critical(0.05) Value | 0.137 |

**Data follow Appr. Gamma Distribution at (0.05) Significance Level**

**Lognormal GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Correlation Coefficient R | 0.969 |
| Shapiro Wilk Test Statistic | 0.877 |
| Shapiro Wilk Critical (0.05) Value | 0.942 |
| Approximate Shapiro Wilk P Value | 0.0065 |
| Lilliefors Test Statistic | 0.152 |
| Lilliefors Critical (0.05) Value | 0.135 |

**Data not Lognormal at (0.05) Significance Level**

**Mercury**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 17 | 35 | 1 | 34 | 97.14% |

**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**
**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**

**The data set for variable Mercury was not processed!**

**Molybdenum**

**Raw Statistics**

| | |
|---|---|
| Number of Valid Observations | 41 |
| Number of Missing Observations | 11 |
| Number of Distinct Observations | 31 |
| Minimum | 0.012 |
| Maximum | 0.15 |
| Mean of Raw Data | 0.0381 |
| Standard Deviation of Raw Data | 0.0288 |
| Khat | 2.579 |
| Theta hat | 0.0148 |
| Kstar | 2.406 |
| Theta star | 0.0158 |
| Mean of Log Transformed Data | -3.474 |
| Standard Deviation of Log Transformed Data | 0.618 |

**Normal GOF Test Results**

# Appendix B
## Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Correlation Coefficient R | 0.873 | | | | | | | |
| Shapiro Wilk Test Statistic | 0.773 | | | | | | | |
| Shapiro Wilk Critical (0.05) Value | 0.941 | | | | | | | |
| Approximate Shapiro Wilk P Value | 7.3772E-8 | | | | | | | |
| Lilliefors Test Statistic | 0.239 | | | | | | | |
| Lilliefors Critical (0.05) Value | 0.137 | | | | | | | |
| Data not Normal at (0.05) Significance Level | | | | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| Correlation Coefficient R | 0.968 | | | | | | | |
| A-D Test Statistic | 1.271 | | | | | | | |
| A-D Critical (0.05) Value | 0.757 | | | | | | | |
| K-S Test Statistic | 0.191 | | | | | | | |
| K-S Critical(0.05) Value | 0.139 | | | | | | | |
| Data not Gamma Distributed at (0.05) Significance Level | | | | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| Correlation Coefficient R | 0.98 | | | | | | | |
| Shapiro Wilk Test Statistic | 0.95 | | | | | | | |
| Shapiro Wilk Critical (0.05) Value | 0.941 | | | | | | | |
| Approximate Shapiro Wilk P Value | 0.102 | | | | | | | |
| Lilliefors Test Statistic | 0.152 | | | | | | | |
| Lilliefors Critical (0.05) Value | 0.137 | | | | | | | |
| Data appear Approximate_Lognormal at (0.05) Significance Level | | | | | | | | |
| | | | | | | | | |
| **Selenium** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 52 | 6 | 46 | 32 | 14 | 30.43% | | |
| | | | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD | | |
| Statistics (Non-Detects Only) | 14 | 0.001 | 0.06 | 0.0102 | 0.005 | 0.0162 | | |
| Statistics (Non-Detects Only) | 32 | 0.001 | 0.14 | 0.0384 | 0.00365 | 0.0458 | | |
| Statistics (All: NDs treated as DL value) | 46 | 0.001 | 0.14 | 0.0298 | 0.00455 | 0.0412 | | |
| Statistics (All: NDs treated as DL/2 value) | 46 | 5.0000E-4 | 0.14 | 0.0283 | 0.0025 | 0.0413 | | |
| Statistics (Normal ROS Imputed Data) | 46 | -0.0722 | 0.14 | 0.0231 | 0.00321 | 0.047 | | |
| Statistics (Gamma ROS Imputed Data) | 46 | 0.001 | 0.14 | 0.0298 | 0.01 | 0.0403 | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (Lognormal ROS Imputed Data) | 46 | 1.0055E-4 | 0.14 | 0.0273 | 0.00235 | 0.0417 | | |
| | | | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV | | |
| Statistics (Non-Detects Only) | 0.481 | 0.457 | 0.0798 | -4.587 | 1.889 | -0.412 | | |
| Statistics (NDs = DL) | 0.487 | 0.47 | 0.0612 | -4.822 | 1.736 | -0.36 | | |
| Statistics (NDs = DL/2) | 0.442 | 0.427 | 0.064 | -5.033 | 1.83 | -0.364 | | |
| Statistics (Gamma ROS Estimates) | 0.578 | 0.555 | 0.0516 | -4.589 | 1.568 | -0.342 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -5.224 | 1.945 | -0.372 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.887 | 0.852 | 0.838 | 0.925 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.771 | 0.93 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.714 | 0.945 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.692 | 0.945 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.856 | 0.945 | Data Not Normal | | | | | |
| Lilliefors (Detects Only) | 0.325 | 0.154 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL) | 0.327 | 0.129 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.357 | 0.129 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.298 | 0.129 | Data Not Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | 0.907 | 0.942 | 0.94 | 0.952 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | 3.207 | 0.815 | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.265 | 0.165 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL) | 3.972 | 0.817 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.256 | 0.138 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 4.146 | 0.828 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.269 | 0.139 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 2.853 | 0.806 | | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.268 | 0.137 | Data Not Gamma Distributed | | | | | |

# Appendix B
# Goodness of Fit Statistics

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.891 | 0.918 | 0.926 | 0.928 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.77 | 0.93 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.816 | 0.945 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.833 | 0.945 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.849 | 0.945 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.247 | 0.154 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.214 | 0.129 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.222 | 0.129 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.241 | 0.129 | Data Not Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Thallium**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 10 | 42 | 29 | 13 | 30.95% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 13 | 1.0000E-4 | 0.002 | 7.2308E-4 | 4.0000E-4 | 6.4956E-4 |
| Statistics (Non-Detects Only) | 29 | 1.7000E-4 | 0.0021 | 0.00132 | 0.0014 | 3.9646E-4 |
| Statistics (All: NDs treated as DL value) | 42 | 1.0000E-4 | 0.0021 | 0.00114 | 0.0013 | 5.5606E-4 |
| Statistics (All: NDs treated as DL/2 value) | 42 | 5.0000E-5 | 0.0021 | 0.00102 | 0.0013 | 5.8302E-4 |
| Statistics (Normal ROS Imputed Data) | 42 | 1.7000E-4 | 0.0021 | 0.00111 | 0.0013 | 4.7324E-4 |
| Statistics (Gamma ROS Imputed Data) | 42 | 1.7000E-4 | 0.01 | 0.00401 | 0.00145 | 0.00407 |
| Statistics (Lognormal ROS Imputed Data) | 42 | 1.7000E-4 | 0.0021 | 0.0011 | 0.0013 | 4.7631E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 5.728 | 5.159 | 2.3068E-4 | -6.719 | 0.537 | -0.0799 |
| Statistics (NDs = DL) | 2.413 | 2.256 | 4.7092E-4 | -7.001 | 0.813 | -0.116 |
| Statistics (NDs = DL/2) | 1.652 | 1.55 | 6.1995E-4 | -7.216 | 1.021 | -0.142 |
| Statistics (Gamma ROS Estimates) | 1.053 | 0.993 | 0.00381 | -6.065 | 1.084 | -0.179 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.939 | 0.573 | -0.0826 |

**Normal GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | |
| Correlation Coefficient R | 0.901 | 0.958 | 0.945 | 0.972 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.828 | 0.926 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL) | 0.865 | 0.942 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.83 | 0.942 | Data Not Normal | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.893 | 0.942 | Data Not Normal | | |
| Lilliefors (Detects Only) | 0.272 | 0.161 | Data Not Normal | | |
| Lilliefors (NDs = DL) | 0.211 | 0.135 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.229 | 0.135 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.203 | 0.135 | Data Not Normal | | |
| | | | | | |
| **Gamma GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | 0.857 | 0.888 | 0.856 | 0.822 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | 3.769 | 0.747 | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.333 | 0.163 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL) | 3.261 | 0.758 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.261 | 0.138 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 3.605 | 0.764 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.265 | 0.139 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 5.337 | 0.777 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.308 | 0.14 | Data Not Gamma Distributed | | |
| | | | | | |
| **Lognormal GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.747 | 0.88 | 0.882 | 0.927 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.579 | 0.926 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.743 | 0.942 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.737 | 0.942 | Data Not Lognormal | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.822 | 0.942 | Data Not Lognormal | | |

# Appendix B
## Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Lilliefors (Detects Only) | 0.348 | 0.161 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL) | 0.284 | 0.135 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.285 | 0.135 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.243 | 0.135 | Data Not Lognormal | | | |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Total Radium**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 8 | 44 | 31 | 13 | 29.55% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 13 | 0.6 | 0.9 | 0.723 | 0.7 | 0.0927 |
| Statistics (Non-Detects Only) | 31 | 0.4 | 3.5 | 1.723 | 1.7 | 0.794 |
| Statistics (All: NDs treated as DL value) | 44 | 0.4 | 3.5 | 1.427 | 1.3 | 0.809 |
| Statistics (All: NDs treated as DL/2 value) | 44 | 0.3 | 3.5 | 1.32 | 1.3 | 0.914 |
| Statistics (Normal ROS Imputed Data) | 44 | -0.382 | 3.5 | 1.284 | 1.3 | 0.973 |
| Statistics (Gamma ROS Imputed Data) | 44 | 0.162 | 3.5 | 1.36 | 1.3 | 0.879 |
| Statistics (Lognormal ROS Imputed Data) | 44 | 0.367 | 3.5 | 1.383 | 1.3 | 0.852 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 4.145 | 3.765 | 0.416 | 0.418 | 0.547 | 1.306 |
| Statistics (NDs = DL) | 3.301 | 3.091 | 0.432 | 0.197 | 0.577 | 2.933 |
| Statistics (NDs = DL/2) | 1.898 | 1.783 | 0.696 | -0.00807 | 0.81 | -100.4 |
| Statistics (Gamma ROS Estimates) | 2.143 | 2.012 | 0.635 | 0.0566 | 0.775 | 13.69 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | 0.122 | 0.663 | 5.426 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.989 | 0.952 | 0.954 | 0.988 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.97 | 0.929 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.894 | 0.944 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.891 | 0.944 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.962 | 0.944 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.0758 | 0.156 | Data Appear Normal |

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| Lilliefors (NDs = DL) | 0.197 | 0.132 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.156 | 0.132 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.108 | 0.132 | Data Appear Normal | | |
| | | | | | |
| **Gamma GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | 0.982 | 0.982 | 0.967 | 0.978 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | 0.394 | 0.75 | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.103 | 0.158 | Detected Data Appear Gamma Distributed | | |
| Anderson-Darling (NDs = DL) | 1.117 | 0.755 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.176 | 0.134 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 1.518 | 0.762 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.163 | 0.135 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 0.55 | 0.76 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.1 | 0.135 | Data Appear Gamma Distributed | | |
| | | | | | |
| **Lognormal GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.971 | 0.976 | 0.952 | 0.975 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.937 | 0.929 | Data Appear Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.935 | 0.944 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.879 | 0.944 | Data Not Lognormal | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.928 | 0.944 | Data Not Lognormal | | |
| Lilliefors (Detects Only) | 0.13 | 0.156 | Data Appear Lognormal | | |
| Lilliefors (NDs = DL) | 0.154 | 0.132 | Data Not Lognormal | | |
| Lilliefors (NDs = DL/2) | 0.164 | 0.132 | Data Not Lognormal | | |
| Lilliefors (Lognormal ROS Estimates) | 0.118 | 0.132 | Data Appear Lognormal | | |
| | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | |
| | | | | | |
| | **Goodness-of-Fit Test Statistics for Data Sets with Non-Detects** | | | | |
| **User Selected Options** | | | | | |
| Date/Time of Computation | ProUCL 5.110/10/2024 9:37:26 AM | | | | |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| From File | FC - MU1_2024Q2_proUCL.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |

**Arsenic (outliers removed)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 8 | 44 | 27 | 17 | 38.64% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 17 | 5.0000E-4 | 0.01 | 0.00382 | 0.0035 | 0.00281 |
| Statistics (Non-Detects Only) | 27 | 6.8000E-4 | 0.0076 | 0.00251 | 0.0019 | 0.00175 |
| Statistics (All: NDs treated as DL value) | 44 | 5.0000E-4 | 0.01 | 0.00302 | 0.0021 | 0.00228 |
| Statistics (All: NDs treated as DL/2 value) | 44 | 2.5000E-4 | 0.0076 | 0.00228 | 0.00183 | 0.00164 |
| Statistics (Normal ROS Imputed Data) | 44 | -0.00165 | 0.0076 | 0.00195 | 0.00151 | 0.00173 |
| Statistics (Gamma ROS Imputed Data) | 44 | 6.8000E-4 | 0.01 | 0.0054 | 0.00435 | 0.00393 |
| Statistics (Lognormal ROS Imputed Data) | 44 | 3.8444E-4 | 0.0076 | 0.00203 | 0.00135 | 0.00154 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 2.437 | 2.191 | 0.00103 | -6.206 | 0.67 | -0.108 |
| Statistics (NDs = DL) | 2.051 | 1.926 | 0.00147 | -6.067 | 0.743 | -0.122 |
| Statistics (NDs = DL/2) | 2.147 | 2.016 | 0.00106 | -6.335 | 0.74 | -0.117 |
| Statistics (Gamma ROS Estimates) | 1.507 | 1.42 | 0.00359 | -5.588 | 0.945 | -0.169 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.431 | 0.671 | -0.104 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.925 | 0.916 | 0.931 | 0.961 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.855 | 0.923 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.835 | 0.944 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.868 | 0.944 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.937 | 0.944 | Data Not Normal |
| Lilliefors (Detects Only) | 0.2 | 0.167 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.172 | 0.132 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.179 | 0.132 | Data Not Normal |

# Appendix B
# Goodness of Fit Statistics

| | | | | |
|---|---|---|---|---|
| Lilliefors (Normal ROS Estimates) | 0.154 | 0.132 | Data Not Normal | |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.984 | 0.979 | 0.985 | 0.827 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.896 | 0.754 | |
| Kolmogorov-Smirnov (Detects Only) | 0.203 | 0.17 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 0.844 | 0.76 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.132 | 0.135 | Detected Data appear Approximate Gamma Distribution |
| Anderson-Darling (NDs = DL/2) | 0.786 | 0.76 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.151 | 0.135 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 2.867 | 0.767 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.251 | 0.136 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.972 | 0.984 | 0.983 | 0.987 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.933 | 0.923 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.955 | 0.944 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.965 | 0.944 | Data Appear Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.969 | 0.944 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.188 | 0.167 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.123 | 0.132 | Data Appear Lognormal |
| Lilliefors (NDs = DL/2) | 0.117 | 0.132 | Data Appear Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.134 | 0.132 | Data Not Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

| | |
|---|---|
| | **Goodness-of-Fit Test Statistics for Data Sets with Non-Detects** |
| **User Selected Options** | |
| Date/Time of Computation | ProUCL 5.110/10/2024 10:13:34 AM |
| From File | FC - MU1_2024Q2_proUCL.xls |
| Full Precision | OFF |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Confidence Coefficient | 0.95 |

**Barium (outliers removed)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 12 | 40 | 39 | 1 | 2.50% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1 | 0.02 | 0.02 | 0.02 | 0.02 | N/A |
| Statistics (Non-Detects Only) | 39 | 0.014 | 0.029 | 0.0214 | 0.022 | 0.00357 |
| Statistics (All: NDs treated as DL value) | 40 | 0.014 | 0.029 | 0.0214 | 0.022 | 0.00353 |
| Statistics (All: NDs treated as DL/2 value) | 40 | 0.01 | 0.029 | 0.0211 | 0.022 | 0.00396 |
| Statistics (Normal ROS Imputed Data) | 40 | 0.014 | 0.029 | 0.0213 | 0.022 | 0.00358 |
| Statistics (Gamma ROS Imputed Data) | 40 | 0.014 | 0.029 | 0.0213 | 0.022 | 0.00358 |
| Statistics (Lognormal ROS Imputed Data) | 40 | 0.014 | 0.029 | 0.0213 | 0.022 | 0.00358 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 35.55 | 32.83 | 6.0228E-4 | -3.858 | 0.173 | -0.0448 |
| Statistics (NDs = DL) | 36.31 | 33.6 | 5.8867E-4 | -3.859 | 0.171 | -0.0443 |
| Statistics (NDs = DL/2) | 25.94 | 24.01 | 8.1430E-4 | -3.877 | 0.208 | -0.0535 |
| Statistics (Gamma ROS Estimates) | 35.14 | 32.52 | 6.0630E-4 | -3.863 | 0.173 | -0.0449 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -3.863 | 0.174 | -0.0449 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.984 | 0.984 | 0.979 | 0.987 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.962 | 0.939 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.962 | 0.94 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.963 | 0.94 | Data Appear Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.966 | 0.94 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.127 | 0.14 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.13 | 0.139 | Data Appear Normal |
| Lilliefors (NDs = DL/2) | 0.118 | 0.139 | Data Appear Normal |
| Lilliefors (Normal ROS Estimates) | 0.123 | 0.139 | Data Appear Normal |

# Appendix B
# Goodness of Fit Statistics

| Gamma GOF Test Results | | | | |
|---|---|---|---|---|
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
| Correlation Coefficient R | 0.982 | 0.982 | 0.969 | 0.984 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.61 | 0.746 | |
| Kolmogorov-Smirnov (Detects Only) | 0.125 | 0.141 | Detected Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL) | 0.623 | 0.746 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.117 | 0.139 | Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 0.902 | 0.747 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.142 | 0.139 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 0.528 | 0.746 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.122 | 0.139 | Data Appear Gamma Distributed |

| Lognormal GOF Test Results | | | | |
|---|---|---|---|---|
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
| Correlation Coefficient R | 0.976 | 0.976 | 0.947 | 0.98 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.946 | 0.939 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.947 | 0.94 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.91 | 0.94 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.954 | 0.94 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.133 | 0.14 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.129 | 0.139 | Data Appear Lognormal |
| Lilliefors (NDs = DL/2) | 0.157 | 0.139 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.13 | 0.139 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

| Goodness-of-Fit Test Statistics for Data Sets with Non-Detects | |
|---|---|
| **User Selected Options** | |
| Date/Time of Computation | ProUCL 5.110/10/2024 10:30:31 AM |
| From File | FC - MU1_2024Q2_proUCL.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |

# Appendix B
# Goodness of Fit Statistics

**Cobalt (outliers removed)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 11 | 41 | 22 | 19 | 46.34% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 19 | 5.0000E-4 | 0.01 | 0.00276 | 0.002 | 0.00254 |
| Statistics (Non-Detects Only) | 22 | 5.6000E-4 | 0.0045 | 0.00232 | 0.0021 | 0.00117 |
| Statistics (All: NDs treated as DL value) | 41 | 5.0000E-4 | 0.01 | 0.00253 | 0.002 | 0.00192 |
| Statistics (All: NDs treated as DL/2 value) | 41 | 2.5000E-4 | 0.005 | 0.00189 | 0.0019 | 0.00129 |
| Statistics (Normal ROS Imputed Data) | 41 | -0.00136 | 0.0045 | 0.00149 | 0.0014 | 0.00145 |
| Statistics (Gamma ROS Imputed Data) | 41 | 5.6000E-4 | 0.01 | 0.00588 | 0.004 | 0.00397 |
| Statistics (Lognormal ROS Imputed Data) | 41 | 3.4397E-4 | 0.0045 | 0.0017 | 0.00133 | 0.00116 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 3.633 | 3.168 | 6.3956E-4 | -6.209 | 0.582 | -0.0938 |
| Statistics (NDs = DL) | 1.919 | 1.795 | 0.00132 | -6.263 | 0.796 | -0.127 |
| Statistics (NDs = DL/2) | 1.752 | 1.64 | 0.00108 | -6.584 | 0.893 | -0.136 |
| Statistics (Gamma ROS Estimates) | 1.665 | 1.559 | 0.00353 | -5.465 | 0.913 | -0.167 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.608 | 0.703 | -0.106 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.983 | 0.918 | 0.972 | 0.993 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.953 | 0.911 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.854 | 0.941 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.929 | 0.941 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.975 | 0.941 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.116 | 0.184 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.169 | 0.137 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.144 | 0.137 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.0923 | 0.137 | Data Appear Normal |

**Gamma GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.972 | 0.974 | 0.975 | 0.793 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.289 | 0.748 | |
| Kolmogorov-Smirnov (Detects Only) | 0.116 | 0.186 | Detected Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL) | 0.522 | 0.76 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.0968 | 0.14 | Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 0.634 | 0.763 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.117 | 0.14 | Data Appear Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 3.185 | 0.764 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.305 | 0.14 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.978 | 0.977 | 0.962 | 0.987 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.949 | 0.911 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.94 | 0.941 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.903 | 0.941 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.956 | 0.941 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.102 | 0.184 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.11 | 0.137 | Data Appear Lognormal |
| Lilliefors (NDs = DL/2) | 0.152 | 0.137 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.0748 | 0.137 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

| | |
|---|---|
| | **Goodness-of-Fit Test Statistics for Data Sets with Non-Detects** |
| **User Selected Options** | |
| Date/Time of Computation | ProUCL 5.110/12/2024 6:18:00 PM |
| From File | FC - MU1_2024Q2_proUCL.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| **Lithium (outliers removed)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 40 |
| Number of Missing Observations | 12 |
| Number of Distinct Observations | 25 |
| Minimum | 0.37 |
| Maximum | 1.5 |
| Mean of Raw Data | 0.858 |
| Standard Deviation of Raw Data | 0.323 |
| Khat | 6.324 |
| Theta hat | 0.136 |
| Kstar | 5.866 |
| Theta star | 0.146 |
| Mean of Log Transformed Data | -0.235 |
| Standard Deviation of Log Transformed Data | 0.427 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.977 |
| Shapiro Wilk Test Statistic | 0.934 |
| Shapiro Wilk Critical (0.05) Value | 0.94 |
| Approximate Shapiro Wilk P Value | 0.0288 |
| Lilliefors Test Statistic | 0.123 |
| Lilliefors Critical (0.05) Value | 0.139 |
| Data appear Approximate Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.963 |
| A-D Test Statistic | 1.172 |
| A-D Critical (0.05) Value | 0.751 |
| K-S Test Statistic | 0.15 |
| K-S Critical(0.05) Value | 0.14 |
| Data not Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.957 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Shapiro Wilk Test Statistic | 0.894 |
| Shapiro Wilk Critical (0.05) Value | 0.94 |
| Approximate Shapiro Wilk P Value | 9.8243E-4 |
| Lilliefors Test Statistic | 0.169 |
| Lilliefors Critical (0.05) Value | 0.139 |

**Data not Lognormal at (0.05) Significance Level**

| | |
|---|---|
| | **Goodness-of-Fit Test Statistics for Data Sets with Non-Detects** |
| **User Selected Options** | |
| Date/Time of Computation | ProUCL 5.110/12/2024 6:35:13 PM |
| From File | FC - MU1_2024Q2_proUCL.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |

**Molybdenum (outliers removed)**

| **Raw Statistics** | |
|---|---|
| Number of Valid Observations | 40 |
| Number of Missing Observations | 12 |
| Number of Distinct Observations | 30 |
| Minimum | 0.012 |
| Maximum | 0.1 |
| Mean of Raw Data | 0.0353 |
| Standard Deviation of Raw Data | 0.0228 |
| Khat | 3.109 |
| Theta hat | 0.0113 |
| Kstar | 2.893 |
| Theta star | 0.0122 |
| Mean of Log Transformed Data | -3.514 |
| Standard Deviation of Log Transformed Data | 0.571 |

| **Normal GOF Test Results** | |
|---|---|
| Correlation Coefficient R | 0.908 |
| Shapiro Wilk Test Statistic | 0.819 |
| Shapiro Wilk Critical (0.05) Value | 0.94 |
| Approximate Shapiro Wilk P Value | 2.8226E-6 |
| Lilliefors Test Statistic | 0.233 |

# Appendix B
## Goodness of Fit Statistics

| | |
|---|---|
| Lilliefors Critical (0.05) Value | 0.139 |
| **Data not Normal at (0.05) Significance Level** | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.975 |
| A-D Test Statistic | 1.06 |
| A-D Critical (0.05) Value | 0.754 |
| K-S Test Statistic | 0.181 |
| K-S Critical(0.05) Value | 0.14 |
| **Data not Gamma Distributed at (0.05) Significance Level** | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.983 |
| Shapiro Wilk Test Statistic | 0.949 |
| Shapiro Wilk Critical (0.05) Value | 0.94 |
| Approximate Shapiro Wilk P Value | 0.101 |
| Lilliefors Test Statistic | 0.144 |
| Lilliefors Critical (0.05) Value | 0.139 |
| **Data appear Approximate_Lognormal at (0.05) Significance Level** | |

| | |
|---|---|
| | **Goodness-of-Fit Test Statistics for Data Sets with Non-Detects** |
| **User Selected Options** | |
| Date/Time of Computation | ProUCL 5.110/12/2024 6:55:58 PM |
| From File | FC - MU1_2024Q2_proUCL.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |

**Selenium (outliers removed)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 8 | 44 | 30 | 14 | 31.82% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 14 | 0.001 | 0.06 | 0.0102 | 0.005 | 0.0162 |
| Statistics (Non-Detects Only) | 30 | 0.001 | 0.12 | 0.0316 | 0.0028 | 0.0386 |
| Statistics (All: NDs treated as DL value) | 44 | 0.001 | 0.12 | 0.0248 | 0.00365 | 0.0344 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Statistics (All: NDs treated as DL/2 value) | 44 | 5.0000E-4 | 0.12 | 0.0232 | 0.0025 | 0.0343 |
| Statistics (Normal ROS Imputed Data) | 44 | -0.0592 | 0.12 | 0.0188 | 0.00292 | 0.039 |
| Statistics (Gamma ROS Imputed Data) | 44 | 0.001 | 0.12 | 0.0248 | 0.01 | 0.0333 |
| Statistics (Lognormal ROS Imputed Data) | 44 | 1.0831E-4 | 0.12 | 0.0221 | 0.00227 | 0.0346 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 0.488 | 0.461 | 0.0649 | -4.761 | 1.819 | -0.382 |
| Statistics (NDs = DL) | 0.505 | 0.486 | 0.0491 | -4.952 | 1.66 | -0.335 |
| Statistics (NDs = DL/2) | 0.457 | 0.441 | 0.0507 | -5.172 | 1.745 | -0.337 |
| Statistics (Gamma ROS Estimates) | 0.609 | 0.583 | 0.0406 | -4.71 | 1.496 | -0.318 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -5.376 | 1.852 | -0.345 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.871 | 0.842 | 0.826 | 0.916 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.746 | 0.927 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.7 | 0.944 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.676 | 0.944 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.843 | 0.944 | Data Not Normal | | | |
| Lilliefors (Detects Only) | 0.35 | 0.159 | Data Not Normal | | | |
| Lilliefors (NDs = DL) | 0.344 | 0.132 | Data Not Normal | | | |
| Lilliefors (NDs = DL/2) | 0.374 | 0.132 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.315 | 0.132 | Data Not Normal | | | |
| | | | | | | |
| **Gamma GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
| Correlation Coefficient R | 0.887 | 0.927 | 0.927 | 0.94 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | 3.436 | 0.812 | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.279 | 0.169 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL) | 4.211 | 0.813 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.262 | 0.141 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 4.375 | 0.824 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.278 | 0.142 | Data Not Gamma Distributed | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Anderson-Darling (Gamma ROS Estimates) | 3.009 | 0.803 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.276 | 0.14 | Data Not Gamma Distributed | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 0.883 | 0.913 | 0.922 | 0.922 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.757 | 0.927 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL) | 0.809 | 0.944 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.829 | 0.944 | Data Not Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.84 | 0.944 | Data Not Lognormal | | | |
| Lilliefors (Detects Only) | 0.258 | 0.159 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL) | 0.22 | 0.132 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.226 | 0.132 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.251 | 0.132 | Data Not Lognormal | | | |
| | | | | | | |
| | **Goodness-of-Fit Test Statistics for Data Sets with Non-Detects** | | | | | |
| **User Selected Options** | | | | | | |
| Date/Time of Computation | ProUCL 5.110/13/2024 7:10:42 AM | | | | | |
| From File | FC - MU1_2024Q2_proUCL.xls | | | | | |
| Full Precision | OFF | | | | | |
| Confidence Coefficient | 0.95 | | | | | |
| | | | | | | |
| | | | | | | |
| **Thallium (outliers removed)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 52 | 14 | 38 | 27 | 11 | 28.95% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 11 | 1.0000E-4 | 0.001 | 4.9091E-4 | 4.0000E-4 | 3.4772E-4 |
| Statistics (Non-Detects Only) | 27 | 1.7000E-4 | 0.0017 | 0.00127 | 0.0013 | 3.5385E-4 |
| Statistics (All: NDs treated as DL value) | 38 | 1.0000E-4 | 0.0017 | 0.00104 | 0.0013 | 4.9803E-4 |
| Statistics (All: NDs treated as DL/2 value) | 38 | 5.0000E-5 | 0.0017 | 9.7158E-4 | 0.0013 | 5.6282E-4 |
| Statistics (Normal ROS Imputed Data) | 38 | 1.7000E-4 | 0.0017 | 0.00108 | 0.0013 | 4.2136E-4 |
| Statistics (Gamma ROS Imputed Data) | 38 | 1.7000E-4 | 0.01 | 0.0038 | 0.0014 | 0.00402 |
| Statistics (Lognormal ROS Imputed Data) | 38 | 1.7000E-4 | 0.0017 | 0.00106 | 0.0013 | 4.4859E-4 |

# Appendix B
# Goodness of Fit Statistics

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 5.89 | 5.261 | 2.1516E-4 | -6.758 | 0.536 | -0.0793 |
| Statistics (NDs = DL) | 2.432 | 2.257 | 4.2877E-4 | -7.085 | 0.81 | -0.114 |
| Statistics (NDs = DL/2) | 1.576 | 1.469 | 6.1634E-4 | -7.286 | 1.043 | -0.143 |
| Statistics (Gamma ROS Estimates) | 1.026 | 0.963 | 0.0037 | -6.135 | 1.087 | -0.177 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.982 | 0.581 | -0.0831 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.845 | 0.924 | 0.913 | 0.953 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.727 | 0.923 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.836 | 0.938 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.811 | 0.938 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.895 | 0.938 | Data Not Normal |
| Lilliefors (Detects Only) | 0.314 | 0.167 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.25 | 0.142 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.273 | 0.142 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.248 | 0.142 | Data Not Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.767 | 0.822 | 0.793 | 0.827 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 4.462 | 0.747 | |
| Kolmogorov-Smirnov (Detects Only) | 0.357 | 0.168 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 3.733 | 0.757 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.271 | 0.145 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 3.797 | 0.765 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.296 | 0.146 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 5.225 | 0.777 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.355 | 0.147 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.707 | 0.863 | 0.874 | 0.906 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.518 | 0.923 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.737 | 0.938 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.753 | 0.938 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.817 | 0.938 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.361 | 0.167 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.297 | 0.142 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.307 | 0.142 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.272 | 0.142 | Data Not Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

# Appendix B
# Statistical Comparison Statistics

| Wilcoxon-Mann-Whitney Sample 1 vs Sample 2 Comparison Test for Data Sets with Non-Detects | | |
|---|---|---|
| | | |
| User Selected Options | | |
| Date/Time of Computation | ProUCL 5.110/14/2024 11:55:28 AM | |
| From File | FC - MU1_2024Q2_proUCL.xls | |
| Full Precision | OFF | |
| Confidence Coefficient | 95% | |
| Selected Null Hypothesis | Sample 1 Mean/Median = Sample 2 Mean/Median (2 Sided Alternative | |
| Alternative Hypothesis | Sample 1 Mean/Median <> Sample 2 Mean/Median | |
| | | |
| **Sample 1 Data: Lithium(mw-49a) (outliers removed)** | | |
| **Sample 2 Data: Lithium(mw-74) (outliers removed)** | | |
| | | |
| **Raw Statistics** | | |
| | Sample 1 | Sample 2 |
| Number of Valid Data | 27 | 13 |
| Number of Missing Observations | 9 | 3 |
| Number of Non-Detects | 0 | 0 |
| Number of Detect Data | 27 | 13 |
| Minimum Non-Detect | N/A | N/A |
| Maximum Non-Detect | N/A | N/A |
| Percent Non-detects | 0.00% | 0.00% |
| Minimum Detect | 0.56 | 0.37 |
| Maximum Detect | 1.5 | 0.9 |
| Mean of Detects | 1.03 | 0.499 |
| Median of Detects | 1.1 | 0.43 |
| SD of Detects | 0.223 | 0.163 |
| | | |
| **Wilcoxon-Mann-Whitney (WMW) Test** | | |
| | | |
| **H0: Mean/Median of Sample 1 = Mean/Median of Sample 2** | | |
| | | |
| Sample 1 Rank Sum W-Stat | 718.5 | |
| WMW U-Stat | 340.5 | |
| Standardized WMW U-Stat | 4.787 | |
| Mean (U) | 175.5 | |
| SD(U) - Adj ties | 34.47 | |
| Lower Approximate U-Stat Critical Value (0.025) | -1.96 | |
| Upper Approximate U-Stat Critical Value (0.975) | 1.96 | |

# Appendix B
## Statistical Comparison Statistics

| | | | |
|---|---|---|---|
| **Sample 1 Data: Lithium(mw-49a) (outliers removed)** | | | |
| P-Value (Adjusted for Ties) | 1.6937E-6 | | |
| | | | |
| **Conclusion with Alpha = 0.05** | | | |
| **Reject H0, Conclude Sample 1 <> Sample 2** | | | |
| | | | |
| **P-Value < alpha (0.05)** | | | |

**Wilcoxon-Mann-Whitney Sample 1 vs Sample 2 Comparison Test for Uncensor Full Data Sets without NDs**

| | |
|---|---|
| User Selected Options | |
| Date/Time of Computation | ProUCL 5.110/14/2024 12:13:37 PM |
| From File | FC - MU1_2024Q2_proUCL.xls |
| Full Precision | OFF |
| Confidence Coefficient | 95% |
| Substantial Difference | 0.000 |
| Selected Null Hypothesis | Sample 1 Mean/Median = Sample 2 Mean/Median (Two Sided Alternative) |
| Alternative Hypothesis | Sample 1 Mean/Median <> Sample 2 Mean/Median |

**Sample 1 Data: Lithium(mw-49a) (outliers removed)**
**Sample 2 Data: Lithium(mw-74) (outliers removed)**

**Raw Statistics**

| | Sample 1 | Sample 2 |
|---|---|---|
| Number of Valid Observations | 32 | 12 |
| Number of Missing Observations | 4 | 4 |
| Number of Distinct Observations | 18 | 10 |
| Minimum | 0.001 | 0.049 |
| Maximum | 0.06 | 0.12 |
| Mean | 0.00571 | 0.0758 |
| Median | 0.002 | 0.07 |
| SD | 0.0113 | 0.0194 |
| SE of Mean | 0.00199 | 0.0056 |

**Wilcoxon-Mann-Whitney (WMW) Test**

**H0: Mean/Median of Sample 1 = Mean/Median of Sample 2**

# Appendix B
## Statistical Comparison Statistics

| Sample 1 Data: Lithium(mw-49a) (outliers removed) | |
|---|---|
| Sample 1 Rank Sum W-Stat | 530 |
| WMW U-Stat | 2 |
| Standardized WMW U-Stat | -5.017 |
| Mean (U) | 192 |
| SD(U) - Adj ties | 37.88 |
| Lower Approximate U-Stat Critical Value (0.025) | -1.96 |
| Upper Approximate U-Stat Critical Value (0.975) | 1.96 |
| P-Value (Adjusted for Ties) | 5.2477E-7 |

**Conclusion with Alpha = 0.05**

**Reject H0, Conclude Sample 1 <> Sample 2**

**P-Value < alpha (0.05)**

# Appendix B
# Outlier Statistics

**Outlier Tests for Selected Uncensored Variables**

| | |
|---|---|
| **User Selected Options** | |
| Date/Time of Computation | ProUCL 5.110/10/2024 6:43:41 AM |
| From File | FC - MU1_2024Q2_proUCL.xls |
| Full Precision | OFF |

**Rosner's Outlier Test for Antimony**

| | |
|---|---|
| **Mean** | **0.00332** |
| **Standard Deviation** | **0.00329** |
| **Number of data** | **37** |
| **Number of suspected outliers** | **1** |

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 0.00332 | 0.00325 | 0.01 | 12 | 2.058 | 3 | 3.34 |

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

**Rosner's Outlier Test for Arsenic**

| | |
|---|---|
| **Mean** | **0.00484** |
| **Standard Deviation** | **0.00948** |
| **Number of data** | **46** |
| **Number of suspected outliers** | **1** |

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 0.00484 | 0.00938 | 0.06 | 3 | 5.881 | 3.09 | 3.45 |

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 0.06

For 1% Significance Level, there is 1 Potential Outlier

# Appendix B
# Outlier Statistics

Potential outliers is: 0.06

**Rosner's Outlier Test for Barium**

| | |
|---|---|
| **Mean** | **0.0222** |
| **Standard Deviation** | **0.00517** |
| **Number of data** | **42** |
| **Number of suspected outliers** | **1** |

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 0.0222 | 0.00511 | 0.042 | 1 | 3.875 | 3.06 | 3.4 |

For 5% Significance Level, there is 1 Potential Outlier
Potential outliers is: 0.042

For 1% Significance Level, there is 1 Potential Outlier
Potential outliers is: 0.042

**Rosner's Outlier Test for Beryllium**

| | |
|---|---|
| **Mean** | **9.9286E-4** |
| **Standard Deviation** | **4.2258E-5** |
| **Number of data** | **35** |
| **Number of suspected outliers** | **1** |

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 9.9286E-4 | 4.1650E-5 | 7.5000E-4 | 1 | 5.831 | 2.98 | 3.32 |

For 5% Significance Level, there is 1 Potential Outlier
Potential outliers is: 7.5000E-4

For 1% Significance Level, there is 1 Potential Outlier
Potential outliers is: 7.5000E-4

# Appendix B
# Outlier Statistics

**Rosner's Outlier Test for Cadmium**

| | |
|---|---|
| **Mean** | **7.1907E-4** |
| **Standard Deviation** | **0.00154** |
| **Number of data** | **43** |
| **Number of suspected outliers** | **1** |

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 7.1907E-4 | 0.00152 | 0.01 | 1 | 6.115 | 3.07 | 3.41 |

For 5% Significance Level, there is 1 Potential Outlier
Potential outliers is: 0.01

For 1% Significance Level, there is 1 Potential Outlier
Potential outliers is: 0.01

**Rosner's Outlier Test for Chromium**

| | |
|---|---|
| **Mean** | **0.00574** |
| **Standard Deviation** | **0.01** |
| **Number of data** | **41** |
| **Number of suspected outliers** | **1** |

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 0.00574 | 0.00992 | 0.06 | 3 | 5.472 | 3.05 | 3.39 |

For 5% Significance Level, there is 1 Potential Outlier
Potential outliers is: 0.06

For 1% Significance Level, there is 1 Potential Outlier
Potential outliers is: 0.06

# Appendix B
# Outlier Statistics

**Rosner's Outlier Test for Cobalt**

| | |
|---|---|
| **Mean** | **0.00271** |
| **Standard Deviation** | **0.00222** |
| **Number of data** | **42** |
| **Number of suspected outliers** | **1** |

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 0.00271 | 0.00219 | 0.01 | 15 | 3.332 | 3.06 | 3.4 |

For 5% Significance Level, there is 1 Potential Outlier
Potential outliers is: 0.01

For 1% Significance Level, there is no Potential Outlier

**Rosner's Outlier Test for Fluoride**

| | |
|---|---|
| **Mean** | **2.615** |
| **Standard Deviation** | **3.534** |
| **Number of data** | **50** |
| **Number of suspected outliers** | **1** |

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 2.615 | 3.499 | 20 | 33 | 4.969 | 3.13 | 3.48 |

For 5% Significance Level, there is 1 Potential Outlier
Potential outliers is: 20

For 1% Significance Level, there is 1 Potential Outlier
Potential outliers is: 20

**Rosner's Outlier Test for Lead**

# Appendix B
## Outlier Statistics

| | |
|---|---|
| **Mean** | **0.00233** |
| **Standard Deviation** | **0.00268** |
| **Number of data** | **42** |
| **Number of suspected outliers** | **1** |

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 0.00233 | 0.00265 | 0.01 | 1 | 2.896 | 3.06 | 3.4 |

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

**Rosner's Outlier Test for Lithium**

| | |
|---|---|
| **Mean** | **0.9** |
| **Standard Deviation** | **0.37** |
| **Number of data** | **42** |
| **Number of suspected outliers** | **1** |

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 0.9 | 0.365 | 1.8 | 4 | 2.464 | 3.06 | 3.4 |

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

**Rosner's Outlier Test for Mercury**

| | |
|---|---|
| **Mean** | **1.9714E-4** |
| **Standard Deviation** | **1.6903E-5** |
| **Number of data** | **35** |

# Appendix B
## Outlier Statistics

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Number of suspected outliers** | **1** | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | Potential | Obs. | Test | Critical | Critical | | | | |
| # | Mean | sd | outlier | Number | value | value (5%) | value (1%) | | | | |
| 1 | 1.9714E-4 | 1.6660E-5 | 1.0000E-4 | 1 | 5.831 | 2.98 | 3.32 | | | | |
| | | | | | | | | | | | |
| For 5% Significance Level, there is 1 Potential Outlier | | | | | | | | | | | |
| Potential outliers is: 1.0000E-4 | | | | | | | | | | | |
| | | | | | | | | | | | |
| For 1% Significance Level, there is 1 Potential Outlier | | | | | | | | | | | |
| Potential outliers is: 1.0000E-4 | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| **Rosner's Outlier Test for Molybdenum** | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| **Mean** | **0.0381** | | | | | | | | | | |
| **Standard Deviation** | **0.0288** | | | | | | | | | | |
| **Number of data** | **41** | | | | | | | | | | |
| **Number of suspected outliers** | **1** | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | Potential | Obs. | Test | Critical | Critical | | | | |
| # | Mean | sd | outlier | Number | value | value (5%) | value (1%) | | | | |
| 1 | 0.0381 | 0.0284 | 0.15 | 17 | 3.937 | 3.05 | 3.39 | | | | |
| | | | | | | | | | | | |
| For 5% Significance Level, there is 1 Potential Outlier | | | | | | | | | | | |
| Potential outliers is: 0.15 | | | | | | | | | | | |
| | | | | | | | | | | | |
| For 1% Significance Level, there is 1 Potential Outlier | | | | | | | | | | | |
| Potential outliers is: 0.15 | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| **Rosner's Outlier Test for Selenium** | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| **Mean** | **0.0298** | | | | | | | | | | |
| **Standard Deviation** | **0.0412** | | | | | | | | | | |
| **Number of data** | **46** | | | | | | | | | | |
| **Number of suspected outliers** | **1** | | | | | | | | | | |

# Appendix B
# Outlier Statistics

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 0.0298 | 0.0407 | 0.14 | 43 | 2.706 | 3.09 | 3.45 |

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

**Rosner's Outlier Test for Thallium**

| | |
|---|---|
| **Mean** | **0.00114** |
| **Standard Deviation** | **5.5606E-4** |
| **Number of data** | **42** |
| **Number of suspected outliers** | **1** |

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 0.00114 | 5.4940E-4 | 1.0000E-4 | 29 | 1.886 | 3.06 | 3.4 |

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

**Rosner's Outlier Test for Total Radium**

| | |
|---|---|
| **Mean** | **1.427** |
| **Standard Deviation** | **0.809** |
| **Number of data** | **44** |
| **Number of suspected outliers** | **1** |

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 1.427 | 0.8 | 3.5 | 3 | 2.591 | 3.08 | 3.43 |

# Appendix B
# Outlier Statistics

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| For 5% Significance Level, there is no Potential Outlier | | | | | | | |
| | | | | | | | |
| For 1% Significance Level, there is no Potential Outlier | | | | | | | |
| | | | | | | | |

# Appendix B
# Summary Statistics

**General Statistics on Uncensored Data**

Date/Time of Computation ProUCL 5.110/8/2024 1:27:05 PM

**User Selected Options**

From File FC - MU1_2024Q2_proUCL.xls

Full Precision OFF

**From File: FC - MU1_2024Q2_proUCL.xls**

**General Statistics for Censored Data Set (with NDs) using Kaplan Meier Method**

| Variable | NumObs | # Missing | Num Ds | NumNDs | % NDs | Min ND | Max ND | KM Mean | KM Var | KM SD | KM CV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 37 | 15 | 6 | 31 | 83.78% | 0.001 | 0.01 | 4.4409E-4 | 1.3655E-7 | 3.6952E-4 | 0.832 |
| Arsenic | 46 | 6 | 27 | 19 | 41.30% | 5.0000E-4 | 0.06 | 0.00208 | 2.5287E-6 | 0.00159 | 0.765 |
| Barium | 42 | 10 | 41 | 1 | 2.38% | 0.02 | 0.02 | 0.0221 | 2.6689E-5 | 0.00517 | 0.233 |
| Beryllium | 35 | 17 | 1 | 34 | 97.14% | 0.001 | 0.001 | 7.5000E-4 | 0 | 0 | N/A |
| Cadmium | 43 | 9 | 15 | 28 | 65.12% | 1.0000E-4 | 0.01 | 1.8440E-4 | 6.0746E-9 | 7.7940E-5 | 0.423 |
| Chromium | 41 | 11 | 17 | 24 | 58.54% | 0.001 | 0.06 | 0.00182 | 2.2719E-6 | 0.00151 | 0.83 |
| Cobalt | 42 | 10 | 22 | 20 | 47.62% | 5.0000E-4 | 0.01 | 0.00173 | 1.5069E-6 | 0.00123 | 0.71 |
| Fluoride | 50 | 2 | 21 | 29 | 58.00% | 0.25 | 20 | 1.079 | 0.517 | 0.719 | 0.667 |
| Lead | 42 | 10 | 0 | 42 | 100.00% | 5.0000E-4 | 0.01 | N/A | N/A | N/A | N/A |
| Lithium | 42 | 10 | 42 | 0 | 0.00% | N/A | N/A | 0.9 | 0.137 | 0.37 | 0.411 |
| Mercury | 35 | 17 | 1 | 34 | 97.14% | 2.0000E-4 | 2.0000E-4 | 1.0000E-4 | 0 | 0 | N/A |
| Molybdenum | 41 | 11 | 41 | 0 | 0.00% | N/A | N/A | 0.0381 | 8.2847E-4 | 0.0288 | 0.756 |
| Selenium | 46 | 6 | 32 | 14 | 30.43% | 0.001 | 0.06 | 0.0273 | 0.0017 | 0.0412 | 1.513 |
| Thallium | 42 | 10 | 29 | 13 | 30.95% | 1.0000E-4 | 0.002 | 9.9667E-4 | 3.8548E-7 | 6.2087E-4 | 0.623 |
| Total Radium | 44 | 8 | 31 | 13 | 29.55% | 0.6 | 0.9 | 1.355 | 0.754 | 0.868 | 0.641 |

**General Statistics for Raw Data Sets using Detected Data Only**

| Variable | NumObs | # Missing | Minimum | Maximum | Mean | Median | Var | SD | MAD/0.675 | Skewness | CV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 6 | 15 | 1.8000E-4 | 0.002 | 6.4167E-4 | 3.5000E-4 | 4.6510E-7 | 6.8198E-4 | 1.4085E-4 | 2.202 | 1.063 |
| Arsenic | 27 | 6 | 6.8000E-4 | 0.0076 | 0.00251 | 0.0019 | 3.0692E-6 | 0.00175 | 0.00133 | 1.214 | 0.698 |
| Barium | 41 | 10 | 0.014 | 0.042 | 0.0223 | 0.022 | 2.7251E-5 | 0.00522 | 0.00297 | 1.659 | 0.234 |
| Beryllium | 1 | 17 | 7.5000E-4 | 7.5000E-4 | 7.5000E-4 | 7.5000E-4 | N/A | N/A | 0 | N/A | N/A |
| Cadmium | 15 | 9 | 1.1000E-4 | 3.1000E-4 | 2.3267E-4 | 2.4000E-4 | 4.2067E-9 | 6.4859E-5 | 7.4129E-5 | -0.79 | 0.279 |
| Chromium | 17 | 11 | 6.5000E-4 | 0.0063 | 0.00247 | 0.002 | 3.1037E-6 | 0.00176 | 0.00194 | 0.636 | 0.713 |

# Appendix B
# Summary Statistics

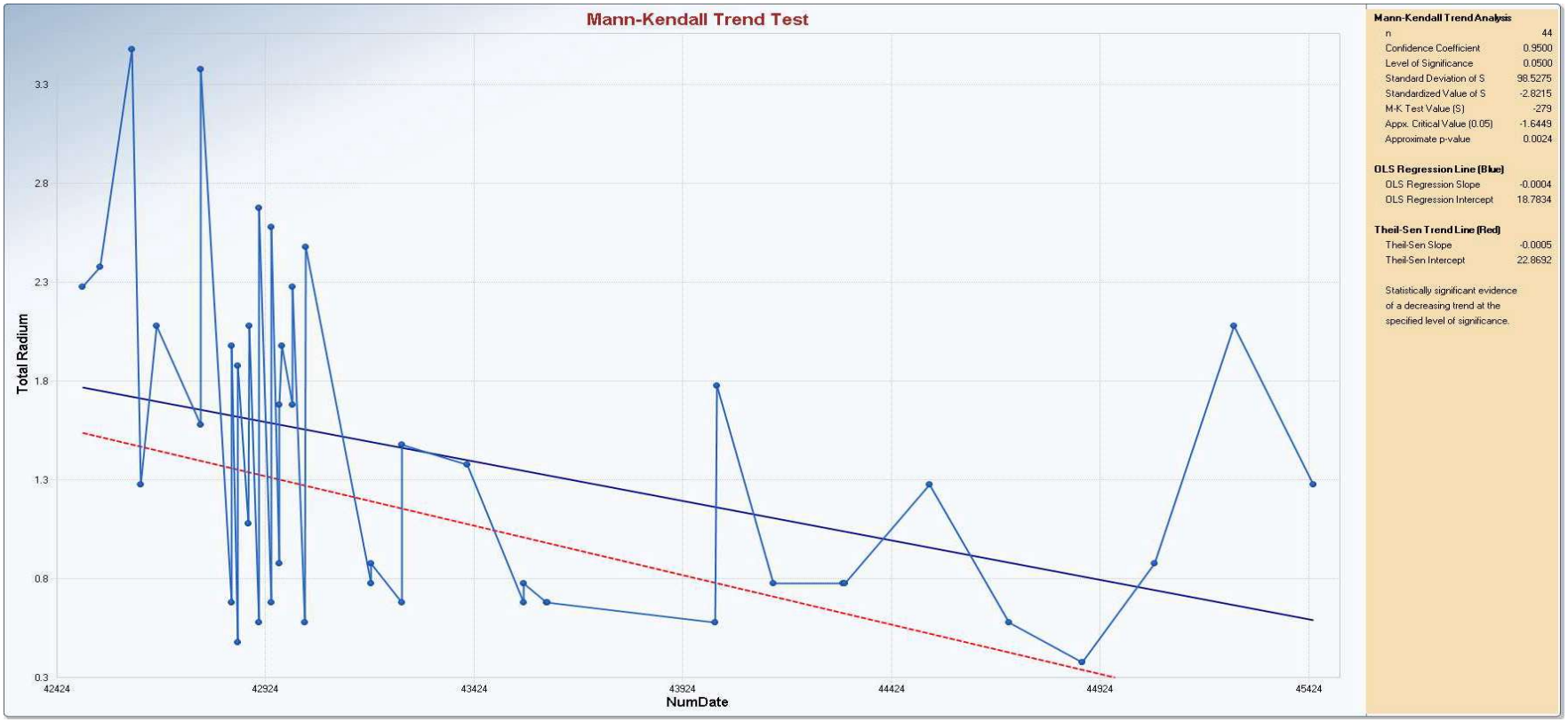
**User Selected Options**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 22 | 10 | 5.6000E-4 | 0.0045 | 0.00232 | 0.0021 | 1.3631E-6 | 0.00117 | 0.00126 | 0.276 | 0.502 |
| Fluoride | 21 | 2 | 0.47 | 2.4 | 1.51 | 1.8 | 0.359 | 0.599 | 0.445 | -0.532 | 0.397 |
| Lead | 0 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Lithium | 42 | 10 | 0.37 | 1.8 | 0.9 | 0.9 | 0.137 | 0.37 | 0.297 | 0.349 | 0.411 |
| Mercury | 1 | 17 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | N/A | N/A | 0 | N/A | N/A |
| Molybdenum | 41 | 11 | 0.012 | 0.15 | 0.0381 | 0.028 | 8.2847E-4 | 0.0288 | 0.0148 | 2.071 | 0.756 |
| Selenium | 32 | 6 | 0.001 | 0.14 | 0.0384 | 0.00365 | 0.0021 | 0.0458 | 0.00311 | 0.857 | 1.194 |
| Thallium | 29 | 10 | 1.7000E-4 | 0.0021 | 0.00132 | 0.0014 | 1.5718E-7 | 3.9646E-4 | 1.4826E-4 | -1.294 | 0.3 |
| Total Radium | 31 | 8 | 0.4 | 3.5 | 1.723 | 1.7 | 0.63 | 0.794 | 0.89 | 0.305 | 0.461 |

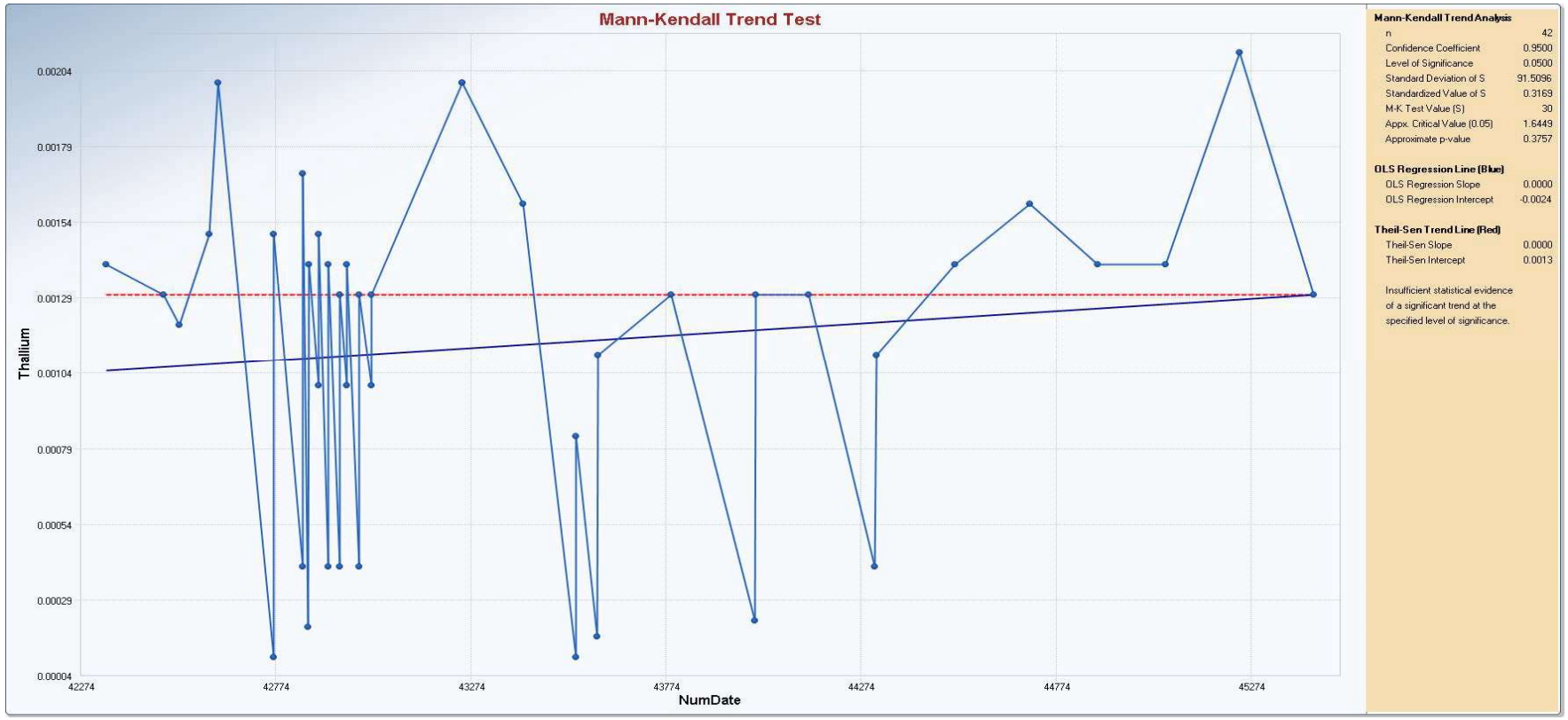
**Percentiles using all Detects (Ds) and Non-Detects (NDs)**

| Variable | NumObs | # Missing | 10%ile | 20%ile | 25%ile(Q1) | 50%ile(Q2) | 75%ile(Q3) | 80%ile | 90%ile | 95%ile | 99%ile |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 37 | 15 | 5.2400E-4 | 0.001 | 0.001 | 0.002 | 0.004 | 0.0048 | 0.01 | 0.01 | 0.01 |
| Arsenic | 46 | 6 | 0.001 | 0.0011 | 0.0012 | 0.00235 | 0.0049 | 0.005 | 0.00645 | 0.01 | 0.0465 |
| Barium | 42 | 10 | 0.018 | 0.019 | 0.02 | 0.022 | 0.023 | 0.025 | 0.0279 | 0.029 | 0.0395 |
| Beryllium | 35 | 17 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 |
| Cadmium | 43 | 9 | 1.1200E-4 | 2.0000E-4 | 2.0000E-4 | 2.9000E-4 | 7.0000E-4 | 0.001 | 0.001 | 0.002 | 0.00664 |
| Chromium | 41 | 11 | 8.2000E-4 | 0.001 | 0.0019 | 0.0035 | 0.005 | 0.0063 | 0.01 | 0.01 | 0.048 |
| Cobalt | 42 | 10 | 5.0600E-4 | 0.001 | 0.001 | 0.002 | 0.00385 | 0.004 | 0.005 | 0.005 | 0.01 |
| Fluoride | 50 | 2 | 0.506 | 0.8 | 0.8 | 1.9 | 2.1 | 4 | 4 | 8.95 | 16.57 |
| Lead | 42 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 0.001 | 0.00215 | 0.005 | 0.005 | 0.00975 | 0.01 |
| Lithium | 42 | 10 | 0.401 | 0.482 | 0.583 | 0.9 | 1.1 | 1.1 | 1.39 | 1.495 | 1.759 |
| Mercury | 35 | 17 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 |
| Molybdenum | 41 | 11 | 0.015 | 0.018 | 0.02 | 0.028 | 0.045 | 0.051 | 0.075 | 0.096 | 0.13 |
| Selenium | 46 | 6 | 0.00165 | 0.0018 | 0.0018 | 0.00455 | 0.06 | 0.067 | 0.089 | 0.113 | 0.14 |
| Thallium | 42 | 10 | 2.3800E-4 | 4.0000E-4 | 8.7250E-4 | 0.0013 | 0.0014 | 0.0015 | 0.00169 | 0.002 | 0.00206 |
| Total Radium | 44 | 8 | 0.6 | 0.7 | 0.7 | 1.3 | 2.025 | 2.1 | 2.47 | 2.685 | 3.457 |

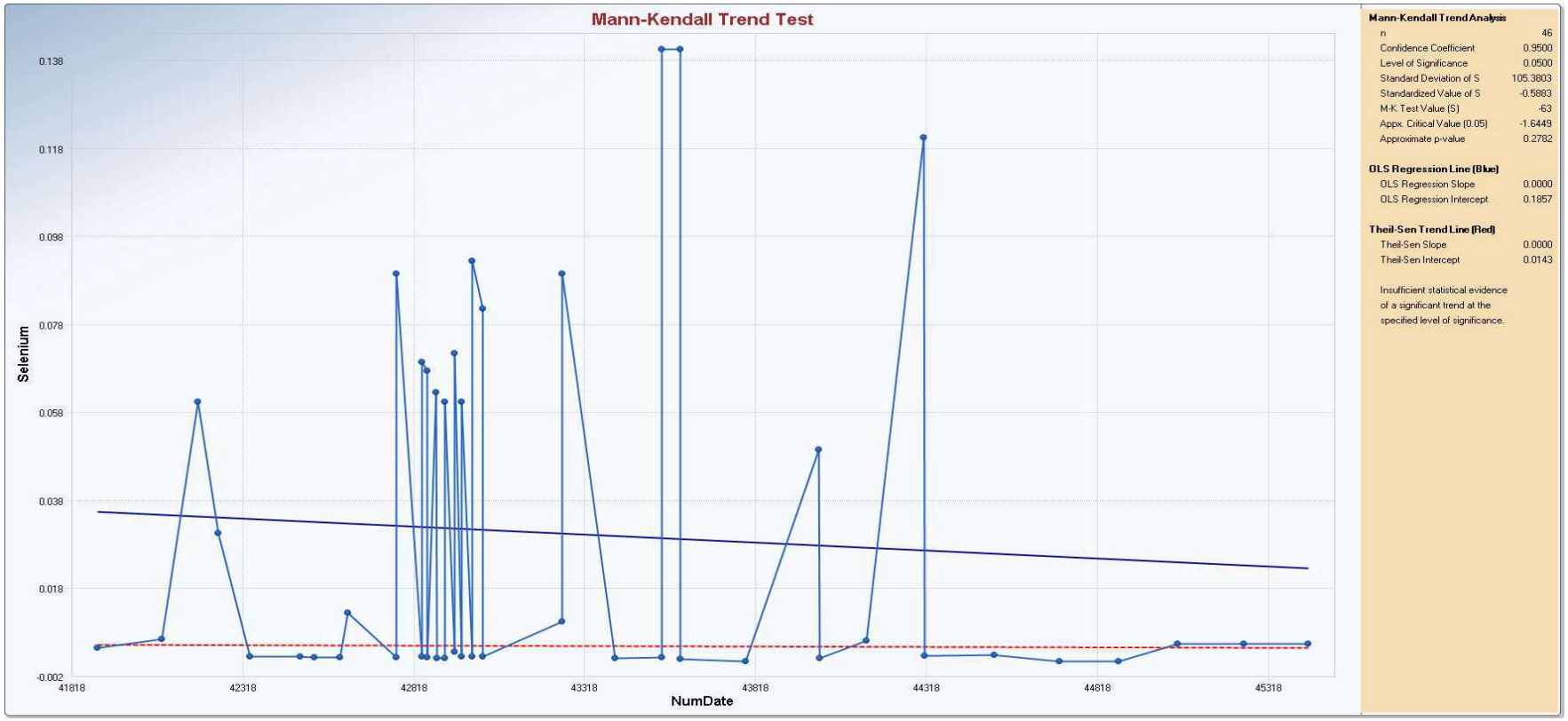
# Appendix B
# Mann-Kendall Trend Test



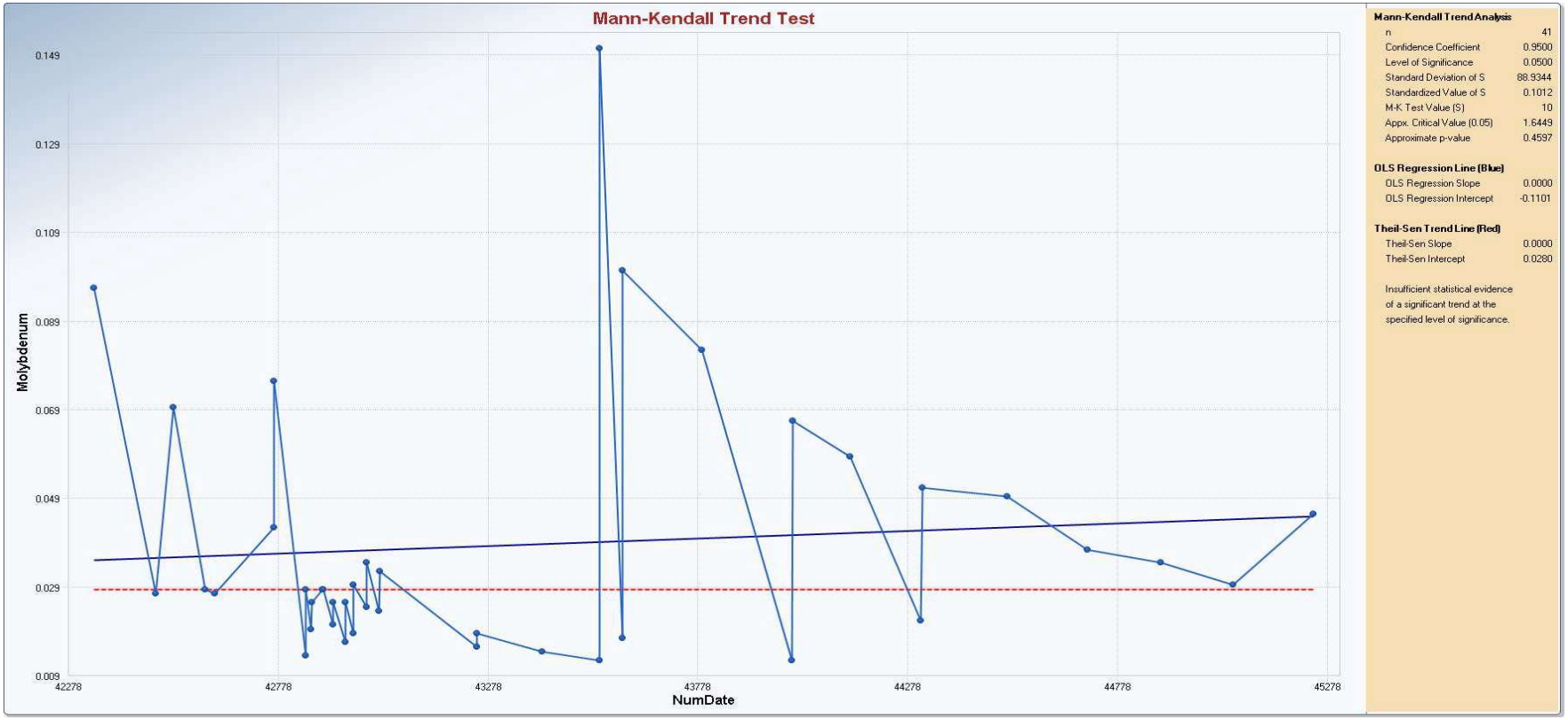
# Appendix B
# Mann-Kendall Trend Test



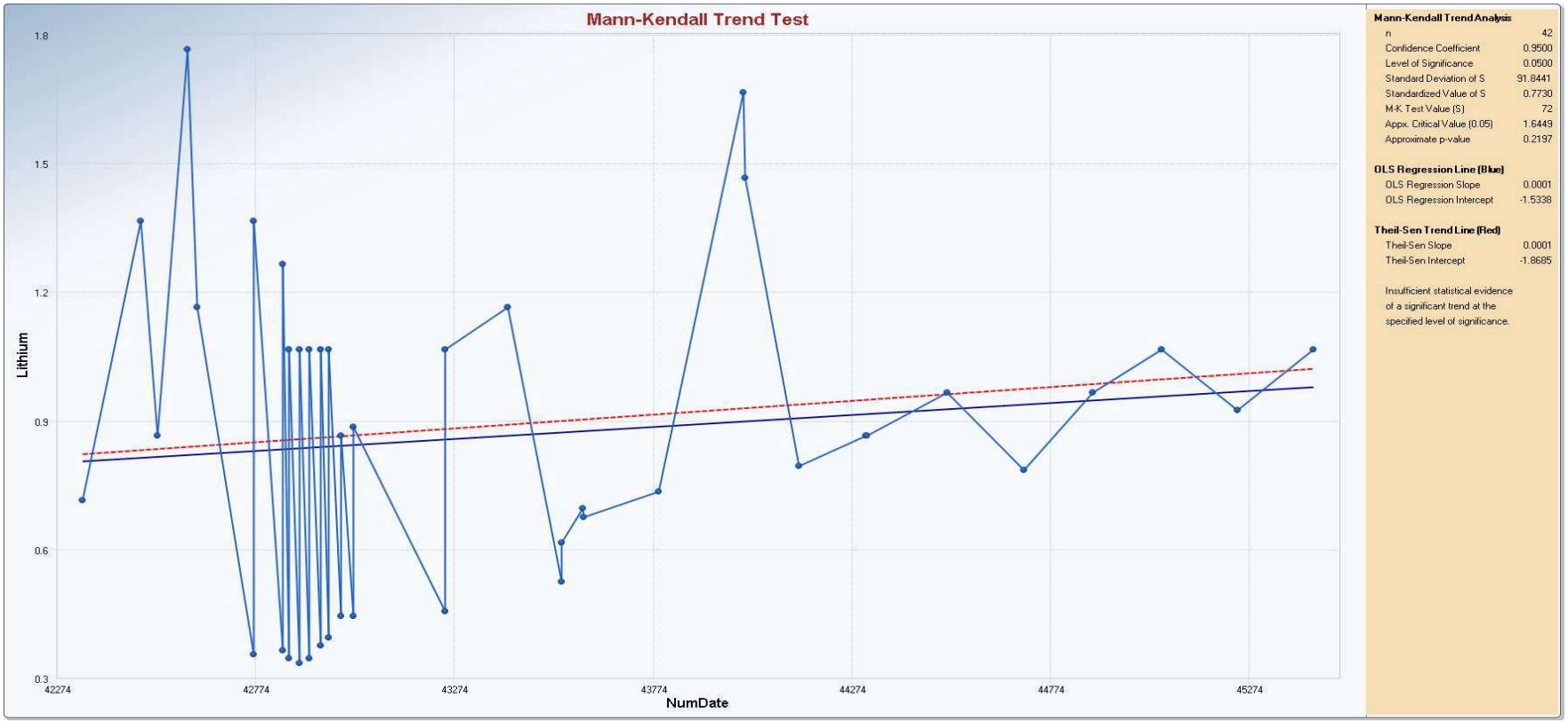
# Appendix B
# Mann-Kendall Trend Test



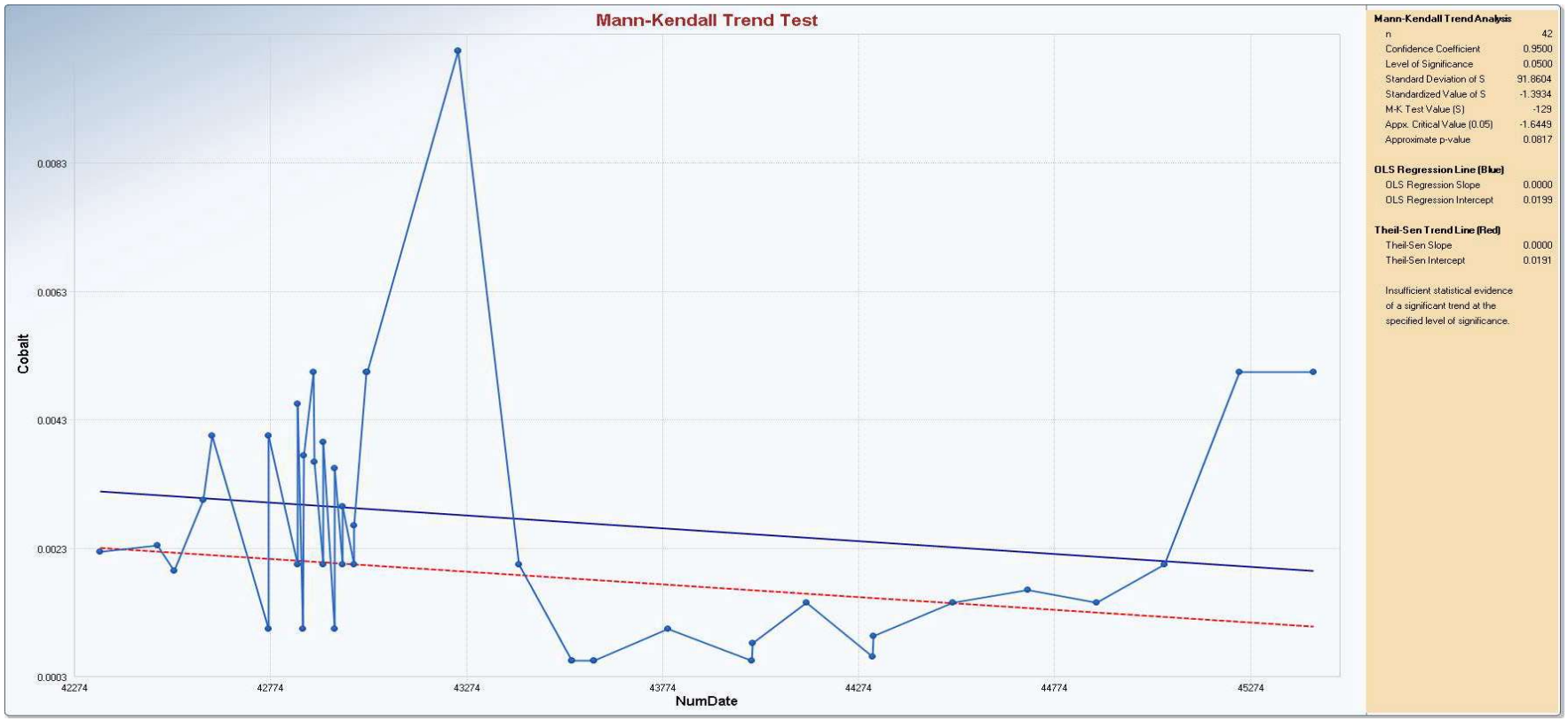
# Appendix B
# Mann-Kendall Trend Test



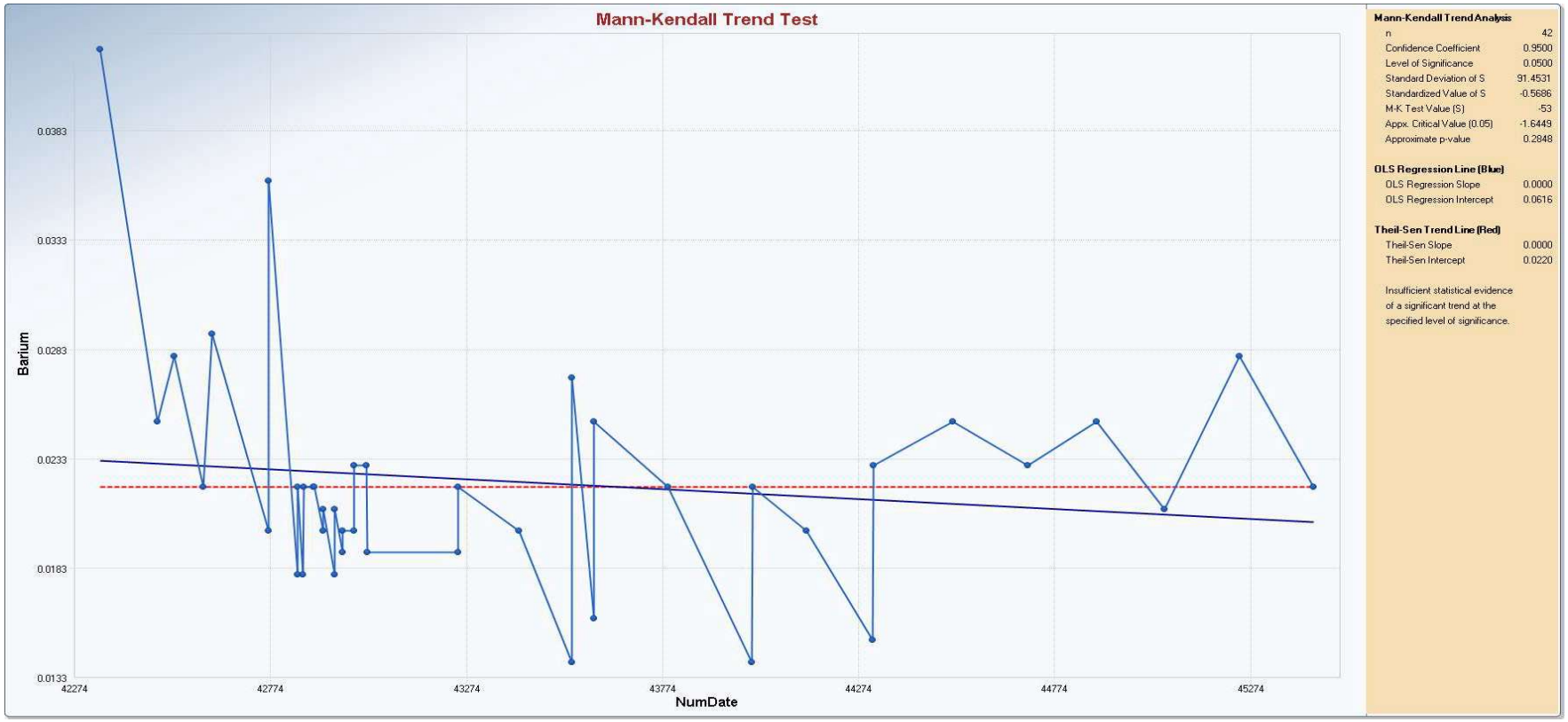
# Appendix B
# Mann-Kendall Trend Test



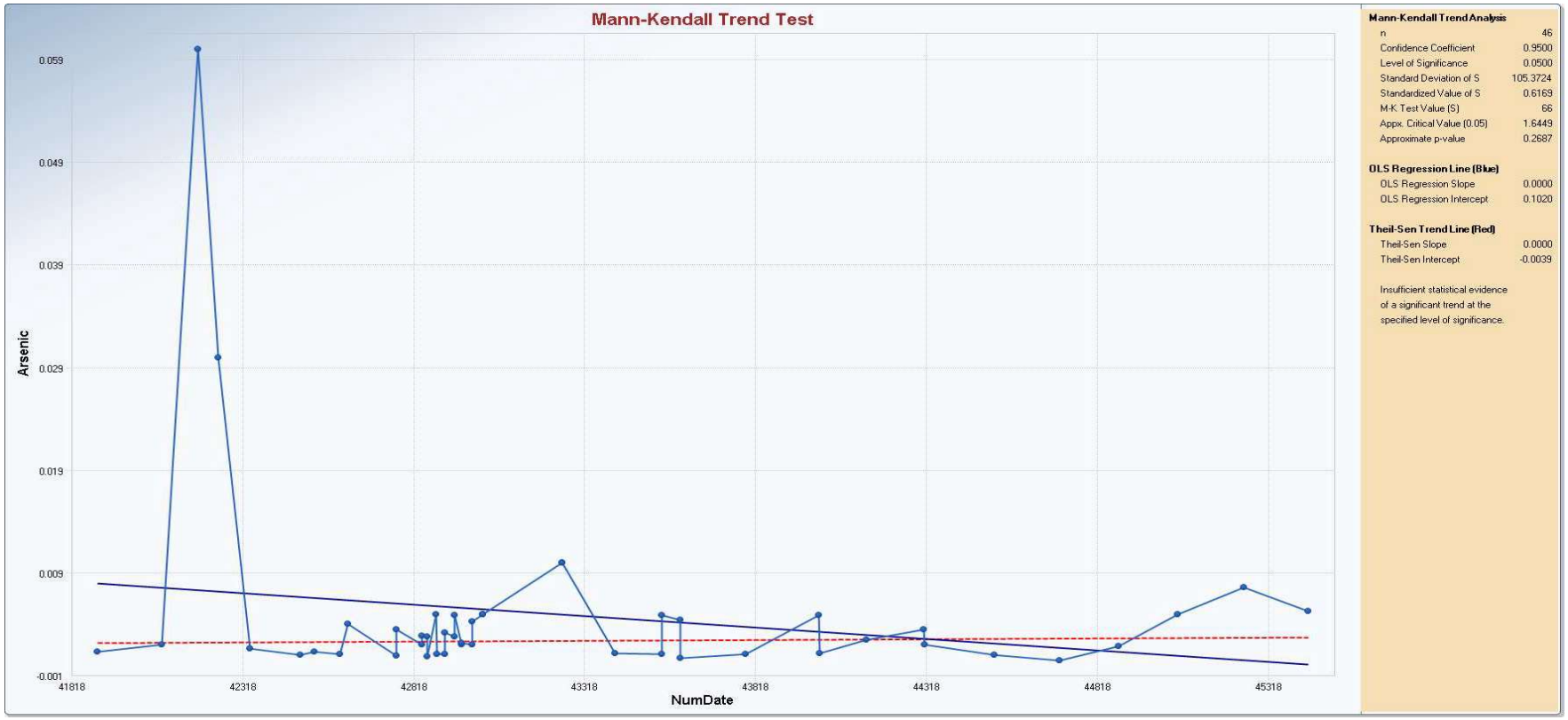
# Appendix B
# Mann-Kendall Trend Test



# Appendix B
# Mann-Kendall Trend Test



# Appendix B
# Mann-Kendall Trend Test



# Appendix B
# Goodness of Fit Statistics

| | Goodness-of-Fit Test Statistics for Data Sets with Non-Detects | | | | | |
|---|---|---|---|---|---|---|
| **User Selected Options** | | | | | | |
| Date/Time of Computation | ProUCL 5.110/10/2024 8:53:15 AM | | | | | |
| From File | FC - MU1_2024Q2_proUCL.xls | | | | | |
| Full Precision | OFF | | | | | |
| Confidence Coefficient | 0.95 | | | | | |

**Antimony**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 15 | 37 | 6 | 31 | 83.78% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 31 | 0.001 | 0.01 | 0.00384 | 0.002 | 0.00335 |
| Statistics (Non-Detects Only) | 6 | 1.8000E-4 | 0.002 | 6.4167E-4 | 3.5000E-4 | 6.8198E-4 |
| Statistics (All: NDs treated as DL value) | 37 | 1.8000E-4 | 0.01 | 0.00332 | 0.002 | 0.00329 |
| Statistics (All: NDs treated as DL/2 value) | 37 | 1.8000E-4 | 0.005 | 0.00171 | 0.001 | 0.00162 |
| Statistics (Normal ROS Imputed Data) | 37 | -3.357E-4 | 0.002 | 4.8892E-4 | 4.4914E-4 | 4.6158E-4 |
| Statistics (Gamma ROS Imputed Data) | 37 | 1.8000E-4 | 0.01 | 0.00848 | 0.01 | 0.00351 |
| Statistics (Lognormal ROS Imputed Data) | 37 | 1.2795E-4 | 0.002 | 4.5176E-4 | 3.5669E-4 | 3.3491E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1.636 | 0.929 | 3.9215E-4 | -7.687 | 0.826 | -0.107 |
| Statistics (NDs = DL) | 1.117 | 1.045 | 0.00297 | -6.218 | 1.084 | -0.174 |
| Statistics (NDs = DL/2) | 1.308 | 1.22 | 0.00131 | -6.799 | 0.95 | -0.14 |
| Statistics (Gamma ROS Estimates) | 1.639 | 1.524 | 0.00518 | -5.105 | 1.192 | -0.234 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.887 | 0.59 | -0.0748 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.811 | 0.88 | 0.876 | 0.974 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.68 | 0.788 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.757 | 0.936 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.75 | 0.936 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.959 | 0.936 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.334 | 0.325 | Data Not Normal |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Lilliefors (NDs = DL) | 0.25 | 0.144 | Data Not Normal | | | | |
| Lilliefors (NDs = DL/2) | 0.237 | 0.144 | Data Not Normal | | | | |
| Lilliefors (Normal ROS Estimates) | 0.0817 | 0.144 | Data Appear Normal | | | | |
| | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | |
| | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | |
| Correlation Coefficient R | 0.943 | 0.93 | 0.93 | 0.468 | | | |
| | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | |
| Anderson-Darling (Detects Only) | 0.661 | 0.707 | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.333 | 0.337 | Detected Data Appear Gamma Distributed | | | | |
| Anderson-Darling (NDs = DL) | 1.295 | 0.774 | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.196 | 0.149 | Data Not Gamma Distributed | | | | |
| Anderson-Darling (NDs = DL/2) | 1.823 | 0.77 | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.209 | 0.148 | Data Not Gamma Distributed | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 10.59 | 0.764 | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.521 | 0.147 | Data Not Gamma Distributed | | | | |
| | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | |
| | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | |
| Correlation Coefficient R | 0.929 | 0.97 | 0.957 | 0.988 | | | |
| | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | |
| Shapiro-Wilk (Detects Only) | 0.882 | 0.788 | Data Appear Lognormal | | | | |
| Shapiro-Wilk (NDs = DL) | 0.927 | 0.936 | Data Not Lognormal | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.9 | 0.936 | Data Not Lognormal | | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.978 | 0.936 | Data Appear Lognormal | | | | |
| Lilliefors (Detects Only) | 0.295 | 0.325 | Data Appear Lognormal | | | | |
| Lilliefors (NDs = DL) | 0.17 | 0.144 | Data Not Lognormal | | | | |
| Lilliefors (NDs = DL/2) | 0.206 | 0.144 | Data Not Lognormal | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.0756 | 0.144 | Data Appear Lognormal | | | | |
| | | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | | |
| | | | | | | | |
| **Arsenic** | | | | | | | |
| | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | |

# Appendix B
## Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 6 | 46 | 27 | 19 | 41.30% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 19 | 5.0000E-4 | 0.06 | 0.00815 | 0.004 | 0.0142 |
| Statistics (Non-Detects Only) | 27 | 6.8000E-4 | 0.0076 | 0.00251 | 0.0019 | 0.00175 |
| Statistics (All: NDs treated as DL value) | 46 | 5.0000E-4 | 0.06 | 0.00484 | 0.00235 | 0.00948 |
| Statistics (All: NDs treated as DL/2 value) | 46 | 2.5000E-4 | 0.03 | 0.00316 | 0.00195 | 0.00474 |
| Statistics (Normal ROS Imputed Data) | 46 | -0.00165 | 0.0076 | 0.00195 | 0.00156 | 0.00169 |
| Statistics (Gamma ROS Imputed Data) | 46 | 6.8000E-4 | 0.01 | 0.0056 | 0.00465 | 0.00396 |
| Statistics (Lognormal ROS Imputed Data) | 46 | 3.8444E-4 | 0.0076 | 0.00201 | 0.00138 | 0.00151 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 2.437 | 2.191 | 0.00103 | -6.206 | 0.67 | -0.108 |
| Statistics (NDs = DL) | 0.952 | 0.904 | 0.00509 | -5.941 | 0.945 | -0.159 |
| Statistics (NDs = DL/2) | 1.205 | 1.141 | 0.00262 | -6.227 | 0.889 | -0.143 |
| Statistics (Gamma ROS Estimates) | 1.532 | 1.446 | 0.00366 | -5.545 | 0.946 | -0.171 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.431 | 0.656 | -0.102 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.925 | 0.606 | 0.678 | 0.96 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.855 | 0.923 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.405 | 0.945 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.498 | 0.945 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.937 | 0.945 | Data Not Normal | | | |
| Lilliefors (Detects Only) | 0.2 | 0.167 | Data Not Normal | | | |
| Lilliefors (NDs = DL) | 0.372 | 0.129 | Data Not Normal | | | |
| Lilliefors (NDs = DL/2) | 0.27 | 0.129 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.139 | 0.129 | Data Not Normal | | | |
| | | | | | | |
| **Gamma GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
| Correlation Coefficient R | 0.984 | 0.821 | 0.86 | 0.812 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.896 | 0.754 | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.203 | 0.17 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL) | 2.894 | 0.78 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.224 | 0.135 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 1.874 | 0.773 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.153 | 0.134 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 3.265 | 0.767 | | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.267 | 0.133 | Data Not Gamma Distributed | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | | |
| Correlation Coefficient R | 0.972 | 0.961 | 0.976 | 0.988 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.933 | 0.923 | Data Appear Lognormal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.931 | 0.945 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.965 | 0.945 | Data Appear Lognormal | | | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.971 | 0.945 | Data Appear Lognormal | | | | | |
| Lilliefors (Detects Only) | 0.188 | 0.167 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL) | 0.12 | 0.129 | Data Appear Lognormal | | | | | |
| Lilliefors (NDs = DL/2) | 0.116 | 0.129 | Data Appear Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.113 | 0.129 | Data Appear Lognormal | | | | | |
| | | | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | | | |
| | | | | | | | | |
| **Barium** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 52 | 10 | 42 | 41 | 1 | 2.38% | | |
| | | | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD | | |
| Statistics (Non-Detects Only) | 1 | 0.02 | 0.02 | 0.02 | 0.02 | N/A | | |
| Statistics (Non-Detects Only) | 41 | 0.014 | 0.042 | 0.0223 | 0.022 | 0.00522 | | |
| Statistics (All: NDs treated as DL value) | 42 | 0.014 | 0.042 | 0.0222 | 0.022 | 0.00517 | | |
| Statistics (All: NDs treated as DL/2 value) | 42 | 0.01 | 0.042 | 0.022 | 0.022 | 0.00549 | | |
| Statistics (Normal ROS Imputed Data) | 42 | 0.014 | 0.042 | 0.0221 | 0.022 | 0.00523 | | |
| Statistics (Gamma ROS Imputed Data) | 42 | 0.014 | 0.042 | 0.0221 | 0.022 | 0.00523 | | |
| Statistics (Lognormal ROS Imputed Data) | 42 | 0.014 | 0.042 | 0.0221 | 0.022 | 0.00522 | | |

# Appendix B
# Goodness of Fit Statistics

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 21.33 | 19.78 | 0.00104 | -3.828 | 0.215 | -0.0563 |
| Statistics (NDs = DL) | 21.72 | 20.19 | 0.00102 | -3.83 | 0.213 | -0.0557 |
| Statistics (NDs = DL/2) | 17.45 | 16.22 | 0.00126 | -3.847 | 0.244 | -0.0635 |
| Statistics (Gamma ROS Estimates) | 20.98 | 19.49 | 0.00105 | -3.835 | 0.217 | -0.0566 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -3.834 | 0.216 | -0.0564 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.923 | 0.92 | 0.937 | 0.925 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.869 | 0.941 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.842 | 0.942 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.879 | 0.942 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.849 | 0.942 | Data Not Normal |
| Lilliefors (Detects Only) | 0.2 | 0.137 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.201 | 0.135 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.188 | 0.135 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.196 | 0.135 | Data Not Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.947 | 0.945 | 0.955 | 0.95 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.999 | 0.747 | |
| Kolmogorov-Smirnov (Detects Only) | 0.168 | 0.138 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 1.06 | 0.747 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.169 | 0.136 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 1.046 | 0.748 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.155 | 0.136 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 0.908 | 0.747 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.163 | 0.136 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

# Appendix B
## Goodness of Fit Statistics

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.967 | 0.965 | 0.96 | 0.97 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.945 | 0.941 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.916 | 0.942 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.921 | 0.942 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.921 | 0.942 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.154 | 0.137 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.155 | 0.135 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.142 | 0.135 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.149 | 0.135 | Data Not Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Beryllium**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 17 | 35 | 1 | 34 | 97.14% |

**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**
**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**

**The data set for variable Beryllium was not processed!**

**Cadmium**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 9 | 43 | 15 | 28 | 65.12% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 28 | 1.0000E-4 | 0.01 | 9.7964E-4 | 4.0000E-4 | 0.00186 |
| Statistics (Non-Detects Only) | 15 | 1.1000E-4 | 3.1000E-4 | 2.3267E-4 | 2.4000E-4 | 6.4859E-5 |
| Statistics (All: NDs treated as DL value) | 43 | 1.0000E-4 | 0.01 | 7.1907E-4 | 2.9000E-4 | 0.00154 |
| Statistics (All: NDs treated as DL/2 value) | 43 | 5.0000E-5 | 0.005 | 4.0012E-4 | 2.3000E-4 | 7.5735E-4 |
| Statistics (Normal ROS Imputed Data) | 43 | 2.5830E-5 | 3.1000E-4 | 1.7848E-4 | 1.7784E-4 | 7.8964E-5 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Statistics (Gamma ROS Imputed Data) | 43 | 1.1000E-4 | 0.01 | 0.00659 | 0.01 | 0.00471 |
| Statistics (Lognormal ROS Imputed Data) | 43 | 8.1058E-5 | 3.1000E-4 | 1.8350E-4 | 1.7014E-4 | 6.9512E-5 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 11.15 | 8.963 | 2.0870E-5 | -8.411 | 0.332 | -0.0394 |
| Statistics (NDs = DL) | 0.867 | 0.822 | 8.2943E-4 | -7.915 | 0.985 | -0.124 |
| Statistics (NDs = DL/2) | 1.057 | 0.999 | 3.7857E-4 | -8.366 | 0.915 | -0.109 |
| Statistics (Gamma ROS Estimates) | 0.668 | 0.637 | 0.00987 | -5.933 | 1.845 | -0.311 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -8.676 | 0.389 | -0.0449 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.955 | 0.581 | 0.587 | 0.984 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.898 | 0.881 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.379 | 0.943 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.387 | 0.943 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.95 | 0.943 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.217 | 0.22 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.343 | 0.134 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.355 | 0.134 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.115 | 0.134 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.918 | 0.8 | 0.782 | 0.545 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.864 | 0.737 | |
| Kolmogorov-Smirnov (Detects Only) | 0.258 | 0.221 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 3.334 | 0.784 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.293 | 0.14 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 2.269 | 0.776 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.211 | 0.139 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 8.375 | 0.797 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.429 | 0.141 | Data Not Gamma Distributed |

# Appendix B
# Goodness of Fit Statistics

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.921 | 0.947 | 0.966 | 0.978 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.84 | 0.881 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.9 | 0.943 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.942 | 0.943 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.937 | 0.943 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.274 | 0.22 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.207 | 0.134 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.121 | 0.134 | Data Appear Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.15 | 0.134 | Data Not Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Chromium**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 11 | 41 | 17 | 24 | 58.54% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 24 | 0.001 | 0.06 | 0.00805 | 0.004 | 0.0126 |
| Statistics (Non-Detects Only) | 17 | 6.5000E-4 | 0.0063 | 0.00247 | 0.002 | 0.00176 |
| Statistics (All: NDs treated as DL value) | 41 | 6.5000E-4 | 0.06 | 0.00574 | 0.0035 | 0.01 |
| Statistics (All: NDs treated as DL/2 value) | 41 | 5.0000E-4 | 0.03 | 0.00338 | 0.002 | 0.00498 |
| Statistics (Normal ROS Imputed Data) | 41 | -2.254E-4 | 0.0063 | 0.00187 | 0.00165 | 0.0014 |
| Statistics (Gamma ROS Imputed Data) | 41 | 6.5000E-4 | 0.01 | 0.00688 | 0.01 | 0.00392 |
| Statistics (Lognormal ROS Imputed Data) | 41 | 5.3189E-4 | 0.0063 | 0.00176 | 0.00127 | 0.00134 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1.939 | 1.636 | 0.00128 | -6.282 | 0.803 | -0.128 |
| Statistics (NDs = DL) | 0.933 | 0.881 | 0.00615 | -5.785 | 1.026 | -0.177 |
| Statistics (NDs = DL/2) | 1.136 | 1.069 | 0.00298 | -6.19 | 0.937 | -0.151 |
| Statistics (Gamma ROS Estimates) | 1.705 | 1.596 | 0.00404 | -5.3 | 0.979 | -0.185 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.563 | 0.645 | -0.0982 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| **Normal GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | |
| Correlation Coefficient R | 0.943 | 0.659 | 0.696 | 0.956 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.877 | 0.892 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL) | 0.469 | 0.941 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.519 | 0.941 | Data Not Normal | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.917 | 0.941 | Data Not Normal | | |
| Lilliefors (Detects Only) | 0.224 | 0.207 | Data Not Normal | | |
| Lilliefors (NDs = DL) | 0.31 | 0.137 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.299 | 0.137 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.147 | 0.137 | Data Not Normal | | |
| | | | | | |
| **Gamma GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | 0.966 | 0.863 | 0.871 | 0.71 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | 0.896 | 0.75 | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.238 | 0.212 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL) | 1.842 | 0.781 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.196 | 0.142 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 1.444 | 0.775 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.153 | 0.142 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 5.083 | 0.763 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.365 | 0.14 | Data Not Gamma Distributed | | |
| | | | | | |
| **Lognormal GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.945 | 0.972 | 0.973 | 0.973 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.872 | 0.892 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.942 | 0.941 | Data Appear Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.942 | 0.941 | Data Appear Lognormal | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.934 | 0.941 | Data Not Lognormal | | | |
| Lilliefors (Detects Only) | 0.227 | 0.207 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL) | 0.107 | 0.137 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.144 | 0.137 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.124 | 0.137 | Data Appear Lognormal | | | |
| | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | |
| | | | | | | |
| **Cobalt** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 52 | 10 | 42 | 22 | 20 | 47.62% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 20 | 5.0000E-4 | 0.01 | 0.00313 | 0.002 | 0.00296 |
| Statistics (Non-Detects Only) | 22 | 5.6000E-4 | 0.0045 | 0.00232 | 0.0021 | 0.00117 |
| Statistics (All: NDs treated as DL value) | 42 | 5.0000E-4 | 0.01 | 0.00271 | 0.002 | 0.00222 |
| Statistics (All: NDs treated as DL/2 value) | 42 | 2.5000E-4 | 0.005 | 0.00196 | 0.00195 | 0.00136 |
| Statistics (Normal ROS Imputed Data) | 42 | -0.00136 | 0.0045 | 0.00149 | 0.0014 | 0.00144 |
| Statistics (Gamma ROS Imputed Data) | 42 | 5.6000E-4 | 0.01 | 0.00598 | 0.00425 | 0.00397 |
| Statistics (Lognormal ROS Imputed Data) | 42 | 3.4397E-4 | 0.0045 | 0.0017 | 0.00137 | 0.00115 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 3.633 | 3.168 | 6.3956E-4 | -6.209 | 0.582 | -0.0938 |
| Statistics (NDs = DL) | 1.755 | 1.646 | 0.00154 | -6.224 | 0.827 | -0.133 |
| Statistics (NDs = DL/2) | 1.712 | 1.606 | 0.00115 | -6.554 | 0.904 | -0.138 |
| Statistics (Gamma ROS Estimates) | 1.683 | 1.579 | 0.00355 | -5.445 | 0.911 | -0.167 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.608 | 0.699 | -0.106 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.983 | 0.903 | 0.97 | 0.994 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.953 | 0.911 | Data Appear Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.783 | 0.942 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.874 | 0.942 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.933 | 0.942 | Data Not Normal | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | |
|---|---|---|---|---|
| Lilliefors (Detects Only) | 0.116 | 0.184 | Data Appear Normal | |
| Lilliefors (NDs = DL) | 0.172 | 0.135 | Data Not Normal | |
| Lilliefors (NDs = DL/2) | 0.141 | 0.135 | Data Not Normal | |
| Lilliefors (Normal ROS Estimates) | 0.0782 | 0.135 | Data Appear Normal | |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.972 | 0.973 | 0.973 | 0.786 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.289 | 0.748 | |
| Kolmogorov-Smirnov (Detects Only) | 0.116 | 0.186 | Detected Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL) | 0.511 | 0.763 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.0959 | 0.138 | Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 0.595 | 0.764 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.111 | 0.139 | Data Appear Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 3.412 | 0.764 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.312 | 0.139 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.978 | 0.981 | 0.963 | 0.988 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.949 | 0.911 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.9 | 0.942 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.861 | 0.942 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.907 | 0.942 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.102 | 0.184 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.0996 | 0.135 | Data Appear Lognormal |
| Lilliefors (NDs = DL/2) | 0.149 | 0.135 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.084 | 0.135 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Fluoride**

# Appendix B
# Goodness of Fit Statistics

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 2 | 50 | 21 | 29 | 58.00% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 29 | 0.25 | 20 | 3.416 | 2 | 4.475 |
| Statistics (Non-Detects Only) | 21 | 0.47 | 2.4 | 1.51 | 1.8 | 0.599 |
| Statistics (All: NDs treated as DL value) | 50 | 0.25 | 20 | 2.615 | 1.9 | 3.534 |
| Statistics (All: NDs treated as DL/2 value) | 50 | 0.125 | 10 | 1.625 | 1.15 | 1.737 |
| Statistics (Normal ROS Imputed Data) | 50 | -0.161 | 2.4 | 1.063 | 0.998 | 0.692 |
| Statistics (Gamma ROS Imputed Data) | 50 | 0.334 | 2.4 | 1.149 | 1.029 | 0.583 |
| Statistics (Lognormal ROS Imputed Data) | 50 | 0.356 | 2.4 | 1.107 | 0.932 | 0.599 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 5.02 | 4.335 | 0.301 | 0.309 | 0.506 | 1.635 |
| Statistics (NDs = DL) | 1.217 | 1.157 | 2.149 | 0.497 | 0.908 | 1.826 |
| Statistics (NDs = DL/2) | 1.426 | 1.353 | 1.14 | 0.0953 | 0.912 | 9.577 |
| Statistics (Gamma ROS Estimates) | 3.754 | 3.542 | 0.306 | -9.149E-5 | 0.55 | N/A |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -0.0493 | 0.565 | -11.45 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.951 | 0.724 | 0.78 | 0.983 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.892 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.551 | 0.947 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.635 | 0.947 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.946 | 0.947 | Data Not Normal |
| Lilliefors (Detects Only) | 0.219 | 0.188 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.318 | 0.125 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.312 | 0.125 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.107 | 0.125 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.9 | 0.891 | 0.901 | 0.967 |

# Appendix B
## Goodness of Fit Statistics

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 1.331 | 0.745 | |
| Kolmogorov-Smirnov (Detects Only) | 0.234 | 0.19 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 2.256 | 0.774 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.229 | 0.128 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 1.636 | 0.769 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.195 | 0.128 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 0.801 | 0.754 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.11 | 0.126 | Detected Data appear Approximate Gamma Distribution |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.92 | 0.972 | 0.965 | 0.975 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.837 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.946 | 0.947 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.932 | 0.947 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.926 | 0.947 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.241 | 0.188 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.154 | 0.125 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.159 | 0.125 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.11 | 0.125 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Lead**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 10 | 42 | 0 | 42 | 100.00% |

**Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!**
**Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!**
**The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).**

**The data set for variable Lead was not processed!**

# Appendix B
## Goodness of Fit Statistics

**Lithium**

| | |
|---|---|
| **Raw Statistics** | |
| Number of Valid Observations | 42 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 27 |
| Minimum | 0.37 |
| Maximum | 1.8 |
| Mean of Raw Data | 0.9 |
| Standard Deviation of Raw Data | 0.37 |
| Khat | 5.614 |
| Theta hat | 0.16 |
| Kstar | 5.229 |
| Theta star | 0.172 |
| Mean of Log Transformed Data | -0.197 |
| Standard Deviation of Log Transformed Data | 0.45 |
| **Normal GOF Test Results** | |
| Correlation Coefficient R | 0.979 |
| Shapiro Wilk Test Statistic | 0.901 |
| Shapiro Wilk Critical (0.05) Value | 0.942 |
| Approximate Shapiro Wilk P Value | 0.0562 |
| Lilliefors Test Statistic | 0.105 |
| Lilliefors Critical (0.05) Value | 0.135 |

**Data appear Approximate Normal at (0.05) Significance Level**

| | |
|---|---|
| **Gamma GOF Test Results** | |
| Correlation Coefficient R | 0.982 |
| A-D Test Statistic | 0.84 |
| A-D Critical (0.05) Value | 0.752 |
| K-S Test Statistic | 0.127 |
| K-S Critical(0.05) Value | 0.137 |

**Data follow Appr. Gamma Distribution at (0.05) Significance Level**

**Lognormal GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Correlation Coefficient R | 0.969 |
| Shapiro Wilk Test Statistic | 0.877 |
| Shapiro Wilk Critical (0.05) Value | 0.942 |
| Approximate Shapiro Wilk P Value | 0.0065 |
| Lilliefors Test Statistic | 0.152 |
| Lilliefors Critical (0.05) Value | 0.135 |

**Data not Lognormal at (0.05) Significance Level**

**Mercury**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 17 | 35 | 1 | 34 | 97.14% |

**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**
**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**

**The data set for variable Mercury was not processed!**

**Molybdenum**

**Raw Statistics**

| | |
|---|---|
| Number of Valid Observations | 41 |
| Number of Missing Observations | 11 |
| Number of Distinct Observations | 31 |
| Minimum | 0.012 |
| Maximum | 0.15 |
| Mean of Raw Data | 0.0381 |
| Standard Deviation of Raw Data | 0.0288 |
| Khat | 2.579 |
| Theta hat | 0.0148 |
| Kstar | 2.406 |
| Theta star | 0.0158 |
| Mean of Log Transformed Data | -3.474 |
| Standard Deviation of Log Transformed Data | 0.618 |

**Normal GOF Test Results**

# Appendix B
## Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Correlation Coefficient R | 0.873 | | | | | | | |
| Shapiro Wilk Test Statistic | 0.773 | | | | | | | |
| Shapiro Wilk Critical (0.05) Value | 0.941 | | | | | | | |
| Approximate Shapiro Wilk P Value | 7.3772E-8 | | | | | | | |
| Lilliefors Test Statistic | 0.239 | | | | | | | |
| Lilliefors Critical (0.05) Value | 0.137 | | | | | | | |
| Data not Normal at (0.05) Significance Level | | | | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| Correlation Coefficient R | 0.968 | | | | | | | |
| A-D Test Statistic | 1.271 | | | | | | | |
| A-D Critical (0.05) Value | 0.757 | | | | | | | |
| K-S Test Statistic | 0.191 | | | | | | | |
| K-S Critical(0.05) Value | 0.139 | | | | | | | |
| Data not Gamma Distributed at (0.05) Significance Level | | | | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| Correlation Coefficient R | 0.98 | | | | | | | |
| Shapiro Wilk Test Statistic | 0.95 | | | | | | | |
| Shapiro Wilk Critical (0.05) Value | 0.941 | | | | | | | |
| Approximate Shapiro Wilk P Value | 0.102 | | | | | | | |
| Lilliefors Test Statistic | 0.152 | | | | | | | |
| Lilliefors Critical (0.05) Value | 0.137 | | | | | | | |
| Data appear Approximate_Lognormal at (0.05) Significance Level | | | | | | | | |
| | | | | | | | | |
| **Selenium** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 52 | 6 | 46 | 32 | 14 | 30.43% | | |
| | | | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD | | |
| Statistics (Non-Detects Only) | 14 | 0.001 | 0.06 | 0.0102 | 0.005 | 0.0162 | | |
| Statistics (Non-Detects Only) | 32 | 0.001 | 0.14 | 0.0384 | 0.00365 | 0.0458 | | |
| Statistics (All: NDs treated as DL value) | 46 | 0.001 | 0.14 | 0.0298 | 0.00455 | 0.0412 | | |
| Statistics (All: NDs treated as DL/2 value) | 46 | 5.0000E-4 | 0.14 | 0.0283 | 0.0025 | 0.0413 | | |
| Statistics (Normal ROS Imputed Data) | 46 | -0.0722 | 0.14 | 0.0231 | 0.00321 | 0.047 | | |
| Statistics (Gamma ROS Imputed Data) | 46 | 0.001 | 0.14 | 0.0298 | 0.01 | 0.0403 | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (Lognormal ROS Imputed Data) | 46 | 1.0055E-4 | 0.14 | 0.0273 | 0.00235 | 0.0417 | | |
| | | | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV | | |
| Statistics (Non-Detects Only) | 0.481 | 0.457 | 0.0798 | -4.587 | 1.889 | -0.412 | | |
| Statistics (NDs = DL) | 0.487 | 0.47 | 0.0612 | -4.822 | 1.736 | -0.36 | | |
| Statistics (NDs = DL/2) | 0.442 | 0.427 | 0.064 | -5.033 | 1.83 | -0.364 | | |
| Statistics (Gamma ROS Estimates) | 0.578 | 0.555 | 0.0516 | -4.589 | 1.568 | -0.342 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -5.224 | 1.945 | -0.372 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.887 | 0.852 | 0.838 | 0.925 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.771 | 0.93 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.714 | 0.945 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.692 | 0.945 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.856 | 0.945 | Data Not Normal | | | | | |
| Lilliefors (Detects Only) | 0.325 | 0.154 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL) | 0.327 | 0.129 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.357 | 0.129 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.298 | 0.129 | Data Not Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | 0.907 | 0.942 | 0.94 | 0.952 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | 3.207 | 0.815 | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.265 | 0.165 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL) | 3.972 | 0.817 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.256 | 0.138 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 4.146 | 0.828 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.269 | 0.139 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 2.853 | 0.806 | | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.268 | 0.137 | Data Not Gamma Distributed | | | | | |

# Appendix B
# Goodness of Fit Statistics

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.891 | 0.918 | 0.926 | 0.928 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.77 | 0.93 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.816 | 0.945 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.833 | 0.945 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.849 | 0.945 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.247 | 0.154 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.214 | 0.129 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.222 | 0.129 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.241 | 0.129 | Data Not Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Thallium**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 10 | 42 | 29 | 13 | 30.95% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 13 | 1.0000E-4 | 0.002 | 7.2308E-4 | 4.0000E-4 | 6.4956E-4 |
| Statistics (Non-Detects Only) | 29 | 1.7000E-4 | 0.0021 | 0.00132 | 0.0014 | 3.9646E-4 |
| Statistics (All: NDs treated as DL value) | 42 | 1.0000E-4 | 0.0021 | 0.00114 | 0.0013 | 5.5606E-4 |
| Statistics (All: NDs treated as DL/2 value) | 42 | 5.0000E-5 | 0.0021 | 0.00102 | 0.0013 | 5.8302E-4 |
| Statistics (Normal ROS Imputed Data) | 42 | 1.7000E-4 | 0.0021 | 0.00111 | 0.0013 | 4.7324E-4 |
| Statistics (Gamma ROS Imputed Data) | 42 | 1.7000E-4 | 0.01 | 0.00401 | 0.00145 | 0.00407 |
| Statistics (Lognormal ROS Imputed Data) | 42 | 1.7000E-4 | 0.0021 | 0.0011 | 0.0013 | 4.7631E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 5.728 | 5.159 | 2.3068E-4 | -6.719 | 0.537 | -0.0799 |
| Statistics (NDs = DL) | 2.413 | 2.256 | 4.7092E-4 | -7.001 | 0.813 | -0.116 |
| Statistics (NDs = DL/2) | 1.652 | 1.55 | 6.1995E-4 | -7.216 | 1.021 | -0.142 |
| Statistics (Gamma ROS Estimates) | 1.053 | 0.993 | 0.00381 | -6.065 | 1.084 | -0.179 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.939 | 0.573 | -0.0826 |

**Normal GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | |
| Correlation Coefficient R | 0.901 | 0.958 | 0.945 | 0.972 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.828 | 0.926 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL) | 0.865 | 0.942 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.83 | 0.942 | Data Not Normal | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.893 | 0.942 | Data Not Normal | | |
| Lilliefors (Detects Only) | 0.272 | 0.161 | Data Not Normal | | |
| Lilliefors (NDs = DL) | 0.211 | 0.135 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.229 | 0.135 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.203 | 0.135 | Data Not Normal | | |
| | | | | | |
| **Gamma GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | 0.857 | 0.888 | 0.856 | 0.822 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | 3.769 | 0.747 | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.333 | 0.163 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL) | 3.261 | 0.758 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.261 | 0.138 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 3.605 | 0.764 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.265 | 0.139 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 5.337 | 0.777 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.308 | 0.14 | Data Not Gamma Distributed | | |
| | | | | | |
| **Lognormal GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.747 | 0.88 | 0.882 | 0.927 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.579 | 0.926 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.743 | 0.942 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.737 | 0.942 | Data Not Lognormal | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.822 | 0.942 | Data Not Lognormal | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Lilliefors (Detects Only) | 0.348 | 0.161 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL) | 0.284 | 0.135 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.285 | 0.135 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.243 | 0.135 | Data Not Lognormal | | | |
| | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | |
| | | | | | | |
| **Total Radium** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 52 | 8 | 44 | 31 | 13 | 29.55% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 13 | 0.6 | 0.9 | 0.723 | 0.7 | 0.0927 |
| Statistics (Non-Detects Only) | 31 | 0.4 | 3.5 | 1.723 | 1.7 | 0.794 |
| Statistics (All: NDs treated as DL value) | 44 | 0.4 | 3.5 | 1.427 | 1.3 | 0.809 |
| Statistics (All: NDs treated as DL/2 value) | 44 | 0.3 | 3.5 | 1.32 | 1.3 | 0.914 |
| Statistics (Normal ROS Imputed Data) | 44 | -0.382 | 3.5 | 1.284 | 1.3 | 0.973 |
| Statistics (Gamma ROS Imputed Data) | 44 | 0.162 | 3.5 | 1.36 | 1.3 | 0.879 |
| Statistics (Lognormal ROS Imputed Data) | 44 | 0.367 | 3.5 | 1.383 | 1.3 | 0.852 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 4.145 | 3.765 | 0.416 | 0.418 | 0.547 | 1.306 |
| Statistics (NDs = DL) | 3.301 | 3.091 | 0.432 | 0.197 | 0.577 | 2.933 |
| Statistics (NDs = DL/2) | 1.898 | 1.783 | 0.696 | -0.00807 | 0.81 | -100.4 |
| Statistics (Gamma ROS Estimates) | 2.143 | 2.012 | 0.635 | 0.0566 | 0.775 | 13.69 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | 0.122 | 0.663 | 5.426 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.989 | 0.952 | 0.954 | 0.988 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.97 | 0.929 | Data Appear Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.894 | 0.944 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.891 | 0.944 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.962 | 0.944 | Data Appear Normal | | | |
| Lilliefors (Detects Only) | 0.0758 | 0.156 | Data Appear Normal | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| Lilliefors (NDs = DL) | 0.197 | 0.132 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.156 | 0.132 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.108 | 0.132 | Data Appear Normal | | |
| | | | | | |
| **Gamma GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | 0.982 | 0.982 | 0.967 | 0.978 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | 0.394 | 0.75 | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.103 | 0.158 | Detected Data Appear Gamma Distributed | | |
| Anderson-Darling (NDs = DL) | 1.117 | 0.755 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.176 | 0.134 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 1.518 | 0.762 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.163 | 0.135 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 0.55 | 0.76 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.1 | 0.135 | Data Appear Gamma Distributed | | |
| | | | | | |
| **Lognormal GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.971 | 0.976 | 0.952 | 0.975 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.937 | 0.929 | Data Appear Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.935 | 0.944 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.879 | 0.944 | Data Not Lognormal | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.928 | 0.944 | Data Not Lognormal | | |
| Lilliefors (Detects Only) | 0.13 | 0.156 | Data Appear Lognormal | | |
| Lilliefors (NDs = DL) | 0.154 | 0.132 | Data Not Lognormal | | |
| Lilliefors (NDs = DL/2) | 0.164 | 0.132 | Data Not Lognormal | | |
| Lilliefors (Lognormal ROS Estimates) | 0.118 | 0.132 | Data Appear Lognormal | | |
| | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | |
| | | | | | |
| | **Goodness-of-Fit Test Statistics for Data Sets with Non-Detects** | | | | |
| **User Selected Options** | | | | | |
| Date/Time of Computation | ProUCL 5.110/10/2024 9:37:26 AM | | | | |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| From File | FC - MU1_2024Q2_proUCL.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |

**Arsenic (outliers removed)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 8 | 44 | 27 | 17 | 38.64% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 17 | 5.0000E-4 | 0.01 | 0.00382 | 0.0035 | 0.00281 |
| Statistics (Non-Detects Only) | 27 | 6.8000E-4 | 0.0076 | 0.00251 | 0.0019 | 0.00175 |
| Statistics (All: NDs treated as DL value) | 44 | 5.0000E-4 | 0.01 | 0.00302 | 0.0021 | 0.00228 |
| Statistics (All: NDs treated as DL/2 value) | 44 | 2.5000E-4 | 0.0076 | 0.00228 | 0.00183 | 0.00164 |
| Statistics (Normal ROS Imputed Data) | 44 | -0.00165 | 0.0076 | 0.00195 | 0.00151 | 0.00173 |
| Statistics (Gamma ROS Imputed Data) | 44 | 6.8000E-4 | 0.01 | 0.0054 | 0.00435 | 0.00393 |
| Statistics (Lognormal ROS Imputed Data) | 44 | 3.8444E-4 | 0.0076 | 0.00203 | 0.00135 | 0.00154 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 2.437 | 2.191 | 0.00103 | -6.206 | 0.67 | -0.108 |
| Statistics (NDs = DL) | 2.051 | 1.926 | 0.00147 | -6.067 | 0.743 | -0.122 |
| Statistics (NDs = DL/2) | 2.147 | 2.016 | 0.00106 | -6.335 | 0.74 | -0.117 |
| Statistics (Gamma ROS Estimates) | 1.507 | 1.42 | 0.00359 | -5.588 | 0.945 | -0.169 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.431 | 0.671 | -0.104 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.925 | 0.916 | 0.931 | 0.961 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.855 | 0.923 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.835 | 0.944 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.868 | 0.944 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.937 | 0.944 | Data Not Normal |
| Lilliefors (Detects Only) | 0.2 | 0.167 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.172 | 0.132 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.179 | 0.132 | Data Not Normal |

# Appendix B
# Goodness of Fit Statistics

| | | | | |
|---|---|---|---|---|
| Lilliefors (Normal ROS Estimates) | 0.154 | 0.132 | Data Not Normal | |
| | | | | |
| **Gamma GOF Test Results** | | | | |
| | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
| Correlation Coefficient R | 0.984 | 0.979 | 0.985 | 0.827 |
| | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | |
| Anderson-Darling (Detects Only) | 0.896 | 0.754 | | |
| Kolmogorov-Smirnov (Detects Only) | 0.203 | 0.17 | Data Not Gamma Distributed | |
| Anderson-Darling (NDs = DL) | 0.844 | 0.76 | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.132 | 0.135 | Detected Data appear Approximate Gamma Distribution | |
| Anderson-Darling (NDs = DL/2) | 0.786 | 0.76 | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.151 | 0.135 | Data Not Gamma Distributed | |
| Anderson-Darling (Gamma ROS Estimates) | 2.867 | 0.767 | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.251 | 0.136 | Data Not Gamma Distributed | |
| | | | | |
| **Lognormal GOF Test Results** | | | | |
| | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
| Correlation Coefficient R | 0.972 | 0.984 | 0.983 | 0.987 |
| | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | |
| Shapiro-Wilk (Detects Only) | 0.933 | 0.923 | Data Appear Lognormal | |
| Shapiro-Wilk (NDs = DL) | 0.955 | 0.944 | Data Appear Lognormal | |
| Shapiro-Wilk (NDs = DL/2) | 0.965 | 0.944 | Data Appear Lognormal | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.969 | 0.944 | Data Appear Lognormal | |
| Lilliefors (Detects Only) | 0.188 | 0.167 | Data Not Lognormal | |
| Lilliefors (NDs = DL) | 0.123 | 0.132 | Data Appear Lognormal | |
| Lilliefors (NDs = DL/2) | 0.117 | 0.132 | Data Appear Lognormal | |
| Lilliefors (Lognormal ROS Estimates) | 0.134 | 0.132 | Data Not Lognormal | |
| | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | |

| | |
|---|---|
| | **Goodness-of-Fit Test Statistics for Data Sets with Non-Detects** |
| **User Selected Options** | |
| Date/Time of Computation | ProUCL 5.110/10/2024 10:13:34 AM |
| From File | FC - MU1_2024Q2_proUCL.xls |
| Full Precision | OFF |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Confidence Coefficient | 0.95 |

**Barium (outliers removed)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 12 | 40 | 39 | 1 | 2.50% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1 | 0.02 | 0.02 | 0.02 | 0.02 | N/A |
| Statistics (Non-Detects Only) | 39 | 0.014 | 0.029 | 0.0214 | 0.022 | 0.00357 |
| Statistics (All: NDs treated as DL value) | 40 | 0.014 | 0.029 | 0.0214 | 0.022 | 0.00353 |
| Statistics (All: NDs treated as DL/2 value) | 40 | 0.01 | 0.029 | 0.0211 | 0.022 | 0.00396 |
| Statistics (Normal ROS Imputed Data) | 40 | 0.014 | 0.029 | 0.0213 | 0.022 | 0.00358 |
| Statistics (Gamma ROS Imputed Data) | 40 | 0.014 | 0.029 | 0.0213 | 0.022 | 0.00358 |
| Statistics (Lognormal ROS Imputed Data) | 40 | 0.014 | 0.029 | 0.0213 | 0.022 | 0.00358 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 35.55 | 32.83 | 6.0228E-4 | -3.858 | 0.173 | -0.0448 |
| Statistics (NDs = DL) | 36.31 | 33.6 | 5.8867E-4 | -3.859 | 0.171 | -0.0443 |
| Statistics (NDs = DL/2) | 25.94 | 24.01 | 8.1430E-4 | -3.877 | 0.208 | -0.0535 |
| Statistics (Gamma ROS Estimates) | 35.14 | 32.52 | 6.0630E-4 | -3.863 | 0.173 | -0.0449 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -3.863 | 0.174 | -0.0449 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.984 | 0.984 | 0.979 | 0.987 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.962 | 0.939 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.962 | 0.94 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.963 | 0.94 | Data Appear Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.966 | 0.94 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.127 | 0.14 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.13 | 0.139 | Data Appear Normal |
| Lilliefors (NDs = DL/2) | 0.118 | 0.139 | Data Appear Normal |
| Lilliefors (Normal ROS Estimates) | 0.123 | 0.139 | Data Appear Normal |

# Appendix B
# Goodness of Fit Statistics

| Gamma GOF Test Results | | | | |
|---|---|---|---|---|
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
| Correlation Coefficient R | 0.982 | 0.982 | 0.969 | 0.984 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.61 | 0.746 | |
| Kolmogorov-Smirnov (Detects Only) | 0.125 | 0.141 | Detected Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL) | 0.623 | 0.746 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.117 | 0.139 | Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 0.902 | 0.747 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.142 | 0.139 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 0.528 | 0.746 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.122 | 0.139 | Data Appear Gamma Distributed |

| Lognormal GOF Test Results | | | | |
|---|---|---|---|---|
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
| Correlation Coefficient R | 0.976 | 0.976 | 0.947 | 0.98 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.946 | 0.939 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.947 | 0.94 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.91 | 0.94 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.954 | 0.94 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.133 | 0.14 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.129 | 0.139 | Data Appear Lognormal |
| Lilliefors (NDs = DL/2) | 0.157 | 0.139 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.13 | 0.139 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

| Goodness-of-Fit Test Statistics for Data Sets with Non-Detects | |
|---|---|
| **User Selected Options** | |
| Date/Time of Computation | ProUCL 5.110/10/2024 10:30:31 AM |
| From File | FC - MU1_2024Q2_proUCL.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |

# Appendix B
# Goodness of Fit Statistics

**Cobalt (outliers removed)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 11 | 41 | 22 | 19 | 46.34% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 19 | 5.0000E-4 | 0.01 | 0.00276 | 0.002 | 0.00254 |
| Statistics (Non-Detects Only) | 22 | 5.6000E-4 | 0.0045 | 0.00232 | 0.0021 | 0.00117 |
| Statistics (All: NDs treated as DL value) | 41 | 5.0000E-4 | 0.01 | 0.00253 | 0.002 | 0.00192 |
| Statistics (All: NDs treated as DL/2 value) | 41 | 2.5000E-4 | 0.005 | 0.00189 | 0.0019 | 0.00129 |
| Statistics (Normal ROS Imputed Data) | 41 | -0.00136 | 0.0045 | 0.00149 | 0.0014 | 0.00145 |
| Statistics (Gamma ROS Imputed Data) | 41 | 5.6000E-4 | 0.01 | 0.00588 | 0.004 | 0.00397 |
| Statistics (Lognormal ROS Imputed Data) | 41 | 3.4397E-4 | 0.0045 | 0.0017 | 0.00133 | 0.00116 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 3.633 | 3.168 | 6.3956E-4 | -6.209 | 0.582 | -0.0938 |
| Statistics (NDs = DL) | 1.919 | 1.795 | 0.00132 | -6.263 | 0.796 | -0.127 |
| Statistics (NDs = DL/2) | 1.752 | 1.64 | 0.00108 | -6.584 | 0.893 | -0.136 |
| Statistics (Gamma ROS Estimates) | 1.665 | 1.559 | 0.00353 | -5.465 | 0.913 | -0.167 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.608 | 0.703 | -0.106 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.983 | 0.918 | 0.972 | 0.993 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.953 | 0.911 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.854 | 0.941 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.929 | 0.941 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.975 | 0.941 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.116 | 0.184 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.169 | 0.137 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.144 | 0.137 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.0923 | 0.137 | Data Appear Normal |

**Gamma GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.972 | 0.974 | 0.975 | 0.793 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.289 | 0.748 | |
| Kolmogorov-Smirnov (Detects Only) | 0.116 | 0.186 | Detected Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL) | 0.522 | 0.76 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.0968 | 0.14 | Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 0.634 | 0.763 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.117 | 0.14 | Data Appear Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 3.185 | 0.764 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.305 | 0.14 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.978 | 0.977 | 0.962 | 0.987 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.949 | 0.911 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.94 | 0.941 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.903 | 0.941 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.956 | 0.941 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.102 | 0.184 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.11 | 0.137 | Data Appear Lognormal |
| Lilliefors (NDs = DL/2) | 0.152 | 0.137 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.0748 | 0.137 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

| | |
|---|---|
| | **Goodness-of-Fit Test Statistics for Data Sets with Non-Detects** |
| **User Selected Options** | |
| Date/Time of Computation | ProUCL 5.110/12/2024 6:18:00 PM |
| From File | FC - MU1_2024Q2_proUCL.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| **Lithium (outliers removed)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 40 |
| Number of Missing Observations | 12 |
| Number of Distinct Observations | 25 |
| Minimum | 0.37 |
| Maximum | 1.5 |
| Mean of Raw Data | 0.858 |
| Standard Deviation of Raw Data | 0.323 |
| Khat | 6.324 |
| Theta hat | 0.136 |
| Kstar | 5.866 |
| Theta star | 0.146 |
| Mean of Log Transformed Data | -0.235 |
| Standard Deviation of Log Transformed Data | 0.427 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.977 |
| Shapiro Wilk Test Statistic | 0.934 |
| Shapiro Wilk Critical (0.05) Value | 0.94 |
| Approximate Shapiro Wilk P Value | 0.0288 |
| Lilliefors Test Statistic | 0.123 |
| Lilliefors Critical (0.05) Value | 0.139 |
| Data appear Approximate Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.963 |
| A-D Test Statistic | 1.172 |
| A-D Critical (0.05) Value | 0.751 |
| K-S Test Statistic | 0.15 |
| K-S Critical(0.05) Value | 0.14 |
| Data not Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.957 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Shapiro Wilk Test Statistic | 0.894 |
| Shapiro Wilk Critical (0.05) Value | 0.94 |
| Approximate Shapiro Wilk P Value | 9.8243E-4 |
| Lilliefors Test Statistic | 0.169 |
| Lilliefors Critical (0.05) Value | 0.139 |

**Data not Lognormal at (0.05) Significance Level**

| | |
|---|---|
| | **Goodness-of-Fit Test Statistics for Data Sets with Non-Detects** |
| **User Selected Options** | |
| Date/Time of Computation | ProUCL 5.110/12/2024 6:35:13 PM |
| From File | FC - MU1_2024Q2_proUCL.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |

**Molybdenum (outliers removed)**

| **Raw Statistics** | |
|---|---|
| Number of Valid Observations | 40 |
| Number of Missing Observations | 12 |
| Number of Distinct Observations | 30 |
| Minimum | 0.012 |
| Maximum | 0.1 |
| Mean of Raw Data | 0.0353 |
| Standard Deviation of Raw Data | 0.0228 |
| Khat | 3.109 |
| Theta hat | 0.0113 |
| Kstar | 2.893 |
| Theta star | 0.0122 |
| Mean of Log Transformed Data | -3.514 |
| Standard Deviation of Log Transformed Data | 0.571 |

| **Normal GOF Test Results** | |
|---|---|
| Correlation Coefficient R | 0.908 |
| Shapiro Wilk Test Statistic | 0.819 |
| Shapiro Wilk Critical (0.05) Value | 0.94 |
| Approximate Shapiro Wilk P Value | 2.8226E-6 |
| Lilliefors Test Statistic | 0.233 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Lilliefors Critical (0.05) Value | 0.139 |
| **Data not Normal at (0.05) Significance Level** | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.975 |
| A-D Test Statistic | 1.06 |
| A-D Critical (0.05) Value | 0.754 |
| K-S Test Statistic | 0.181 |
| K-S Critical(0.05) Value | 0.14 |
| **Data not Gamma Distributed at (0.05) Significance Level** | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.983 |
| Shapiro Wilk Test Statistic | 0.949 |
| Shapiro Wilk Critical (0.05) Value | 0.94 |
| Approximate Shapiro Wilk P Value | 0.101 |
| Lilliefors Test Statistic | 0.144 |
| Lilliefors Critical (0.05) Value | 0.139 |
| **Data appear Approximate_Lognormal at (0.05) Significance Level** | |

| | |
|---|---|
| | **Goodness-of-Fit Test Statistics for Data Sets with Non-Detects** |
| **User Selected Options** | |
| Date/Time of Computation | ProUCL 5.110/12/2024 6:55:58 PM |
| From File | FC - MU1_2024Q2_proUCL.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |

**Selenium (outliers removed)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 52 | 8 | 44 | 30 | 14 | 31.82% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 14 | 0.001 | 0.06 | 0.0102 | 0.005 | 0.0162 |
| Statistics (Non-Detects Only) | 30 | 0.001 | 0.12 | 0.0316 | 0.0028 | 0.0386 |
| Statistics (All: NDs treated as DL value) | 44 | 0.001 | 0.12 | 0.0248 | 0.00365 | 0.0344 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Statistics (All: NDs treated as DL/2 value) | 44 | 5.0000E-4 | 0.12 | 0.0232 | 0.0025 | 0.0343 |
| Statistics (Normal ROS Imputed Data) | 44 | -0.0592 | 0.12 | 0.0188 | 0.00292 | 0.039 |
| Statistics (Gamma ROS Imputed Data) | 44 | 0.001 | 0.12 | 0.0248 | 0.01 | 0.0333 |
| Statistics (Lognormal ROS Imputed Data) | 44 | 1.0831E-4 | 0.12 | 0.0221 | 0.00227 | 0.0346 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 0.488 | 0.461 | 0.0649 | -4.761 | 1.819 | -0.382 |
| Statistics (NDs = DL) | 0.505 | 0.486 | 0.0491 | -4.952 | 1.66 | -0.335 |
| Statistics (NDs = DL/2) | 0.457 | 0.441 | 0.0507 | -5.172 | 1.745 | -0.337 |
| Statistics (Gamma ROS Estimates) | 0.609 | 0.583 | 0.0406 | -4.71 | 1.496 | -0.318 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -5.376 | 1.852 | -0.345 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.871 | 0.842 | 0.826 | 0.916 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.746 | 0.927 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.7 | 0.944 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.676 | 0.944 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.843 | 0.944 | Data Not Normal | | | |
| Lilliefors (Detects Only) | 0.35 | 0.159 | Data Not Normal | | | |
| Lilliefors (NDs = DL) | 0.344 | 0.132 | Data Not Normal | | | |
| Lilliefors (NDs = DL/2) | 0.374 | 0.132 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.315 | 0.132 | Data Not Normal | | | |
| | | | | | | |
| **Gamma GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
| Correlation Coefficient R | 0.887 | 0.927 | 0.927 | 0.94 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | 3.436 | 0.812 | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.279 | 0.169 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL) | 4.211 | 0.813 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.262 | 0.141 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 4.375 | 0.824 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.278 | 0.142 | Data Not Gamma Distributed | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Anderson-Darling (Gamma ROS Estimates) | 3.009 | 0.803 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.276 | 0.14 | Data Not Gamma Distributed | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 0.883 | 0.913 | 0.922 | 0.922 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.757 | 0.927 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL) | 0.809 | 0.944 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.829 | 0.944 | Data Not Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.84 | 0.944 | Data Not Lognormal | | | |
| Lilliefors (Detects Only) | 0.258 | 0.159 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL) | 0.22 | 0.132 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.226 | 0.132 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.251 | 0.132 | Data Not Lognormal | | | |
| | | | | | | |
| | **Goodness-of-Fit Test Statistics for Data Sets with Non-Detects** | | | | | |
| **User Selected Options** | | | | | | |
| Date/Time of Computation | ProUCL 5.110/13/2024 7:10:42 AM | | | | | |
| From File | FC - MU1_2024Q2_proUCL.xls | | | | | |
| Full Precision | OFF | | | | | |
| Confidence Coefficient | 0.95 | | | | | |
| | | | | | | |
| | | | | | | |
| **Thallium (outliers removed)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 52 | 14 | 38 | 27 | 11 | 28.95% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 11 | 1.0000E-4 | 0.001 | 4.9091E-4 | 4.0000E-4 | 3.4772E-4 |
| Statistics (Non-Detects Only) | 27 | 1.7000E-4 | 0.0017 | 0.00127 | 0.0013 | 3.5385E-4 |
| Statistics (All: NDs treated as DL value) | 38 | 1.0000E-4 | 0.0017 | 0.00104 | 0.0013 | 4.9803E-4 |
| Statistics (All: NDs treated as DL/2 value) | 38 | 5.0000E-5 | 0.0017 | 9.7158E-4 | 0.0013 | 5.6282E-4 |
| Statistics (Normal ROS Imputed Data) | 38 | 1.7000E-4 | 0.0017 | 0.00108 | 0.0013 | 4.2136E-4 |
| Statistics (Gamma ROS Imputed Data) | 38 | 1.7000E-4 | 0.01 | 0.0038 | 0.0014 | 0.00402 |
| Statistics (Lognormal ROS Imputed Data) | 38 | 1.7000E-4 | 0.0017 | 0.00106 | 0.0013 | 4.4859E-4 |

# Appendix B
# Goodness of Fit Statistics

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 5.89 | 5.261 | 2.1516E-4 | -6.758 | 0.536 | -0.0793 |
| Statistics (NDs = DL) | 2.432 | 2.257 | 4.2877E-4 | -7.085 | 0.81 | -0.114 |
| Statistics (NDs = DL/2) | 1.576 | 1.469 | 6.1634E-4 | -7.286 | 1.043 | -0.143 |
| Statistics (Gamma ROS Estimates) | 1.026 | 0.963 | 0.0037 | -6.135 | 1.087 | -0.177 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.982 | 0.581 | -0.0831 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.845 | 0.924 | 0.913 | 0.953 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.727 | 0.923 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.836 | 0.938 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.811 | 0.938 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.895 | 0.938 | Data Not Normal |
| Lilliefors (Detects Only) | 0.314 | 0.167 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.25 | 0.142 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.273 | 0.142 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.248 | 0.142 | Data Not Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.767 | 0.822 | 0.793 | 0.827 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 4.462 | 0.747 | |
| Kolmogorov-Smirnov (Detects Only) | 0.357 | 0.168 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 3.733 | 0.757 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.271 | 0.145 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 3.797 | 0.765 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.296 | 0.146 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 5.225 | 0.777 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.355 | 0.147 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.707 | 0.863 | 0.874 | 0.906 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.518 | 0.923 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.737 | 0.938 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.753 | 0.938 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.817 | 0.938 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.361 | 0.167 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.297 | 0.142 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.307 | 0.142 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.272 | 0.142 | Data Not Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

# APPENDIX

# J

## CCR GROUNDWATER DETECTION MONITORING STATISTICAL ANALYSIS AND RESULTS FOR THE CWTP APPENDIX III CONSTITUENT DATA COLLECTED THROUGH NOVEMBER 2023

# TECHNICAL MEMORANDUM

| | | | |
|---|---|---|---|
| To: | Arizona Public Service Company | Project No. | US0023513.6155-US-2024 APS FC CCR Compliance SVC |
| By: | Samantha O'Shea | Reviewed by: | Maren Henley, PE |
| Tel: | 602-733-6000 | CC: | File |
| Date: | April 8, 2024 | | |
| **Re:** | CCR GROUNDWATER ASSESSMENT MONITORING<br>STATISTICAL ANALYSIS AND RESULTS FOR THE CWTP<br>APPENDIX IV CONSTITUENT DATA COLLECTED THROUGH NOVEMBER 2023<br>Arizona Public Service Company Four Corners Power Plant – Fruitland, New Mexico | | |

## 1.0 INTRODUCTION

This Technical Memorandum presents the results of a statistical evaluation of groundwater monitoring data collected from monitoring wells downgradient of the Combined Waste Treatment Pond (CWTP) located at the Arizona Public Service Company (APS) Four Corners Power Plant (Site) in Fruitland, New Mexico. The statistical evaluation was performed by Geosciences Consulting Strategies, LLC (Geosciences Consulting), a subcontractor to WSP USA Environment and Infrastructure, Inc. (WSP) pursuant to Coal Combustion Residuals (CCR) Rule requirements for groundwater monitoring and corrective action detailed in 40 Code of Federal Regulations Sections 257.90 through 257.98 (CCR Rule) (Federal Register, 2020).

The statistical analysis documented herein presents an evaluation of assessment monitoring (i.e., Appendix IV constituent) groundwater data collected from the CWTP to date. Statistically significant increases (SSIs) over background concentrations were declared on April 10, 2023 at CWTP monitoring well, MW-62 for two detection monitoring constituents (boron and calcium). CWTP downgradient compliance wells include MW-62, MW-63, MW-64, and MW-65 and CWTP background wells include MW-71, MW-72, and MW-73 during the November 2023 assessment monitoring sampling event.

## 2.0 STATISTICAL EVALUATION RESULTS

Attachment A presents the initial statistical evaluation of Appendix IV constituents performed by Geosciences Consulting. The results of the evaluation are summarized as follows:

- Table 1 of Attachment A summarizes the groundwater protection standard (GWPS) selection for each Appendix IV constituent. Table 2 of Attachment A summarizes the lower confidence level (LCL) value for each constituent in each well, if the LCL value exceeds its respective GWPS, statistically significant temporal trends, and the type of LCL test applied.
- The statistical evaluation indicates there is insufficient evidence to declare statistically significant levels (SSLs) in Appendix IV constituent concentrations above respective GWPSs at the CWTP.
- Several compliance monitoring wells exhibit statistically significant ($p < 0.05$) temporal trends as follows:

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Phoenix, Arizona 85034
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wsp.com1

- Increasing temporal trends were noted at downgradient wells MW-62 for arsenic and at MW-65 for barium and cobalt.
- Decreasing temporal trends were noted at downgradient wells MW-62 for barium and molybdenum, MW-63 for cobalt, and MW-65 for fluoride.

## 3.0 RECOMMENDATIONS

Based on the results of the statistical evaluation presented in Attachment A and pursuant to the CCR Rule, there are currently no GWPS exceedances or exceedances of respective background threshold values in Appendix IV constituent concentrations based on evaluation of the groundwater monitoring data collected in November 2023. There are currently no SSLs for Appendix IV constituents above their respective GWPSs.

Based on the statistical evaluation presented in Attachment A and pursuant to the CCR Rule, the CWTP should remain in assessment monitoring until criteria under §257.95(e) of the CCR Rule are met (Federal Register, 2020). It is recommended to resample a compliance well if mercury is detected in the well. If the resample event results in a detectable concentration, there is sufficient evidence to declare a SSL above the GWPS. WSP recommends performing continued trend testing after each monitoring event and updates to the BTVs after 1-2 years of future sampling events.

## 4.0 REFERENCES


- Federal Register, 2020. 40 Code of Federal Regulations Part 257 – Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities; Final Rule promulgated at 80 FR 21468 on April 17, 2015 with amendments issued through November 12, 2020 at 85 FR 72539 (A Holistic Approach to Closure Part B: Alternate Demonstration for Unlined Surface Impoundments).
- United States Environmental Protection Agency (USEPA), 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance. EPA 530/R-09-007*. Environmental Protection Agency Office of Resource Conservation and Recovery.
- Wood, 2022. Alternative Source Demonstration for Boron and pH at the CWTP. Arizona Public Service Company Four Corners Power Plant. Fruitland, New Mexico. Prepared on behalf of APS. Report dated January 11, 2022.
- WSP USA Environment & Infrastructure, Inc. (WSP), 2023. *Statistical Data Analysis Work Plan*. Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Four Corners Power Plan, Fruitland, New Mexico. Prepared for Arizona Public Service. January 10, 2023.

# ATTACHMENT A

## CCR GROUNDWATER ASSESSMENT MONITORING STATISTICAL EVALUATION OF CWTP DATA THROUGH NOVEMBER 2023

– GEOSCIENCE CONSULTING STRATERGIES LLC

# Technical Memorandum

**To:** Maren Henley, PE
Wood Environment & Infrastructure Solutions, Inc.

**From:** Carla Landrum, PhD, PG
Geoscience Consulting Strategies LLC

**Date:** April 8, 2024

**Subject:** **CCR Groundwater Assessment Monitoring**
**Statistical Evaluation of CWTP Data through November 2023**
**Arizona Public Service Company Four Corners Power Plant – Fruitland, New Mexico**

## 1.0 INTRODUCTION

This Technical Memorandum (Tech Memo) documents the statistical evaluation of assessment monitoring (i.e., Appendix IV constituents) groundwater data associated with the Combined Waste Treatment Pond (CWTP) unit located at the Arizona Public Service Company (APS) Four Corners Power Plant (FCPP) in Fruitland, New Mexico. This statistical evaluation is completed by Geoscience Consulting Strategies LLC in accordance with the Statistical Data Analysis Work Plan (SDAWP) for the FCPP and the Coal Combustion Residuals (CCR) Rule (Federal Register, 2020; WSP USA Environment & Infrastructure Inc (WSP), 2023).

On 10 April 2023 APS declared a statistically significant increase for two detection monitoring (i.e., Appendix III) constituents (boron and calcium) at the CWTP. Per the CCR Rule, within 90 days of this declaration APS initiated an assessment monitoring program for the CWTP.

This statistical evaluation incorporates the November 2023 semiannual assessment monitoring at the CWTP. The following sections present data inputs, statistical methods, results and recommendations for the subject analysis.

## 2.0 DATA INPUTS

The CWTP groundwater monitoring well network consists of three background monitoring wells (MW-71, MW-72, and MW-73) and four compliance (i.e., downgradient) monitoring wells (MW-62, MW-63, MW-64 and MW-65). The period of evaluation for the CWTP Appendix IV constituent statistical analysis ranges from November 2015 through November 2023 and includes the minimum of eight initial, or baseline, sampling rounds required by the CCR Rule and seven subsequent sampling rounds for Appendix IV groundwater constituents that occur on a semi-annual frequency (spanning from October 2017 to November 2023, as shown in the table inset below). Due principally to the CCR Rule requirement that a minimum of eight initial rounds of data be collected from the site prior to October 17, 2017, the frequency of sample collection prior to this date is short and variable (e.g., biweekly to quarterly sampling).

| CWTP Appendix IV Sampling Round | Date |
|---|---|
| 1st | October 2017 |
| 2nd | April 2021 |
| 3rd | November 2021 |
| 4th | May 2022 |
| 5th | November 2022 |
| 6th | May/June 2023 |
| 7th | November 2023 |

Depending on the Appendix IV constituent, the minimal sample numbers in this statistical evaluation ranges between 21 to 32. Appendix A contains the sample data for the subject analysis. Data inputs for this statistical analysis were prepared, and provided by, WSP. The Appendix IV analytes are listed by name or chemical symbol as column headers in the ProUCL data upload table. By ProUCL convention, each analyte has a corresponding data column (indicated with a "D_" prefix) that indicates if the analyte was detected or not at a concentration that exceeds the analytical reporting limit, where detectable concentrations are symbolized by a "1" and non-detectable concentrations are symbolized by a "0."

## 3.0 METHODS

The methods applied in this statistical analysis were performed in accordance with the Four Corners SDAWP (WSP, 2023a) and the Groundwater Protection Standards (GWPSs) established in October 2023 (WSP, 2023b). Table 1 summarizes the GWPSs for the CWTP Appendix IV constituents and their respective method of calculation. The GWPS constitutes either: 1) the statistically calculated BTV, 2) the U.S. EPA's promulgated Maximum Contaminant Level (MCL) (40 CFR. Part 141), or 3) the risk-based alternative GWPS identified for constituents without MCLs (40 CFR 257.95(h)(2)), whichever value is highest.

Assessment monitoring, unlike detection monitoring, does not compare individual sample observations to a GWPS. To determine CWTP compliance under assessment monitoring, the Appendix IV sample data from downgradient compliance wells are statistically compared to respective GWPSs using confidence intervals. Confidence intervals are a recommended approach for comparing compliance well (i.e., downgradient) data to a GWPS during assessment monitoring or corrective action (U.S. EPA, 2009). In this case, the central tendency of the sample population is the parameter of interest, consisting of the mean or median. The confidence interval surrounding the central tendency accounts for both the level of statistical variation in the data and the desired confidence level. For this statistical analysis, the lower limit of the confidence interval is the parameter of interest and reflects the lowest concentration boundary beyond which the true central tendency of the downgradient sample data is not expected to reside. The lower confidence limit (LCL) for each Appendix IV constituent is compared to its respective GWPS to assess if the lower limit exceeds the GWPS and, if so, declares constituent concentrations at a statistically significant level (SSL) above the GWPS.

In cases where the background non-detection frequency is equal to 100% (e.g., mercury at the CWTP), the U.S. EPA's Unified Guidance (2009) and the SDAWP (WSP, 2023a) promote the use of the Double Quantification Rule (DQR). The DQR is appropriate when the analyte exhibits 100% non-detectable concentrations in the background data set. The DQR states that, for any given compliance well analyte, two consecutive detectable concentrations that are above the maximum reporting limit are sufficient evidence to declare an SSL.

Each compliance well analyte underwent Exploratory Data Analysis (EDA) to assess the sample data for outliers and statistically significant ($p<0.05$) increasing or decreasing temporal trends. The EDA process also identified which statistical distribution the sample data best fit to select an appropriate statistical comparison (e.g. parametric versus non-parametric) to the GWPS (WSP, 2023).

Results from this statistical evaluation are discussed below.

## 4.0 Results

Table 2 summarizes: 1) the LCL value for each constituent in each well, 2) which compliance wells exhibit statistically significant temporal trends and 3) the type of LCL test applied

This statistical evaluation indicates there is insufficient evidence to declare Appendix IV concentrations observed at the CWTP are above their respective GWPS at SSLs.

Several compliance monitoring wells exhibit statistically significant ($p<0.05$) temporal trends when incorporating the November 2023 data. Arsenic (MW-62), barium (MW-65) and cobalt (MW-65) demonstrate statistically significant ($p<0.05$) increasing trends during the November 2023 sampling period. Barium (MW-62), cobalt (MW-63), fluoride (MW-65) and molybdenum (MW-62) demonstrate statistically significant ($p<0.05$) decreasing trends.

## 5.0 Recommendations

Based on the results of this statistical analysis, the CWTP should remain in assessment monitoring until criteria under §257.95(e) of the CCR Rule are met. Further, mercury is a constituent subject to the DQR. The DQR requires resampling in the case a sample concentration is detected in a compliance well. It is recommended to resample a compliance well if mercury is detected in the well. The resample event should be consecutive to the sample event that produced the detectable concentration and before the next scheduled monitoring event. If the resample event results in a detectable concentration, there is sufficient evidence to declare a SSL above the GWPS.

## 6.0 REFERENCES

Federal Register, 2020. 40 Code of Federal Regulations Part 257 – Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule promulgated at 80 FR 21468 on April 17, 2015 with amendments issued through November 12, 2020 at 85 FR 72539 (A Holistic Approach to Closure Part B: Alternate Demonstration for Unlined Surface Impoundments).

WSP USA Environment & Infrastructure Inc (WSP), 2023a. *Statistical Data Analysis Work Plan*. Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Four Corners Power Plant, Fruitland, New Mexico. Prepared for Arizona Public Service. January 10, 2023.

WSP USA Environment & Infrastructure Inc (WSP), 2023b. *CCR Groundwater Assessment Monitoring Statistical Analysis and Results for the CWTP Appendix IV Constituent Data Collected through June 2023*. Arizona Public Service Company Four Corners Power Plant - Fruitland, New Mexico. Prepared for Arizona Public Service. October 9, 2023.

United States Environmental Protection Agency (US EPA), 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance. EPA 530/R-09-007. Environmental Protection Agency Office of Resource Conservation and Recovery.

## ATTACHMENTS

Table 1 – GWPS selection for the Four Corners CWTP
Table 2 – CWTP Downgradient Sample Data Summary

Appendix A – ProUCL Data Upload Table
Appendix B – ProUCL EDA Output Files

# TABLES

Table 1
GWPS Selection - FCPP CWTP
Appendix IV Statistical Comparison

| Grouped Background Wells | Constituent | US EPA MCL | Alternative Risk-Based GWPS | Background Threshold Value (Calculation Method[1,2,3]) | Units | GWPS Selection[4] |
|---|---|---|---|---|---|---|
| MW-71, MW-72, MW-73 | Antimony | **0.006** | --- | 0.00027 (NP-UTL) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Arsenic | 0.01 | --- | **0.013 (P-UTLT)** | mg/L | BTV |
| MW-71, MW-72, MW-73 | Barium | **2** | --- | 0.051 (NP-UTL) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Beryllium | **0.004** | --- | 0.0022 (NP-UTL) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Cadmium | **0.005** | --- | 0.00021 (NP-UTL) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Chromium | **0.1** | --- | 0.0014 (NP-UTL) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Cobalt | --- | 0.006 | **0.014 (P-UTL)** | mg/L | BTV |
| MW-71, MW-72, MW-73 | Fluoride | 4 | --- | **4.2 (NP-UTL)** | mg/L | BTV |
| MW-71, MW-72, MW-73 | Lead | --- | **0.015** | 0.0011 (NP-UTL) | mg/L | Alternative Risk-Based GWPS |
| MW-71, MW-72, MW-73 | Lithium | --- | 0.04 | **0.89 (NP-UTL)** | mg/L | BTV |
| MW-71, MW-72, MW-73 | Mercury | **0.002** | --- | 0.0002 (DQR) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Molybdenum | --- | **0.1** | 0.011 (NP-UTL) | mg/L | Alternative Risk-Based GWPS |
| MW-71, MW-72, MW-73 | Selenium | 0.05 | --- | **0.47 (P-UTLT)** | mg/L | BTV |
| MW-71, MW-72, MW-73 | Thallium | **0.002** | --- | 0.0012 (NP-UTL) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Combined Radium | **5** | --- | 4.16 (P-UTL) | pCi/L | US EPA MCL |

**Notes:**

BTV = Background Threshold Value

GWPS = Groundwater Protection Standard

US EPA MCL = United States Environmental Protection Agency Maximum Contaminant Level under the Safe Drinking Water Act

[1] Double Quantification Rule (DQR), Parametric Upper Tolerance Limit (P-UTL), Non-Parametric Upper Tolerance Limit (NP-UTL), Parametric Upper Tolerance Limit with a trend (P-UTLT)

[2] The DQR BTV represents the maximum reporting limit value

[3] Background Threshold Values were updated in September 2023.

[4] The GWPS selection represents the highest value between the US EPA MCL, the Alternative Risk-Based GWPS and the BTV

Table 2
Statistical Results Summary - FCPP CWTP
Appendix IV Statistical Comparison

| Appendix IV Constituent | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Combined Radium |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Units* | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| *GWPS* | 0.006 | 0.013 | 2 | 0.004 | 0.005 | 0.1 | 0.014 | 4.2 | 0.015 | 0.89 | 0.002 | 0.1 | 0.47 | 0.002 | 5 |
| MW-62 | NP-LCL (0.001) | P-LCLT (0.0029) | P-LCLT (0.016) | NP-LCL (0.001) | NP-LCL (0.0001) | NP-LCL (0.001) | P-LCL (0.008) | NP-LCL (1.4) | NP-LCL (0.0005) | NP-LCL (0.15) | NP-LCL (0.0002) | P-LCLT (0.0017) | NP-LCL (0.0005) | NP-LCL (0.0001) | P-LCL (0.97) |
| MW-63 | NP-LCL (0.001) | NP-LCL (0.0059) | P-LCL (0.022) | NP-LCL (0.001) | NP-LCL (0.0001) | NP-LCL (0.0005) | P-LCLT (0.0001) | NP-LCL (1.9) | NP-LCL (0.0005) | NP_LCL (0.08) | NP-LCL (0.0002) | P-LCL (0.0036) | NP-LCL (0.0005) | NP-LCL (0.0001) | P-LCL (0.78) |
| MW-64 | NP-LCL (0.001) | NP-LCL (0.0005) | P-LCL (0.028) | NP-LCL (0.001) | NP-LCL (0.0001) | NP-LCL (0.0005) | P-LCL (0.003) | P-LCL (1.9) | NP-LCL (0.0005) | NP-LCL (0.05) | NP-LCL (0.0002) | NP-LCL (0.0046) | NP-LCL (0.0005) | NP-LCL (0.0001) | NP-LCL (0.6) |
| MW-65 | NP-LCL (0.001) | NP-LCL (0.0005) | P-LCLT (0.014) | NP-LCL (0.001) | NP-LCL (0.0001) | NP-LCL (0.0005) | P-LCLT (0.0017) | P-LCLT (1.48) | NP-LCL (0.0005) | NP-LCL (0.081) | NP-LCL (0.0002) | P-LCL (0.0092) | NP-LCL (0.0005) | NP-LCL (0.0001) | NP-LCL (0.6) |

**Legend**

| | |
|---|---|
| Method (LCL) | There is insufficient evidence to declare an SSL over the GWPS |
| Method (LCL) | Statistically significant increasing trend (p<0.05 |
| Method (LCL) | Statistically significant decreasing trend (p<0.05) |
| ***Method (LCL)*** | There is sufficient evidence to declare an SSL over the GWPS |

| | |
|---|---|
| **NP-LCL** | Non-Parametric Lower Confidence Limit |
| **P-LCLT** | Parametric Lower Confidence Limit with a Trend |
| **P-LCL** | Parametric Lower Confidence Limit |
| **LCL** | Lower Confidence Limit |

# APPENDIX A

## PROUCL DATA UPLOAD TABLE

# CWTP Appendix IV Analytical Results - ProUCL

| Designation | StationName | QC_SampleID | NumDate | Antimony | D_Antimony | Arsenic | D_Arsenic | Barium | D_Barium | Beryllium | D_Beryllium | Cadmium | D_Cadmium | Chromium |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Downgradient | MW-62 | FC-CCR-MW62-110915 | 11/9/2015 | 0.0020 | 0 | 0.00098 | 1 | 0.043 | 1 | 0.000086 | 1 | 0.000084 | 1 | 0.0020 |
| Downgradient | MW-62 | FC-CCR-MW-62-042716 | 4/27/2016 | 0.0025 | 0 | 0.0010 | 1 | 0.033 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.0010 |
| Downgradient | MW-62 | FC-CCR-MW62-616 | 6/5/2016 | 0.00011 | 1 | 0.00062 | 1 | 0.027 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |
| Downgradient | MW-62 | FC-CCR-MW62-816 | 8/20/2016 | 0.00011 | 1 | 0.0023 | 1 | 0.034 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.0015 |
| Downgradient | MW-62 | FC-CCR-MW62-916 | 9/12/2016 | 0.0025 | 0 | 0.0020 | 1 | 0.026 | 1 | 0.0010 | 0 | 0.00050 | 0 | 0.0025 |
| Downgradient | MW-62 | FC-CCR-MW62-1016 | 10/19/2016 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-117 | 2/1/2017 | 0.0010 | 0 | 0.0025 | 1 | 0.027 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00051 |
| Downgradient | MW-62 | FC-CCR-MW62-41617 | 4/16/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.022 | 1 | 0.0010 | 0 | 0.00040 | 0 | 0.0020 |
| Downgradient | MW-62 | FC-CCR-MW62-5117 | 5/1/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.021 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |
| Downgradient | MW-62 | FC-CCR-MW62-52917 | 5/29/2017 | 0.0010 | 0 | 0.00067 | 1 | 0.021 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |
| Downgradient | MW-62 | FC-CCR-MW62-62117 | 6/21/2017 | 0.0010 | 0 | 0.00065 | 1 | 0.023 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.0010 |
| Downgradient | MW-62 | FC-CCR-MW62-72117 | 7/21/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.023 | 1 | 0.0010 | 0 | 0.00040 | 0 | 0.0020 |
| Downgradient | MW-62 | FC-CCR-MW62-8917 | 8/9/2017 | 0.0010 | 0 | 0.0016 | 1 | 0.027 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.0010 |
| Downgradient | MW-62 | FC-CCR-MW62-81617 | 8/16/2017 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-9917 | 9/9/2017 | 0.0040 | 0 | 0.0031 | 1 | 0.026 | 1 | 0.0010 | 0 | 0.00040 | 0 | 0.0040 |
| Downgradient | MW-62 | FC-CCR-MW62-101317 | 10/13/2017 | 0.0040 | 0 | 0.0050 | 0 | 0.028 | 1 | 0.0010 | 0 | 0.0010 | 0 | 0.010 |
| Downgradient | MW-62 | FC-CCR-MW62-113017 | 11/30/2017 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW-62-6318 | 6/3/2018 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-11218 | 11/2/2018 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-4119 | 4/1/2019 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-5719-01 | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-120319 | 12/3/2019 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-0620 | 6/19/2020 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-1120 | 11/5/2020 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-011421 | 1/14/2021 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-0421 | 4/22/2021 | 0.0010 | 0 | 0.0019 | 0 | 0.016 | 1 | 0.001 | 0 | 0.0001 | 0 | 0.001 |
| Downgradient | MW-62 | FC-CCR-MW62-1121 | 11/15/2021 | 0.002 | 0 | 0.001 | 0 | 0.025 | 1 | 0.001 | 0 | 0.0002 | 0 | 0.002 |
| Downgradient | MW-62 | FC-CCR-MW62-0522 | 5/20/2022 | 0.001 | 0 | 0.00073 | 1 | 0.015 | 1 | 0.001 | 0 | 0.0001 | 0 | 0.001 |
| Downgradient | MW-62 | FC-CCR-MW62-1122 | 11/13/2022 | 0.001 | 0 | 0.012 | 1 | 0.031 | 1 | 0.001 | 0 | 0.0001 | 0 | 0.001 |
| Downgradient | MW-62 | FC-CCR-MW62-0523 | 5/7/2023 | 0.002 | 0 | 0.011 | 1 | 0.026 | 1 | 0.001 | 0 | 0.001 | 0 | 0.003 |
| Downgradient | MW-62 | FC-CCR-MW62-0623 | 6/28/2023 | 0.001 | 0 | 0.012 | 1 | 0.022 | 1 | 0.001 | 0 | 0.0001 | 0 | 0.001 |
| Downgradient | MW-62 | FC-CCR-MW62-1123 | 11/6/2023 | 0.001 | 0 | 0.012 | 1 | 0.023 | 1 | 0.001 | 0 | 0.0001 | 0 | 0.001 |
| Downgradient | MW-63 | FC-CCR-MW63-110415 | 11/4/2015 | 0.0020 | 0 | 0.0012 | 1 | 0.033 | 1 | 0.000073 | 1 | 0.0010 | 0 | 0.00043 |
| Downgradient | MW-63 | FC-CCR-MW-63-042716 | 4/27/2016 | 0.0025 | 0 | 0.00099 | 1 | 0.021 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |
| Downgradient | MW-63 | FC-CCR-MW63-616 | 6/5/2016 | 0.00013 | 1 | 0.00059 | 1 | 0.020 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |
| Downgradient | MW-63 | FC-CCR-MW63-816 | 8/20/2016 | 0.00013 | 1 | 0.00082 | 1 | 0.022 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00084 |
| Downgradient | MW-63 | FC-CCR-MW63-916 | 9/12/2016 | 0.0025 | 0 | 0.0010 | 0 | 0.022 | 1 | 0.0010 | 0 | 0.00050 | 0 | 0.0025 |
| Downgradient | MW-63 | FC-CCR-MW63-1016 | 10/19/2016 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-117 | 1/31/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.016 | 1 | 0.0010 | 0 | 0.00013 | 1 | 0.00050 |
| Downgradient | MW-63 | FC-CCR-MW63-41717 | 4/17/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.017 | 1 | 0.0010 | 0 | 0.00040 | 0 | 0.0020 |
| Downgradient | MW-63 | FC-CCR-MW63-5217 | 5/2/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.017 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |
| Downgradient | MW-63 | FC-CCR-MW63-52817 | 5/28/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.017 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |
| Downgradient | MW-63 | FC-CCR-MW63-62117 | 6/21/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.019 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |

# CWTP Appendix IV Analytical Results - ProUCL

| Designation | StationName | QC_SampleID | NumDate | Antimony | D_Antimony | Arsenic | D_Arsenic | Barium | D_Barium | Beryllium | D_Beryllium | Cadmium | D_Cadmium | Chromium |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Downgradient | MW-63 | FC-CCR-MW63-72117 | 7/21/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.018 | 1 | 0.0010 | 0 | 0.00040 | 0 | 0.0020 |
| Downgradient | MW-63 | FC-CCR-MW63-8917 | 8/9/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.020 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.0010 |
| Downgradient | MW-63 | FC-CCR-MW63-81617 | 8/16/2017 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-9917 | 9/9/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.020 | 1 | 0.0010 | 0 | 0.00040 | 0 | 0.0040 |
| Downgradient | MW-63 | FC-CCR-MW63-101317 | 10/13/2017 | 0.0040 | 0 | 0.0050 | 0 | 0.022 | 1 | 0.0010 | 0 | 0.0010 | 0 | 0.010 |
| Downgradient | MW-63 | FC-CCR-MW63-113017 | 11/30/2017 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW-63-6318 | 6/3/2018 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-112818 | 11/2/2018 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-4119 | 4/1/2019 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-5719-02 | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-120319 | 12/3/2019 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-0620 | 6/19/2020 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-1120 | 11/5/2020 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-0421 | 4/22/2021 | 0.0010 | 0 | 0.0013 | 0 | 0.02 | 1 | 0.001 | 0 | 0.0001 | 0 | 0.001 |
| Downgradient | MW-63 | FC-CCR-MW63-1121 | 11/15/2021 | 0.002 | 0 | 0.001 | 0 | 0.022 | 1 | 0.001 | 0 | 0.000064 | 1 | 0.002 |
| Downgradient | MW-63 | FC-CCR-MW63-0522 | 5/20/2022 | 0.002 | 0 | 0.001 | 0 | 0.015 | 1 | 0.001 | 0 | 0.0002 | 0 | 0.002 |
| Downgradient | MW-63 | FC-CCR-MW63-1122 | 11/13/2022 | 0.001 | 0 | 0.00063 | 1 | 0.023 | 1 | 0.001 | 0 | 0.0001 | 0 | 0.001 |
| Downgradient | MW-63 | FC-CCR-MW63-0523 | 5/7/2023 | 0.002 | 0 | 0.005 | 0 | 0.016 | 1 | 0.001 | 0 | 0.001 | 0 | 0.003 |
| Downgradient | MW-63 | FC-CCR-MW63-0623 | 6/27/2023 | 0.001 | 0 | 0.0012 | 1 | 0.014 | 1 | 0.001 | 0 | 0.0001 | 0 | 0.001 |
| Downgradient | MW-63 | FC-CCR-MW63-1123 | 11/6/2023 | 0.001 | 0 | 0.0013 | 1 | 0.025 | 1 | 0.001 | 0 | 0.0001 | 0 | 0.001 |
| Downgradient | MW-64 | FC-CCR-MW64-110515 | 11/5/2015 | 0.0020 | 0 | 0.00070 | 1 | 0.027 | 1 | 0.0010 | 0 | 0.0010 | 0 | 0.00023 |
| Downgradient | MW-64 | FC-CCR-MW-64-042716 | 4/27/2016 | 0.0025 | 0 | 0.00050 | 0 | 0.027 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00071 |
| Downgradient | MW-64 | FC-CCR-MW64-616 | 6/5/2016 | 0.00010 | 0 | 0.00050 | 0 | 0.027 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |
| Downgradient | MW-64 | FC-CCR-MW64-816 | 8/20/2016 | 0.00010 | 0 | 0.00056 | 1 | 0.033 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00093 |
| Downgradient | MW-64 | FC-CCR-MW64-916 | 9/12/2016 | 0.0025 | 0 | 0.0010 | 0 | 0.027 | 1 | 0.0010 | 0 | 0.00050 | 0 | 0.0025 |
| Downgradient | MW-64 | FC-CCR-MW64-1016 | 10/19/2016 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-117 | 1/31/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.025 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |
| Downgradient | MW-64 | FC-CCR-MW64-41717 | 4/17/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.026 | 1 | 0.0010 | 0 | 0.00040 | 0 | 0.0020 |
| Downgradient | MW-64 | FC-CCR-MW64-5217 | 5/2/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.026 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |
| Downgradient | MW-64 | FC-CCR-MW64-52817 | 5/28/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.025 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |
| Downgradient | MW-64 | FC-CCR-MW64-62117 | 6/21/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.027 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |
| Downgradient | MW-64 | FC-CCR-MW64-72117 | 7/21/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.024 | 1 | 0.0010 | 0 | 0.00040 | 0 | 0.0020 |
| Downgradient | MW-64 | FC-CCR-MW64-8917 | 8/9/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.027 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.0010 |
| Downgradient | MW-64 | FC-CCR-MW64-81617 | 8/16/2017 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-9917 | 9/9/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.024 | 1 | 0.0010 | 0 | 0.00040 | 0 | 0.0040 |
| Downgradient | MW-64 | FC-CCR-MW64-101317 | 10/13/2017 | 0.0040 | 0 | 0.0050 | 0 | 0.029 | 1 | 0.0010 | 0 | 0.0010 | 0 | 0.010 |
| Downgradient | MW-64 | FC-CCR-MW64-113017 | 11/30/2017 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW-64-6318 | 6/3/2018 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-11218 | 11/2/2018 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-4119 | 4/1/2019 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-5719-03 | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-120319 | 12/3/2019 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-0620 | 6/19/2020 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

# CWTP Appendix IV Analytical Results - ProUCL

| Designation | StationName | QC_SampleID | NumDate | Antimony | D_Antimony | Arsenic | D_Arsenic | Barium | D_Barium | Beryllium | D_Beryllium | Cadmium | D_Cadmium | Chromium |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Downgradient | MW-64 | FC-CCR-MW64-1120 | 11/5/2020 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-0421 | 4/22/2021 | 0.0010 | 0 | 0.00096 | 0 | 0.033 | 1 | 0.001 | 0 | 0.0001 | 0 | 0.001 |
| Downgradient | MW-64 | FC-CCR-MW64-1121 | 11/15/2021 | 0.002 | 0 | 0.001 | 0 | 0.024 | 1 | 0.001 | 0 | 0.000058 | 1 | 0.002 |
| Downgradient | MW-64 | FC-CCR-MW64-0522 | 5/20/2022 | 0.002 | 0 | 0.001 | 0 | 0.035 | 1 | 0.001 | 0 | 0.0002 | 0 | 0.002 |
| Downgradient | MW-64 | FC-CCR-MW64-1122 | 11/13/2022 | 0.001 | 0 | 0.0005 | 0 | 0.023 | 1 | 0.001 | 0 | 0.0001 | 0 | 0.001 |
| Downgradient | MW-64 | FC-CCR-MW64-0523 | 5/7/2023 | 0.002 | 0 | 0.005 | 0 | 0.022 | 1 | 0.0051 | 1 | 0.001 | 0 | 0.003 |
| Downgradient | MW-64 | FC-CCR-MW64-0623 | 6/27/2023 | 0.001 | 0 | 0.001 | 1 | 0.022 | 1 | 0.001 | 0 | 0.0001 | 0 | 0.001 |
| Downgradient | MW-64 | FC-CCR-MW64-1123 | 11/6/2023 | 0.001 | 0 | 0.00097 | 1 | 0.029 | 1 | 0.001 | 0 | 0.0001 | 0 | 0.001 |
| Downgradient | MW-65 | FC-CCR-MW65-110515 | 11/5/2015 | 0.0020 | 0 | 0.00071 | 1 | 0.014 | 1 | 0.0010 | 0 | 0.0010 | 0 | 0.00049 |
| Downgradient | MW-65 | FC-CCR-MW-65-042716 | 4/27/2016 | 0.0025 | 0 | 0.00050 | 0 | 0.017 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.0015 |
| Downgradient | MW-65 | FC-CCR-MW65-616 | 6/5/2016 | 0.00010 | 0 | 0.00050 | 0 | 0.014 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |
| Downgradient | MW-65 | FC-CCR-MW65-816 | 8/20/2016 | 0.00010 | 0 | 0.00050 | 0 | 0.019 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |
| Downgradient | MW-65 | FC-CCR-MW65-916 | 9/12/2016 | 0.0025 | 0 | 0.0010 | 0 | 0.013 | 1 | 0.0010 | 0 | 0.00050 | 0 | 0.0025 |
| Downgradient | MW-65 | FC-CCR-MW65-1016 | 10/19/2016 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-117 | 2/1/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.014 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |
| Downgradient | MW-65 | FC-CCR-MW65-41617 | 4/16/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.016 | 1 | 0.0010 | 0 | 0.00040 | 0 | 0.0020 |
| Downgradient | MW-65 | FC-CCR-MW65-5117 | 5/1/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.017 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |
| Downgradient | MW-65 | FC-CCR-MW65-52917 | 5/29/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.021 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |
| Downgradient | MW-65 | FC-CCR-MW65-62117 | 6/21/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.018 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.00050 |
| Downgradient | MW-65 | FC-CCR-MW65-72117 | 7/21/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.012 | 1 | 0.0010 | 0 | 0.00040 | 0 | 0.0020 |
| Downgradient | MW-65 | FC-CCR-MW65-8917 | 8/9/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.012 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.0010 |
| Downgradient | MW-65 | FC-CCR-MW65-81617 | 8/16/2017 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-9917 | 9/9/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.012 | 1 | 0.0010 | 0 | 0.00040 | 0 | 0.0040 |
| Downgradient | MW-65 | FC-CCR-MW65-101317 | 10/13/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.013 | 1 | 0.0010 | 0 | 0.00010 | 0 | 0.0010 |
| Downgradient | MW-65 | FC-CCR-MW65-113017 | 11/30/2017 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW-65-6318 | 6/3/2018 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-11218 | 11/2/2018 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-4119 | 4/1/2019 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-5719-05 | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-120319 | 12/3/2019 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-0620 | 6/19/2020 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-1120 | 11/5/2020 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-0421 | 4/22/2021 | 0.0010 | 0 | 0.00099 | 0 | 0.032 | 1 | 0.001 | 0 | 0.0001 | 0 | 0.001 |
| Downgradient | MW-65 | FC-CCR-MW65-1121 | 11/15/2021 | 0.002 | 0 | 0.001 | 0 | 0.02 | 1 | 0.001 | 0 | 0.0002 | 0 | 0.002 |
| Downgradient | MW-65 | FC-CCR-MW65-0522 | 5/20/2022 | 0.002 | 0 | 0.001 | 0 | 0.042 | 1 | 0.001 | 0 | 0.0002 | 0 | 0.002 |
| Downgradient | MW-65 | FC-CCR-MW65-1122 | 11/13/2022 | 0.001 | 0 | 0.00059 | 1 | 0.021 | 1 | 0.001 | 0 | 0.0001 | 0 | 0.001 |
| Downgradient | MW-65 | FC-CCR-MW65-0523 | 5/7/2023 | 0.002 | 0 | 0.005 | 0 | 0.023 | 1 | 0.001 | 0 | 0.001 | 0 | 0.003 |
| Downgradient | MW-65 | FC-CCR-MW65-0623 | 6/28/2023 | 0.001 | 0 | 0.0013 | 1 | 0.022 | 1 | 0.001 | 0 | 0.0001 | 0 | 0.001 |
| Downgradient | MW-65 | FC-CCR-MW65-1123 | 11/6/2023 | 0.001 | 0 | 0.0011 | 1 | 0.021 | 1 | 0.001 | 0 | 0.0001 | 0 | 0.001 |

# CWTP Appendix IV Analytical Results - ProUCL

| Designation | StationName | QC_SampleID | NumDate | D_Chromium | Cobalt | D_Cobalt | Fluoride | D_Fluoride | Lead | D_Lead | Lithium | D_Lithium | Mercury | D_Mercury | Molybdenum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Downgradient | MW-62 | FC-CCR-MW62-110915 | 11/9/2015 | 0 | 0.011 | 1 | 1.6 | 1 | 0.0010 | 0 | 0.11 | 1 | 0.00020 | 0 | 0.0043 |
| Downgradient | MW-62 | FC-CCR-MW-62-042716 | 4/27/2016 | 1 | 0.0062 | 1 | 1.6 | 1 | 0.00058 | 1 | 0.20 | 0 | 0.00020 | 0 | 0.0029 |
| Downgradient | MW-62 | FC-CCR-MW62-616 | 6/5/2016 | 0 | 0.0062 | 1 | 1.5 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0030 |
| Downgradient | MW-62 | FC-CCR-MW62-816 | 8/20/2016 | 1 | 0.0061 | 1 | 1.5 | 1 | 0.00050 | 1 | 0.20 | 0 | 0.00020 | 0 | 0.012 |
| Downgradient | MW-62 | FC-CCR-MW62-916 | 9/12/2016 | 0 | 0.0069 | 1 | 1.5 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0044 |
| Downgradient | MW-62 | FC-CCR-MW62-1016 | 10/19/2016 | NA | NA | NA | 1.2 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-117 | 2/1/2017 | 1 | 0.0062 | 1 | 1.4 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0034 |
| Downgradient | MW-62 | FC-CCR-MW62-41617 | 4/16/2017 | 0 | 0.0070 | 1 | 1.2 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0036 |
| Downgradient | MW-62 | FC-CCR-MW62-5117 | 5/1/2017 | 0 | 0.0066 | 1 | 3.3 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0032 |
| Downgradient | MW-62 | FC-CCR-MW62-52917 | 5/29/2017 | 0 | 0.0073 | 1 | 1.2 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0030 |
| Downgradient | MW-62 | FC-CCR-MW62-62117 | 6/21/2017 | 1 | 0.0084 | 1 | 1.4 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00025 | 1 | 0.0030 |
| Downgradient | MW-62 | FC-CCR-MW62-72117 | 7/21/2017 | 0 | 0.0044 | 1 | 1.5 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0029 |
| Downgradient | MW-62 | FC-CCR-MW62-8917 | 8/9/2017 | 0 | 0.0048 | 1 | 1.4 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0025 |
| Downgradient | MW-62 | FC-CCR-MW62-81617 | 8/16/2017 | NA | NA | NA | 1.6 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-9917 | 9/9/2017 | 0 | 0.0064 | 1 | 1.5 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0028 |
| Downgradient | MW-62 | FC-CCR-MW62-101317 | 10/13/2017 | 0 | 0.010 | 1 | 1.5 | 1 | 0.0050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0031 |
| Downgradient | MW-62 | FC-CCR-MW62-113017 | 11/30/2017 | NA | NA | NA | 1.4 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW-62-6318 | 6/3/2018 | NA | NA | NA | 1.6 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-11218 | 11/2/2018 | NA | NA | NA | 1.5 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-4119 | 4/1/2019 | NA | NA | NA | 1.6 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-5719-01 | 5/7/2019 | NA | NA | NA | 1.4 | 1 | NA | NA | 0.20 | 0 | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-120319 | 12/3/2019 | NA | NA | NA | 1.5 | 1 | NA | NA | 0.20 | 0 | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-0620 | 6/19/2020 | NA | NA | NA | 1.8 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-1120 | 11/5/2020 | NA | NA | NA | 1.8 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-011421 | 1/14/2021 | NA | NA | NA | 1.2 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-0421 | 4/22/2021 | 0 | 0.00065 | 1 | 1.5 | 1 | 0.0005 | 0 | 0.12 | 1 | 0.0002 | 0 | 0.0029 |
| Downgradient | MW-62 | FC-CCR-MW62-1121 | 11/15/2021 | 0 | 0.014 | 1 | 1.4 | 1 | 0.001 | 0 | 0.14 | 1 | 0.0002 | 0 | 0.0027 |
| Downgradient | MW-62 | FC-CCR-MW62-0522 | 5/20/2022 | 0 | 0.0014 | 1 | 1.4 | 1 | 0.0005 | 0 | 0.13 | 1 | 0.0002 | 0 | 0.0027 |
| Downgradient | MW-62 | FC-CCR-MW62-1122 | 11/13/2022 | 0 | 0.011 | 1 | 1.6 | 1 | 0.0005 | 0 | 0.15 | 1 | 0.00037 | 1 | 0.0023 |
| Downgradient | MW-62 | FC-CCR-MW62-0523 | 5/7/2023 | 0 | 0.0033 | 1 | 80 | 0 | 0.001 | 0 | 0.14 | 1 | 0.00044 | 1 | 0.002 |
| Downgradient | MW-62 | FC-CCR-MW62-0623 | 6/28/2023 | 0 | 0.0029 | 1 | 2 | 1 | 0.0005 | 0 | 0.13 | 1 | 0.0002 | 0 | 0.0012 |
| Downgradient | MW-62 | FC-CCR-MW62-1123 | 11/6/2023 | 0 | 0.011 | 1 | 1.6 | 1 | 0.0005 | 0 | 0.14 | 1 | 0.0002 | 0 | 0.0031 |
| Downgradient | MW-63 | FC-CCR-MW63-110415 | 11/4/2015 | 1 | 0.0086 | 1 | 2.4 | 1 | 0.00015 | 1 | 0.085 | 1 | 0.00020 | 0 | 0.0058 |
| Downgradient | MW-63 | FC-CCR-MW-63-042716 | 4/27/2016 | 0 | 0.0059 | 1 | 2.0 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0026 |
| Downgradient | MW-63 | FC-CCR-MW63-616 | 6/5/2016 | 0 | 0.0054 | 1 | 1.9 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0025 |
| Downgradient | MW-63 | FC-CCR-MW63-816 | 8/20/2016 | 1 | 0.0064 | 1 | 1.9 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.017 |
| Downgradient | MW-63 | FC-CCR-MW63-916 | 9/12/2016 | 0 | 0.0069 | 1 | 2.1 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0031 |
| Downgradient | MW-63 | FC-CCR-MW63-1016 | 10/19/2016 | NA | NA | NA | 1.8 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-117 | 1/31/2017 | 0 | 0.0041 | 1 | 2.0 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0024 |
| Downgradient | MW-63 | FC-CCR-MW63-41717 | 4/17/2017 | 0 | 0.0055 | 1 | 1.6 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0022 |
| Downgradient | MW-63 | FC-CCR-MW63-5217 | 5/2/2017 | 0 | 0.0050 | 1 | 2.5 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0020 |
| Downgradient | MW-63 | FC-CCR-MW63-52817 | 5/28/2017 | 0 | 0.0056 | 1 | 1.6 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0024 |
| Downgradient | MW-63 | FC-CCR-MW63-62117 | 6/21/2017 | 0 | 0.0060 | 1 | 1.9 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0024 |

# CWTP Appendix IV Analytical Results - ProUCL

| Designation | StationName | QC_SampleID | NumDate | D_Chromium | Cobalt | D_Cobalt | Fluoride | D_Fluoride | Lead | D_Lead | Lithium | D_Lithium | Mercury | D_Mercury | Molybdenum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Downgradient | MW-63 | FC-CCR-MW63-72117 | 7/21/2017 | 0 | 0.0057 | 1 | 2.0 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0023 |
| Downgradient | MW-63 | FC-CCR-MW63-8917 | 8/9/2017 | 0 | 0.0063 | 1 | 1.9 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0026 |
| Downgradient | MW-63 | FC-CCR-MW63-81617 | 8/16/2017 | NA | NA | NA | 2.1 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-9917 | 9/9/2017 | 0 | 0.0060 | 1 | 2.0 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0025 |
| Downgradient | MW-63 | FC-CCR-MW63-101317 | 10/13/2017 | 0 | 0.0069 | 1 | 2.0 | 1 | 0.0050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0029 |
| Downgradient | MW-63 | FC-CCR-MW63-113017 | 11/30/2017 | NA | NA | NA | 1.8 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW-63-6318 | 6/3/2018 | NA | NA | NA | 1.7 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-112818 | 11/2/2018 | NA | NA | NA | 1.9 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-4119 | 4/1/2019 | NA | NA | NA | 1.7 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-5719-02 | 5/7/2019 | NA | NA | NA | 1.6 | 1 | NA | NA | 0.20 | 0 | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-120319 | 12/3/2019 | NA | NA | NA | 1.8 | 1 | NA | NA | 0.20 | 0 | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-0620 | 6/19/2020 | NA | NA | NA | 2.1 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-1120 | 11/5/2020 | NA | NA | NA | 2.2 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-0421 | 4/22/2021 | 0 | 0.00062 | 1 | 2 | 1 | 0.0005 | 0 | 0.057 | 1 | 0.0002 | 0 | 0.0019 |
| Downgradient | MW-63 | FC-CCR-MW63-1121 | 11/15/2021 | 0 | 0.0022 | 1 | 0.28 | 1 | 0.001 | 0 | 0.066 | 1 | 0.0002 | 0 | 0.0035 |
| Downgradient | MW-63 | FC-CCR-MW63-0522 | 5/20/2022 | 0 | 0.0012 | 1 | 2.1 | 1 | 0.001 | 0 | 0.058 | 1 | 0.0002 | 0 | 0.0029 |
| Downgradient | MW-63 | FC-CCR-MW63-1122 | 11/13/2022 | 0 | 0.0026 | 1 | 2.1 | 1 | 0.0005 | 0 | 0.061 | 1 | 0.0002 | 0 | 0.0036 |
| Downgradient | MW-63 | FC-CCR-MW63-0523 | 5/7/2023 | 0 | 0.001 | 0 | 8 | 0 | 0.001 | 0 | 0.055 | 1 | 0.0002 | 0 | 0.0022 |
| Downgradient | MW-63 | FC-CCR-MW63-0623 | 6/27/2023 | 0 | 0.0015 | 1 | 1.8 | 1 | 0.0005 | 0 | 0.045 | 1 | 0.0002 | 0 | 0.003 |
| Downgradient | MW-63 | FC-CCR-MW63-1123 | 11/6/2023 | 0 | 0.0037 | 1 | 2.2 | 1 | 0.0005 | 0 | 0.053 | 1 | 0.0002 | 0 | 0.0033 |
| Downgradient | MW-64 | FC-CCR-MW64-110515 | 11/5/2015 | 1 | 0.0015 | 1 | 1.5 | 1 | 0.00016 | 1 | 0.022 | 1 | 0.00020 | 0 | 0.0057 |
| Downgradient | MW-64 | FC-CCR-MW-64-042716 | 4/27/2016 | 1 | 0.0017 | 1 | 1.4 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0051 |
| Downgradient | MW-64 | FC-CCR-MW64-616 | 6/5/2016 | 0 | 0.0012 | 1 | 1.5 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0050 |
| Downgradient | MW-64 | FC-CCR-MW64-816 | 8/20/2016 | 1 | 0.0015 | 1 | 1.6 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0073 |
| Downgradient | MW-64 | FC-CCR-MW64-916 | 9/12/2016 | 0 | 0.0015 | 1 | 1.5 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0052 |
| Downgradient | MW-64 | FC-CCR-MW64-1016 | 10/19/2016 | NA | NA | NA | 1.5 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-117 | 1/31/2017 | 0 | 0.0012 | 1 | 1.5 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0048 |
| Downgradient | MW-64 | FC-CCR-MW64-41717 | 4/17/2017 | 0 | 0.0020 | 0 | 1.4 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0049 |
| Downgradient | MW-64 | FC-CCR-MW64-5217 | 5/2/2017 | 0 | 0.0011 | 1 | 1.3 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0045 |
| Downgradient | MW-64 | FC-CCR-MW64-52817 | 5/28/2017 | 0 | 0.0011 | 1 | 1.5 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0045 |
| Downgradient | MW-64 | FC-CCR-MW64-62117 | 6/21/2017 | 0 | 0.0012 | 1 | 1.4 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0051 |
| Downgradient | MW-64 | FC-CCR-MW64-72117 | 7/21/2017 | 0 | 0.0020 | 0 | 1.5 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0042 |
| Downgradient | MW-64 | FC-CCR-MW64-8917 | 8/9/2017 | 0 | 0.0012 | 1 | 1.5 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0047 |
| Downgradient | MW-64 | FC-CCR-MW64-81617 | 8/16/2017 | NA | NA | NA | 1.5 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-9917 | 9/9/2017 | 0 | 0.0020 | 0 | 1.5 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0045 |
| Downgradient | MW-64 | FC-CCR-MW64-101317 | 10/13/2017 | 0 | 0.0050 | 0 | 1.4 | 1 | 0.0050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0051 |
| Downgradient | MW-64 | FC-CCR-MW64-113017 | 11/30/2017 | NA | NA | NA | 1.4 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW-64-6318 | 6/3/2018 | NA | NA | NA | 1.4 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-11218 | 11/2/2018 | NA | NA | NA | 1.4 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-4119 | 4/1/2019 | NA | NA | NA | 1.4 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-5719-03 | 5/7/2019 | NA | NA | NA | 1.4 | 1 | NA | NA | 0.20 | 0 | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-120319 | 12/3/2019 | NA | NA | NA | 1.5 | 1 | NA | NA | 0.20 | 0 | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-0620 | 6/19/2020 | NA | NA | NA | 1.3 | 1 | NA | NA | NA | NA | NA | NA | NA |

# CWTP Appendix IV Analytical Results - ProUCL

| Designation | StationName | QC_SampleID | NumDate | D_Chromium | Cobalt | D_Cobalt | Fluoride | D_Fluoride | Lead | D_Lead | Lithium | D_Lithium | Mercury | D_Mercury | Molybdenum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Downgradient | MW-64 | FC-CCR-MW64-1120 | 11/5/2020 | NA | NA | NA | 1.6 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-0421 | 4/22/2021 | 0 | 0.00083 | 1 | 1.4 | 1 | 0.0005 | 0 | 0.019 | 1 | 0.0002 | 0 | 0.0047 |
| Downgradient | MW-64 | FC-CCR-MW64-1121 | 11/15/2021 | 0 | 0.0018 | 1 | 1.4 | 1 | 0.001 | 0 | 0.019 | 1 | 0.0002 | 0 | 0.0052 |
| Downgradient | MW-64 | FC-CCR-MW64-0522 | 5/20/2022 | 0 | 0.0011 | 1 | 1.4 | 1 | 0.001 | 0 | 0.027 | 1 | 0.0002 | 0 | 0.0049 |
| Downgradient | MW-64 | FC-CCR-MW64-1122 | 11/13/2022 | 0 | 0.0018 | 1 | 1.6 | 1 | 0.0005 | 0 | 0.021 | 1 | 0.0002 | 0 | 0.0052 |
| Downgradient | MW-64 | FC-CCR-MW64-0523 | 5/7/2023 | 0 | 0.0017 | 1 | 1.4 | 1 | 0.001 | 0 | 0.023 | 1 | 0.0002 | 0 | 0.005 |
| Downgradient | MW-64 | FC-CCR-MW64-0623 | 6/27/2023 | 0 | 0.0017 | 1 | 1.3 | 1 | 0.0005 | 0 | 0.02 | 1 | 0.0002 | 0 | 0.0046 |
| Downgradient | MW-64 | FC-CCR-MW64-1123 | 11/6/2023 | 0 | 0.0016 | 1 | 1.5 | 1 | 0.0005 | 0 | 0.05 | 0 | 0.0002 | 0 | 0.0044 |
| Downgradient | MW-65 | FC-CCR-MW65-110515 | 11/5/2015 | 1 | 0.0012 | 1 | 2.0 | 1 | 0.0010 | 0 | 0.054 | 1 | 0.00020 | 0 | 0.0093 |
| Downgradient | MW-65 | FC-CCR-MW-65-042716 | 4/27/2016 | 1 | 0.0012 | 1 | 1.8 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0078 |
| Downgradient | MW-65 | FC-CCR-MW65-616 | 6/5/2016 | 0 | 0.0011 | 1 | 2.0 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0083 |
| Downgradient | MW-65 | FC-CCR-MW65-816 | 8/20/2016 | 0 | 0.0012 | 1 | 2.1 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.013 |
| Downgradient | MW-65 | FC-CCR-MW65-916 | 9/12/2016 | 0 | 0.0014 | 1 | 2.0 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0084 |
| Downgradient | MW-65 | FC-CCR-MW65-1016 | 10/19/2016 | NA | NA | NA | 2.0 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-117 | 2/1/2017 | 0 | 0.0011 | 1 | 2.0 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0086 |
| Downgradient | MW-65 | FC-CCR-MW65-41617 | 4/16/2017 | 0 | 0.0020 | 0 | 1.8 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0082 |
| Downgradient | MW-65 | FC-CCR-MW65-5117 | 5/1/2017 | 0 | 0.0011 | 1 | 1.6 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0083 |
| Downgradient | MW-65 | FC-CCR-MW65-52917 | 5/29/2017 | 0 | 0.0010 | 1 | 1.8 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.010 |
| Downgradient | MW-65 | FC-CCR-MW65-62117 | 6/21/2017 | 0 | 0.0011 | 1 | 1.9 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0097 |
| Downgradient | MW-65 | FC-CCR-MW65-72117 | 7/21/2017 | 0 | 0.0020 | 0 | 2.0 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0080 |
| Downgradient | MW-65 | FC-CCR-MW65-8917 | 8/9/2017 | 0 | 0.0012 | 1 | 2.0 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0083 |
| Downgradient | MW-65 | FC-CCR-MW65-81617 | 8/16/2017 | NA | NA | NA | 2.0 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-9917 | 9/9/2017 | 0 | 0.0020 | 0 | 2.0 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0080 |
| Downgradient | MW-65 | FC-CCR-MW65-101317 | 10/13/2017 | 0 | 0.0011 | 1 | 1.9 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 | 0.0093 |
| Downgradient | MW-65 | FC-CCR-MW65-113017 | 11/30/2017 | NA | NA | NA | 2.0 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW-65-6318 | 6/3/2018 | NA | NA | NA | 1.9 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-11218 | 11/2/2018 | NA | NA | NA | 1.9 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-4119 | 4/1/2019 | NA | NA | NA | 1.8 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-5719-05 | 5/7/2019 | NA | NA | NA | 1.7 | 1 | NA | NA | 0.20 | 0 | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-120319 | 12/3/2019 | NA | NA | NA | 1.9 | 1 | NA | NA | 0.20 | 0 | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-0620 | 6/19/2020 | NA | NA | NA | 1.7 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-1120 | 11/5/2020 | NA | NA | NA | 2.1 | 1 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-0421 | 4/22/2021 | 0 | 0.002 | 1 | 1.5 | 1 | 0.0005 | 0 | 0.061 | 1 | 0.0002 | 0 | 0.0072 |
| Downgradient | MW-65 | FC-CCR-MW65-1121 | 11/15/2021 | 0 | 0.0022 | 1 | 1.7 | 1 | 0.001 | 0 | 0.053 | 1 | 0.0002 | 0 | 0.0098 |
| Downgradient | MW-65 | FC-CCR-MW65-0522 | 5/20/2022 | 0 | 0.0029 | 1 | 1.5 | 1 | 0.001 | 0 | 0.081 | 1 | 0.0002 | 0 | 0.0066 |
| Downgradient | MW-65 | FC-CCR-MW65-1122 | 11/13/2022 | 0 | 0.0019 | 1 | 1.8 | 1 | 0.0005 | 0 | 0.05 | 1 | 0.0002 | 0 | 0.0089 |
| Downgradient | MW-65 | FC-CCR-MW65-0523 | 5/7/2023 | 0 | 0.0018 | 1 | 2 | 0 | 0.001 | 0 | 0.045 | 1 | 0.0002 | 0 | 0.007 |
| Downgradient | MW-65 | FC-CCR-MW65-0623 | 6/28/2023 | 0 | 0.0017 | 1 | 1.4 | 1 | 0.0005 | 0 | 0.05 | 1 | 0.0002 | 0 | 0.0073 |
| Downgradient | MW-65 | FC-CCR-MW65-1123 | 11/6/2023 | 0 | 0.0016 | 1 | 1.5 | 1 | 0.0005 | 0 | 0.05 | 0 | 0.0002 | 0 | 0.0073 |

# CWTP Appendix IV Analytical Results - ProUCL

| Designation | StationName | QC_SampleID | NumDate | D_Molybdenum | Total Radium | D_Total Radium | Selenium | D_Selenium | Thallium | D_Thallium |
|---|---|---|---|---|---|---|---|---|---|---|
| Downgradient | MW-62 | FC-CCR-MW62-110915 | 11/9/2015 | 1 | 1.6045 | 1 | 0.00093 | 1 | 0.0010 | 0 |
| Downgradient | MW-62 | FC-CCR-MW-62-042716 | 4/27/2016 | 1 | 0.6 | 1 | 0.00078 | 1 | 0.00010 | 0 |
| Downgradient | MW-62 | FC-CCR-MW62-616 | 6/5/2016 | 1 | 1.1 | 1 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-62 | FC-CCR-MW62-816 | 8/20/2016 | 1 | 1.4 | 1 | 0.00054 | 1 | 0.00010 | 0 |
| Downgradient | MW-62 | FC-CCR-MW62-916 | 9/12/2016 | 1 | 1.3 | 1 | 0.0030 | 0 | 0.00050 | 0 |
| Downgradient | MW-62 | FC-CCR-MW62-1016 | 10/19/2016 | NA | 0.9 | 1 | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-117 | 2/1/2017 | 1 | 1.9 | 1 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-62 | FC-CCR-MW62-41617 | 4/16/2017 | 1 | 0.6 | 0 | 0.0020 | 0 | 0.00040 | 0 |
| Downgradient | MW-62 | FC-CCR-MW62-5117 | 5/1/2017 | 1 | 0.6 | 0 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-62 | FC-CCR-MW62-52917 | 5/29/2017 | 1 | 1.6 | 1 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-62 | FC-CCR-MW62-62117 | 6/21/2017 | 1 | 0.6 | 0 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-62 | FC-CCR-MW62-72117 | 7/21/2017 | 1 | 0.6 | 0 | 0.0020 | 0 | 0.00040 | 0 |
| Downgradient | MW-62 | FC-CCR-MW62-8917 | 8/9/2017 | 1 | 0.7 | 0 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-62 | FC-CCR-MW62-81617 | 8/16/2017 | NA | 1.0 | 1 | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-9917 | 9/9/2017 | 1 | 0.6 | 0 | 0.0020 | 0 | 0.00040 | 0 |
| Downgradient | MW-62 | FC-CCR-MW62-101317 | 10/13/2017 | 1 | 0.7 | 1 | 0.0020 | 0 | 0.0010 | 0 |
| Downgradient | MW-62 | FC-CCR-MW62-113017 | 11/30/2017 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW-62-6318 | 6/3/2018 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-11218 | 11/2/2018 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-4119 | 4/1/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-5719-01 | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-120319 | 12/3/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-0620 | 6/19/2020 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-1120 | 11/5/2020 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-011421 | 1/14/2021 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62-0421 | 4/22/2021 | 1 | 0.7 | 0 | 0.0008 | 0 | 0.0001 | 0 |
| Downgradient | MW-62 | FC-CCR-MW62-1121 | 11/15/2021 | 1 | 1.1 | 1 | 0.001 | 0 | 0.000098 | 1 |
| Downgradient | MW-62 | FC-CCR-MW62-0522 | 5/20/2022 | 1 | 0.7 | 0 | 0.002 | 1 | 0.0002 | 0 |
| Downgradient | MW-62 | FC-CCR-MW62-1122 | 11/13/2022 | 1 | 1 | 1 | 0.0005 | 0 | 0.0001 | 0 |
| Downgradient | MW-62 | FC-CCR-MW62-0523 | 5/7/2023 | 0 | 0.9 | 1 | 0.005 | 0 | 0.001 | 0 |
| Downgradient | MW-62 | FC-CCR-MW62-0623 | 6/28/2023 | 1 | 0.9 | 1 | 0.00094 | 1 | 0.0001 | 0 |
| Downgradient | MW-62 | FC-CCR-MW62-1123 | 11/6/2023 | 1 | 0.8 | 0 | 0.00055 | 1 | 0.0001 | 0 |
| Downgradient | MW-63 | FC-CCR-MW63-110415 | 11/4/2015 | 1 | 1.298 | 1 | 0.00076 | 1 | 0.00011 | 1 |
| Downgradient | MW-63 | FC-CCR-MW-63-042716 | 4/27/2016 | 1 | 0.6 | 1 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-63 | FC-CCR-MW63-616 | 6/5/2016 | 1 | 0.8 | 0 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-63 | FC-CCR-MW63-816 | 8/20/2016 | 1 | 2.1 | 1 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-63 | FC-CCR-MW63-916 | 9/12/2016 | 1 | 1.0 | 1 | 0.0030 | 0 | 0.00050 | 0 |
| Downgradient | MW-63 | FC-CCR-MW63-1016 | 10/19/2016 | NA | 0.7 | 0 | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-117 | 1/31/2017 | 1 | 0.7 | 1 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-63 | FC-CCR-MW63-41717 | 4/17/2017 | 1 | 0.6 | 0 | 0.0020 | 0 | 0.00040 | 0 |
| Downgradient | MW-63 | FC-CCR-MW63-5217 | 5/2/2017 | 1 | 0.8 | 1 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-63 | FC-CCR-MW63-52817 | 5/28/2017 | 1 | 0.5 | 1 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-63 | FC-CCR-MW63-62117 | 6/21/2017 | 1 | 0.4 | 1 | 0.00050 | 0 | 0.00010 | 0 |

# CWTP Appendix IV Analytical Results - ProUCL

| Designation | StationName | QC_SampleID | NumDate | D_Molybdenum | Total Radium | D_Total Radium | Selenium | D_Selenium | Thallium | D_Thallium |
|---|---|---|---|---|---|---|---|---|---|---|
| Downgradient | MW-63 | FC-CCR-MW63-72117 | 7/21/2017 | 1 | 0.8 | 1 | 0.0020 | 0 | 0.00040 | 0 |
| Downgradient | MW-63 | FC-CCR-MW63-8917 | 8/9/2017 | 1 | 0.7 | 0 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-63 | FC-CCR-MW63-81617 | 8/16/2017 | NA | 0.7 | 0 | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-9917 | 9/9/2017 | 1 | 0.7 | 1 | 0.0020 | 0 | 0.00040 | 0 |
| Downgradient | MW-63 | FC-CCR-MW63-101317 | 10/13/2017 | 1 | 1.8 | 1 | 0.0020 | 0 | 0.0010 | 0 |
| Downgradient | MW-63 | FC-CCR-MW63-113017 | 11/30/2017 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW-63-6318 | 6/3/2018 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-112818 | 11/2/2018 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-4119 | 4/1/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-5719-02 | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-120319 | 12/3/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-0620 | 6/19/2020 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-1120 | 11/5/2020 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63-0421 | 4/22/2021 | 1 | 0.7 | 0 | 0.00050 | 0 | 0.0001 | 0 |
| Downgradient | MW-63 | FC-CCR-MW63-1121 | 11/15/2021 | 1 | 0.6 | 0 | 0.001 | 0 | 0.00015 | 1 |
| Downgradient | MW-63 | FC-CCR-MW63-0522 | 5/20/2022 | 1 | 0.7 | 0 | 0.0013 | 1 | 0.0002 | 0 |
| Downgradient | MW-63 | FC-CCR-MW63-1122 | 11/13/2022 | 1 | 0.6 | 0 | 0.00051 | 1 | 0.0001 | 0 |
| Downgradient | MW-63 | FC-CCR-MW63-0523 | 5/7/2023 | 1 | 0.8 | 1 | 0.005 | 0 | 0.001 | 0 |
| Downgradient | MW-63 | FC-CCR-MW63-0623 | 6/27/2023 | 1 | 0.6 | 0 | 0.00068 | 1 | 0.0001 | 0 |
| Downgradient | MW-63 | FC-CCR-MW63-1123 | 11/6/2023 | 1 | 0.8 | 0 | 0.0005 | 0 | 0.0001 | 0 |
| Downgradient | MW-64 | FC-CCR-MW64-110515 | 11/5/2015 | 1 | 0.731 | 1 | 0.00033 | 1 | 0.00011 | 1 |
| Downgradient | MW-64 | FC-CCR-MW-64-042716 | 4/27/2016 | 1 | 0.8 | 0 | 0.00050 | 0 | 0.00012 | 1 |
| Downgradient | MW-64 | FC-CCR-MW64-616 | 6/5/2016 | 1 | 0.8 | 0 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-64 | FC-CCR-MW64-816 | 8/20/2016 | 1 | 0.7 | 0 | 0.00050 | 0 | 0.00013 | 1 |
| Downgradient | MW-64 | FC-CCR-MW64-916 | 9/12/2016 | 1 | 0.8 | 1 | 0.0030 | 0 | 0.00050 | 0 |
| Downgradient | MW-64 | FC-CCR-MW64-1016 | 10/19/2016 | NA | 0.5 | 0 | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-117 | 1/31/2017 | 1 | 1.7 | 1 | 0.00050 | 0 | 0.00011 | 1 |
| Downgradient | MW-64 | FC-CCR-MW64-41717 | 4/17/2017 | 1 | 0.6 | 0 | 0.0020 | 0 | 0.00012 | 1 |
| Downgradient | MW-64 | FC-CCR-MW64-5217 | 5/2/2017 | 1 | 0.7 | 0 | 0.00050 | 0 | 0.00011 | 1 |
| Downgradient | MW-64 | FC-CCR-MW64-52817 | 5/28/2017 | 1 | 0.6 | 0 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-64 | FC-CCR-MW64-62117 | 6/21/2017 | 1 | 0.6 | 0 | 0.00050 | 0 | 0.00020 | 1 |
| Downgradient | MW-64 | FC-CCR-MW64-72117 | 7/21/2017 | 1 | 0.6 | 0 | 0.0020 | 0 | 0.00040 | 0 |
| Downgradient | MW-64 | FC-CCR-MW64-8917 | 8/9/2017 | 1 | 0.8 | 1 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-64 | FC-CCR-MW64-81617 | 8/16/2017 | NA | 0.7 | 0 | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-9917 | 9/9/2017 | 1 | 0.6 | 0 | 0.0020 | 0 | 0.00040 | 0 |
| Downgradient | MW-64 | FC-CCR-MW64-101317 | 10/13/2017 | 1 | 0.6 | 0 | 0.0020 | 0 | 0.00040 | 0 |
| Downgradient | MW-64 | FC-CCR-MW64-113017 | 11/30/2017 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW-64-6318 | 6/3/2018 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-11218 | 11/2/2018 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-4119 | 4/1/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-5719-03 | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-120319 | 12/3/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-0620 | 6/19/2020 | NA | NA | NA | NA | NA | NA | NA |

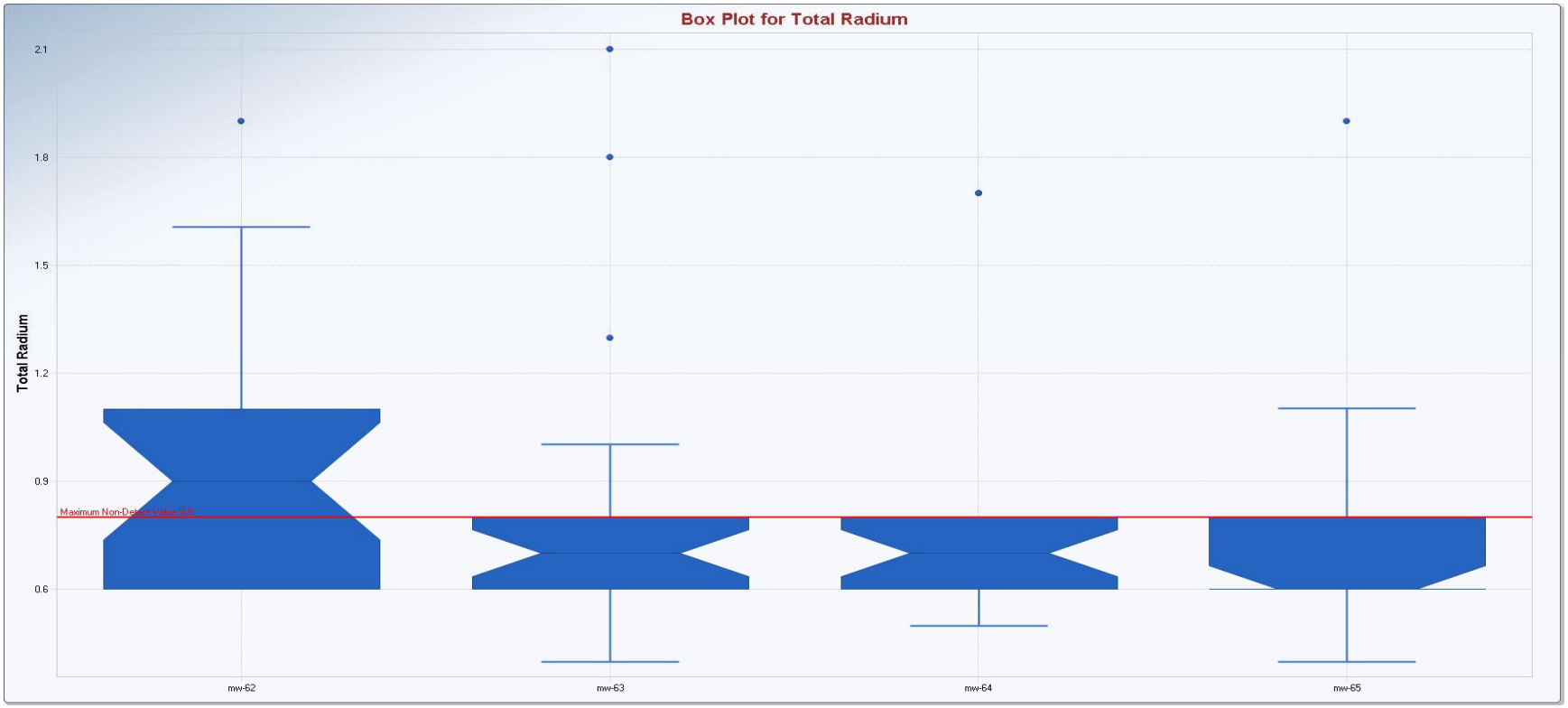
# CWTP Appendix IV Analytical Results - ProUCL

| Designation | StationName | QC_SampleID | NumDate | D_Molybdenum | Total Radium | D_Total Radium | Selenium | D_Selenium | Thallium | D_Thallium |
|---|---|---|---|---|---|---|---|---|---|---|
| Downgradient | MW-64 | FC-CCR-MW64-1120 | 11/5/2020 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64-0421 | 4/22/2021 | 1 | 0.7 | 0 | 0.00050 | 0 | 0.0001 | 0 |
| Downgradient | MW-64 | FC-CCR-MW64-1121 | 11/15/2021 | 1 | 0.6 | 0 | 0.001 | 0 | 0.00041 | 1 |
| Downgradient | MW-64 | FC-CCR-MW64-0522 | 5/20/2022 | 1 | 0.7 | 0 | 0.001 | 0 | 0.0002 | 0 |
| Downgradient | MW-64 | FC-CCR-MW64-1122 | 11/13/2022 | 1 | 0.8 | 1 | 0.0005 | 0 | 0.00013 | 1 |
| Downgradient | MW-64 | FC-CCR-MW64-0523 | 5/7/2023 | 1 | 0.6 | 0 | 0.005 | 0 | 0.001 | 0 |
| Downgradient | MW-64 | FC-CCR-MW64-0623 | 6/27/2023 | 1 | 1.7 | 1 | 0.0005 | 0 | 0.00012 | 1 |
| Downgradient | MW-64 | FC-CCR-MW64-1123 | 11/6/2023 | 1 | 0.8 | 0 | 0.0005 | 0 | 0.00015 | 1 |
| Downgradient | MW-65 | FC-CCR-MW65-110515 | 11/5/2015 | 1 | 0.4784 | 1 | 0.00034 | 1 | 0.0010 | 0 |
| Downgradient | MW-65 | FC-CCR-MW-65-042716 | 4/27/2016 | 1 | 0.8 | 0 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-65 | FC-CCR-MW65-616 | 6/5/2016 | 1 | 0.8 | 0 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-65 | FC-CCR-MW65-816 | 8/20/2016 | 1 | 0.4 | 0 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-65 | FC-CCR-MW65-916 | 9/12/2016 | 1 | 1.0 | 1 | 0.0030 | 0 | 0.00050 | 0 |
| Downgradient | MW-65 | FC-CCR-MW65-1016 | 10/19/2016 | NA | 0.5 | 0 | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-117 | 2/1/2017 | 1 | 1.9 | 1 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-65 | FC-CCR-MW65-41617 | 4/16/2017 | 1 | 0.7 | 1 | 0.0020 | 0 | 0.00040 | 0 |
| Downgradient | MW-65 | FC-CCR-MW65-5117 | 5/1/2017 | 1 | 0.6 | 0 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-65 | FC-CCR-MW65-52917 | 5/29/2017 | 1 | 0.6 | 0 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-65 | FC-CCR-MW65-62117 | 6/21/2017 | 1 | 0.6 | 0 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-65 | FC-CCR-MW65-72117 | 7/21/2017 | 1 | 0.6 | 0 | 0.0020 | 0 | 0.00040 | 0 |
| Downgradient | MW-65 | FC-CCR-MW65-8917 | 8/9/2017 | 1 | 0.5 | 0 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-65 | FC-CCR-MW65-81617 | 8/16/2017 | NA | 0.7 | 0 | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-9917 | 9/9/2017 | 1 | 0.6 | 0 | 0.0020 | 0 | 0.00040 | 0 |
| Downgradient | MW-65 | FC-CCR-MW65-101317 | 10/13/2017 | 1 | 0.6 | 0 | 0.00050 | 0 | 0.00010 | 0 |
| Downgradient | MW-65 | FC-CCR-MW65-113017 | 11/30/2017 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW-65-6318 | 6/3/2018 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-11218 | 11/2/2018 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-4119 | 4/1/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-5719-05 | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-120319 | 12/3/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-0620 | 6/19/2020 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-1120 | 11/5/2020 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65-0421 | 4/22/2021 | 1 | 0.7 | 0 | 0.00059 | 0 | 0.0001 | 0 |
| Downgradient | MW-65 | FC-CCR-MW65-1121 | 11/15/2021 | 1 | 0.6 | 0 | 0.001 | 0 | 0.000072 | 1 |
| Downgradient | MW-65 | FC-CCR-MW65-0522 | 5/20/2022 | 1 | 1.1 | 1 | 0.001 | 0 | 0.0002 | 0 |
| Downgradient | MW-65 | FC-CCR-MW65-1122 | 11/13/2022 | 1 | 0.6 | 0 | 0.0005 | 0 | 0.0001 | 0 |
| Downgradient | MW-65 | FC-CCR-MW65-0523 | 5/7/2023 | 1 | 0.6 | 0 | 0.005 | 0 | 0.001 | 0 |
| Downgradient | MW-65 | FC-CCR-MW65-0623 | 6/28/2023 | 1 | 0.7 | 1 | 0.0005 | 0 | 0.0001 | 0 |
| Downgradient | MW-65 | FC-CCR-MW65-1123 | 11/6/2023 | 1 | 0.8 | 0 | 0.0005 | 0 | 0.0001 | 0 |

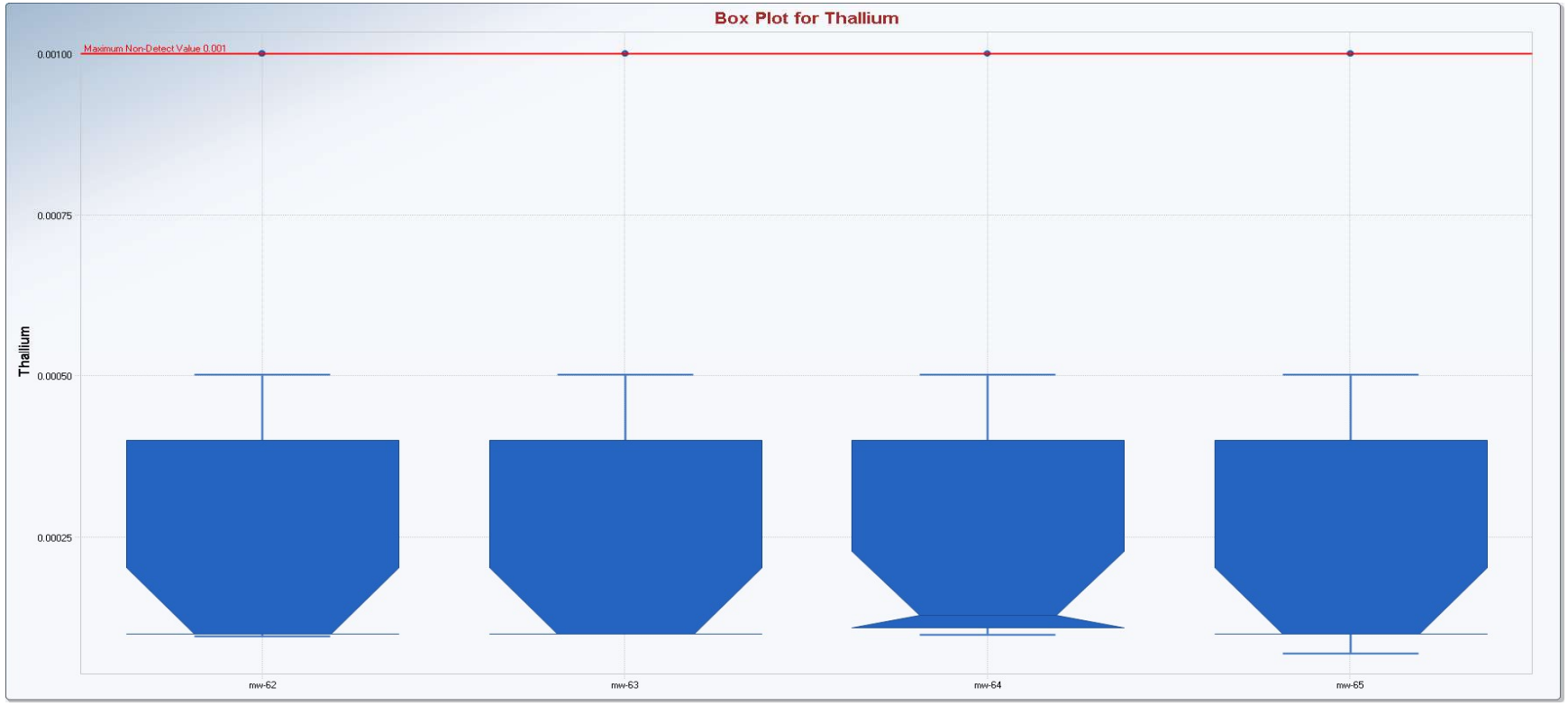
# APPENDIX B

## PROUCL EDA OUTPUT FILES

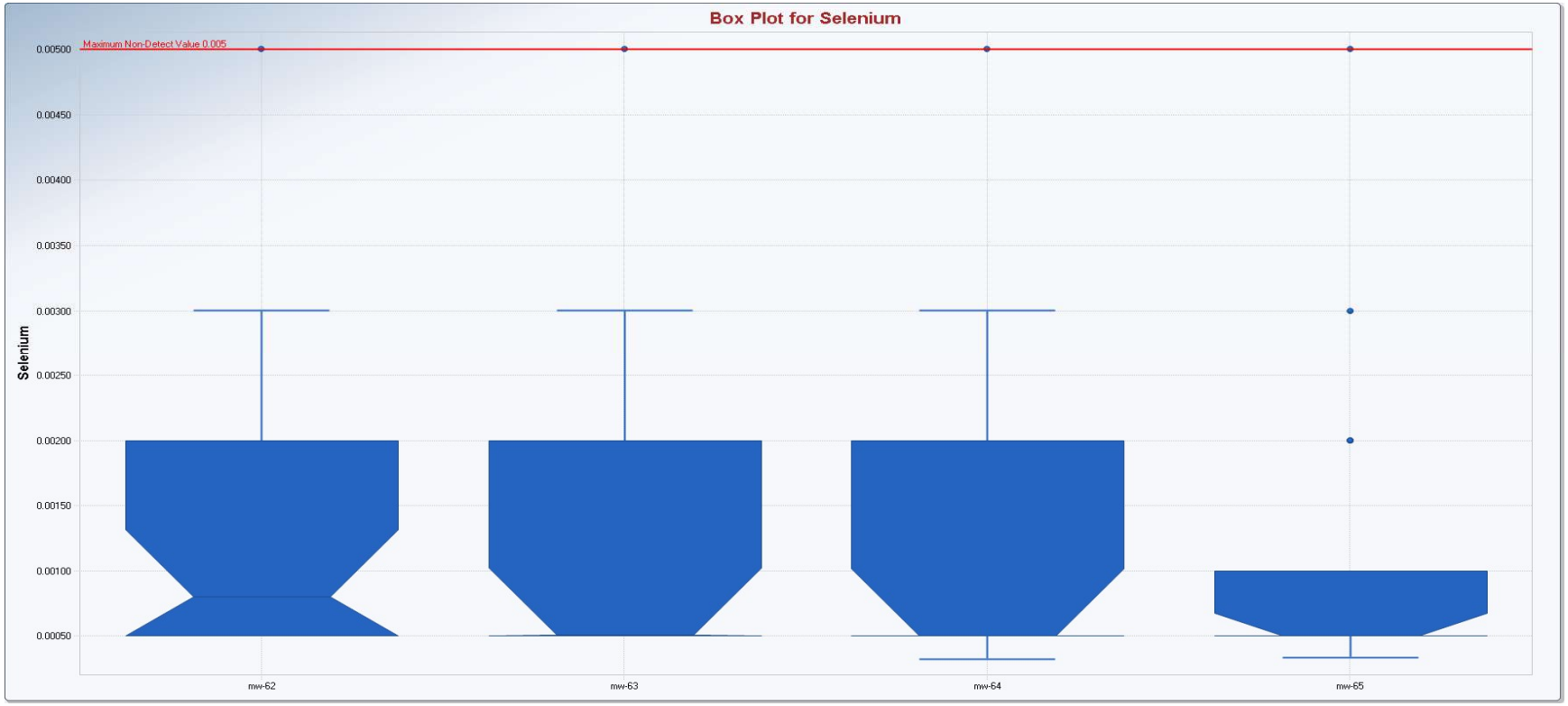
# Appendix B
# Box and Whisker Plots



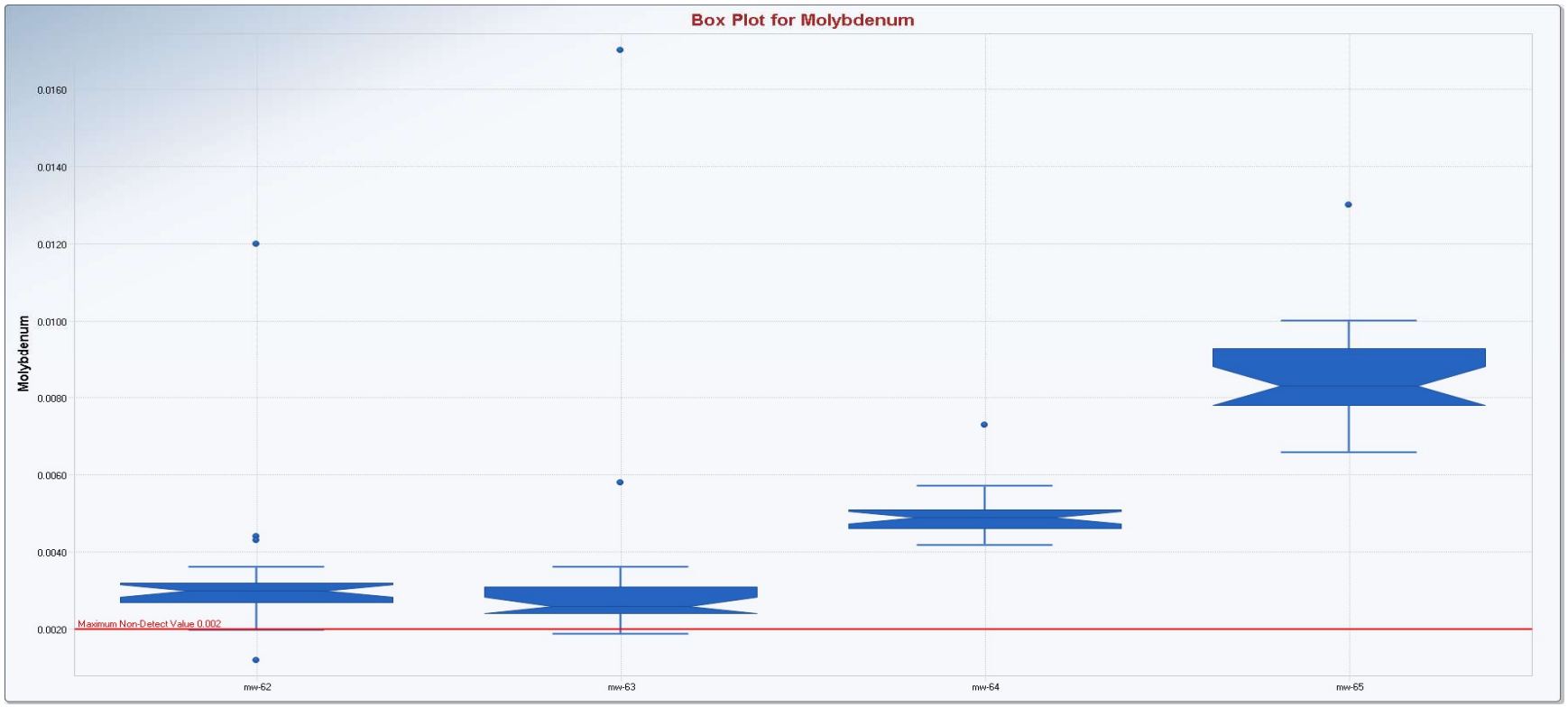
# Appendix B
# Box and Whisker Plots



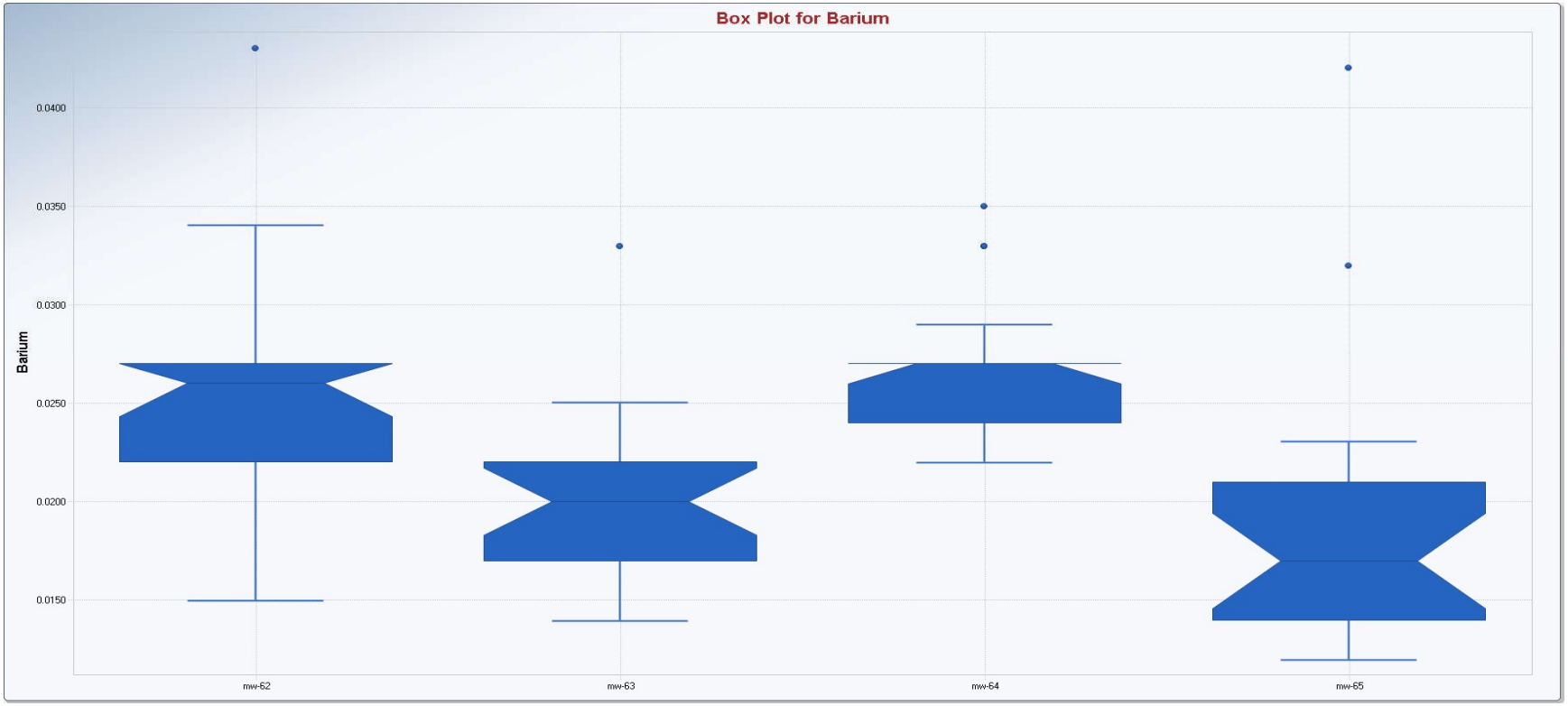
# Appendix B
# Box and Whisker Plots



# Appendix B
# Box and Whisker Plots



# Appendix B
# Box and Whisker Plots



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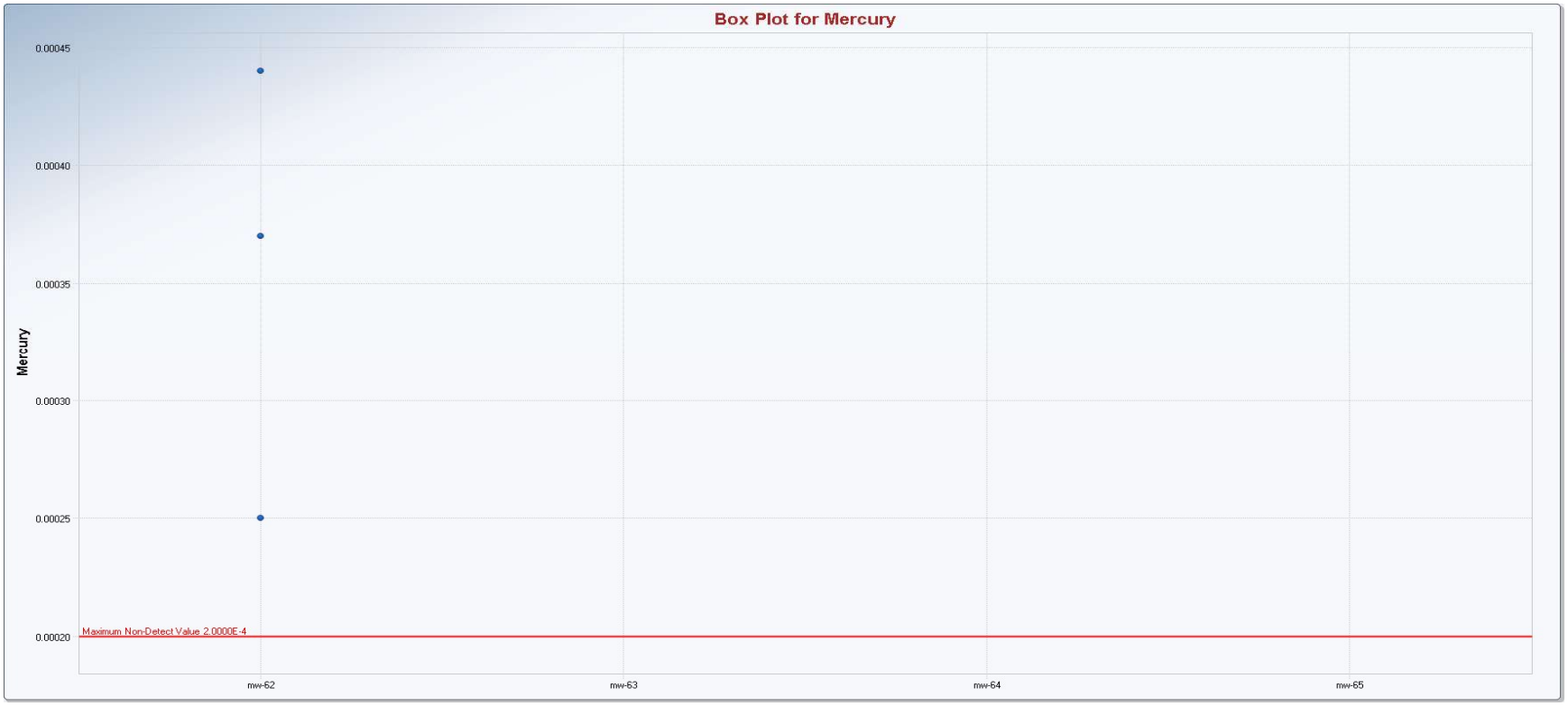
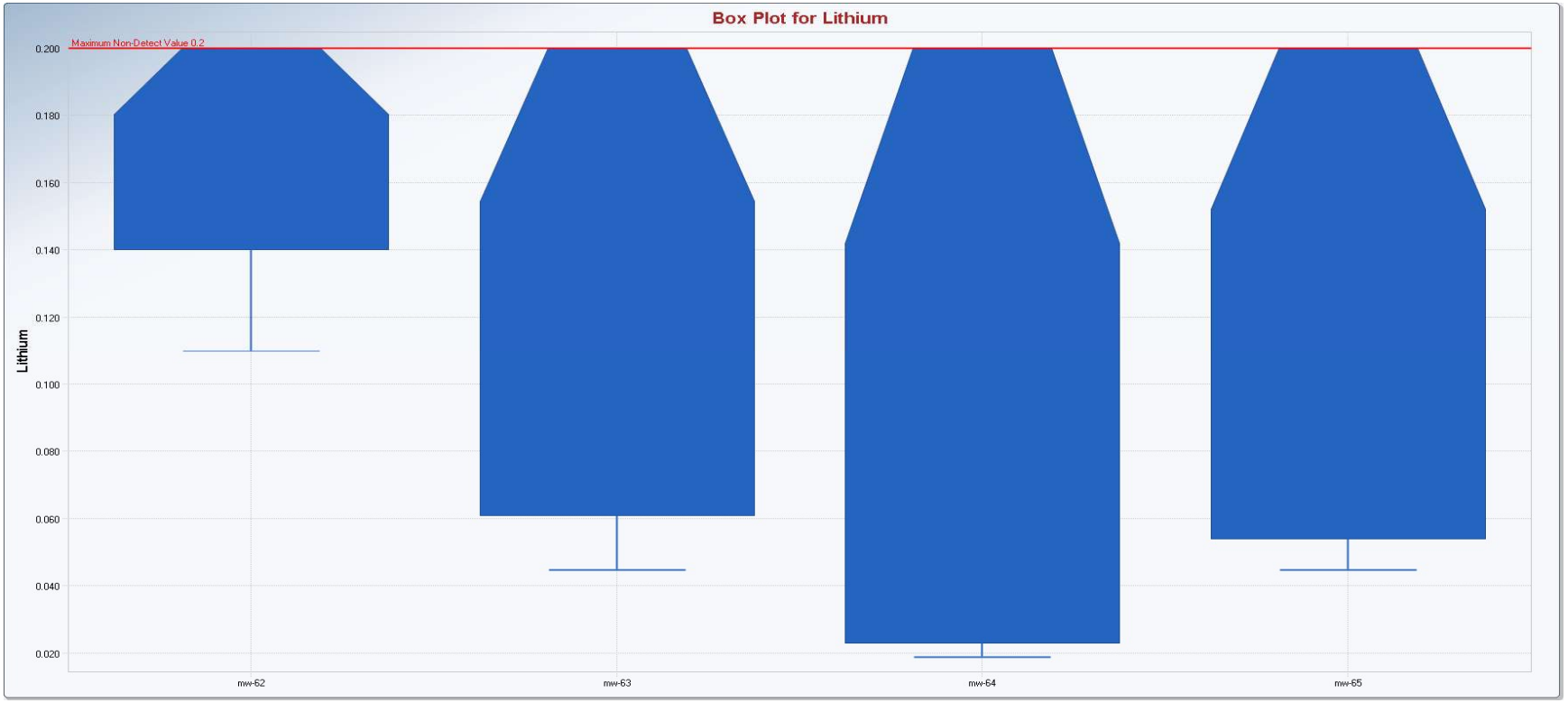
# Box and Whisker Plots



# Appendix B
# Box and Whisker Plots



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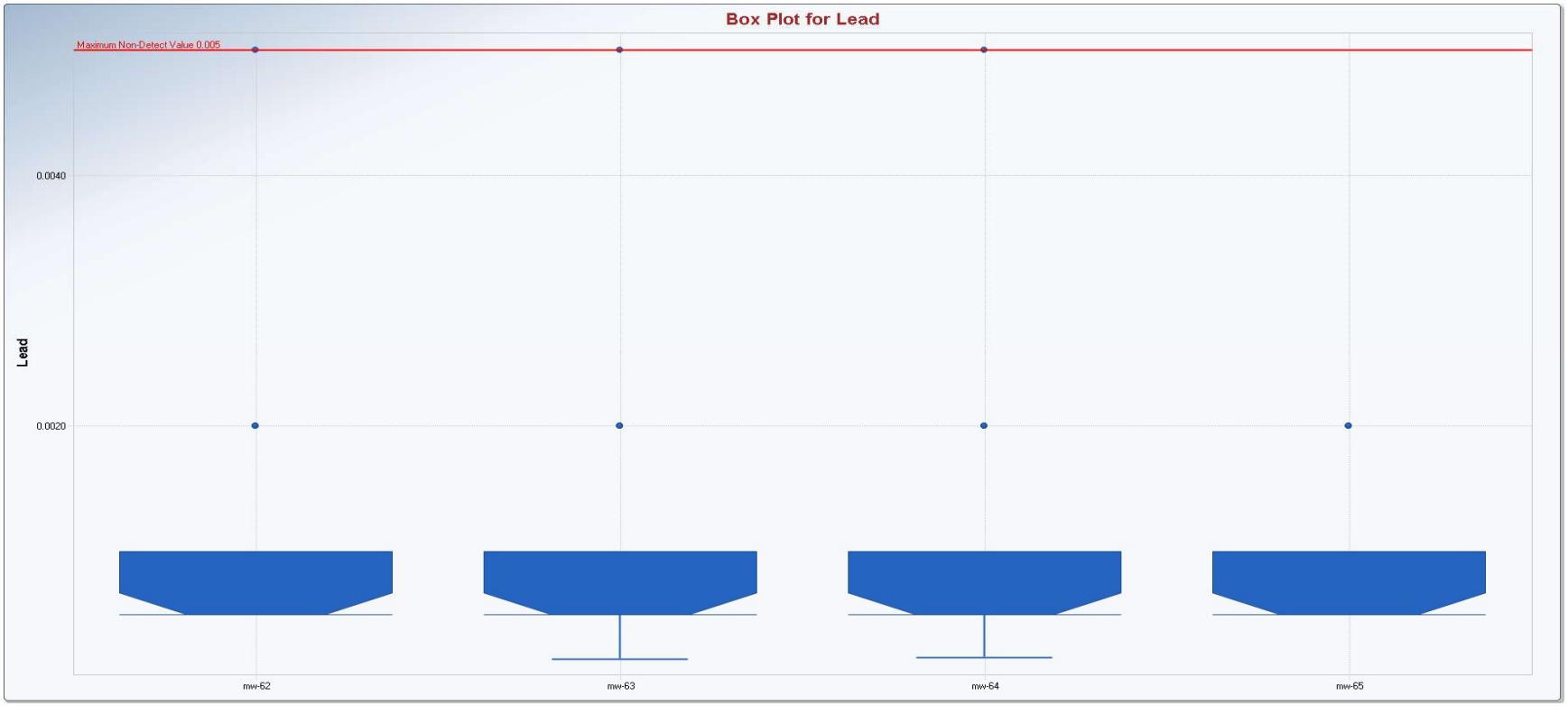
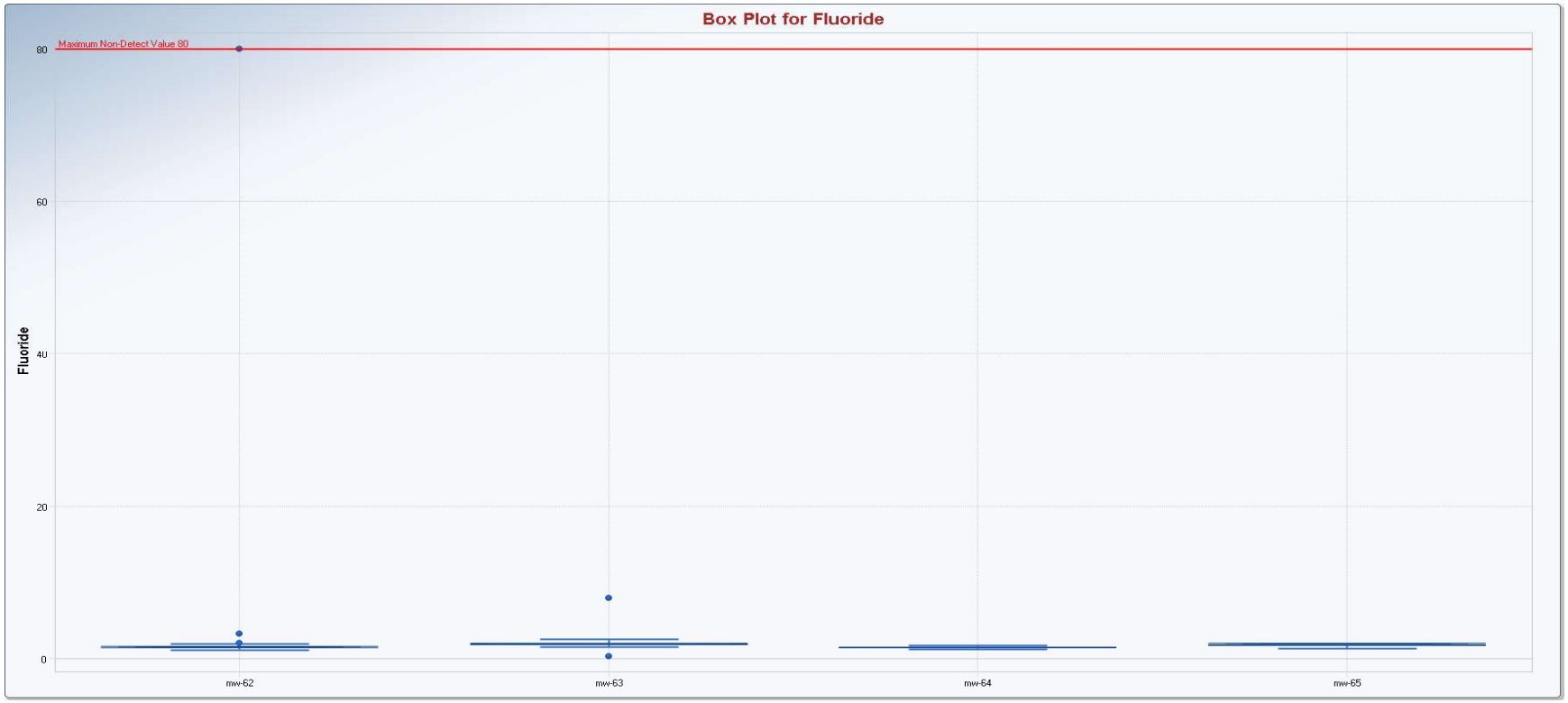
# Box and Whisker Plots



# Appendix B
# Box and Whisker Plots



# Appendix B
# Box and Whisker Plots



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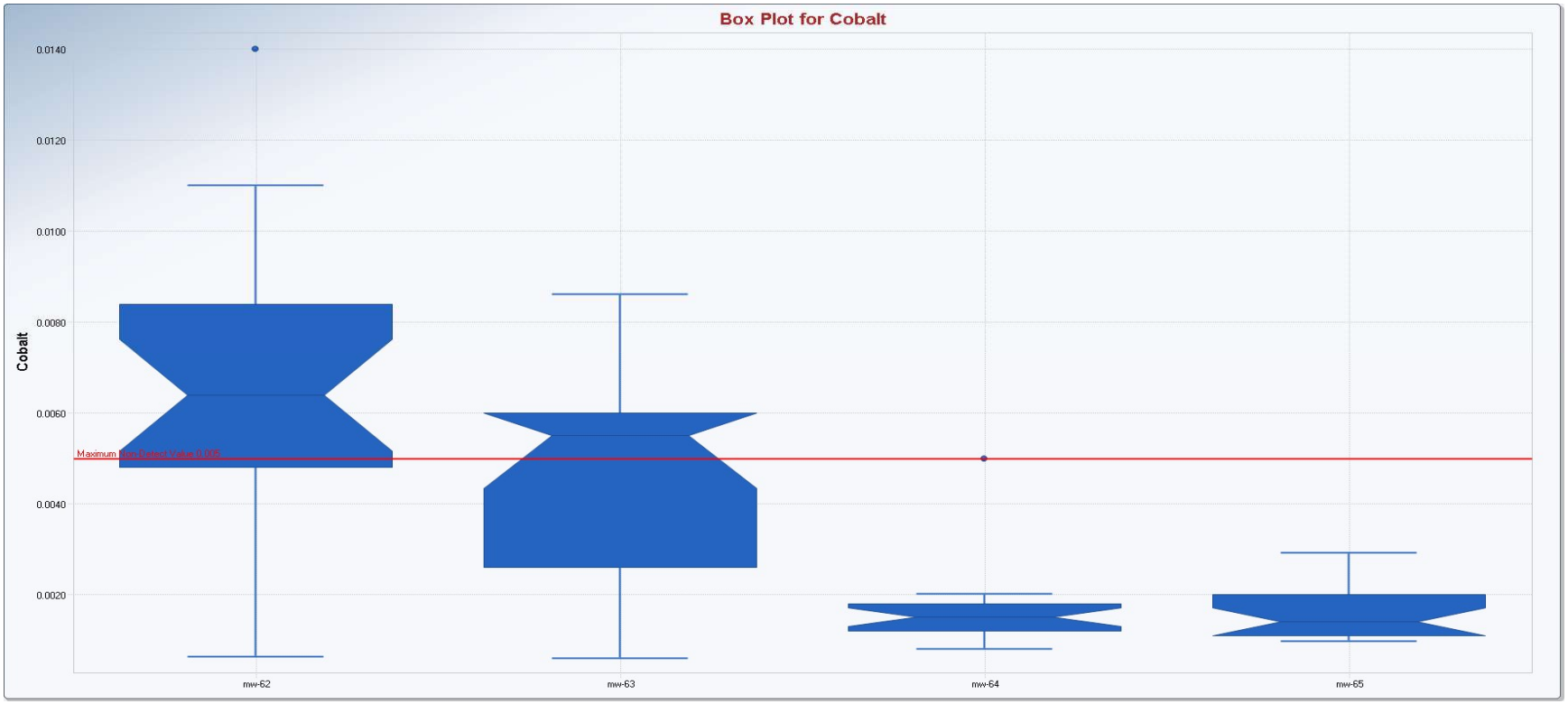
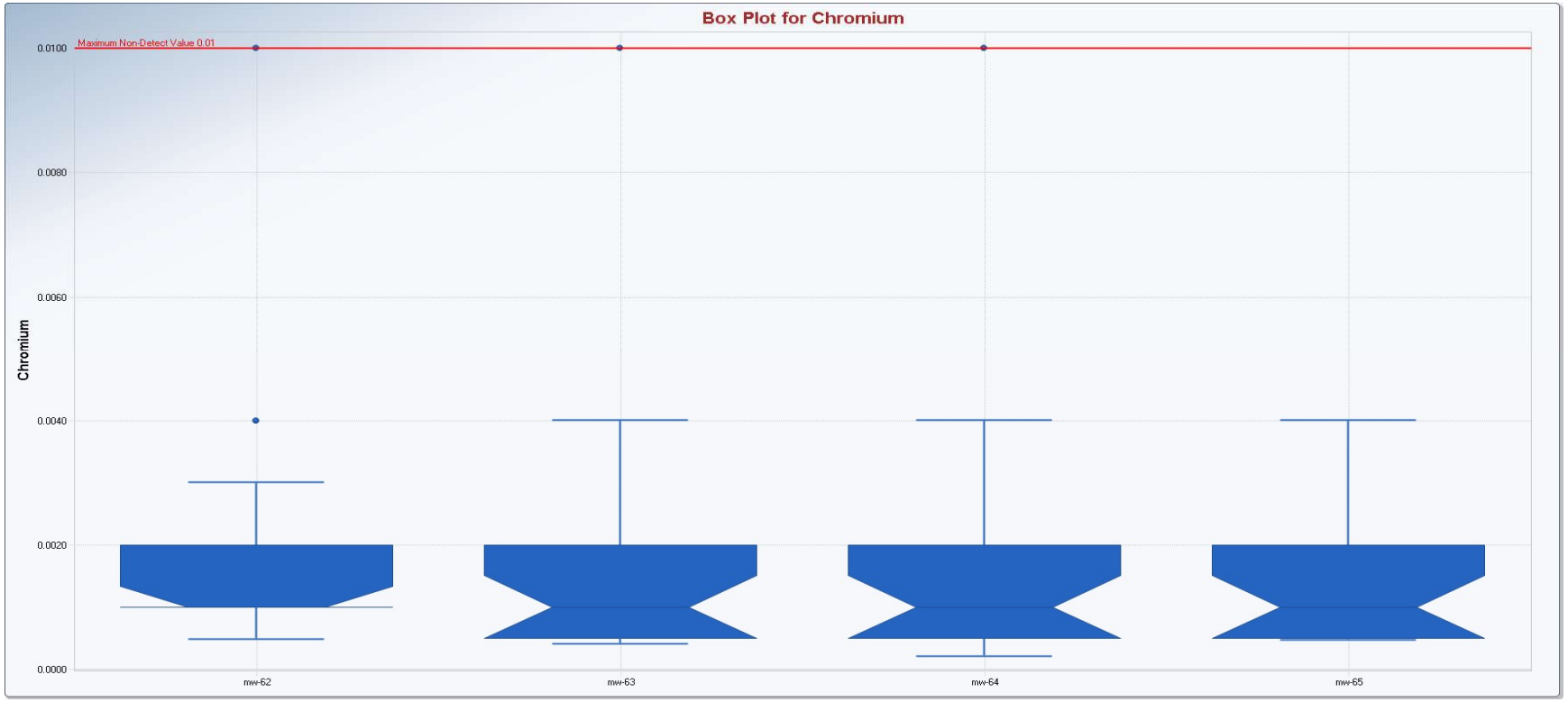
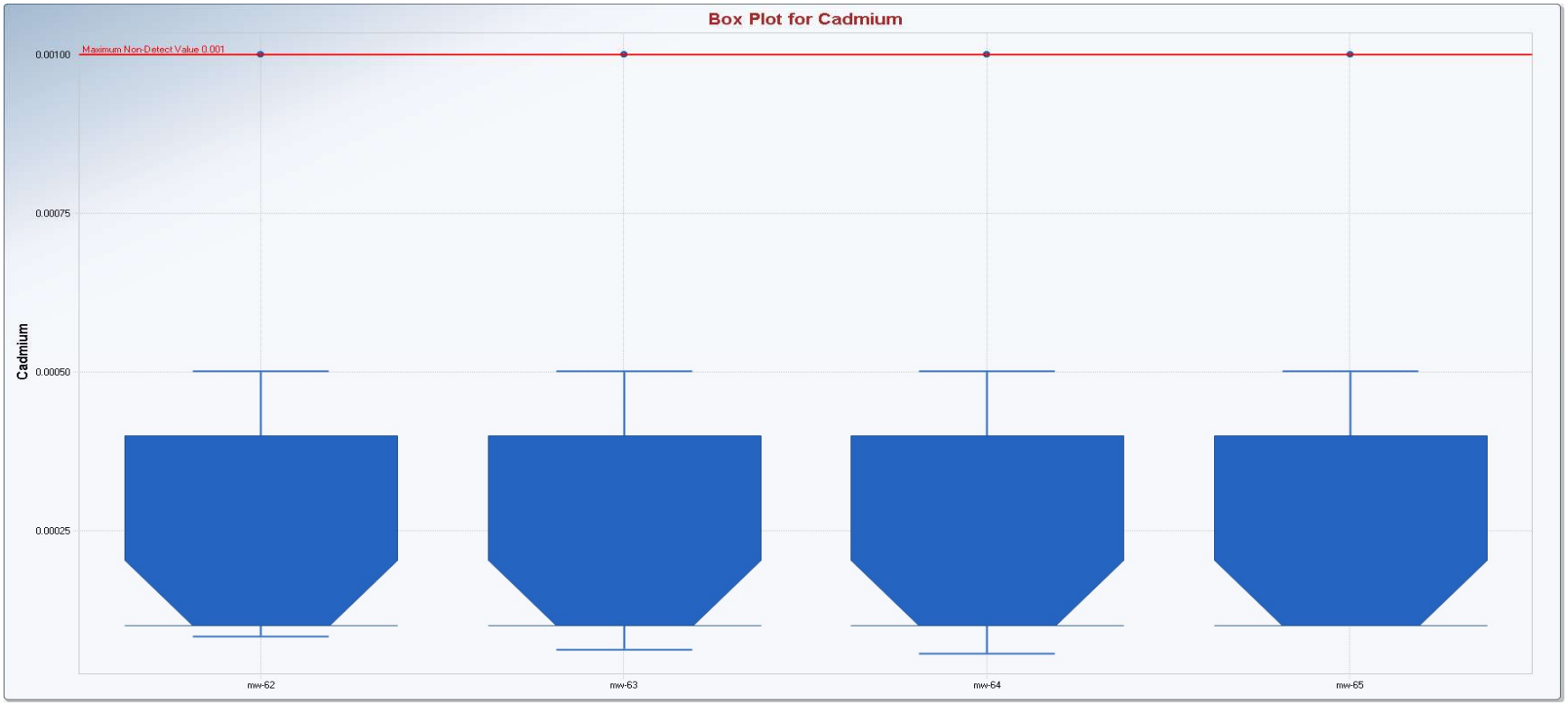
# Box and Whisker Plots



# Appendix B
# Box and Whisker Plots



# Appendix B
# Box and Whisker Plots



# Appendix B
# Box and Whisker Plots



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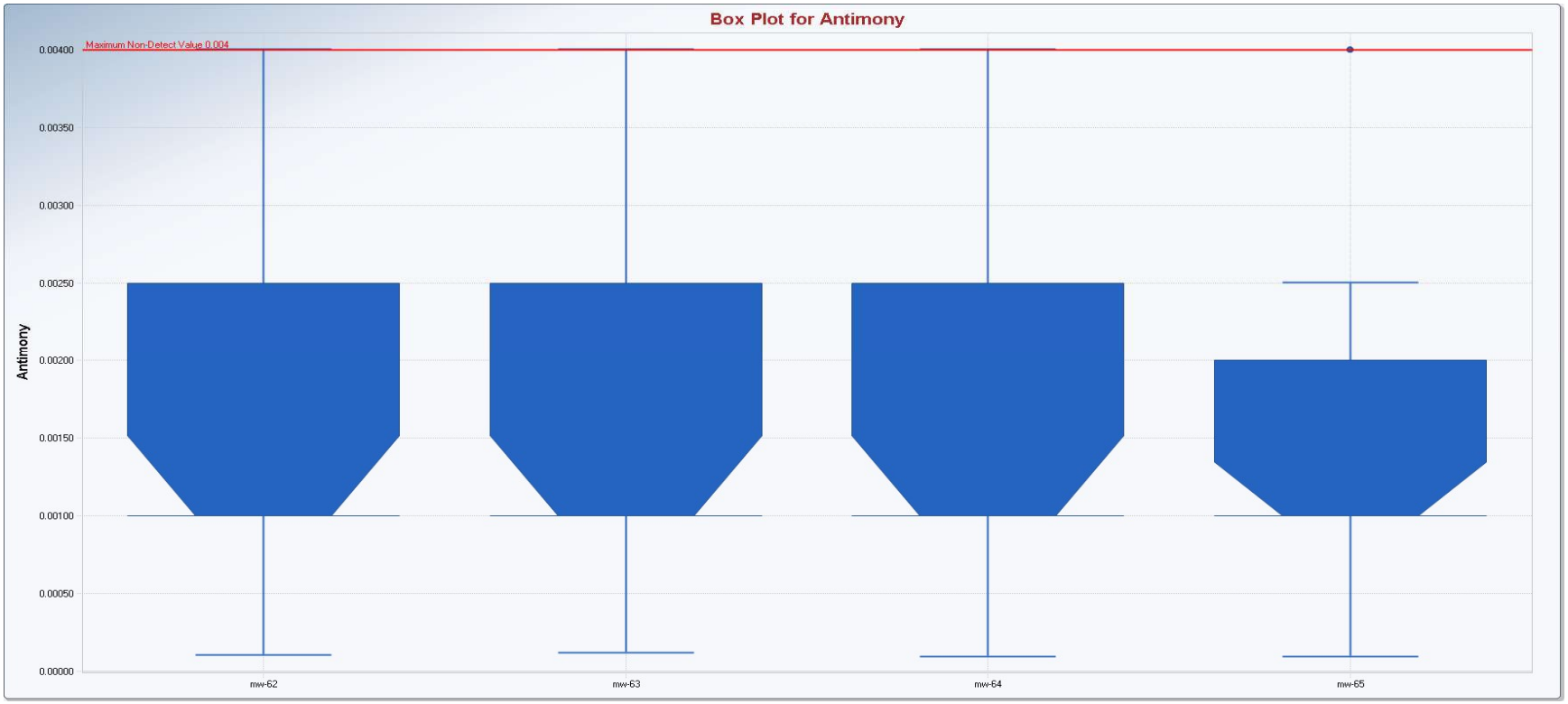
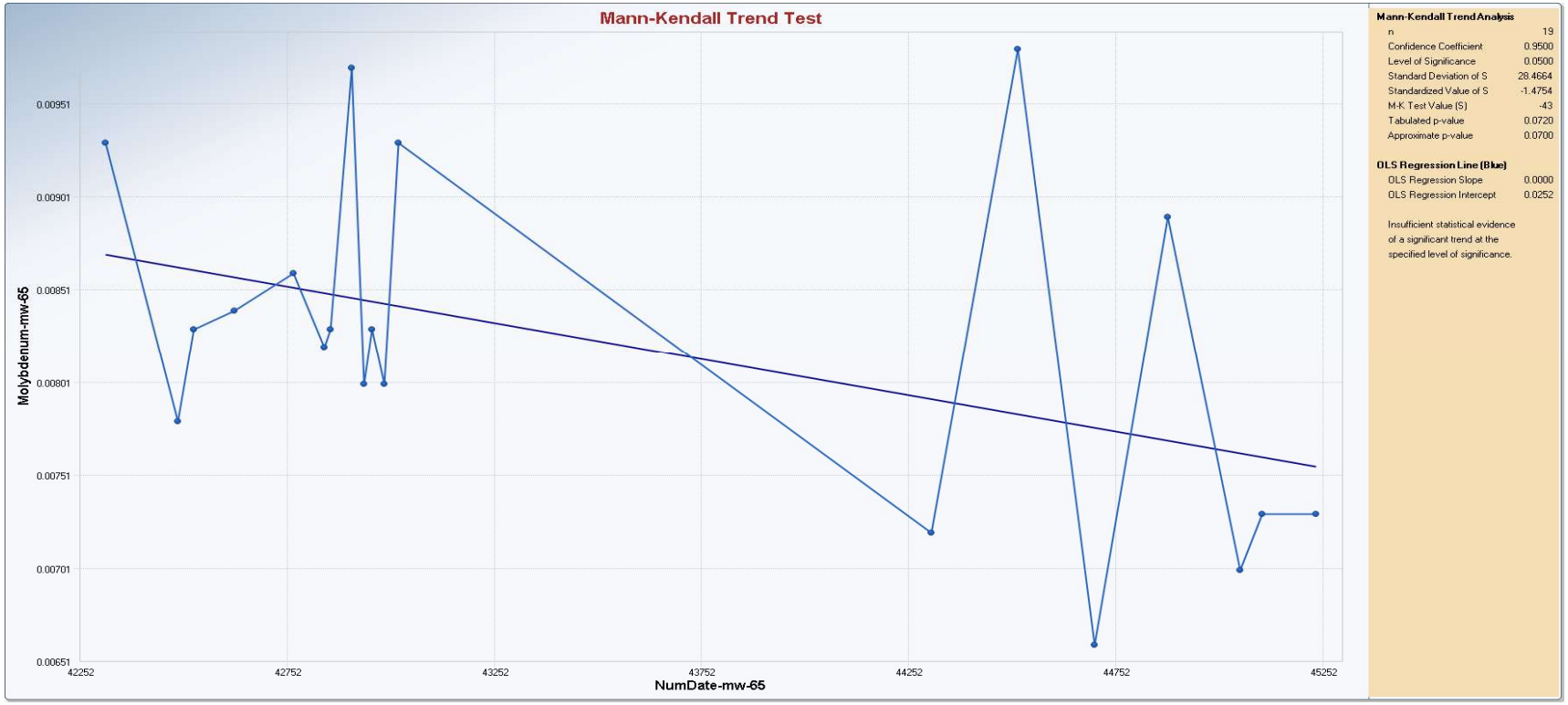
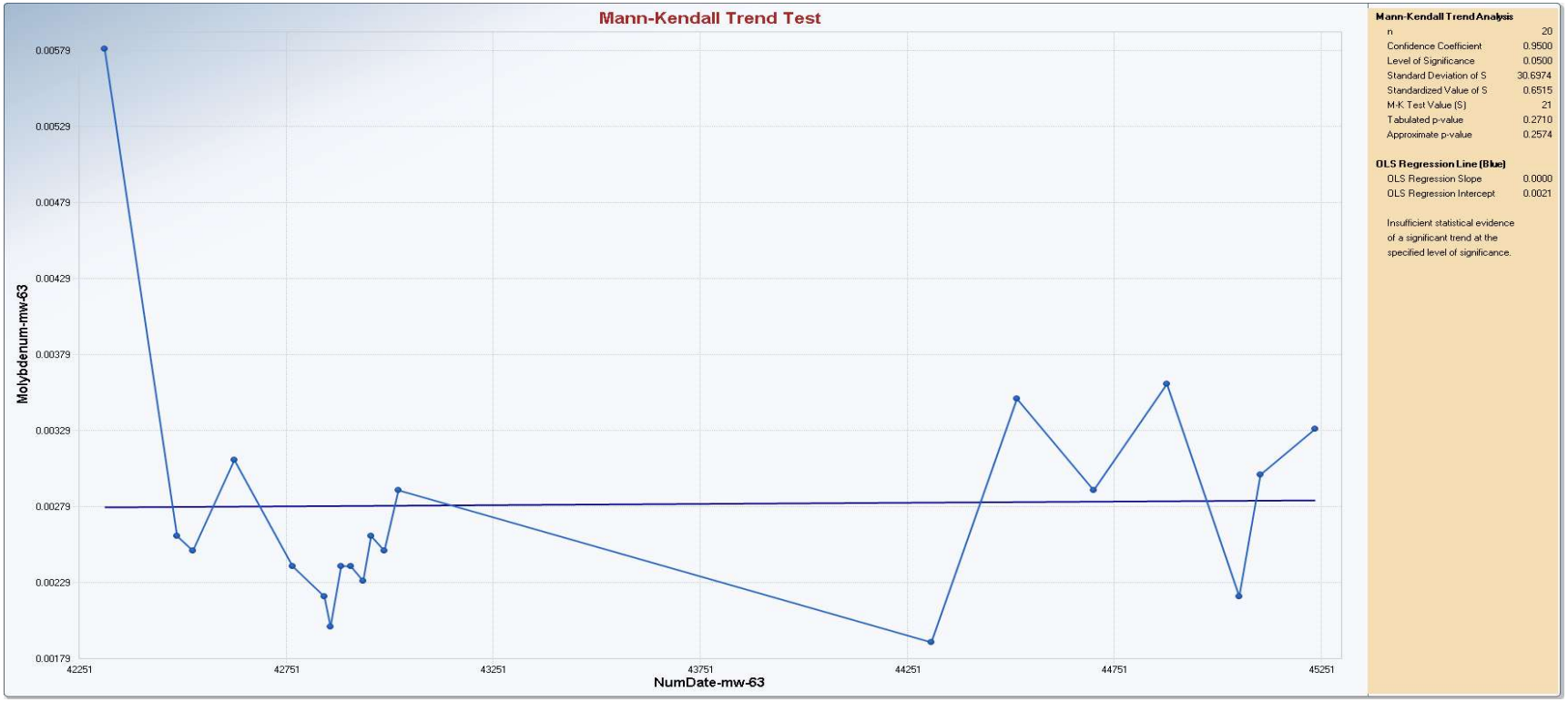
# Box and Whisker Plots



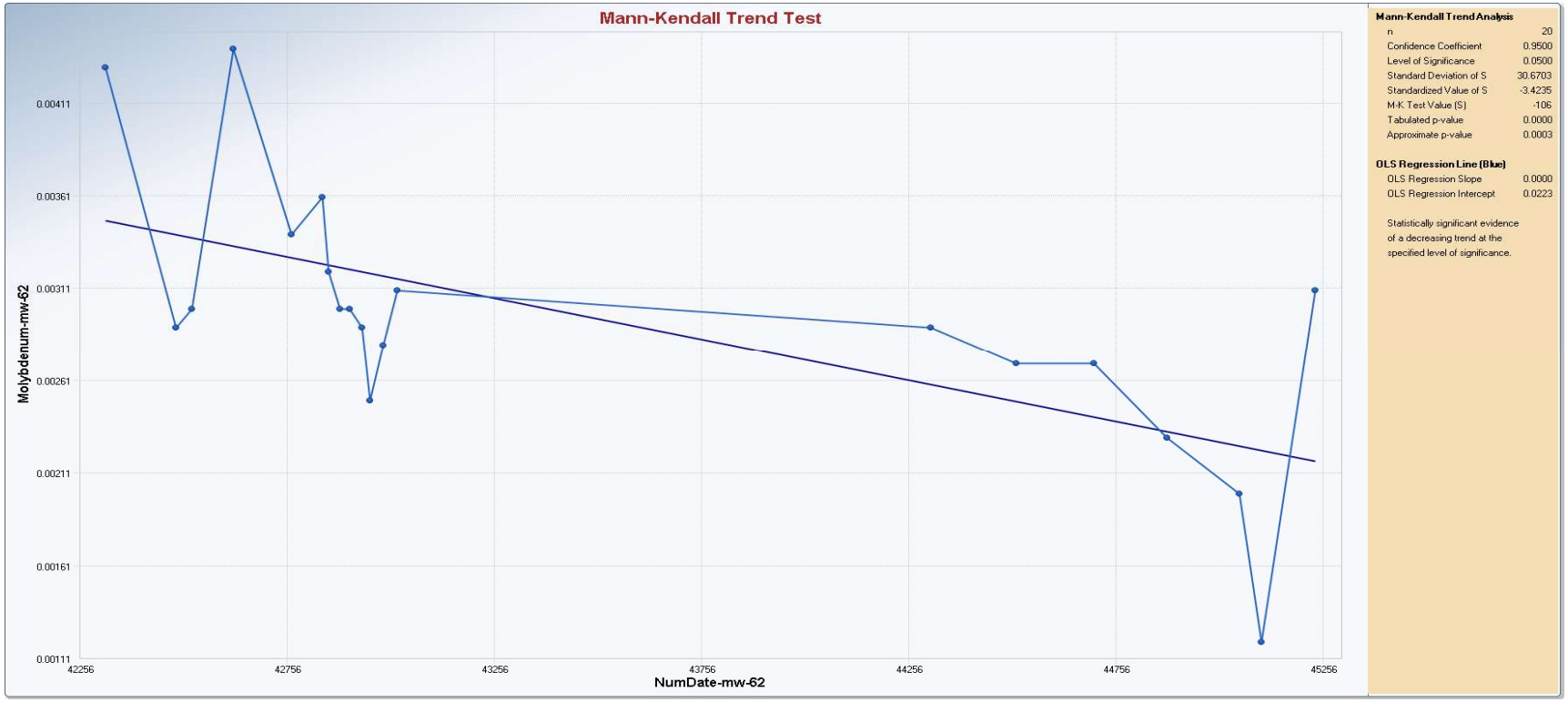
# Appendix B
# Mann-Kendall Trend Test



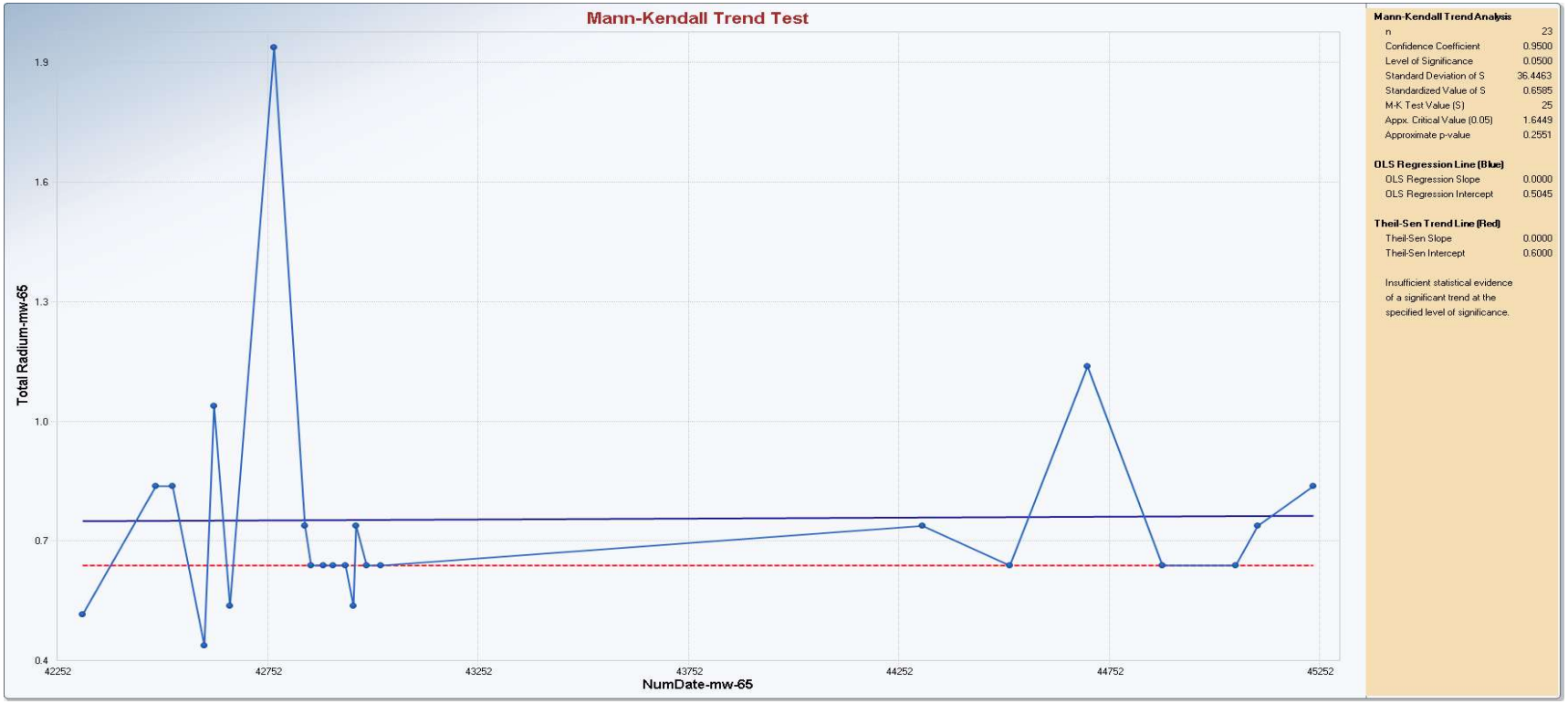
# Appendix B
# Mann-Kendall Trend Test



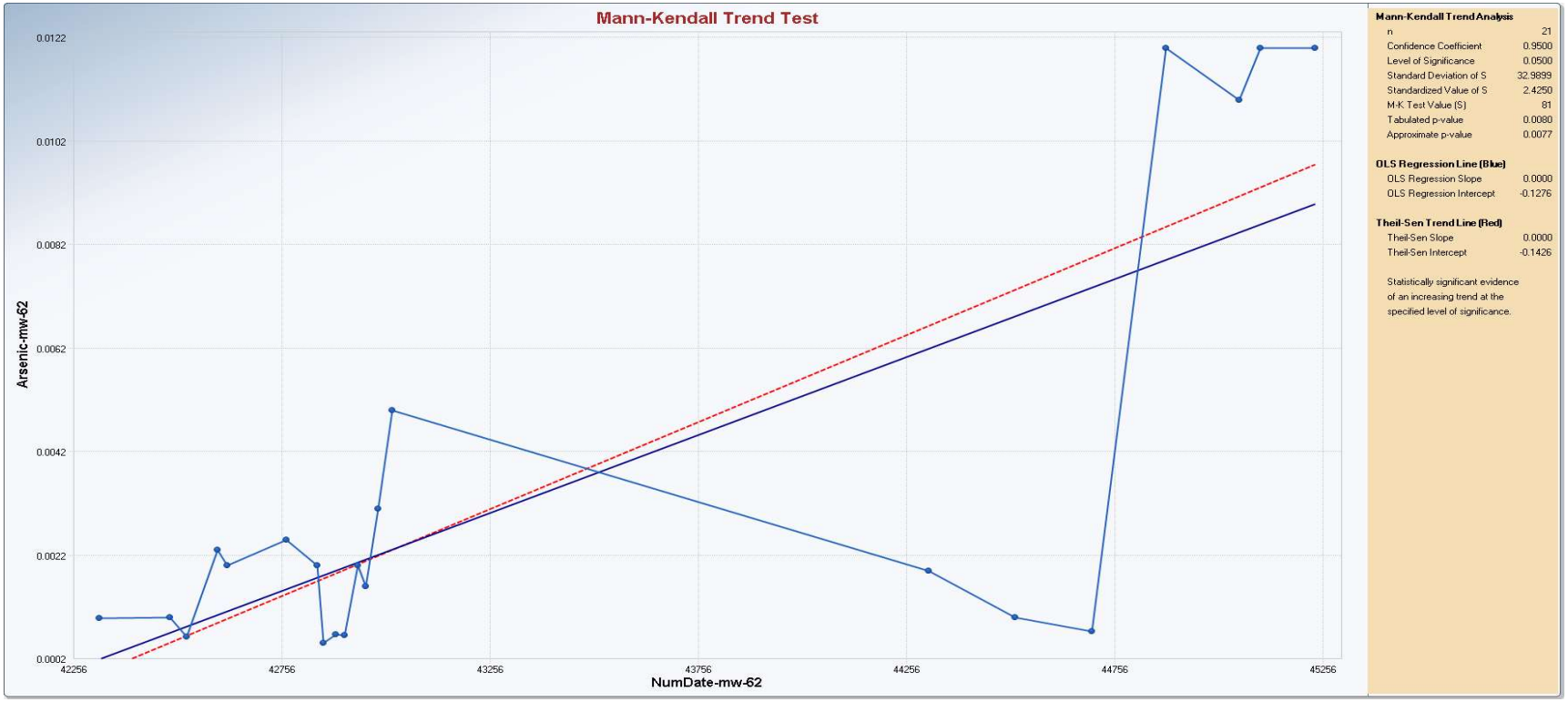
# Appendix B
# Mann-Kendall Trend Test



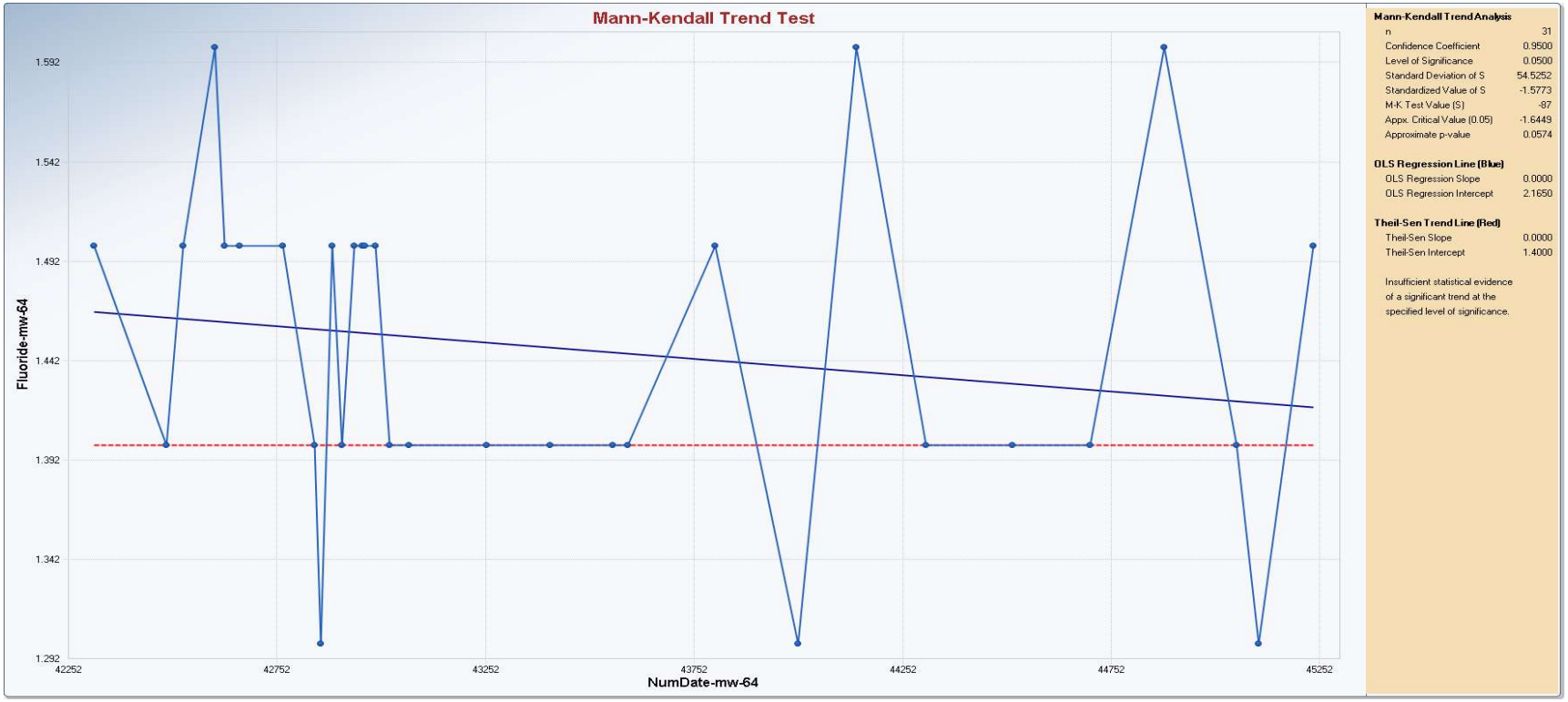
# Appendix B
# Mann-Kendall Trend Test



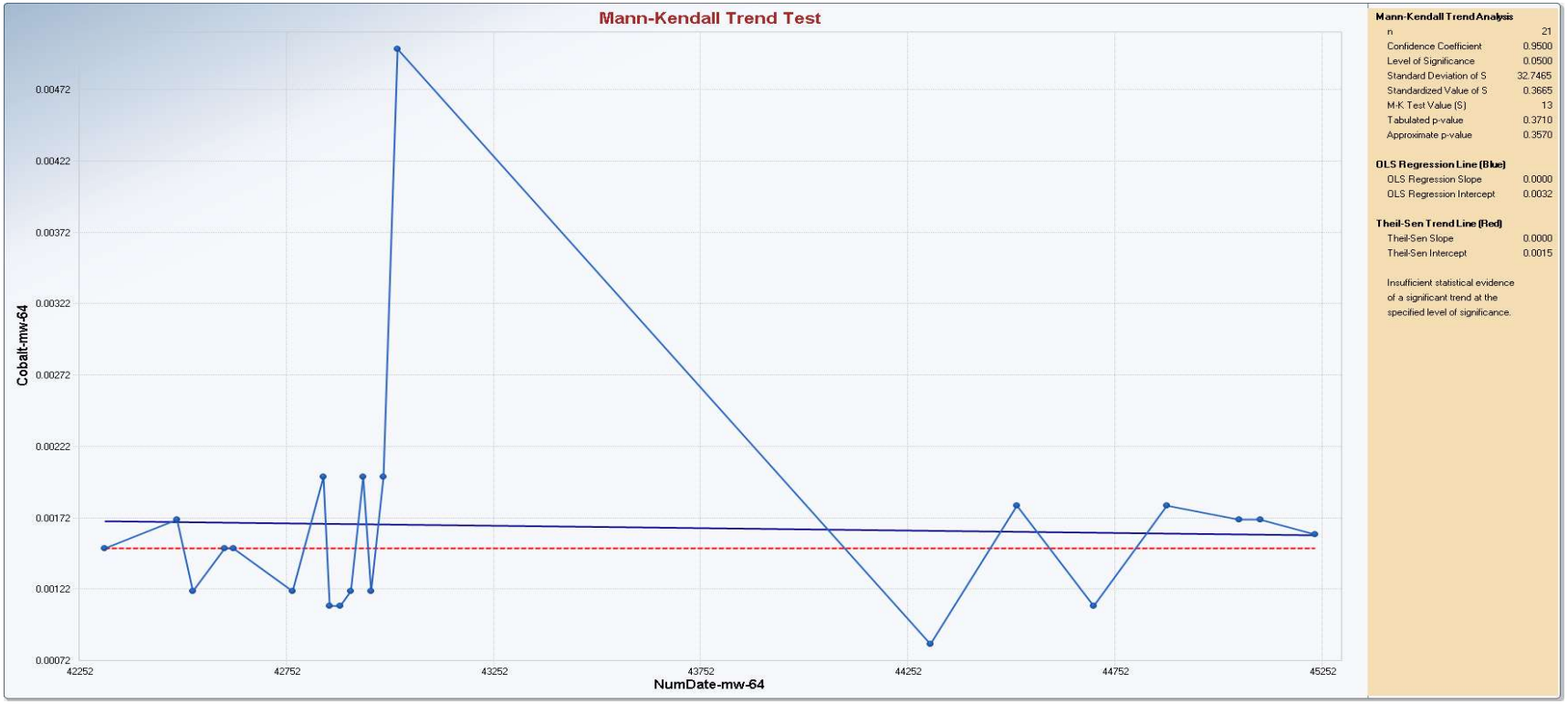
# Appendix B
# Mann-Kendall Trend Test



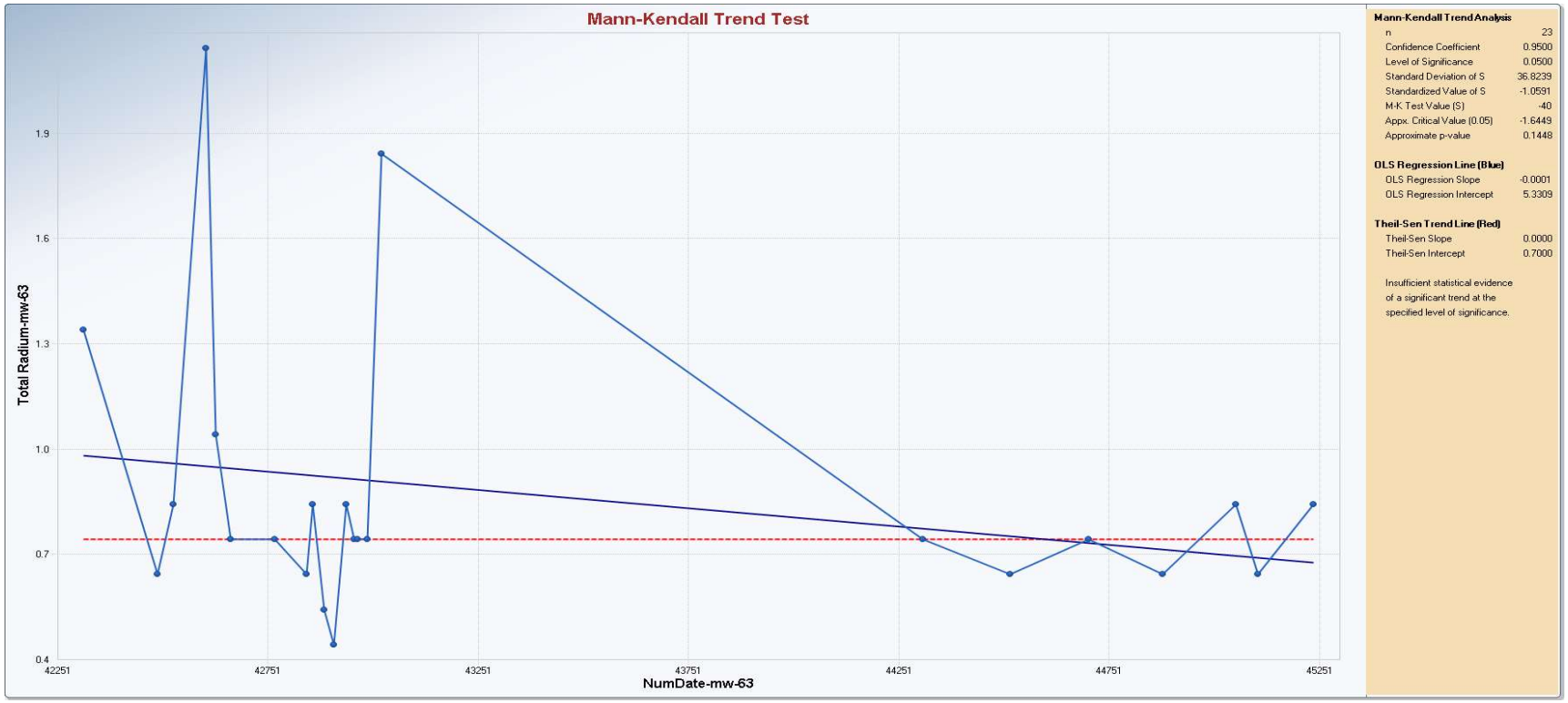
# Appendix B
# Mann-Kendall Trend Test



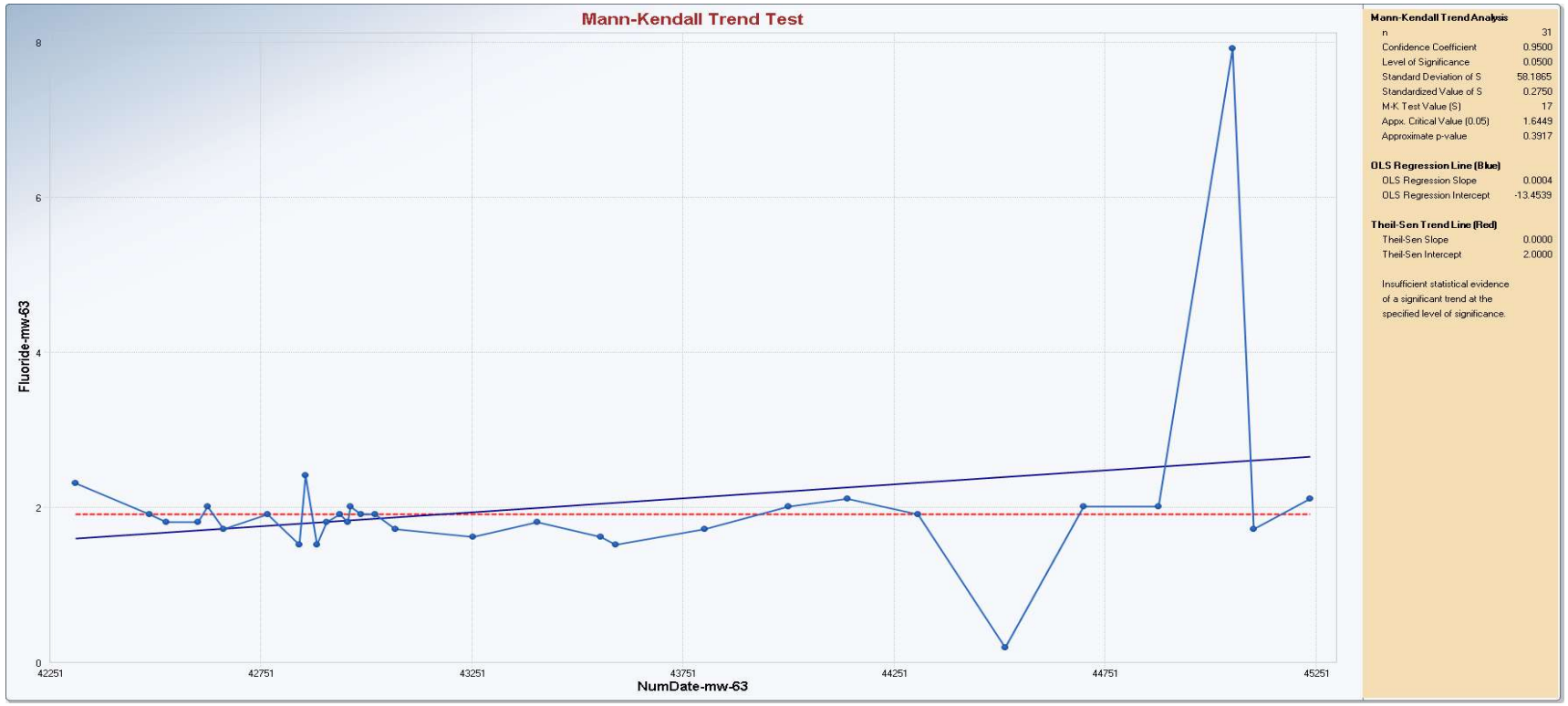
# Appendix B
# Mann-Kendall Trend Test



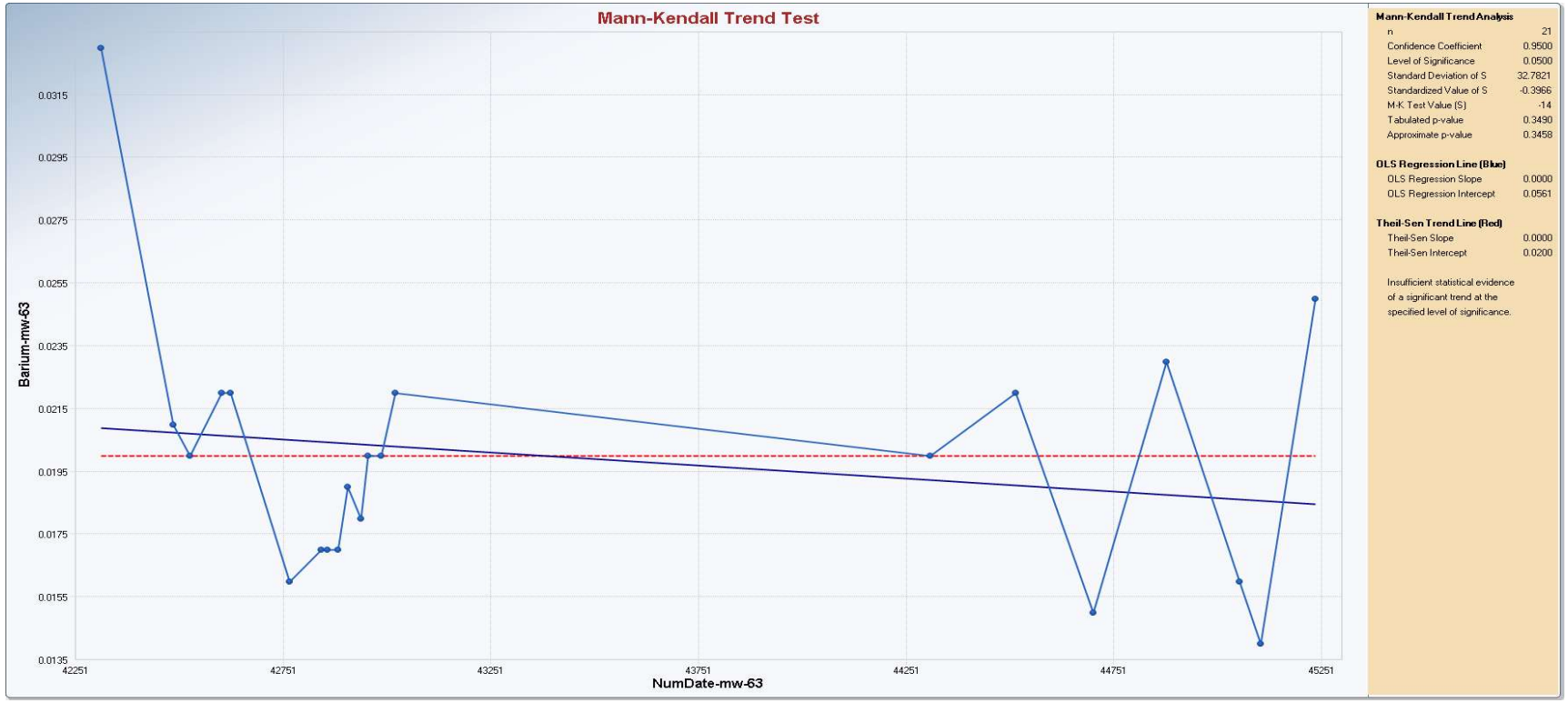
# Appendix B
# Mann-Kendall Trend Test



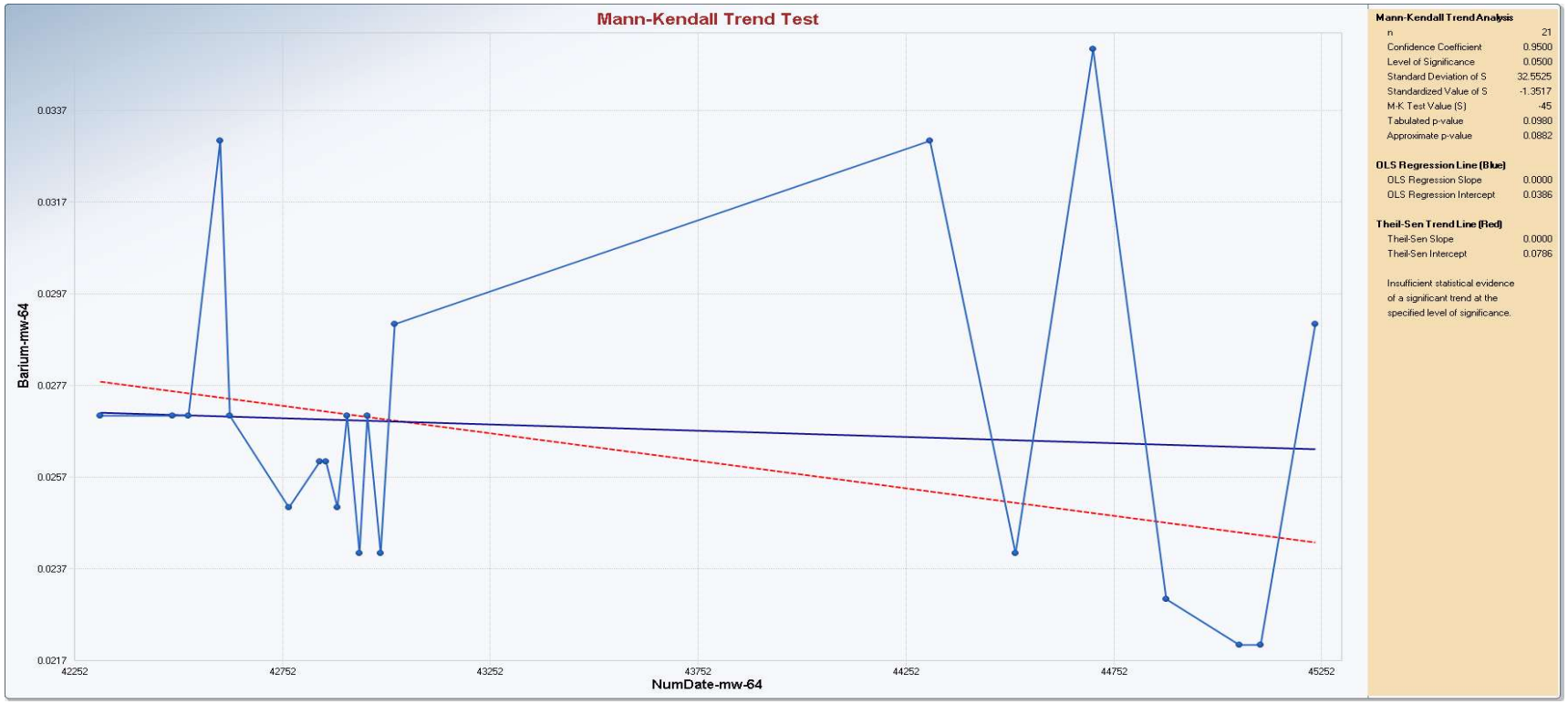
# Appendix B
# Mann-Kendall Trend Test



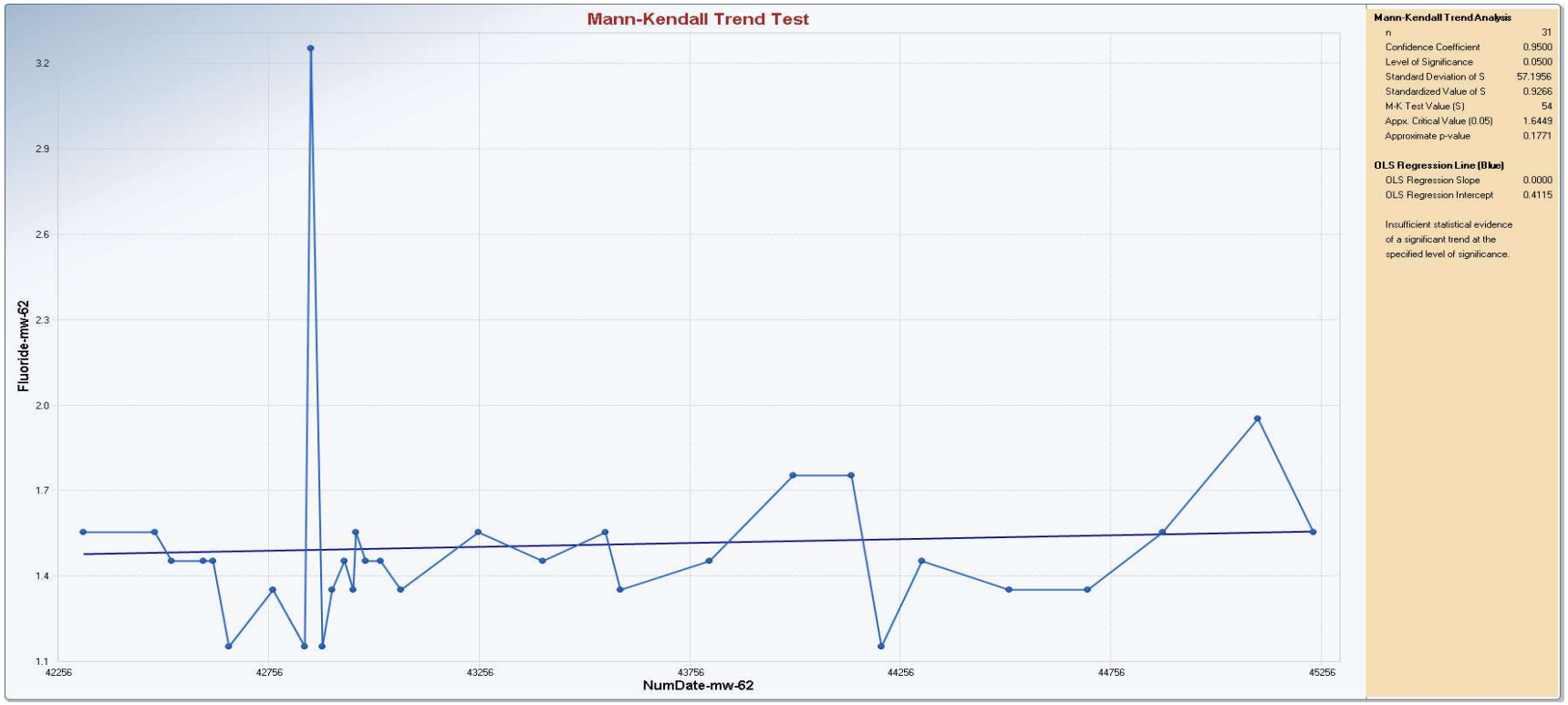
# Appendix B
# Mann-Kendall Trend Test



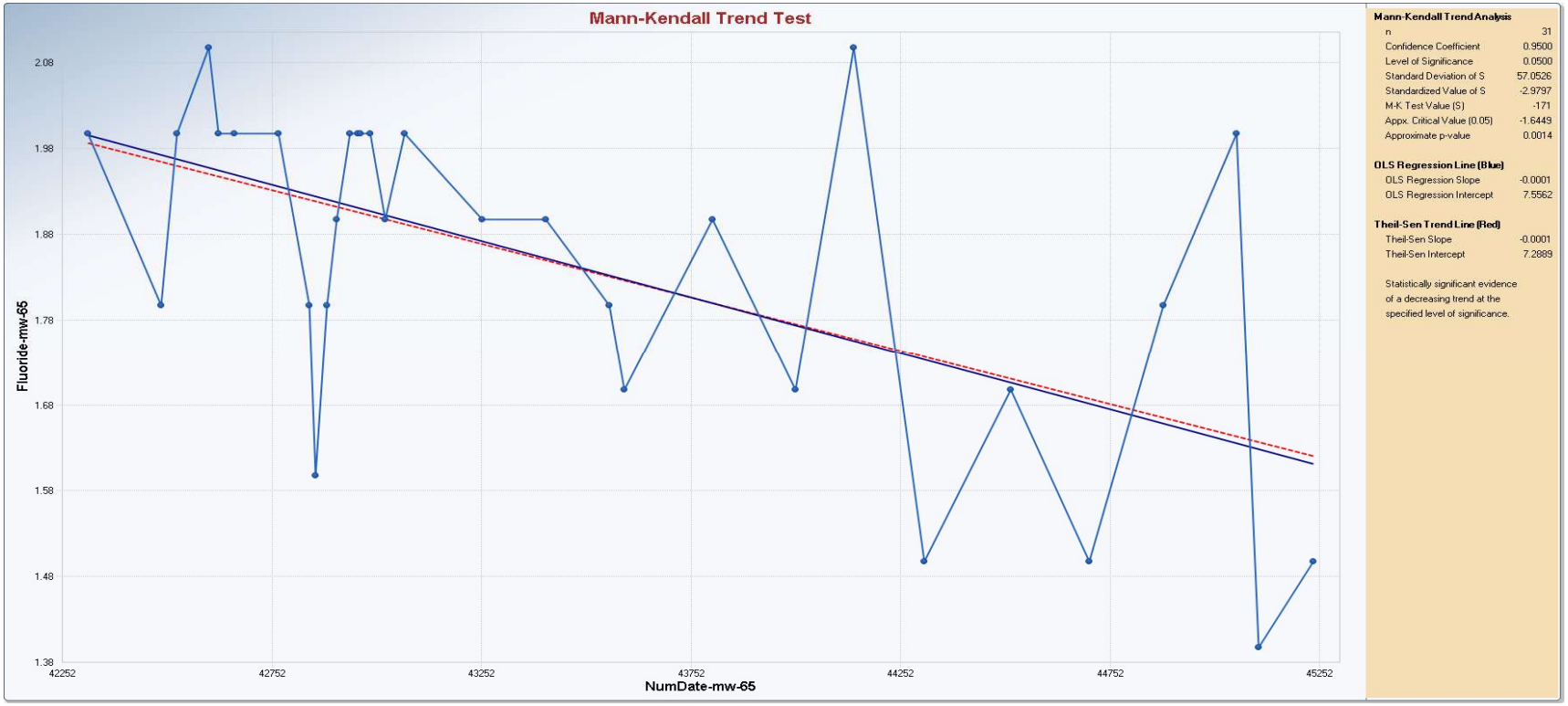
# Appendix B
# Mann-Kendall Trend Test



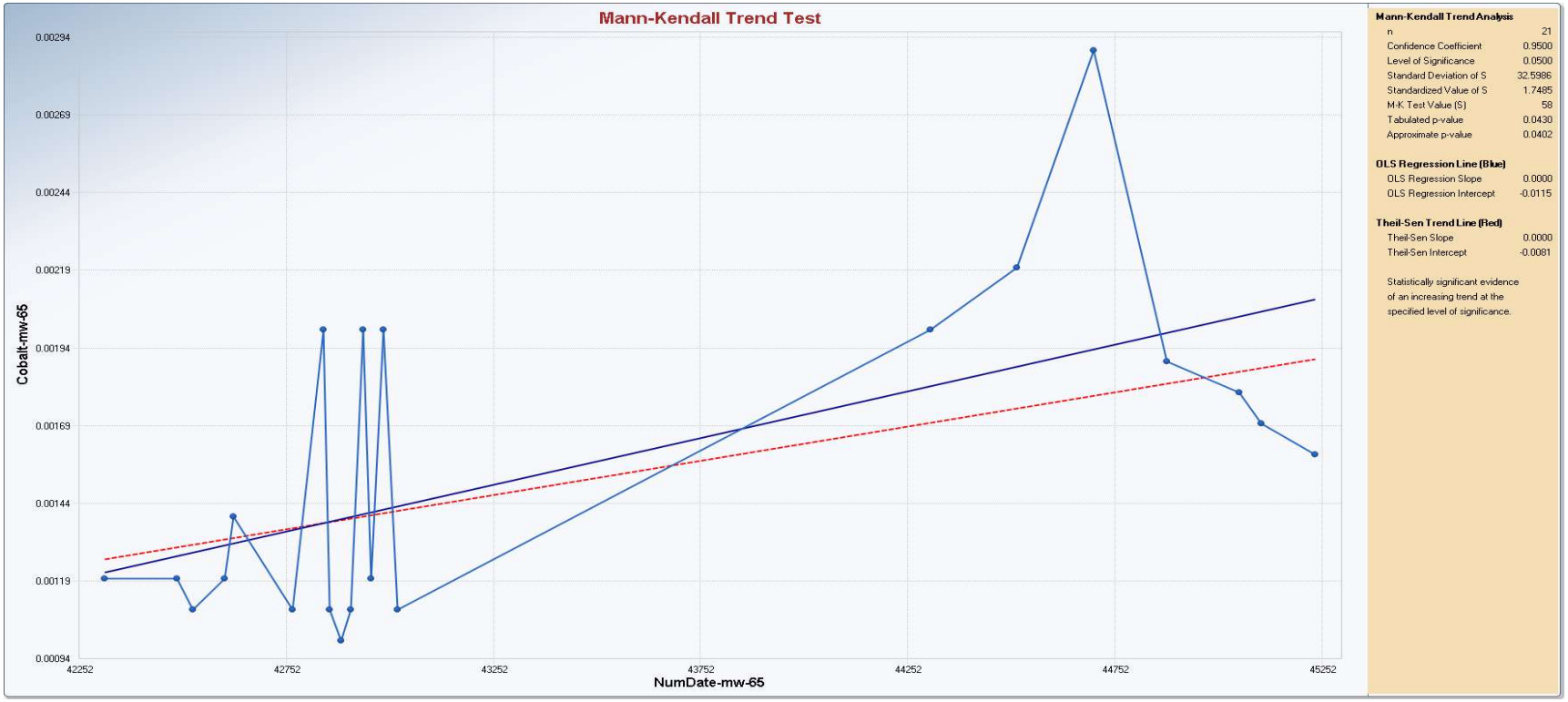
# Appendix B
# Mann-Kendall Trend Test



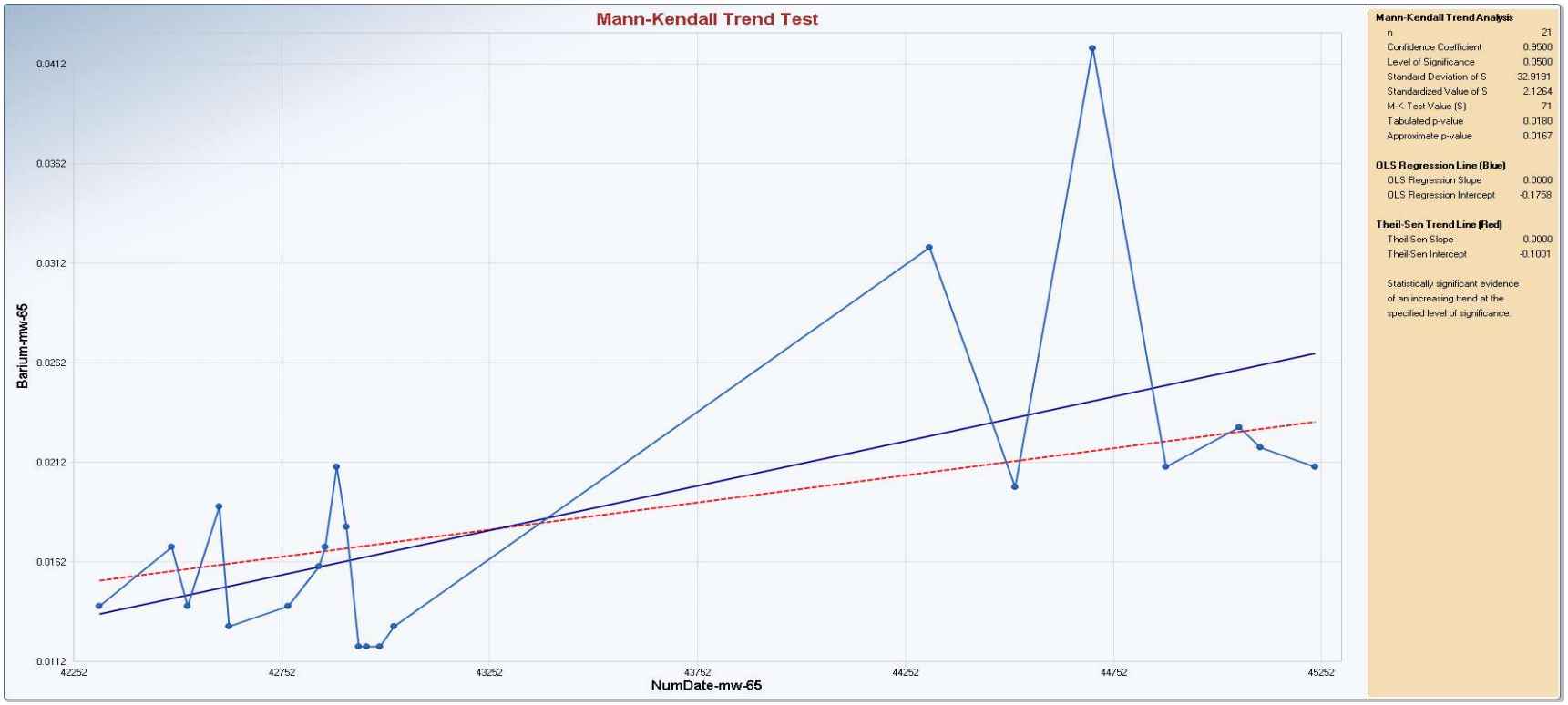
# Appendix B
# Mann-Kendall Trend Test



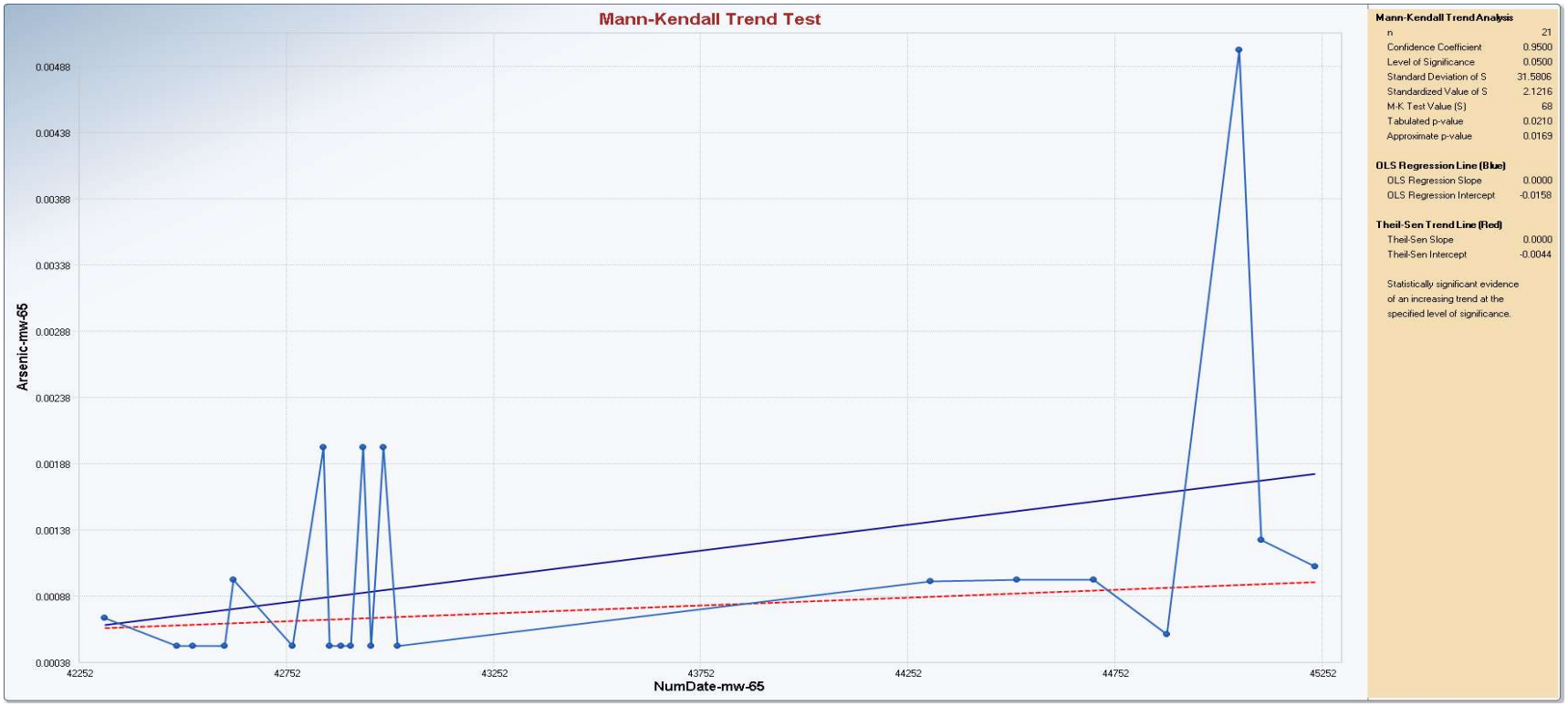
# Appendix B
# Mann-Kendall Trend Test



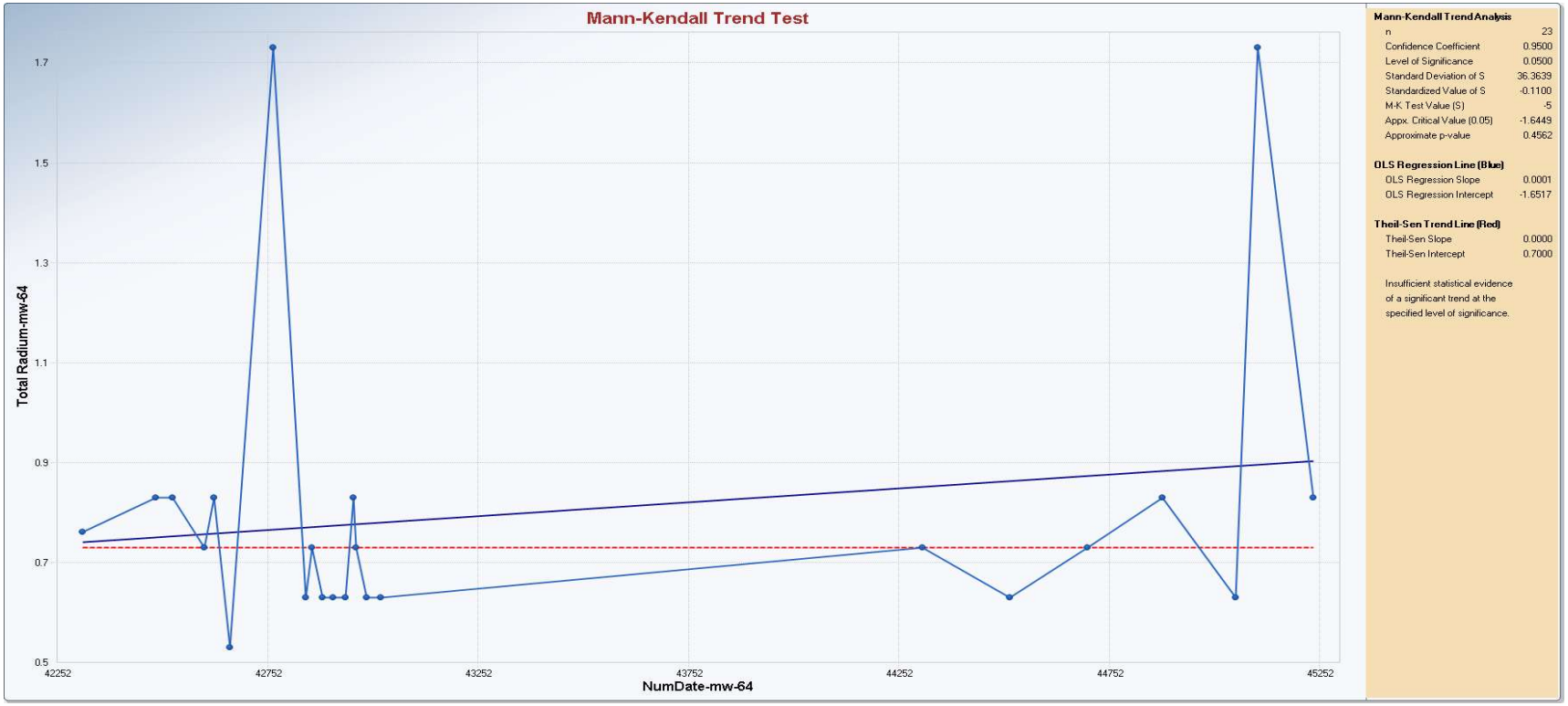
# Appendix B
# Mann-Kendall Trend Test



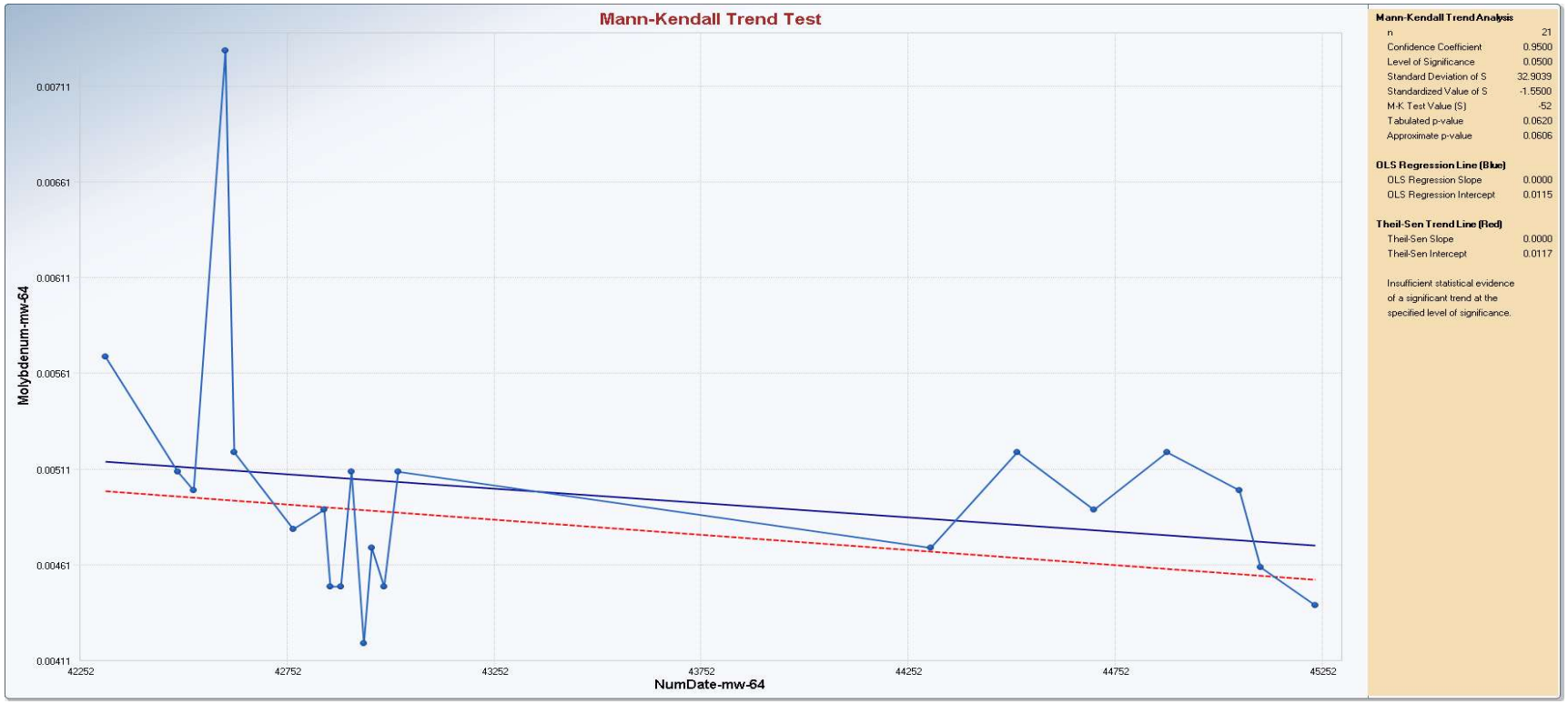
# Appendix B
# Mann-Kendall Trend Test



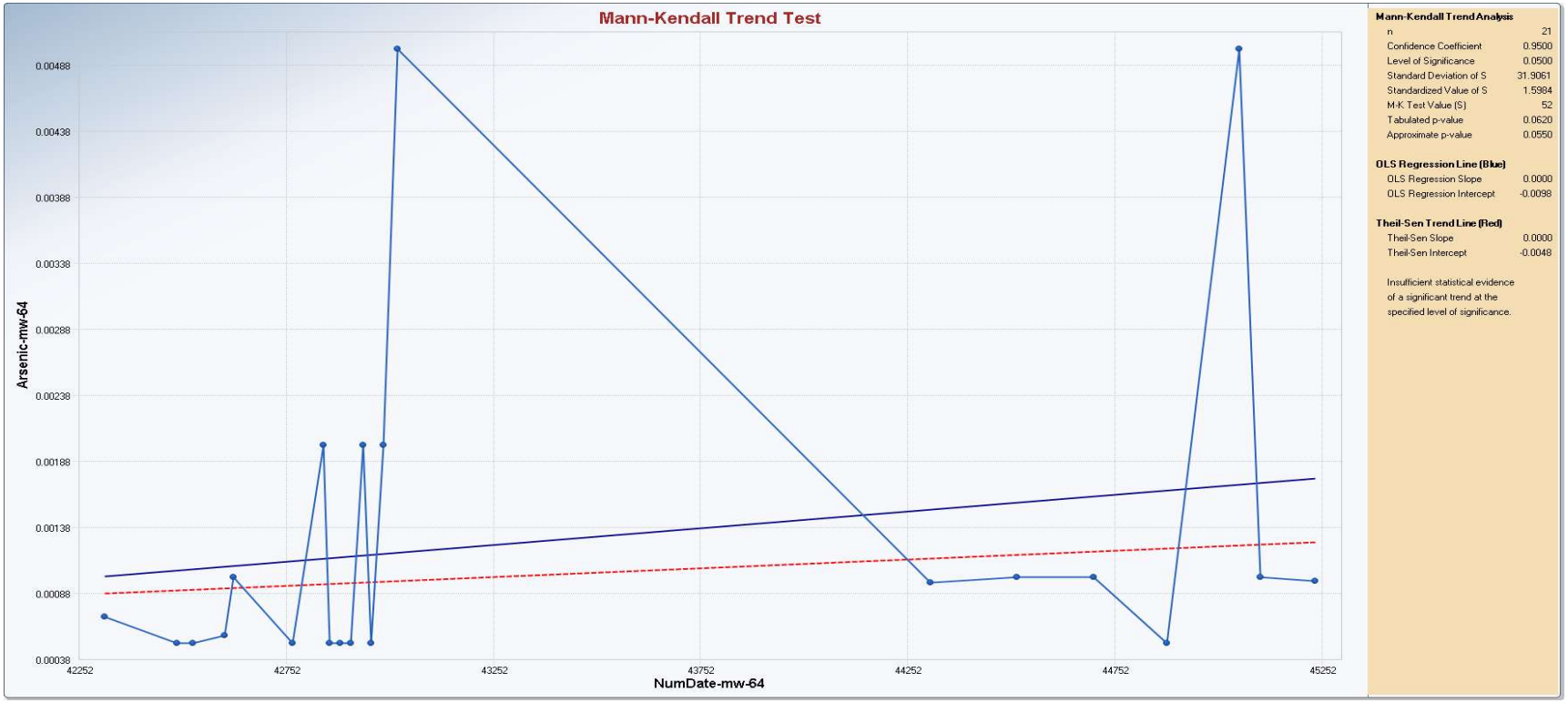
# Appendix B
# Mann-Kendall Trend Test



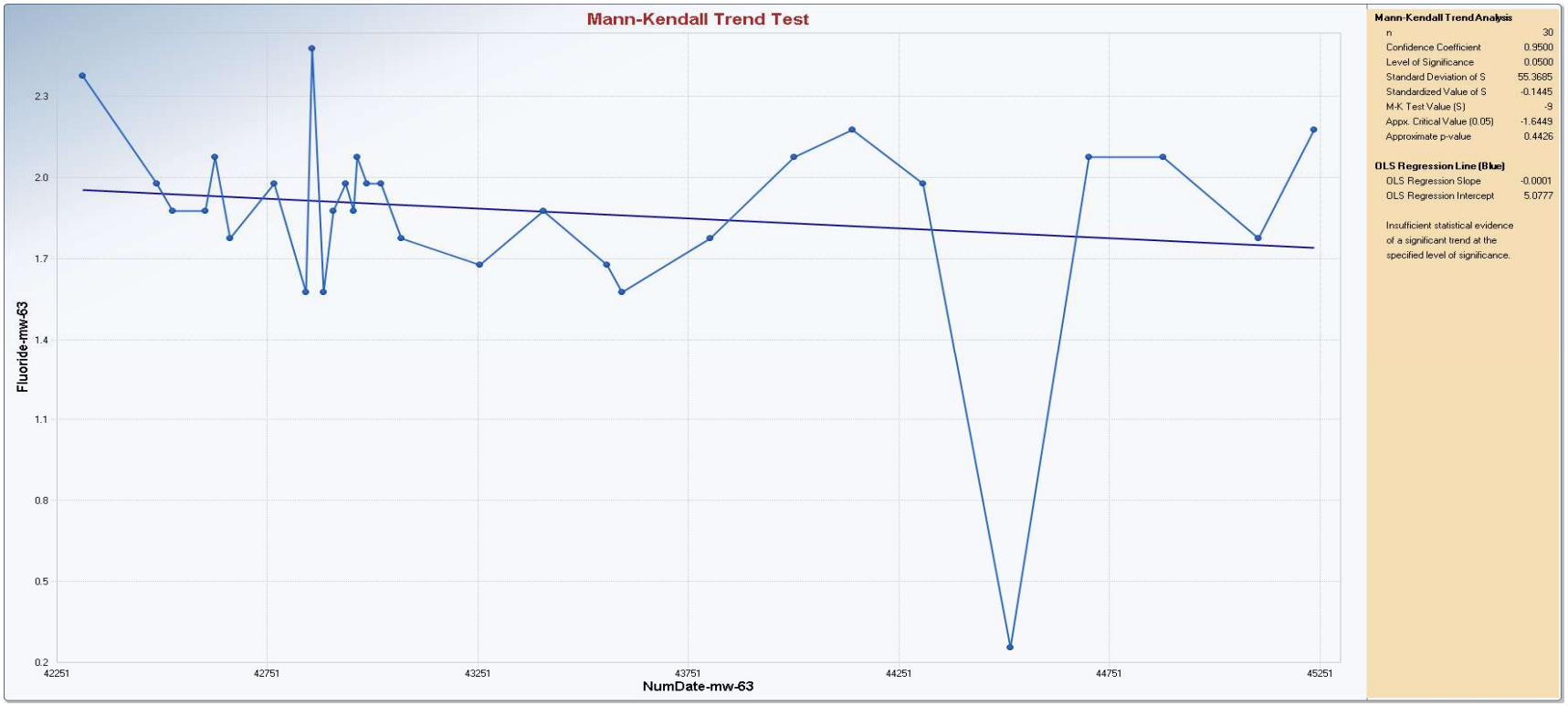
# Appendix B
# Mann-Kendall Trend Test



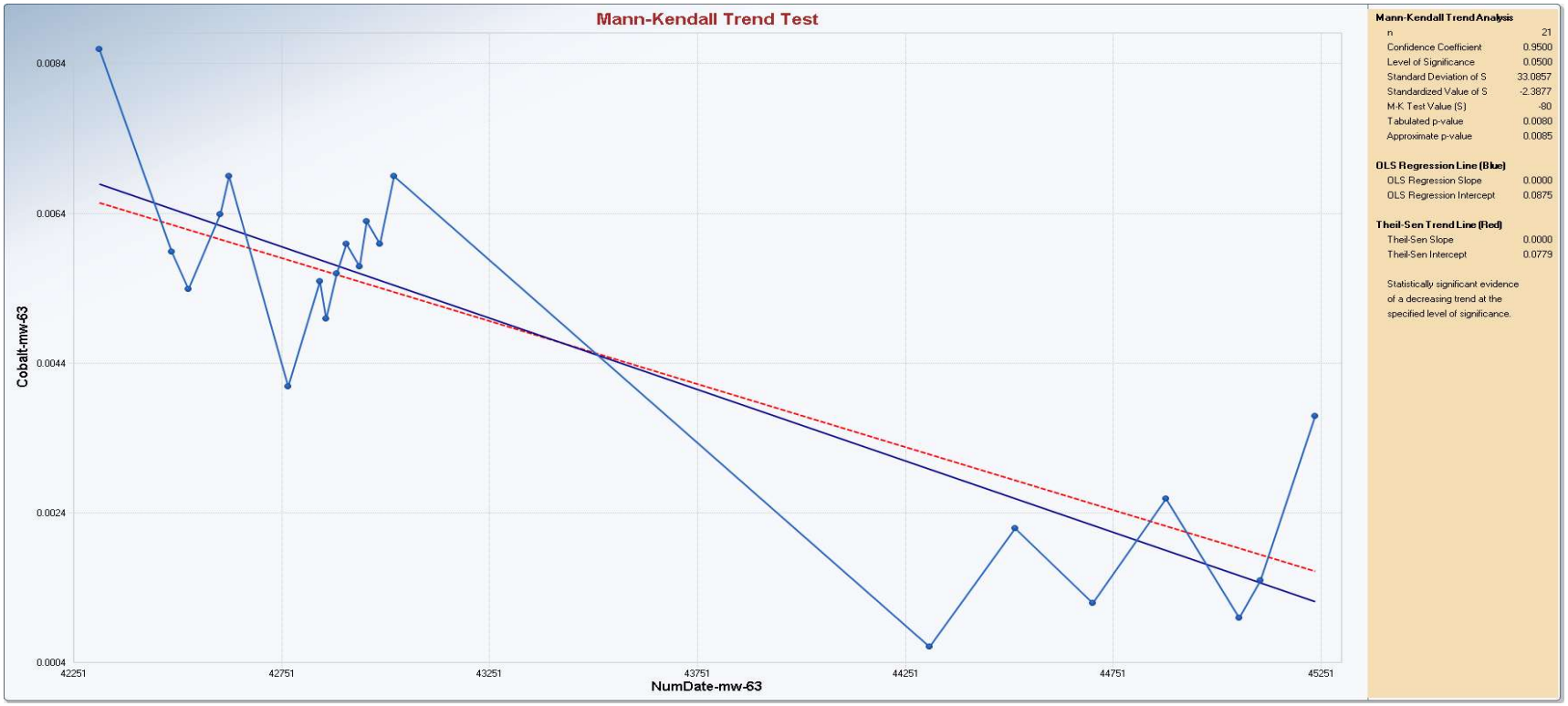
# Appendix B
# Mann-Kendall Trend Test



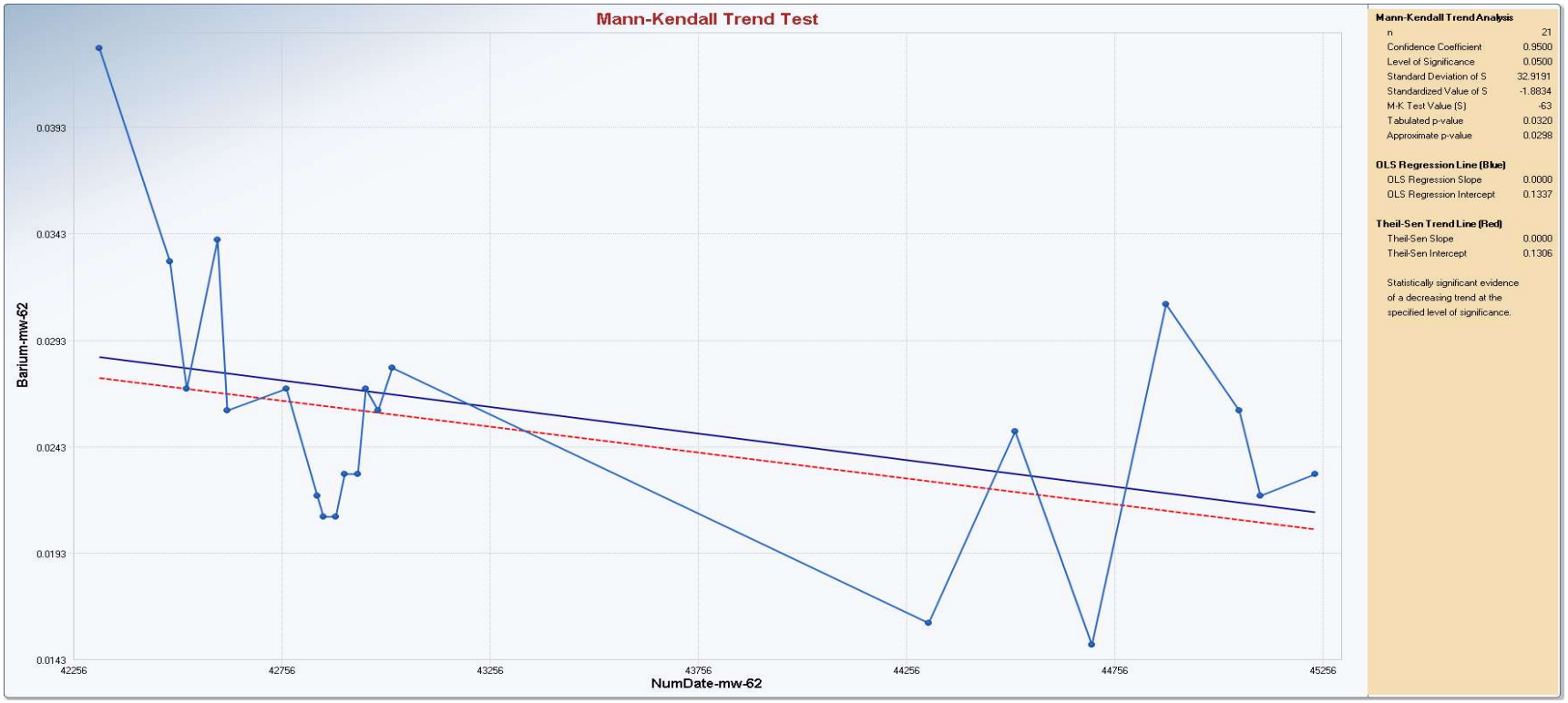
# Appendix B
# Mann-Kendall Trend Test



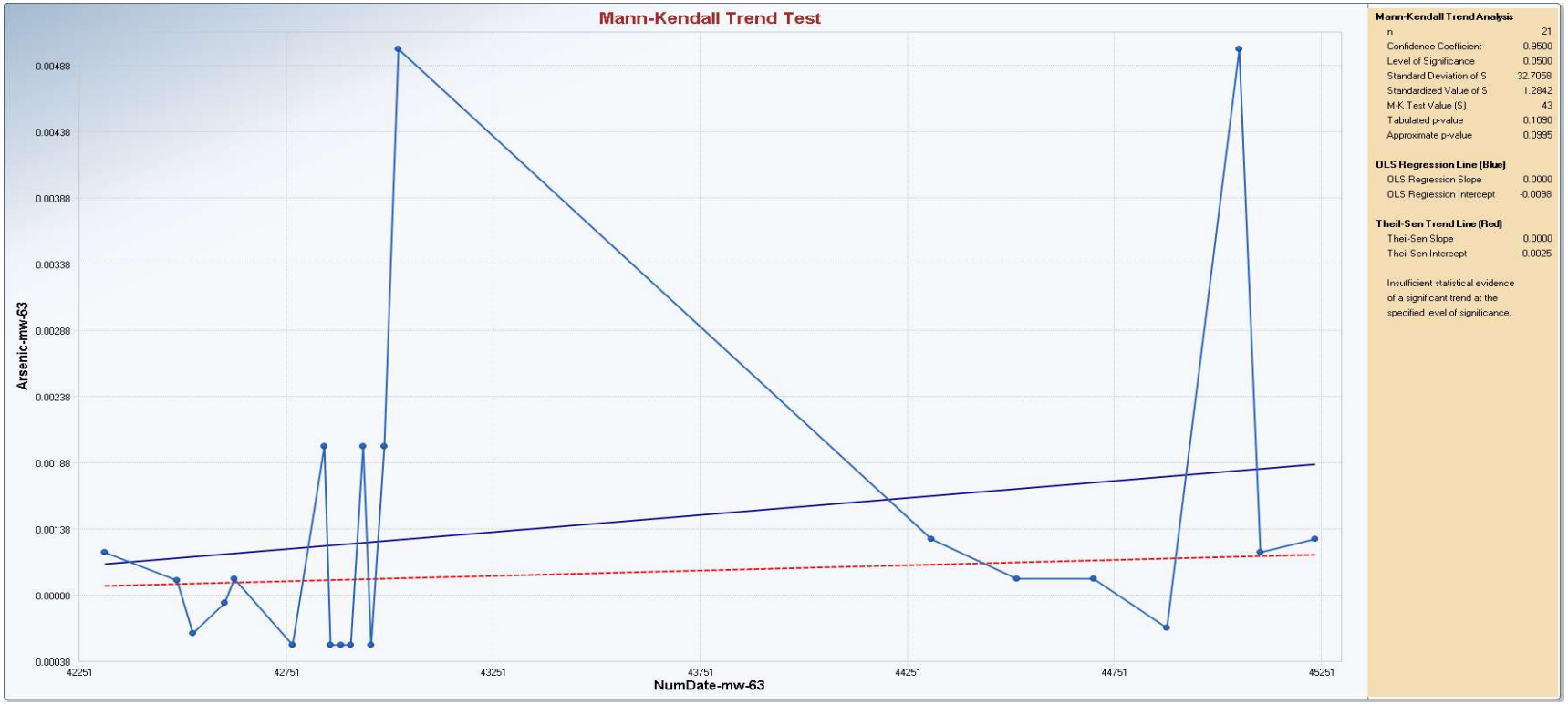
# Appendix B
# Mann-Kendall Trend Test



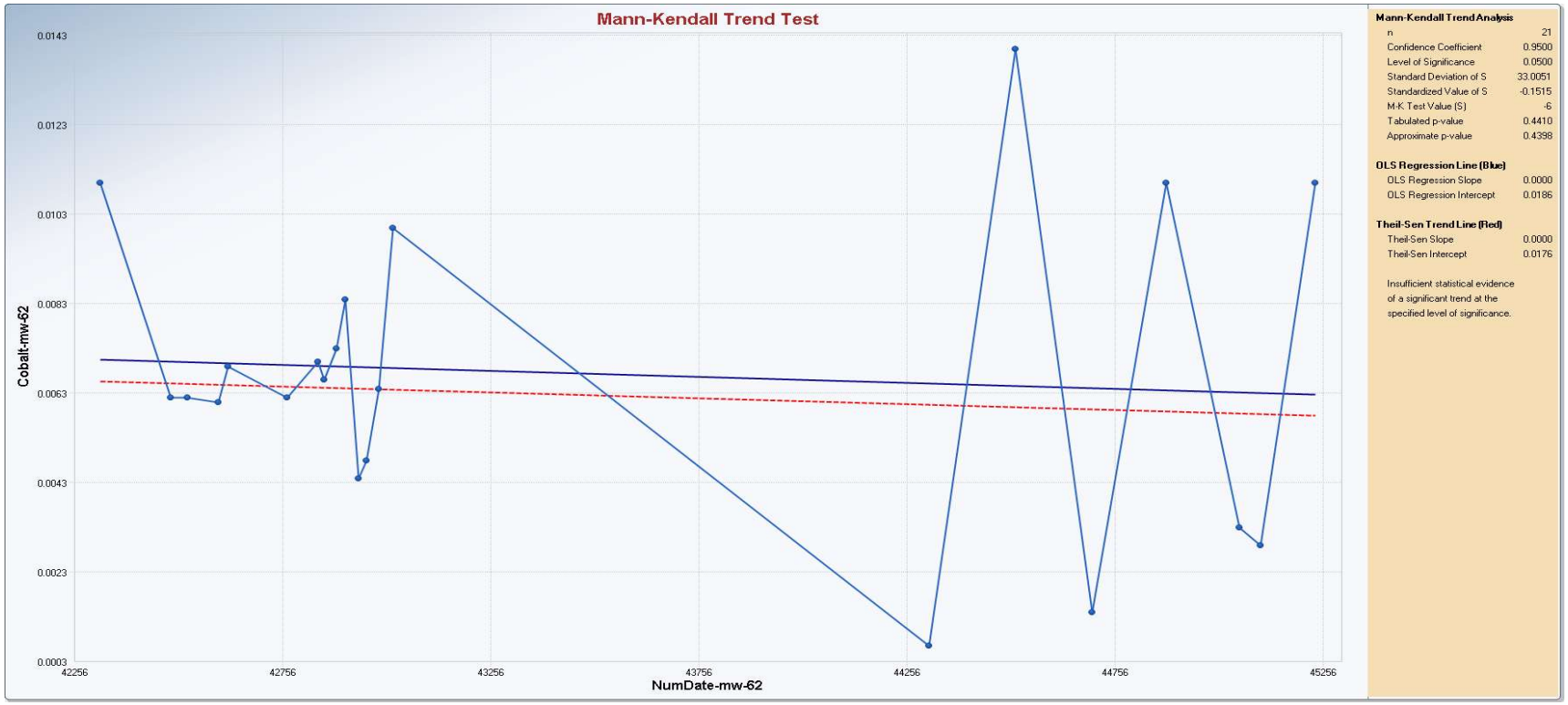
# Appendix B
# Mann-Kendall Trend Test



# Appendix B
# Mann-Kendall Trend Test



# Appendix B
# Mann-Kendall Trend Test



# Appendix B
# Time Series Statistics

| | |
|---|---|
| | Mann-Kendall Trend Test Analysis |
| User Selected Options | |
| Date/Time of Computation | ProUCL 5.13/12/2024 5:18:18 PM |
| From File | FC_CWTP_AppxIV_ProUCL_Upload_20240312.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |
| Level of Significance | 0.05 |

**Arsenic-mw-62**

| **General Statistics** | |
|---|---|
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 11 |
| Number or Reported Events Used | 21 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 11 |
| Number Values Used | 21 |
| Minimum | 5.0000E-4 |
| Maximum | 0.012 |
| Mean | 0.0036 |
| Geometric Mean | 0.00206 |
| Median | 0.002 |
| Standard Deviation | 0.00419 |
| Coefficient of Variation | 1.164 |

| **Mann-Kendall Test** | |
|---|---|
| M-K Test Value (S) | 81 |
| Tabulated p-value | 0.008 |
| Standard Deviation of S | 32.99 |
| Standardized Value of S | 2.425 |
| Approximate p-value | 0.00765 |

**Statistically significant evidence of an increasing trend at the specified level of significance.**

**Arsenic-mw-63**

| **General Statistics** | |
|---|---|
| Number of Events Reported (m) | 31 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 21 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| Number Values Reported (n) | 31 |
| Number Values Missing | 10 |
| Number Values Used | 21 |
| Minimum | 5.0000E-4 |
| Maximum | 0.005 |
| Mean | 0.00141 |
| Geometric Mean | 0.00108 |
| Median | 0.001 |
| Standard Deviation | 0.00129 |
| Coefficient of Variation | 0.919 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 43 |
| Tabulated p-value | 0.109 |
| Standard Deviation of S | 32.71 |
| Standardized Value of S | 1.284 |
| Approximate p-value | 0.0995 |
| | |
| **Insufficient evidence to identify a significant trend at the specified level of significance.** | |
| **Arsenic-mw-64** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 31 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 21 |
| Number Values Reported (n) | 31 |
| Number Values Missing | 10 |
| Number Values Used | 21 |
| Minimum | 5.0000E-4 |
| Maximum | 0.005 |
| Mean | 0.00129 |
| Geometric Mean | 9.4201E-4 |
| Median | 9.6000E-4 |
| Standard Deviation | 0.00133 |
| Coefficient of Variation | 1.028 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 52 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| Tabulated p-value | 0.062 |
| Standard Deviation of S | 31.91 |
| Standardized Value of S | 1.598 |
| Approximate p-value | 0.055 |

Insufficient evidence to identify a significant trend at the specified level of significance.

**Arsenic-mw-65**

**General Statistics**

| | |
|---|---|
| Number of Events Reported (m) | 31 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 21 |
| Number Values Reported (n) | 31 |
| Number Values Missing | 10 |
| Number Values Used | 21 |
| Minimum | 5.0000E-4 |
| Maximum | 0.005 |
| Mean | 0.0011 |
| Geometric Mean | 8.6391E-4 |
| Median | 7.1000E-4 |
| Standard Deviation | 0.00103 |
| Coefficient of Variation | 0.936 |

**Mann-Kendall Test**

| | |
|---|---|
| M-K Test Value (S) | 68 |
| Tabulated p-value | 0.021 |
| Standard Deviation of S | 31.58 |
| Standardized Value of S | 2.122 |
| Approximate p-value | 0.0169 |

Statistically significant evidence of an increasing trend at the specified level of significance.

| | Mann-Kendall Trend Test Analysis |
|---|---|
| User Selected Options | |
| Date/Time of Computation | ProUCL 5.13/12/2024 5:22:18 PM |
| From File | FC_CWTP_AppxIV_ProUCL_Upload_20240312.xls |
| Full Precision | OFF |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| Confidence Coefficient | 0.95 |
| Level of Significance | 0.05 |
| | |
| **Barium-mw-62** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 11 |
| Number or Reported Events Used | 21 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 11 |
| Number Values Used | 21 |
| Minimum | 0.015 |
| Maximum | 0.043 |
| Mean | 0.0257 |
| Geometric Mean | 0.025 |
| Median | 0.026 |
| Standard Deviation | 0.00618 |
| Coefficient of Variation | 0.241 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -63 |
| Tabulated p-value | 0.032 |
| Standard Deviation of S | 32.92 |
| Standardized Value of S | -1.883 |
| Approximate p-value | 0.0298 |
| | |
| **Statistically significant evidence of a decreasing trend at the specified level of significance.** | |
| **Barium-mw-63** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 31 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 21 |
| Number Values Reported (n) | 31 |
| Number Values Missing | 10 |
| Number Values Used | 21 |
| Minimum | 0.014 |

# Appendix B
## Time Series Statistics

| | |
|---|---|
| Maximum | 0.033 |
| Mean | 0.02 |
| Geometric Mean | 0.0196 |
| Median | 0.02 |
| Standard Deviation | 0.00415 |
| Coefficient of Variation | 0.208 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -14 |
| Tabulated p-value | 0.349 |
| Standard Deviation of S | 32.78 |
| Standardized Value of S | -0.397 |
| Approximate p-value | 0.346 |
| | |
| **Insufficient evidence to identify a significant** | |
| **trend at the specified level of significance.** | |
| **Barium-mw-64** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 31 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 21 |
| Number Values Reported (n) | 31 |
| Number Values Missing | 10 |
| Number Values Used | 21 |
| Minimum | 0.022 |
| Maximum | 0.035 |
| Mean | 0.0268 |
| Geometric Mean | 0.0266 |
| Median | 0.027 |
| Standard Deviation | 0.00351 |
| Coefficient of Variation | 0.131 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -45 |
| Tabulated p-value | 0.098 |
| Standard Deviation of S | 32.55 |
| Standardized Value of S | -1.352 |
| Approximate p-value | 0.0882 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| Insufficient evidence to identify a significant trend at the specified level of significance. | |
| **Barium-mw-65** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 31 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 21 |
| Number Values Reported (n) | 31 |
| Number Values Missing | 10 |
| Number Values Used | 21 |
| Minimum | 0.012 |
| Maximum | 0.042 |
| Mean | 0.0187 |
| Geometric Mean | 0.0177 |
| Median | 0.017 |
| Standard Deviation | 0.00723 |
| Coefficient of Variation | 0.386 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 71 |
| Tabulated p-value | 0.018 |
| Standard Deviation of S | 32.92 |
| Standardized Value of S | 2.126 |
| Approximate p-value | 0.0167 |
| | |
| Statistically significant evidence of an increasing trend at the specified level of significance. | |
| | |
| | Mann-Kendall Trend Test Analysis |
| User Selected Options | |
| Date/Time of Computation | ProUCL 5.13/13/2024 12:25:02 PM |
| From File | FC_CWTP_AppxIV_ProUCL_Upload_20240312.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |
| Level of Significance | 0.05 |
| | |
| **Cobalt-mw-62** | |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 11 |
| Number or Reported Events Used | 21 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 11 |
| Number Values Used | 21 |
| Minimum | 6.5000E-4 |
| Maximum | 0.014 |
| Mean | 0.00675 |
| Geometric Mean | 0.00565 |
| Median | 0.0064 |
| Standard Deviation | 0.00334 |
| Coefficient of Variation | 0.496 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -6 |
| Tabulated p-value | 0.441 |
| Standard Deviation of S | 33.01 |
| Standardized Value of S | -0.151 |
| Approximate p-value | 0.44 |
| | |
| Insufficient evidence to identify a significant trend at the specified level of significance. | |
| **Cobalt-mw-63** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 31 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 21 |
| Number Values Reported (n) | 31 |
| Number Values Missing | 10 |
| Number Values Used | 21 |
| Minimum | 6.2000E-4 |
| Maximum | 0.0086 |
| Mean | 0.00462 |
| Geometric Mean | 0.00381 |
| Median | 0.0055 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| Standard Deviation | 0.00227 |
| Coefficient of Variation | 0.491 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -80 |
| Tabulated p-value | 0.008 |
| Standard Deviation of S | 33.09 |
| Standardized Value of S | -2.388 |
| Approximate p-value | 0.00848 |
| | |
| **Statistically significant evidence of a decreasing trend at the specified level of significance.** | |
| **Cobalt-mw-64** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 31 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 21 |
| Number Values Reported (n) | 31 |
| Number Values Missing | 10 |
| Number Values Used | 21 |
| Minimum | 8.3000E-4 |
| Maximum | 0.005 |
| Mean | 0.00165 |
| Geometric Mean | 0.00153 |
| Median | 0.0015 |
| Standard Deviation | 8.3971E-4 |
| Coefficient of Variation | 0.508 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 13 |
| Tabulated p-value | 0.371 |
| Standard Deviation of S | 32.75 |
| Standardized Value of S | 0.366 |
| Approximate p-value | 0.357 |
| | |
| **Insufficient evidence to identify a significant trend at the specified level of significance.** | |
| **Cobalt-mw-65** | |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| **General Statistics** | |
| Number of Events Reported (m) | 31 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 21 |
| Number Values Reported (n) | 31 |
| Number Values Missing | 10 |
| Number Values Used | 21 |
| Minimum | 0.001 |
| Maximum | 0.0029 |
| Mean | 0.00156 |
| Geometric Mean | 0.00149 |
| Median | 0.0014 |
| Standard Deviation | 5.0446E-4 |
| Coefficient of Variation | 0.323 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 58 |
| Tabulated p-value | 0.043 |
| Standard Deviation of S | 32.6 |
| Standardized Value of S | 1.749 |
| Approximate p-value | 0.0402 |

**Statistically significant evidence of an increasing trend at the specified level of significance.**

| | |
|---|---|
| | Mann-Kendall Trend Test Analysis |
| User Selected Options | |
| Date/Time of Computation | ProUCL 5.13/24/2024 7:39:15 PM |
| From File | FC_CWTP_AppxIV_ProUCL_Upload_20240312.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |
| Level of Significance | 0.05 |

| | |
|---|---|
| **Fluoride-mw-62** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 1 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| Number or Reported Events Used | 31 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 1 |
| Number Values Used | 31 |
| Minimum | 1.2 |
| Maximum | 3.3 |
| Mean | 1.555 |
| Geometric Mean | 1.525 |
| Median | 1.5 |
| Standard Deviation | 0.369 |
| Coefficient of Variation | 0.237 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 54 |
| Critical Value (0.05) | 1.645 |
| Standard Deviation of S | 57.2 |
| Standardized Value of S | 0.927 |
| Approximate p-value | 0.177 |
| | |
| **Insufficient evidence to identify a significant trend at the specified level of significance.** | |
| **Fluoride-mw-63** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 31 |
| Number of Missing Events | 1 |
| Number or Reported Events Used | 30 |
| Number Values Reported (n) | 31 |
| Number Values Missing | 1 |
| Number Values Used | 30 |
| Minimum | 0.28 |
| Maximum | 2.5 |
| Mean | 1.899 |
| Geometric Mean | 1.822 |
| Median | 1.95 |
| Standard Deviation | 0.374 |
| Coefficient of Variation | 0.197 |
| | |
| **Mann-Kendall Test** | |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| M-K Test Value (S) | -9 |
| Critical Value (0.05) | -1.645 |
| Standard Deviation of S | 55.37 |
| Standardized Value of S | -0.144 |
| Approximate p-value | 0.443 |
| | |
| Insufficient evidence to identify a significant trend at the specified level of significance. | |
| **Fluoride-mw-64** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 31 |
| Number of Missing Events | 0 |
| Number or Reported Events Used | 31 |
| Number Values Reported (n) | 31 |
| Minimum | 1.3 |
| Maximum | 1.6 |
| Mean | 1.448 |
| Geometric Mean | 1.446 |
| Median | 1.4 |
| Standard Deviation | 0.0811 |
| Coefficient of Variation | 0.056 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -87 |
| Critical Value (0.05) | -1.645 |
| Standard Deviation of S | 54.53 |
| Standardized Value of S | -1.577 |
| Approximate p-value | 0.0574 |
| | |
| Insufficient evidence to identify a significant trend at the specified level of significance. | |
| **Fluoride-mw-65** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 31 |
| Number of Missing Events | 0 |
| Number or Reported Events Used | 31 |
| Number Values Reported (n) | 31 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| Minimum | 1.4 |
| Maximum | 2.1 |
| Mean | 1.848 |
| Geometric Mean | 1.838 |
| Median | 1.9 |
| Standard Deviation | 0.191 |
| Coefficient of Variation | 0.103 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -171 |
| Critical Value (0.05) | -1.645 |
| Standard Deviation of S | 57.05 |
| Standardized Value of S | -2.98 |
| Approximate p-value | 0.00144 |
| | |
| Statistically significant evidence of a decreasing trend at the specified level of significance. | |

| | |
|---|---|
| | Mann-Kendall Trend Test Analysis |
| User Selected Options | |
| Date/Time of Computation | ProUCL 5.13/24/2024 8:02:09 PM |
| From File | FC_CWTP_AppxIV_ProUCL_Upload_20240312.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |
| Level of Significance | 0.05 |

**Molybdenum-mw-62**

| | |
|---|---|
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 12 |
| Number or Reported Events Used | 20 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 12 |
| Number Values Used | 20 |
| Minimum | 0.0012 |
| Maximum | 0.0044 |
| Mean | 0.00295 |
| Geometric Mean | 0.00286 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| Median | 0.00295 |
| Standard Deviation | 7.0375E-4 |
| Coefficient of Variation | 0.239 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -106 |
| Tabulated p-value | 0 |
| Standard Deviation of S | 30.67 |
| Standardized Value of S | -3.424 |
| Approximate p-value | 3.0909E-4 |
| | |
| **Statistically significant evidence of a decreasing trend at the specified level of significance.** | |
| **Molybdenum-mw-63** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 31 |
| Number of Missing Events | 11 |
| Number or Reported Events Used | 20 |
| Number Values Reported (n) | 31 |
| Number Values Missing | 11 |
| Number Values Used | 20 |
| Minimum | 0.0019 |
| Maximum | 0.0058 |
| Mean | 0.00281 |
| Geometric Mean | 0.00271 |
| Median | 0.00255 |
| Standard Deviation | 8.4882E-4 |
| Coefficient of Variation | 0.303 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 21 |
| Tabulated p-value | 0.271 |
| Standard Deviation of S | 30.7 |
| Standardized Value of S | 0.652 |
| Approximate p-value | 0.257 |
| | |
| **Insufficient evidence to identify a significant trend at the specified level of significance.** | |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| **Molybdenum-mw-64** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 31 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 21 |
| Number Values Reported (n) | 31 |
| Number Values Missing | 10 |
| Number Values Used | 21 |
| Minimum | 0.0042 |
| Maximum | 0.0073 |
| Mean | 0.00498 |
| Geometric Mean | 0.00495 |
| Median | 0.0049 |
| Standard Deviation | 6.3531E-4 |
| Coefficient of Variation | 0.128 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -52 |
| Tabulated p-value | 0.062 |
| Standard Deviation of S | 32.9 |
| Standardized Value of S | -1.55 |
| Approximate p-value | 0.0606 |
| | |
| Insufficient evidence to identify a significant | |
| trend at the specified level of significance. | |
| **Molybdenum-mw-65** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 31 |
| Number of Missing Events | 12 |
| Number or Reported Events Used | 19 |
| Number Values Reported (n) | 31 |
| Number Values Missing | 12 |
| Number Values Used | 19 |
| Minimum | 0.0066 |
| Maximum | 0.0098 |
| Mean | 0.00823 |
| Geometric Mean | 0.00818 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| Median | 0.0083 |
| Standard Deviation | 9.0667E-4 |
| Coefficient of Variation | 0.11 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -43 |
| Tabulated p-value | 0.072 |
| Standard Deviation of S | 28.47 |
| Standardized Value of S | -1.475 |
| Approximate p-value | 0.07 |
| | |
| **Insufficient evidence to identify a significant trend at the specified level of significance.** | |

| | |
|---|---|
| | **Mann-Kendall Trend Test Analysis** |
| User Selected Options | |
| Date/Time of Computation | ProUCL 5.13/13/2024 1:55:35 PM |
| From File | FC_CWTP_AppxIV_ProUCL_Upload_20240312.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |
| Level of Significance | 0.05 |

**Total Radium-mw-62**

| **General Statistics** | |
|---|---|
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 9 |
| Number or Reported Events Used | 23 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 9 |
| Number Values Used | 23 |
| Minimum | 0.6 |
| Maximum | 1.9 |
| Mean | 0.952 |
| Geometric Mean | 0.891 |
| Median | 0.9 |
| Standard Deviation | 0.378 |
| Coefficient of Variation | 0.397 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -25 |
| Critical Value (0.05) | -1.645 |
| Standard Deviation of S | 37.3 |
| Standardized Value of S | -0.643 |
| Approximate p-value | 0.26 |
| | |
| Insufficient evidence to identify a significant | |
| trend at the specified level of significance. | |
| **Total Radium-mw-63** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 31 |
| Number of Missing Events | 8 |
| Number or Reported Events Used | 23 |
| Number Values Reported (n) | 31 |
| Number Values Missing | 8 |
| Number Values Used | 23 |
| Minimum | 0.4 |
| Maximum | 2.1 |
| Mean | 0.826 |
| Geometric Mean | 0.764 |
| Median | 0.7 |
| Standard Deviation | 0.398 |
| Coefficient of Variation | 0.482 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -40 |
| Critical Value (0.05) | -1.645 |
| Standard Deviation of S | 36.82 |
| Standardized Value of S | -1.059 |
| Approximate p-value | 0.145 |
| | |
| Insufficient evidence to identify a significant | |
| trend at the specified level of significance. | |
| **Total Radium-mw-64** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 31 |

# Appendix B
## Time Series Statistics

| | |
|---|---|
| Number of Missing Events | 8 |
| Number or Reported Events Used | 23 |
| Number Values Reported (n) | 31 |
| Number Values Missing | 8 |
| Number Values Used | 23 |
| Minimum | 0.5 |
| Maximum | 1.7 |
| Mean | 0.771 |
| Geometric Mean | 0.733 |
| Median | 0.7 |
| Standard Deviation | 0.306 |
| Coefficient of Variation | 0.397 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -5 |
| Critical Value (0.05) | -1.645 |
| Standard Deviation of S | 36.36 |
| Standardized Value of S | -0.11 |
| Approximate p-value | 0.456 |
| | |
| **Insufficient evidence to identify a significant trend at the specified level of significance.** | |
| **Total Radium-mw-65** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 31 |
| Number of Missing Events | 8 |
| Number or Reported Events Used | 23 |
| Number Values Reported (n) | 31 |
| Number Values Missing | 8 |
| Number Values Used | 23 |
| Minimum | 0.4 |
| Maximum | 1.9 |
| Mean | 0.716 |
| Geometric Mean | 0.676 |
| Median | 0.6 |
| Standard Deviation | 0.303 |
| Coefficient of Variation | 0.423 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 25 |
| Critical Value (0.05) | 1.645 |
| Standard Deviation of S | 36.45 |
| Standardized Value of S | 0.659 |
| Approximate p-value | 0.255 |
| | |
| Insufficient evidence to identify a significant | |
| trend at the specified level of significance. | |

# Appendix B
# Summary Statistics

**General Statistics on Uncensored Data**

Date/Time of Computation ProUCL 5.13/12/2024 3:54:04 PM

**User Selected Options**

From File FC_CWTP_AppxIV_ProUCL_Upload_20240312.xls

Full Precision OFF

**From File: FC_CWTP_AppxIV_ProUCL_Upload_20240312.xls**

**General Statistics for Censored Data Set (with NDs) using Kaplan Meier Method**

| Variable | NumObs | # Missing | Num Ds | NumNDs | % NDs | Min ND | Max ND | KM Mean | KM Var | KM SD | KM CV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony (mw-62) | 21 | 11 | 2 | 19 | 90.48% | 0.001 | 0.004 | 1.1000E-4 | 0 | 0 | N/A |
| Antimony (mw-63) | 21 | 10 | 2 | 19 | 90.48% | 0.001 | 0.004 | 1.3000E-4 | 0 | 0 | N/A |
| Antimony (mw-64) | 21 | 10 | 0 | 21 | 100.00% | 1.0000E-4 | 0.004 | N/A | N/A | N/A | N/A |
| Antimony (mw-65) | 21 | 10 | 0 | 21 | 100.00% | 1.0000E-4 | 0.004 | N/A | N/A | N/A | N/A |
| Arsenic (mw-62) | 21 | 11 | 15 | 6 | 28.57% | 5.0000E-4 | 0.005 | 0.00324 | 1.7578E-5 | 0.00419 | 1.294 |
| Arsenic (mw-63) | 21 | 10 | 7 | 14 | 66.67% | 5.0000E-4 | 0.005 | 7.3571E-4 | 8.2876E-8 | 2.8788E-4 | 0.391 |
| Arsenic (mw-64) | 21 | 10 | 4 | 17 | 80.95% | 5.0000E-4 | 0.005 | 5.9031E-4 | 2.8473E-8 | 1.6874E-4 | 0.286 |
| Arsenic (mw-65) | 21 | 10 | 4 | 17 | 80.95% | 5.0000E-4 | 0.005 | 6.0642E-4 | 5.1686E-8 | 2.2735E-4 | 0.375 |
| Barium (mw-62) | 21 | 11 | 21 | 0 | 0.00% | N/A | N/A | 0.0257 | 3.8133E-5 | 0.00618 | 0.241 |
| Barium (mw-63) | 21 | 10 | 21 | 0 | 0.00% | N/A | N/A | 0.02 | 1.7248E-5 | 0.00415 | 0.208 |
| Barium (mw-64) | 21 | 10 | 21 | 0 | 0.00% | N/A | N/A | 0.0268 | 1.2290E-5 | 0.00351 | 0.131 |
| Barium (mw-65) | 21 | 10 | 21 | 0 | 0.00% | N/A | N/A | 0.0187 | 5.2314E-5 | 0.00723 | 0.386 |
| Beryllium (mw-62) | 21 | 11 | 1 | 20 | 95.24% | 0.001 | 0.001 | 8.6000E-5 | 0 | 0 | N/A |
| Beryllium (mw-63) | 21 | 10 | 1 | 20 | 95.24% | 0.001 | 0.001 | 7.3000E-5 | 0 | 0 | N/A |
| Beryllium (mw-64) | 21 | 10 | 1 | 20 | 95.24% | 0.001 | 0.001 | 0.0012 | 7.6236E-7 | 8.7313E-4 | 0.731 |
| Beryllium (mw-65) | 21 | 10 | 0 | 21 | 100.00% | 0.001 | 0.001 | N/A | N/A | N/A | N/A |
| Cadmium (mw-62) | 21 | 11 | 1 | 20 | 95.24% | 1.0000E-4 | 0.001 | 8.4000E-5 | 0 | 0 | N/A |
| Cadmium (mw-63) | 21 | 10 | 2 | 19 | 90.48% | 1.0000E-4 | 0.001 | 6.9077E-5 | 3.093E-10 | 1.7587E-5 | 0.255 |
| Cadmium (mw-64) | 21 | 10 | 1 | 20 | 95.24% | 1.0000E-4 | 0.001 | 5.8000E-5 | 0 | 0 | N/A |
| Cadmium (mw-65) | 21 | 10 | 0 | 21 | 100.00% | 1.0000E-4 | 0.001 | N/A | N/A | N/A | N/A |
| Chromium (mw-62) | 21 | 11 | 4 | 17 | 80.95% | 5.0000E-4 | 0.01 | 6.5577E-4 | 9.1140E-8 | 3.0189E-4 | 0.46 |
| Chromium (mw-63) | 21 | 10 | 2 | 19 | 90.48% | 5.0000E-4 | 0.01 | 4.8125E-4 | 1.8386E-8 | 1.3559E-4 | 0.282 |
| Chromium (mw-64) | 21 | 10 | 3 | 18 | 85.71% | 5.0000E-4 | 0.01 | 3.7750E-4 | 6.8294E-8 | 2.6133E-4 | 0.692 |
| Chromium (mw-65) | 21 | 10 | 2 | 19 | 90.48% | 5.0000E-4 | 0.004 | 5.6214E-4 | 6.7660E-8 | 2.6011E-4 | 0.463 |
| Cobalt (mw-62) | 21 | 11 | 21 | 0 | 0.00% | N/A | N/A | 0.00675 | 1.1189E-5 | 0.00334 | 0.496 |

# Appendix B
# Summary Statistics

**User Selected Options**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt (mw-63) | 21 | 10 | 20 | 1 | 4.76% | 0.001 | 0.001 | 0.00461 | 5.0386E-6 | 0.00224 | 0.487 |
| Cobalt (mw-64) | 21 | 10 | 17 | 4 | 19.05% | 0.002 | 0.005 | 0.0014 | 8.3212E-8 | 2.8847E-4 | 0.207 |
| Cobalt (mw-65) | 21 | 10 | 18 | 3 | 14.29% | 0.002 | 0.002 | 0.00146 | 2.2555E-7 | 4.7492E-4 | 0.324 |
| Fluoride (mw-62) | 32 | 0 | 31 | 1 | 3.13% | 80 | 80 | 1.555 | 0.132 | 0.363 | 0.233 |
| Fluoride (mw-63) | 31 | 0 | 30 | 1 | 3.23% | 8 | 8 | 1.899 | 0.135 | 0.368 | 0.194 |
| Fluoride (mw-64) | 31 | 0 | 31 | 0 | 0.00% | N/A | N/A | 1.448 | 0.00658 | 0.0811 | 0.056 |
| Fluoride (mw-65) | 31 | 0 | 30 | 1 | 3.23% | 2 | 2 | 1.84 | 0.0359 | 0.189 | 0.103 |
| Lead (mw-62) | 21 | 11 | 2 | 19 | 90.48% | 5.0000E-4 | 0.005 | 5.0571E-4 | 4.245E-10 | 2.0603E-5 | 0.0407 |
| Lead (mw-63) | 21 | 10 | 1 | 20 | 95.24% | 5.0000E-4 | 0.005 | 1.5000E-4 | 0 | 0 | N/A |
| Lead (mw-64) | 21 | 10 | 1 | 20 | 95.24% | 5.0000E-4 | 0.005 | 1.6000E-4 | 0 | 0 | N/A |
| Lead (mw-65) | 21 | 10 | 0 | 21 | 100.00% | 5.0000E-4 | 0.002 | N/A | N/A | N/A | N/A |
| Lithium (mw-62) | 23 | 9 | 8 | 15 | 65.22% | 0.2 | 0.2 | 0.133 | 1.4375E-4 | 0.012 | 0.0905 |
| Lithium (mw-63) | 23 | 8 | 8 | 15 | 65.22% | 0.2 | 0.2 | 0.06 | 1.2175E-4 | 0.011 | 0.184 |
| Lithium (mw-64) | 23 | 8 | 7 | 16 | 69.57% | 0.05 | 0.2 | 0.0216 | 6.8163E-6 | 0.00261 | 0.121 |
| Lithium (mw-65) | 23 | 8 | 7 | 16 | 69.57% | 0.05 | 0.2 | 0.0549 | 1.2086E-4 | 0.011 | 0.2 |
| Mercury (mw-62) | 21 | 11 | 3 | 18 | 85.71% | 2.0000E-4 | 2.0000E-4 | 2.2190E-4 | 3.7583E-9 | 6.1305E-5 | 0.276 |
| Mercury (mw-63) | 21 | 10 | 0 | 21 | 100.00% | 2.0000E-4 | 2.0000E-4 | N/A | N/A | N/A | N/A |
| Mercury (mw-64) | 21 | 10 | 0 | 21 | 100.00% | 2.0000E-4 | 2.0000E-4 | N/A | N/A | N/A | N/A |
| Mercury (mw-65) | 21 | 10 | 0 | 21 | 100.00% | 2.0000E-4 | 2.0000E-4 | N/A | N/A | N/A | N/A |
| Molybdenum (mw-62) | 21 | 11 | 20 | 1 | 4.76% | 0.002 | 0.002 | 0.00334 | 4.2967E-6 | 0.00207 | 0.62 |
| Molybdenum (mw-63) | 21 | 10 | 21 | 0 | 0.00% | N/A | N/A | 0.00348 | 1.0280E-5 | 0.00321 | 0.921 |
| Molybdenum (mw-64) | 21 | 10 | 21 | 0 | 0.00% | N/A | N/A | 0.00498 | 4.0362E-7 | 6.3531E-4 | 0.128 |
| Molybdenum (mw-65) | 21 | 10 | 21 | 0 | 0.00% | N/A | N/A | 0.00854 | 1.9345E-6 | 0.00139 | 0.163 |
| Total Radium (mw-62) | 23 | 9 | 14 | 9 | 39.13% | 0.6 | 0.8 | 0.931 | 0.148 | 0.385 | 0.414 |
| Total Radium (mw-63) | 23 | 8 | 12 | 11 | 47.83% | 0.6 | 0.8 | 0.724 | 0.192 | 0.438 | 0.605 |
| Total Radium (mw-64) | 23 | 8 | 6 | 17 | 73.91% | 0.5 | 0.8 | 0.656 | 0.116 | 0.34 | 0.519 |
| Total Radium (mw-65) | 23 | 8 | 6 | 17 | 73.91% | 0.4 | 0.8 | 0.583 | 0.113 | 0.336 | 0.577 |
| Selenium (mw-62) | 21 | 11 | 6 | 15 | 71.43% | 5.0000E-4 | 0.005 | 6.7201E-4 | 1.2303E-7 | 3.5076E-4 | 0.522 |
| Selenium (mw-63) | 21 | 10 | 4 | 17 | 80.95% | 5.0000E-4 | 0.005 | 5.8564E-4 | 4.2519E-8 | 2.0620E-4 | 0.352 |
| Selenium (mw-64) | 21 | 10 | 1 | 20 | 95.24% | 5.0000E-4 | 0.005 | 3.3000E-4 | 0 | 0 | N/A |
| Selenium (mw-65) | 21 | 10 | 1 | 20 | 95.24% | 5.0000E-4 | 0.005 | 3.4000E-4 | 0 | 0 | N/A |
| Thallium (mw-62) | 21 | 11 | 1 | 20 | 95.24% | 1.0000E-4 | 0.001 | 9.8000E-5 | 0 | 0 | N/A |
| Thallium (mw-63) | 21 | 10 | 2 | 19 | 90.48% | 1.0000E-4 | 0.001 | 1.0429E-4 | 1.673E-10 | 1.2936E-5 | 0.124 |
| Thallium (mw-64) | 21 | 10 | 11 | 10 | 47.62% | 1.0000E-4 | 0.001 | 1.3623E-4 | 4.7710E-9 | 6.9072E-5 | 0.507 |
| Thallium (mw-65) | 21 | 10 | 1 | 20 | 95.24% | 1.0000E-4 | 0.001 | 7.2000E-5 | 0 | 0 | N/A |

# Appendix B
# Summary Statistics

**User Selected Options**

**General Statistics for Raw Data Sets using Detected Data Only**

| Variable | NumObs | # Missing | Minimum | Maximum | Mean | Median | Var | SD | MAD/0.675 | Skewness | CV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony (mw-62) | 2 | 11 | 1.1000E-4 | 1.1000E-4 | 1.1000E-4 | 1.1000E-4 | 0 | 0 | 0 | N/A | N/A |
| Antimony (mw-63) | 2 | 10 | 1.3000E-4 | 1.3000E-4 | 1.3000E-4 | 1.3000E-4 | 0 | 0 | 0 | N/A | N/A |
| Antimony (mw-64) | 0 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Antimony (mw-65) | 0 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Arsenic (mw-62) | 15 | 11 | 6.2000E-4 | 0.012 | 0.00421 | 0.002 | 2.2757E-5 | 0.00477 | 0.00188 | 1.097 | 1.133 |
| Arsenic (mw-63) | 7 | 10 | 5.9000E-4 | 0.0013 | 9.6143E-4 | 9.9000E-4 | 8.2848E-8 | 2.8783E-4 | 3.1134E-4 | -0.24 | 0.299 |
| Arsenic (mw-64) | 4 | 10 | 5.6000E-4 | 0.001 | 8.0750E-4 | 8.3500E-4 | 4.5425E-8 | 2.1313E-4 | 2.2239E-4 | -0.343 | 0.264 |
| Arsenic (mw-65) | 4 | 10 | 5.9000E-4 | 0.0013 | 9.2500E-4 | 9.0500E-4 | 1.0990E-7 | 3.3151E-4 | 3.7806E-4 | 0.193 | 0.358 |
| Barium (mw-62) | 21 | 11 | 0.015 | 0.043 | 0.0257 | 0.026 | 3.8133E-5 | 0.00618 | 0.00445 | 0.91 | 0.241 |
| Barium (mw-63) | 21 | 10 | 0.014 | 0.033 | 0.02 | 0.02 | 1.7248E-5 | 0.00415 | 0.00297 | 1.444 | 0.208 |
| Barium (mw-64) | 21 | 10 | 0.022 | 0.035 | 0.0268 | 0.027 | 1.2290E-5 | 0.00351 | 0.00297 | 0.927 | 0.131 |
| Barium (mw-65) | 21 | 10 | 0.012 | 0.042 | 0.0187 | 0.017 | 5.2314E-5 | 0.00723 | 0.00593 | 1.971 | 0.386 |
| Beryllium (mw-62) | 1 | 11 | 8.6000E-5 | 8.6000E-5 | 8.6000E-5 | 8.6000E-5 | N/A | N/A | 0 | N/A | N/A |
| Beryllium (mw-63) | 1 | 10 | 7.3000E-5 | 7.3000E-5 | 7.3000E-5 | 7.3000E-5 | N/A | N/A | 0 | N/A | N/A |
| Beryllium (mw-64) | 1 | 10 | 0.0051 | 0.0051 | 0.0051 | 0.0051 | N/A | N/A | 0 | N/A | N/A |
| Beryllium (mw-65) | 0 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Cadmium (mw-62) | 1 | 11 | 8.4000E-5 | 8.4000E-5 | 8.4000E-5 | 8.4000E-5 | N/A | N/A | 0 | N/A | N/A |
| Cadmium (mw-63) | 2 | 10 | 6.4000E-5 | 1.3000E-4 | 9.7000E-5 | 9.7000E-5 | 2.1780E-9 | 4.6669E-5 | 4.8925E-5 | N/A | 0.481 |
| Cadmium (mw-64) | 1 | 10 | 5.8000E-5 | 5.8000E-5 | 5.8000E-5 | 5.8000E-5 | N/A | N/A | 0 | N/A | N/A |
| Cadmium (mw-65) | 0 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Chromium (mw-62) | 4 | 11 | 5.1000E-4 | 0.0015 | 0.001 | 0.001 | 1.6336E-7 | 4.0418E-4 | 3.6323E-4 | 0.0371 | 0.403 |
| Chromium (mw-63) | 2 | 10 | 4.3000E-4 | 8.4000E-4 | 6.3500E-4 | 6.3500E-4 | 8.4050E-8 | 2.8991E-4 | 3.0393E-4 | N/A | 0.457 |
| Chromium (mw-64) | 3 | 10 | 2.3000E-4 | 9.3000E-4 | 6.2333E-4 | 7.1000E-4 | 1.2813E-7 | 3.5796E-4 | 3.2617E-4 | -1.026 | 0.574 |
| Chromium (mw-65) | 2 | 10 | 4.9000E-4 | 0.0015 | 9.9500E-4 | 9.9500E-4 | 5.1005E-7 | 7.1418E-4 | 7.4870E-4 | N/A | 0.718 |
| Cobalt (mw-62) | 21 | 11 | 6.5000E-4 | 0.014 | 0.00675 | 0.0064 | 1.1189E-5 | 0.00334 | 0.00297 | 0.223 | 0.496 |
| Cobalt (mw-63) | 20 | 10 | 6.2000E-4 | 0.0086 | 0.00481 | 0.00555 | 4.6906E-6 | 0.00217 | 0.00163 | -0.574 | 0.451 |
| Cobalt (mw-64) | 17 | 10 | 8.3000E-4 | 0.0018 | 0.0014 | 0.0015 | 8.8413E-8 | 2.9734E-4 | 4.4477E-4 | -0.164 | 0.213 |
| Cobalt (mw-65) | 18 | 10 | 0.001 | 0.0029 | 0.00149 | 0.0012 | 2.5987E-7 | 5.0977E-4 | 2.2239E-4 | 1.451 | 0.342 |
| Fluoride (mw-62) | 31 | 0 | 1.2 | 3.3 | 1.555 | 1.5 | 0.136 | 0.369 | 0.148 | 3.718 | 0.237 |
| Fluoride (mw-63) | 30 | 0 | 0.28 | 2.5 | 1.899 | 1.95 | 0.14 | 0.374 | 0.222 | -2.749 | 0.197 |
| Fluoride (mw-64) | 31 | 0 | 1.3 | 1.6 | 1.448 | 1.4 | 0.00658 | 0.0811 | 0.148 | 0.0554 | 0.056 |

# Appendix B
# Summary Statistics

**User Selected Options**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride (mw-65) | 30 | 0 | 1.4 | 2.1 | 1.843 | 1.9 | 0.037 | 0.192 | 0.148 | -0.825 | 0.104 |
| Lead (mw-62) | 2 | 11 | 5.0000E-4 | 5.8000E-4 | 5.4000E-4 | 5.4000E-4 | 3.2000E-9 | 5.6569E-5 | 5.9303E-5 | N/A | 0.105 |
| Lead (mw-63) | 1 | 10 | 1.5000E-4 | 1.5000E-4 | 1.5000E-4 | 1.5000E-4 | N/A | N/A | 0 | N/A | N/A |
| Lead (mw-64) | 1 | 10 | 1.6000E-4 | 1.6000E-4 | 1.6000E-4 | 1.6000E-4 | N/A | N/A | 0 | N/A | N/A |
| Lead (mw-65) | 0 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Lithium (mw-62) | 8 | 9 | 0.11 | 0.15 | 0.133 | 0.135 | 1.6429E-4 | 0.0128 | 0.00741 | -0.611 | 0.0967 |
| Lithium (mw-63) | 8 | 8 | 0.045 | 0.085 | 0.06 | 0.0575 | 1.3914E-4 | 0.0118 | 0.00593 | 1.388 | 0.197 |
| Lithium (mw-64) | 7 | 8 | 0.019 | 0.027 | 0.0216 | 0.021 | 7.9524E-6 | 0.00282 | 0.00297 | 1.3 | 0.131 |
| Lithium (mw-65) | 7 | 8 | 0.045 | 0.081 | 0.0563 | 0.053 | 1.4257E-4 | 0.0119 | 0.00445 | 1.812 | 0.212 |
| Mercury (mw-62) | 3 | 11 | 2.5000E-4 | 4.4000E-4 | 3.5333E-4 | 3.7000E-4 | 9.2333E-9 | 9.6090E-5 | 1.0378E-4 | -0.757 | 0.272 |
| Mercury (mw-63) | 0 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Mercury (mw-64) | 0 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Mercury (mw-65) | 0 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Molybdenum (mw-62) | 20 | 11 | 0.0012 | 0.012 | 0.00345 | 0.003 | 4.4953E-6 | 0.00212 | 3.7064E-4 | 3.747 | 0.615 |
| Molybdenum (mw-63) | 21 | 10 | 0.0019 | 0.017 | 0.00348 | 0.0026 | 1.0280E-5 | 0.00321 | 5.9303E-4 | 4.129 | 0.921 |
| Molybdenum (mw-64) | 21 | 10 | 0.0042 | 0.0073 | 0.00498 | 0.0049 | 4.0362E-7 | 6.3531E-4 | 4.4477E-4 | 2.536 | 0.128 |
| Molybdenum (mw-65) | 21 | 10 | 0.0066 | 0.013 | 0.00854 | 0.0083 | 1.9345E-6 | 0.00139 | 0.00148 | 1.614 | 0.163 |
| Total Radium (mw-62) | 14 | 9 | 0.6 | 1.9 | 1.143 | 1.05 | 0.138 | 0.372 | 0.297 | 0.613 | 0.325 |
| Total Radium (mw-63) | 12 | 8 | 0.4 | 2.1 | 0.958 | 0.8 | 0.272 | 0.521 | 0.297 | 1.358 | 0.544 |
| Total Radium (mw-64) | 6 | 8 | 0.731 | 1.7 | 1.089 | 0.8 | 0.225 | 0.474 | 0.0511 | 0.954 | 0.436 |
| Total Radium (mw-65) | 6 | 8 | 0.478 | 1.9 | 0.98 | 0.85 | 0.254 | 0.504 | 0.297 | 1.433 | 0.514 |
| Selenium (mw-62) | 6 | 11 | 5.4000E-4 | 0.002 | 9.5667E-4 | 8.5500E-4 | 2.9195E-7 | 5.4032E-4 | 2.8910E-4 | 1.884 | 0.565 |
| Selenium (mw-63) | 4 | 10 | 5.1000E-4 | 0.0013 | 8.1250E-4 | 7.2000E-4 | 1.1649E-7 | 3.4131E-4 | 1.8532E-4 | 1.437 | 0.42 |
| Selenium (mw-64) | 1 | 10 | 3.3000E-4 | 3.3000E-4 | 3.3000E-4 | 3.3000E-4 | N/A | N/A | 0 | N/A | N/A |
| Selenium (mw-65) | 1 | 10 | 3.4000E-4 | 3.4000E-4 | 3.4000E-4 | 3.4000E-4 | N/A | N/A | 0 | N/A | N/A |
| Thallium (mw-62) | 1 | 11 | 9.8000E-5 | 9.8000E-5 | 9.8000E-5 | 9.8000E-5 | N/A | N/A | 0 | N/A | N/A |
| Thallium (mw-63) | 2 | 10 | 1.1000E-4 | 1.5000E-4 | 1.3000E-4 | 1.3000E-4 | 8.000E-10 | 2.8284E-5 | 2.9652E-5 | N/A | 0.218 |
| Thallium (mw-64) | 11 | 10 | 1.1000E-4 | 4.1000E-4 | 1.5545E-4 | 1.2000E-4 | 7.8073E-9 | 8.8359E-5 | 1.4826E-5 | 2.858 | 0.568 |
| Thallium (mw-65) | 1 | 10 | 7.2000E-5 | 7.2000E-5 | 7.2000E-5 | 7.2000E-5 | N/A | N/A | 0 | N/A | N/A |

**Percentiles using all Detects (Ds) and Non-Detects (NDs)**

| Variable | NumObs | # Missing | 10%ile | 20%ile | 25%ile(Q1) | 50%ile(Q2) | 75%ile(Q3) | 80%ile | 90%ile | 95%ile | 99%ile |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony (mw-62) | 21 | 11 | 0.001 | 0.001 | 0.001 | 0.001 | 0.0025 | 0.0025 | 0.004 | 0.004 | 0.004 |
| Antimony (mw-63) | 21 | 10 | 0.001 | 0.001 | 0.001 | 0.001 | 0.0025 | 0.0025 | 0.004 | 0.004 | 0.004 |

# Appendix B
# Summary Statistics

**User Selected Options**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony (mw-64) | 21 | 10 | 0.001 | 0.001 | 0.001 | 0.001 | 0.0025 | 0.0025 | 0.004 | 0.004 | 0.004 |
| Antimony (mw-65) | 21 | 10 | 0.001 | 0.001 | 0.001 | 0.001 | 0.002 | 0.0025 | 0.004 | 0.004 | 0.004 |
| Arsenic (mw-62) | 21 | 11 | 6.5000E-4 | 7.3000E-4 | 9.8000E-4 | 0.002 | 0.0031 | 0.005 | 0.012 | 0.012 | 0.012 |
| Arsenic (mw-63) | 21 | 10 | 5.0000E-4 | 5.0000E-4 | 5.9000E-4 | 0.001 | 0.0013 | 0.002 | 0.002 | 0.005 | 0.005 |
| Arsenic (mw-64) | 21 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 9.6000E-4 | 0.001 | 0.002 | 0.002 | 0.005 | 0.005 |
| Arsenic (mw-65) | 21 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 7.1000E-4 | 0.0011 | 0.0013 | 0.002 | 0.002 | 0.0044 |
| Barium (mw-62) | 21 | 11 | 0.021 | 0.022 | 0.022 | 0.026 | 0.027 | 0.028 | 0.033 | 0.034 | 0.0412 |
| Barium (mw-63) | 21 | 10 | 0.016 | 0.017 | 0.017 | 0.02 | 0.022 | 0.022 | 0.023 | 0.025 | 0.0314 |
| Barium (mw-64) | 21 | 10 | 0.023 | 0.024 | 0.024 | 0.027 | 0.027 | 0.029 | 0.033 | 0.033 | 0.0346 |
| Barium (mw-65) | 21 | 10 | 0.012 | 0.013 | 0.014 | 0.017 | 0.021 | 0.021 | 0.023 | 0.032 | 0.04 |
| Beryllium (mw-62) | 21 | 11 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 |
| Beryllium (mw-63) | 21 | 10 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 |
| Beryllium (mw-64) | 21 | 10 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.00428 |
| Beryllium (mw-65) | 21 | 10 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 |
| Cadmium (mw-62) | 21 | 11 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 4.0000E-4 | 4.0000E-4 | 5.0000E-4 | 0.001 | 0.001 |
| Cadmium (mw-63) | 21 | 10 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 4.0000E-4 | 4.0000E-4 | 0.001 | 0.001 | 0.001 |
| Cadmium (mw-64) | 21 | 10 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 4.0000E-4 | 4.0000E-4 | 0.001 | 0.001 | 0.001 |
| Cadmium (mw-65) | 21 | 10 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 4.0000E-4 | 4.0000E-4 | 5.0000E-4 | 0.001 | 0.001 |
| Chromium (mw-62) | 21 | 11 | 5.0000E-4 | 0.001 | 0.001 | 0.001 | 0.002 | 0.002 | 0.003 | 0.004 | 0.0088 |
| Chromium (mw-63) | 21 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 0.001 | 0.002 | 0.002 | 0.003 | 0.004 | 0.0088 |
| Chromium (mw-64) | 21 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 0.001 | 0.002 | 0.002 | 0.003 | 0.004 | 0.0088 |
| Chromium (mw-65) | 21 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 0.001 | 0.002 | 0.002 | 0.0025 | 0.003 | 0.0038 |
| Cobalt (mw-62) | 21 | 11 | 0.0029 | 0.0044 | 0.0048 | 0.0064 | 0.0084 | 0.01 | 0.011 | 0.011 | 0.0134 |
| Cobalt (mw-63) | 21 | 10 | 0.0012 | 0.0022 | 0.0026 | 0.0055 | 0.006 | 0.0063 | 0.0069 | 0.0069 | 0.00826 |
| Cobalt (mw-64) | 21 | 10 | 0.0011 | 0.0012 | 0.0012 | 0.0015 | 0.0018 | 0.0018 | 0.002 | 0.002 | 0.0044 |
| Cobalt (mw-65) | 21 | 10 | 0.0011 | 0.0011 | 0.0011 | 0.0014 | 0.002 | 0.002 | 0.002 | 0.0022 | 0.00276 |
| Fluoride (mw-62) | 32 | 0 | 1.22 | 1.4 | 1.4 | 1.5 | 1.6 | 1.6 | 1.8 | 2.585 | 56.22 |
| Fluoride (mw-63) | 31 | 0 | 1.6 | 1.8 | 1.8 | 2 | 2.1 | 2.1 | 2.2 | 2.45 | 6.35 |
| Fluoride (mw-64) | 31 | 0 | 1.4 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 |
| Fluoride (mw-65) | 31 | 0 | 1.5 | 1.7 | 1.75 | 1.9 | 2 | 2 | 2 | 2.05 | 2.1 |
| Lead (mw-62) | 21 | 11 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 0.001 | 0.001 | 0.002 | 0.002 | 0.0044 |
| Lead (mw-63) | 21 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 0.001 | 0.001 | 0.002 | 0.002 | 0.0044 |
| Lead (mw-64) | 21 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 0.001 | 0.001 | 0.002 | 0.002 | 0.0044 |
| Lead (mw-65) | 21 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 0.001 | 0.001 | 0.002 | 0.002 | 0.002 |
| Lithium (mw-62) | 23 | 9 | 0.13 | 0.14 | 0.14 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |

# Appendix B
# Summary Statistics

**User Selected Options**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium (mw-63) | 23 | 8 | 0.0554 | 0.0592 | 0.0635 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Lithium (mw-64) | 23 | 8 | 0.0202 | 0.0224 | 0.025 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Lithium (mw-65) | 23 | 8 | 0.05 | 0.0534 | 0.0575 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Mercury (mw-62) | 21 | 11 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.5000E-4 | 3.7000E-4 | 4.2600E-4 |
| Mercury (mw-63) | 21 | 10 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 |
| Mercury (mw-64) | 21 | 10 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 |
| Mercury (mw-65) | 21 | 10 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 |
| Molybdenum (mw-62) | 21 | 11 | 0.0023 | 0.0027 | 0.0027 | 0.003 | 0.0032 | 0.0034 | 0.0043 | 0.0044 | 0.0105 |
| Molybdenum (mw-63) | 21 | 10 | 0.0022 | 0.0023 | 0.0024 | 0.0026 | 0.0031 | 0.0033 | 0.0036 | 0.0058 | 0.0148 |
| Molybdenum (mw-64) | 21 | 10 | 0.0045 | 0.0045 | 0.0046 | 0.0049 | 0.0051 | 0.0052 | 0.0052 | 0.0057 | 0.00698 |
| Molybdenum (mw-65) | 21 | 10 | 0.0072 | 0.0073 | 0.0078 | 0.0083 | 0.0093 | 0.0093 | 0.0098 | 0.01 | 0.0124 |
| Total Radium (mw-62) | 23 | 9 | 0.6 | 0.6 | 0.65 | 0.9 | 1.1 | 1.22 | 1.56 | 1.604 | 1.835 |
| Total Radium (mw-63) | 23 | 8 | 0.6 | 0.6 | 0.6 | 0.7 | 0.8 | 0.8 | 1.238 | 1.75 | 2.034 |
| Total Radium (mw-64) | 23 | 8 | 0.6 | 0.6 | 0.6 | 0.7 | 0.8 | 0.8 | 0.8 | 1.61 | 1.7 |
| Total Radium (mw-65) | 23 | 8 | 0.5 | 0.6 | 0.6 | 0.6 | 0.75 | 0.8 | 0.96 | 1.09 | 1.724 |
| Selenium (mw-62) | 21 | 11 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 8.0000E-4 | 0.002 | 0.002 | 0.002 | 0.003 | 0.0046 |
| Selenium (mw-63) | 21 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 5.1000E-4 | 0.002 | 0.002 | 0.002 | 0.003 | 0.0046 |
| Selenium (mw-64) | 21 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 0.002 | 0.002 | 0.002 | 0.003 | 0.0046 |
| Selenium (mw-65) | 21 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 0.001 | 0.002 | 0.002 | 0.003 | 0.0046 |
| Thallium (mw-62) | 21 | 11 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 4.0000E-4 | 4.0000E-4 | 0.001 | 0.001 | 0.001 |
| Thallium (mw-63) | 21 | 10 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 4.0000E-4 | 4.0000E-4 | 5.0000E-4 | 0.001 | 0.001 |
| Thallium (mw-64) | 21 | 10 | 1.0000E-4 | 1.1000E-4 | 1.1000E-4 | 1.3000E-4 | 4.0000E-4 | 4.0000E-4 | 4.1000E-4 | 5.0000E-4 | 9.0000E-4 |
| Thallium (mw-65) | 21 | 10 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 4.0000E-4 | 4.0000E-4 | 5.0000E-4 | 0.001 | 0.001 |

# Appendix B
# Outlier Statistics

| | |
|---|---|
| | **Outlier Tests for Selected Uncensored Variables** |
| **User Selected Options** | |
| Date/Time of Computation | ProUCL 5.13/13/2024 4:15:07 PM |
| From File | FC_CWTP_AppxIV_ProUCL_Upload_20240312.xls |
| Full Precision | OFF |

**Dixon's Outlier Test for Antimony (mw-62)**

Number of Observations = 21
10% critical value: 0.391
5% critical value: 0.44
1% critical value: 0.524

**1. Observation Value 0.004 is a Potential Outlier (Upper Tail)?**

Test Statistic: 0.000

For 10% significance level, 0.004 is not an outlier.
For 5% significance level, 0.004 is not an outlier.
For 1% significance level, 0.004 is not an outlier.

**2. Observation Value 0.00011 is a Potential Outlier (Lower Tail)?**

Test Statistic: 0.229

For 10% significance level, 0.00011 is not an outlier.
For 5% significance level, 0.00011 is not an outlier.
For 1% significance level, 0.00011 is not an outlier.

**Dixon's Outlier Test for Antimony (mw-63)**

Number of Observations = 21
10% critical value: 0.391
5% critical value: 0.44
1% critical value: 0.524

**1. Observation Value 0.004 is a Potential Outlier (Upper Tail)?**

# Appendix B
# Outlier Statistics

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Number of Observations = 21 | | | | | | | |
| Test Statistic: 0.000 | | | | | | | |
| | | | | | | | |
| For 10% significance level, 0.004 is not an outlier. | | | | | | | |
| For 5% significance level, 0.004 is not an outlier. | | | | | | | |
| For 1% significance level, 0.004 is not an outlier. | | | | | | | |
| | | | | | | | |
| **2. Observation Value 0.00013 is a Potential Outlier (Lower Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.225 | | | | | | | |
| | | | | | | | |
| For 10% significance level, 0.00013 is not an outlier. | | | | | | | |
| For 5% significance level, 0.00013 is not an outlier. | | | | | | | |
| For 1% significance level, 0.00013 is not an outlier. | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| **Dixon's Outlier Test for Antimony (mw-64)** | | | | | | | |
| | | | | | | | |
| Number of Observations = 21 | | | | | | | |
| 10% critical value: 0.391 | | | | | | | |
| 5% critical value: 0.44 | | | | | | | |
| 1% critical value: 0.524 | | | | | | | |
| | | | | | | | |
| **1. Observation Value 0.004 is a Potential Outlier (Upper Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.000 | | | | | | | |
| | | | | | | | |
| For 10% significance level, 0.004 is not an outlier. | | | | | | | |
| For 5% significance level, 0.004 is not an outlier. | | | | | | | |
| For 1% significance level, 0.004 is not an outlier. | | | | | | | |
| | | | | | | | |
| **2. Observation Value 0.0001 is a Potential Outlier (Lower Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.231 | | | | | | | |
| | | | | | | | |
| For 10% significance level, 0.0001 is not an outlier. | | | | | | | |
| For 5% significance level, 0.0001 is not an outlier. | | | | | | | |
| For 1% significance level, 0.0001 is not an outlier. | | | | | | | |
| | | | | | | | |
| | | | | | | | |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| **Dixon's Outlier Test for Antimony (mw-65)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.004 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.004 is not an outlier. |
| For 5% significance level, 0.004 is not an outlier. |
| For 1% significance level, 0.004 is not an outlier. |
| |
| **2. Observation Value 0.0001 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.231 |
| |
| For 10% significance level, 0.0001 is not an outlier. |
| For 5% significance level, 0.0001 is not an outlier. |
| For 1% significance level, 0.0001 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Arsenic (mw-62)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.012 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.012 is not an outlier. |
| For 5% significance level, 0.012 is not an outlier. |
| For 1% significance level, 0.012 is not an outlier. |
| |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| **2. Observation Value 0.0005 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.013 |
| |
| For 10% significance level, 0.0005 is not an outlier. |
| For 5% significance level, 0.0005 is not an outlier. |
| For 1% significance level, 0.0005 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Arsenic (mw-63)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.667 |
| |
| For 10% significance level, 0.005 is an outlier. |
| For 5% significance level, 0.005 is an outlier. |
| For 1% significance level, 0.005 is an outlier. |
| |
| **2. Observation Value 0.0005 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0005 is not an outlier. |
| For 5% significance level, 0.0005 is not an outlier. |
| For 1% significance level, 0.0005 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Arsenic (mw-64)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| |
| **1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.667 |
| |
| For 10% significance level, 0.005 is an outlier. |
| For 5% significance level, 0.005 is an outlier. |
| For 1% significance level, 0.005 is an outlier. |
| |
| **2. Observation Value 0.0005 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0005 is not an outlier. |
| For 5% significance level, 0.0005 is not an outlier. |
| For 1% significance level, 0.0005 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Arsenic (mw-65)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.667 |
| |
| For 10% significance level, 0.005 is an outlier. |
| For 5% significance level, 0.005 is an outlier. |
| For 1% significance level, 0.005 is an outlier. |
| |
| **2. Observation Value 0.0005 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0005 is not an outlier. |
| For 5% significance level, 0.0005 is not an outlier. |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| For 1% significance level, 0.0005 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Barium (mw-62)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.043 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.455 |
| |
| For 10% significance level, 0.043 is an outlier. |
| For 5% significance level, 0.043 is an outlier. |
| For 1% significance level, 0.043 is not an outlier. |
| |
| **2. Observation Value 0.015 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.333 |
| |
| For 10% significance level, 0.015 is not an outlier. |
| For 5% significance level, 0.015 is not an outlier. |
| For 1% significance level, 0.015 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Barium (mw-63)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.033 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.588 |
| |
| For 10% significance level, 0.033 is an outlier. |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| For 5% significance level, 0.033 is an outlier. |
| For 1% significance level, 0.033 is an outlier. |
| |
| **2. Observation Value 0.014 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.222 |
| |
| For 10% significance level, 0.014 is not an outlier. |
| For 5% significance level, 0.014 is not an outlier. |
| For 1% significance level, 0.014 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Barium (mw-64)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.035 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.167 |
| |
| For 10% significance level, 0.035 is not an outlier. |
| For 5% significance level, 0.035 is not an outlier. |
| For 1% significance level, 0.035 is not an outlier. |
| |
| **2. Observation Value 0.022 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.091 |
| |
| For 10% significance level, 0.022 is not an outlier. |
| For 5% significance level, 0.022 is not an outlier. |
| For 1% significance level, 0.022 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Barium (mw-65)** |
| |
| Number of Observations = 21 |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.042 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.633 |
| |
| For 10% significance level, 0.042 is an outlier. |
| For 5% significance level, 0.042 is an outlier. |
| For 1% significance level, 0.042 is an outlier. |
| |
| **2. Observation Value 0.012 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.012 is not an outlier. |
| For 5% significance level, 0.012 is not an outlier. |
| For 1% significance level, 0.012 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Beryllium (mw-62)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.001 is an outlier. |
| For 5% significance level, 0.001 is an outlier. |
| For 1% significance level, 0.001 is an outlier. |
| |
| **2. Observation Value 8.6E-05 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 1.000 |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| |
| For 10% significance level, 8.6E-05 is an outlier. |
| For 5% significance level, 8.6E-05 is an outlier. |
| For 1% significance level, 8.6E-05 is an outlier. |
| |
| |
| **Dixon's Outlier Test for Beryllium (mw-63)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.001 is an outlier. |
| For 5% significance level, 0.001 is an outlier. |
| For 1% significance level, 0.001 is an outlier. |
| |
| **2. Observation Value 7.3E-05 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 1.000 |
| |
| For 10% significance level, 7.3E-05 is an outlier. |
| For 5% significance level, 7.3E-05 is an outlier. |
| For 1% significance level, 7.3E-05 is an outlier. |
| |
| |
| **Dixon's Outlier Test for Beryllium (mw-64)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.0051 is a Potential Outlier (Upper Tail)?** |
| |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| Test Statistic: 1.000 |
| |
| For 10% significance level, 0.0051 is an outlier. |
| For 5% significance level, 0.0051 is an outlier. |
| For 1% significance level, 0.0051 is an outlier. |
| |
| **2. Observation Value 0.001 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.001 is an outlier. |
| For 5% significance level, 0.001 is an outlier. |
| For 1% significance level, 0.001 is an outlier. |
| |
| |
| **Dixon's Outlier Test for Beryllium (mw-65)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.001 is an outlier. |
| For 5% significance level, 0.001 is an outlier. |
| For 1% significance level, 0.001 is an outlier. |
| |
| **2. Observation Value 0.001 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.001 is an outlier. |
| For 5% significance level, 0.001 is an outlier. |
| For 1% significance level, 0.001 is an outlier. |
| |
| |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| **Dixon's Outlier Test for Cadmium (mw-62)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.556 |
| |
| For 10% significance level, 0.001 is an outlier. |
| For 5% significance level, 0.001 is an outlier. |
| For 1% significance level, 0.001 is an outlier. |
| |
| **2. Observation Value 8.4E-05 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.038 |
| |
| For 10% significance level, 8.4E-05 is not an outlier. |
| For 5% significance level, 8.4E-05 is not an outlier. |
| For 1% significance level, 8.4E-05 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Cadmium (mw-63)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.001 is not an outlier. |
| For 5% significance level, 0.001 is not an outlier. |
| For 1% significance level, 0.001 is not an outlier. |
| |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| **2. Observation Value 6.4E-05 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.038 |
| |
| For 10% significance level, 6.4E-05 is not an outlier. |
| For 5% significance level, 6.4E-05 is not an outlier. |
| For 1% significance level, 6.4E-05 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Cadmium (mw-64)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.001 is not an outlier. |
| For 5% significance level, 0.001 is not an outlier. |
| For 1% significance level, 0.001 is not an outlier. |
| |
| **2. Observation Value 5.8E-05 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.045 |
| |
| For 10% significance level, 5.8E-05 is not an outlier. |
| For 5% significance level, 5.8E-05 is not an outlier. |
| For 1% significance level, 5.8E-05 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Cadmium (mw-65)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.556 |
| |
| For 10% significance level, 0.001 is an outlier. |
| For 5% significance level, 0.001 is an outlier. |
| For 1% significance level, 0.001 is an outlier. |
| |
| **2. Observation Value 0.0001 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0001 is not an outlier. |
| For 5% significance level, 0.0001 is not an outlier. |
| For 1% significance level, 0.0001 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Chromium (mw-62)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.01 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.737 |
| |
| For 10% significance level, 0.01 is an outlier. |
| For 5% significance level, 0.01 is an outlier. |
| For 1% significance level, 0.01 is an outlier. |
| |
| **2. Observation Value 0.0005 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0005 is not an outlier. |
| For 5% significance level, 0.0005 is not an outlier. |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| For 1% significance level, 0.0005 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Chromium (mw-63)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.01 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.737 |
| |
| For 10% significance level, 0.01 is an outlier. |
| For 5% significance level, 0.01 is an outlier. |
| For 1% significance level, 0.01 is an outlier. |
| |
| **2. Observation Value 0.00043 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.027 |
| |
| For 10% significance level, 0.00043 is not an outlier. |
| For 5% significance level, 0.00043 is not an outlier. |
| For 1% significance level, 0.00043 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Chromium (mw-64)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.01 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.737 |
| |
| For 10% significance level, 0.01 is an outlier. |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| For 5% significance level, 0.01 is an outlier. |
| For 1% significance level, 0.01 is an outlier. |
| |
| **2. Observation Value 0.00023 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.097 |
| |
| For 10% significance level, 0.00023 is not an outlier. |
| For 5% significance level, 0.00023 is not an outlier. |
| For 1% significance level, 0.00023 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Chromium (mw-65)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.004 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.429 |
| |
| For 10% significance level, 0.004 is an outlier. |
| For 5% significance level, 0.004 is not an outlier. |
| For 1% significance level, 0.004 is not an outlier. |
| |
| **2. Observation Value 0.00049 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.005 |
| |
| For 10% significance level, 0.00049 is not an outlier. |
| For 5% significance level, 0.00049 is not an outlier. |
| For 1% significance level, 0.00049 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Cobalt (mw-62)** |
| |
| Number of Observations = 21 |

# Appendix B
# Outlier Statistics

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Number of Observations = 21 | | | | | | | |
| 10% critical value: 0.391 | | | | | | | |
| 5% critical value: 0.44 | | | | | | | |
| 1% critical value: 0.524 | | | | | | | |
| | | | | | | | |
| **1. Observation Value 0.014 is a Potential Outlier (Upper Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.270 | | | | | | | |
| | | | | | | | |
| For 10% significance level, 0.014 is not an outlier. | | | | | | | |
| For 5% significance level, 0.014 is not an outlier. | | | | | | | |
| For 1% significance level, 0.014 is not an outlier. | | | | | | | |
| | | | | | | | |
| **2. Observation Value 0.00065 is a Potential Outlier (Lower Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.217 | | | | | | | |
| | | | | | | | |
| For 10% significance level, 0.00065 is not an outlier. | | | | | | | |
| For 5% significance level, 0.00065 is not an outlier. | | | | | | | |
| For 1% significance level, 0.00065 is not an outlier. | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| **Dixon's Outlier Test for Cobalt (mw-63)** | | | | | | | |
| | | | | | | | |
| Number of Observations = 21 | | | | | | | |
| 10% critical value: 0.391 | | | | | | | |
| 5% critical value: 0.44 | | | | | | | |
| 1% critical value: 0.524 | | | | | | | |
| | | | | | | | |
| **1. Observation Value 0.0086 is a Potential Outlier (Upper Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.230 | | | | | | | |
| | | | | | | | |
| For 10% significance level, 0.0086 is not an outlier. | | | | | | | |
| For 5% significance level, 0.0086 is not an outlier. | | | | | | | |
| For 1% significance level, 0.0086 is not an outlier. | | | | | | | |
| | | | | | | | |
| **2. Observation Value 0.00062 is a Potential Outlier (Lower Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.092 | | | | | | | |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| |
| For 10% significance level, 0.00062 is not an outlier. |
| For 5% significance level, 0.00062 is not an outlier. |
| For 1% significance level, 0.00062 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Cobalt (mw-64)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.769 |
| |
| For 10% significance level, 0.005 is an outlier. |
| For 5% significance level, 0.005 is an outlier. |
| For 1% significance level, 0.005 is an outlier. |
| |
| **2. Observation Value 0.00083 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.231 |
| |
| For 10% significance level, 0.00083 is not an outlier. |
| For 5% significance level, 0.00083 is not an outlier. |
| For 1% significance level, 0.00083 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Cobalt (mw-65)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.0029 is a Potential Outlier (Upper Tail)?** |
| |

# Appendix B
# Outlier Statistics

Number of Observations = 21

Test Statistic: 0.500

For 10% significance level, 0.0029 is an outlier.
For 5% significance level, 0.0029 is an outlier.
For 1% significance level, 0.0029 is not an outlier.

**2. Observation Value 0.001 is a Potential Outlier (Lower Tail)?**

Test Statistic: 0.100

For 10% significance level, 0.001 is not an outlier.
For 5% significance level, 0.001 is not an outlier.
For 1% significance level, 0.001 is not an outlier.

**Rosner's Outlier Test for Fluoride (mw-62)**

| | |
|---|---|
| **Mean** | **4.006** |
| **Standard Deviation** | **13.87** |
| **Number of data** | **32** |
| **Number of suspected outliers** | **1** |

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 4.006 | 13.65 | 80 | 30 | 5.566 | 2.94 | 3.27 |

For 5% Significance Level, there is 1 Potential Outlier
Potential outliers is: 80

For 1% Significance Level, there is 1 Potential Outlier
Potential outliers is: 80

**Rosner's Outlier Test for Fluoride (mw-63)**

| | |
|---|---|
| **Mean** | **2.096** |
| **Standard Deviation** | **1.156** |

# Appendix B
# Outlier Statistics

Number of Observations = 21

| | |
|---|---|
| **Number of data** | **31** |
| **Number of suspected outliers** | **1** |

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 2.096 | 1.137 | 8 | 29 | 5.192 | 2.92 | 3.25 |

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 8

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 8

**Rosner's Outlier Test for Fluoride (mw-64)**

| | |
|---|---|
| **Mean** | **1.448** |
| **Standard Deviation** | **0.0811** |
| **Number of data** | **31** |
| **Number of suspected outliers** | **1** |

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 1.448 | 0.0798 | 1.6 | 4 | 1.9 | 2.92 | 3.25 |

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

**Rosner's Outlier Test for Fluoride (mw-65)**

| | |
|---|---|
| **Mean** | **1.848** |
| **Standard Deviation** | **0.191** |
| **Number of data** | **31** |
| **Number of suspected outliers** | **1** |

# Appendix B
# Outlier Statistics

Number of Observations = 21

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 1.848 | 0.188 | 1.4 | 30 | 2.383 | 2.92 | 3.25 |

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

**Dixon's Outlier Test for Lead (mw-62)**

Number of Observations = 21
10% critical value: 0.391
5% critical value: 0.44
1% critical value: 0.524

**1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?**

Test Statistic: 0.667

For 10% significance level, 0.005 is an outlier.
For 5% significance level, 0.005 is an outlier.
For 1% significance level, 0.005 is an outlier.

**2. Observation Value 0.0005 is a Potential Outlier (Lower Tail)?**

Test Statistic: 0.000

For 10% significance level, 0.0005 is not an outlier.
For 5% significance level, 0.0005 is not an outlier.
For 1% significance level, 0.0005 is not an outlier.

**Dixon's Outlier Test for Lead (mw-63)**

Number of Observations = 21
10% critical value: 0.391
5% critical value: 0.44
1% critical value: 0.524

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| |
| **1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.667 |
| |
| For 10% significance level, 0.005 is an outlier. |
| For 5% significance level, 0.005 is an outlier. |
| For 1% significance level, 0.005 is an outlier. |
| |
| **2. Observation Value 0.00015 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.189 |
| |
| For 10% significance level, 0.00015 is not an outlier. |
| For 5% significance level, 0.00015 is not an outlier. |
| For 1% significance level, 0.00015 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Lead (mw-64)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.667 |
| |
| For 10% significance level, 0.005 is an outlier. |
| For 5% significance level, 0.005 is an outlier. |
| For 1% significance level, 0.005 is an outlier. |
| |
| **2. Observation Value 0.00016 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.185 |
| |
| For 10% significance level, 0.00016 is not an outlier. |
| For 5% significance level, 0.00016 is not an outlier. |

# Appendix B
# Outlier Statistics

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Number of Observations = 21 | | | | | | | |
| For 1% significance level, 0.00016 is not an outlier. | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| **Dixon's Outlier Test for Lead (mw-65)** | | | | | | | |
| | | | | | | | |
| Number of Observations = 21 | | | | | | | |
| 10% critical value: 0.391 | | | | | | | |
| 5% critical value: 0.44 | | | | | | | |
| 1% critical value: 0.524 | | | | | | | |
| | | | | | | | |
| **1. Observation Value 0.002 is a Potential Outlier (Upper Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.000 | | | | | | | |
| | | | | | | | |
| For 10% significance level, 0.002 is not an outlier. | | | | | | | |
| For 5% significance level, 0.002 is not an outlier. | | | | | | | |
| For 1% significance level, 0.002 is not an outlier. | | | | | | | |
| | | | | | | | |
| **2. Observation Value 0.0005 is a Potential Outlier (Lower Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.000 | | | | | | | |
| | | | | | | | |
| For 10% significance level, 0.0005 is not an outlier. | | | | | | | |
| For 5% significance level, 0.0005 is not an outlier. | | | | | | | |
| For 1% significance level, 0.0005 is not an outlier. | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| **Dixon's Outlier Test for Lithium (mw-62)** | | | | | | | |
| | | | | | | | |
| Number of Observations = 23 | | | | | | | |
| 10% critical value: 0.374 | | | | | | | |
| 5% critical value: 0.421 | | | | | | | |
| 1% critical value: 0.505 | | | | | | | |
| | | | | | | | |
| **1. Observation Value 0.2 is a Potential Outlier (Upper Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.000 | | | | | | | |
| | | | | | | | |
| For 10% significance level, 0.2 is not an outlier. | | | | | | | |

# Appendix B
# Outlier Statistics

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Number of Observations = 21 | | | | | | | |
| For 5% significance level, 0.2 is not an outlier. | | | | | | | |
| For 1% significance level, 0.2 is not an outlier. | | | | | | | |
| | | | | | | | |
| **2. Observation Value 0.11 is a Potential Outlier (Lower Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.222 | | | | | | | |
| | | | | | | | |
| For 10% significance level, 0.11 is not an outlier. | | | | | | | |
| For 5% significance level, 0.11 is not an outlier. | | | | | | | |
| For 1% significance level, 0.11 is not an outlier. | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| **Dixon's Outlier Test for Lithium (mw-63)** | | | | | | | |
| | | | | | | | |
| Number of Observations = 23 | | | | | | | |
| 10% critical value: 0.374 | | | | | | | |
| 5% critical value: 0.421 | | | | | | | |
| 1% critical value: 0.505 | | | | | | | |
| | | | | | | | |
| **1. Observation Value 0.2 is a Potential Outlier (Upper Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.000 | | | | | | | |
| | | | | | | | |
| For 10% significance level, 0.2 is not an outlier. | | | | | | | |
| For 5% significance level, 0.2 is not an outlier. | | | | | | | |
| For 1% significance level, 0.2 is not an outlier. | | | | | | | |
| | | | | | | | |
| **2. Observation Value 0.045 is a Potential Outlier (Lower Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.065 | | | | | | | |
| | | | | | | | |
| For 10% significance level, 0.045 is not an outlier. | | | | | | | |
| For 5% significance level, 0.045 is not an outlier. | | | | | | | |
| For 1% significance level, 0.045 is not an outlier. | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| **Dixon's Outlier Test for Lithium (mw-64)** | | | | | | | |
| | | | | | | | |
| Number of Observations = 23 | | | | | | | |

# Appendix B
# Outlier Statistics

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Number of Observations = 21 | | | | | | | |
| 10% critical value: 0.374 | | | | | | | |
| 5% critical value: 0.421 | | | | | | | |
| 1% critical value: 0.505 | | | | | | | |
| | | | | | | | |
| **1. Observation Value 0.2 is a Potential Outlier (Upper Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.000 | | | | | | | |
| | | | | | | | |
| For 10% significance level, 0.2 is not an outlier. | | | | | | | |
| For 5% significance level, 0.2 is not an outlier. | | | | | | | |
| For 1% significance level, 0.2 is not an outlier. | | | | | | | |
| | | | | | | | |
| **2. Observation Value 0.019 is a Potential Outlier (Lower Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.006 | | | | | | | |
| | | | | | | | |
| For 10% significance level, 0.019 is not an outlier. | | | | | | | |
| For 5% significance level, 0.019 is not an outlier. | | | | | | | |
| For 1% significance level, 0.019 is not an outlier. | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| **Dixon's Outlier Test for Lithium (mw-65)** | | | | | | | |
| | | | | | | | |
| Number of Observations = 23 | | | | | | | |
| 10% critical value: 0.374 | | | | | | | |
| 5% critical value: 0.421 | | | | | | | |
| 1% critical value: 0.505 | | | | | | | |
| | | | | | | | |
| **1. Observation Value 0.2 is a Potential Outlier (Upper Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.000 | | | | | | | |
| | | | | | | | |
| For 10% significance level, 0.2 is not an outlier. | | | | | | | |
| For 5% significance level, 0.2 is not an outlier. | | | | | | | |
| For 1% significance level, 0.2 is not an outlier. | | | | | | | |
| | | | | | | | |
| **2. Observation Value 0.045 is a Potential Outlier (Lower Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.032 | | | | | | | |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| |
| For 10% significance level, 0.045 is not an outlier. |
| For 5% significance level, 0.045 is not an outlier. |
| For 1% significance level, 0.045 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Mercury (mw-62)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.00044 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.792 |
| |
| For 10% significance level, 0.00044 is an outlier. |
| For 5% significance level, 0.00044 is an outlier. |
| For 1% significance level, 0.00044 is an outlier. |
| |
| **2. Observation Value 0.0002 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0002 is not an outlier. |
| For 5% significance level, 0.0002 is not an outlier. |
| For 1% significance level, 0.0002 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Mercury (mw-63)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.0002 is a Potential Outlier (Upper Tail)?** |
| |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.0002 is an outlier. |
| For 5% significance level, 0.0002 is an outlier. |
| For 1% significance level, 0.0002 is an outlier. |
| |
| **2. Observation Value 0.0002 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.0002 is an outlier. |
| For 5% significance level, 0.0002 is an outlier. |
| For 1% significance level, 0.0002 is an outlier. |
| |
| |
| **Dixon's Outlier Test for Mercury (mw-64)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.0002 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.0002 is an outlier. |
| For 5% significance level, 0.0002 is an outlier. |
| For 1% significance level, 0.0002 is an outlier. |
| |
| **2. Observation Value 0.0002 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.0002 is an outlier. |
| For 5% significance level, 0.0002 is an outlier. |
| For 1% significance level, 0.0002 is an outlier. |
| |
| |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| **Dixon's Outlier Test for Mercury (mw-65)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.0002 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.0002 is an outlier. |
| For 5% significance level, 0.0002 is an outlier. |
| For 1% significance level, 0.0002 is an outlier. |
| |
| **2. Observation Value 0.0002 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.0002 is an outlier. |
| For 5% significance level, 0.0002 is an outlier. |
| For 1% significance level, 0.0002 is an outlier. |
| |
| |
| **Dixon's Outlier Test for Molybdenum (mw-62)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.012 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.794 |
| |
| For 10% significance level, 0.012 is an outlier. |
| For 5% significance level, 0.012 is an outlier. |
| For 1% significance level, 0.012 is an outlier. |
| |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| **2. Observation Value 0.0012 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.355 |
| |
| For 10% significance level, 0.0012 is not an outlier. |
| For 5% significance level, 0.0012 is not an outlier. |
| For 1% significance level, 0.0012 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Molybdenum (mw-63)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.017 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.905 |
| |
| For 10% significance level, 0.017 is an outlier. |
| For 5% significance level, 0.017 is an outlier. |
| For 1% significance level, 0.017 is an outlier. |
| |
| **2. Observation Value 0.0019 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.176 |
| |
| For 10% significance level, 0.0019 is not an outlier. |
| For 5% significance level, 0.0019 is not an outlier. |
| For 1% significance level, 0.0019 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Molybdenum (mw-64)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| |
| **1. Observation Value 0.0073 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.750 |
| |
| For 10% significance level, 0.0073 is an outlier. |
| For 5% significance level, 0.0073 is an outlier. |
| For 1% significance level, 0.0073 is an outlier. |
| |
| **2. Observation Value 0.0042 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.300 |
| |
| For 10% significance level, 0.0042 is not an outlier. |
| For 5% significance level, 0.0042 is not an outlier. |
| For 1% significance level, 0.0042 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Molybdenum (mw-65)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.013 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.552 |
| |
| For 10% significance level, 0.013 is an outlier. |
| For 5% significance level, 0.013 is an outlier. |
| For 1% significance level, 0.013 is an outlier. |
| |
| **2. Observation Value 0.0066 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.188 |
| |
| For 10% significance level, 0.0066 is not an outlier. |
| For 5% significance level, 0.0066 is not an outlier. |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| For 1% significance level, 0.0066 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Total Radium (mw-62)** |
| |
| Number of Observations = 23 |
| 10% critical value: 0.374 |
| 5% critical value: 0.421 |
| 1% critical value: 0.505 |
| |
| **1. Observation Value 1.9 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.231 |
| |
| For 10% significance level, 1.9 is not an outlier. |
| For 5% significance level, 1.9 is not an outlier. |
| For 1% significance level, 1.9 is not an outlier. |
| |
| **2. Observation Value 0.6 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.6 is not an outlier. |
| For 5% significance level, 0.6 is not an outlier. |
| For 1% significance level, 0.6 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Total Radium (mw-63)** |
| |
| Number of Observations = 23 |
| 10% critical value: 0.374 |
| 5% critical value: 0.421 |
| 1% critical value: 0.505 |
| |
| **1. Observation Value 2.1 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.535 |
| |
| For 10% significance level, 2.1 is an outlier. |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| For 5% significance level, 2.1 is an outlier. |
| For 1% significance level, 2.1 is an outlier. |
| |
| **2. Observation Value 0.4 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.223 |
| |
| For 10% significance level, 0.4 is not an outlier. |
| For 5% significance level, 0.4 is not an outlier. |
| For 1% significance level, 0.4 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Total Radium (mw-64)** |
| |
| Number of Observations = 23 |
| 10% critical value: 0.374 |
| 5% critical value: 0.421 |
| 1% critical value: 0.505 |
| |
| **1. Observation Value 1.7 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.818 |
| |
| For 10% significance level, 1.7 is an outlier. |
| For 5% significance level, 1.7 is an outlier. |
| For 1% significance level, 1.7 is an outlier. |
| |
| **2. Observation Value 0.5 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.333 |
| |
| For 10% significance level, 0.5 is not an outlier. |
| For 5% significance level, 0.5 is not an outlier. |
| For 1% significance level, 0.5 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Total Radium (mw-65)** |
| |
| Number of Observations = 23 |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| 10% critical value: 0.374 |
| 5% critical value: 0.421 |
| 1% critical value: 0.505 |
| |
| **1. Observation Value 1.9 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.643 |
| |
| For 10% significance level, 1.9 is an outlier. |
| For 5% significance level, 1.9 is an outlier. |
| For 1% significance level, 1.9 is an outlier. |
| |
| **2. Observation Value 0.4 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.167 |
| |
| For 10% significance level, 0.4 is not an outlier. |
| For 5% significance level, 0.4 is not an outlier. |
| For 1% significance level, 0.4 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Selenium (mw-62)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.667 |
| |
| For 10% significance level, 0.005 is an outlier. |
| For 5% significance level, 0.005 is an outlier. |
| For 1% significance level, 0.005 is an outlier. |
| |
| **2. Observation Value 0.0005 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| |
| For 10% significance level, 0.0005 is not an outlier. |
| For 5% significance level, 0.0005 is not an outlier. |
| For 1% significance level, 0.0005 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Selenium (mw-63)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.667 |
| |
| For 10% significance level, 0.005 is an outlier. |
| For 5% significance level, 0.005 is an outlier. |
| For 1% significance level, 0.005 is an outlier. |
| |
| **2. Observation Value 0.0005 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0005 is not an outlier. |
| For 5% significance level, 0.0005 is not an outlier. |
| For 1% significance level, 0.0005 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Selenium (mw-64)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?** |
| |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| Test Statistic: 0.667 |
| |
| For 10% significance level, 0.005 is an outlier. |
| For 5% significance level, 0.005 is an outlier. |
| For 1% significance level, 0.005 is an outlier. |
| |
| **2. Observation Value 0.00033 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.102 |
| |
| For 10% significance level, 0.00033 is not an outlier. |
| For 5% significance level, 0.00033 is not an outlier. |
| For 1% significance level, 0.00033 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Selenium (mw-65)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.667 |
| |
| For 10% significance level, 0.005 is an outlier. |
| For 5% significance level, 0.005 is an outlier. |
| For 1% significance level, 0.005 is an outlier. |
| |
| **2. Observation Value 0.00034 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.096 |
| |
| For 10% significance level, 0.00034 is not an outlier. |
| For 5% significance level, 0.00034 is not an outlier. |
| For 1% significance level, 0.00034 is not an outlier. |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| **Dixon's Outlier Test for Thallium (mw-62)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.001 is not an outlier. |
| For 5% significance level, 0.001 is not an outlier. |
| For 1% significance level, 0.001 is not an outlier. |
| |
| **2. Observation Value 9.8E-05 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.002 |
| |
| For 10% significance level, 9.8E-05 is not an outlier. |
| For 5% significance level, 9.8E-05 is not an outlier. |
| For 1% significance level, 9.8E-05 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Thallium (mw-63)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.556 |
| |
| For 10% significance level, 0.001 is an outlier. |
| For 5% significance level, 0.001 is an outlier. |
| For 1% significance level, 0.001 is an outlier. |
| |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| **2. Observation Value 0.0001 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0001 is not an outlier. |
| For 5% significance level, 0.0001 is not an outlier. |
| For 1% significance level, 0.0001 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Thallium (mw-64)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.656 |
| |
| For 10% significance level, 0.001 is an outlier. |
| For 5% significance level, 0.001 is an outlier. |
| For 1% significance level, 0.001 is an outlier. |
| |
| **2. Observation Value 0.0001 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0001 is not an outlier. |
| For 5% significance level, 0.0001 is not an outlier. |
| For 1% significance level, 0.0001 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Thallium (mw-65)** |
| |
| Number of Observations = 21 |
| 10% critical value: 0.391 |
| 5% critical value: 0.44 |
| 1% critical value: 0.524 |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 21 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.556 |
| |
| For 10% significance level, 0.001 is an outlier. |
| For 5% significance level, 0.001 is an outlier. |
| For 1% significance level, 0.001 is an outlier. |
| |
| **2. Observation Value 7.2E-05 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.065 |
| |
| For 10% significance level, 7.2E-05 is not an outlier. |
| For 5% significance level, 7.2E-05 is not an outlier. |
| For 1% significance level, 7.2E-05 is not an outlier. |
| |

# Appendix B
# Goodness of Fit Statistics

| | Goodness-of-Fit Test Statistics for Data Sets with Non-Detects |
|---|---|
| **User Selected Options** | |
| Date/Time of Computation | ProUCL 5.13/13/2024 2:09:25 PM |
| From File | FC_CWTP_AppxIV_ProUCL_Upload_20240312.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |

**Antimony (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 11 | 21 | 2 | 19 | 90.48% |

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Antimony (mw-62) was not processed!

**Antimony (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 2 | 19 | 90.48% |

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Antimony (mw-63) was not processed!

**Antimony (mw-64)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 0 | 21 | 100.00% |

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

# Appendix B
# Goodness of Fit Statistics

The data set for variable Antimony (mw-64) was not processed!

**Antimony (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 0 | 21 | 100.00% |

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Antimony (mw-65) was not processed!

**Arsenic (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 11 | 21 | 15 | 6 | 28.57% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 6 | 5.0000E-4 | 0.005 | 0.00207 | 0.00195 | 0.00156 |
| Statistics (Non-Detects Only) | 15 | 6.2000E-4 | 0.012 | 0.00421 | 0.002 | 0.00477 |
| Statistics (All: NDs treated as DL value) | 21 | 5.0000E-4 | 0.012 | 0.0036 | 0.002 | 0.00419 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.012 | 0.0033 | 0.001 | 0.00427 |
| Statistics (Normal ROS Imputed Data) | 21 | -0.00589 | 0.012 | 0.00277 | 0.0015 | 0.00482 |
| Statistics (Gamma ROS Imputed Data) | 21 | 6.2000E-4 | 0.012 | 0.00586 | 0.0031 | 0.00481 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 1.5054E-4 | 0.012 | 0.00321 | 0.00109 | 0.00431 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 0.937 | 0.794 | 0.00449 | -6.091 | 1.148 | -0.188 |
| Statistics (NDs = DL) | 1.033 | 0.917 | 0.00348 | -6.184 | 1.047 | -0.169 |
| Statistics (NDs = DL/2) | 0.877 | 0.783 | 0.00377 | -6.382 | 1.138 | -0.178 |
| Statistics (Gamma ROS Estimates) | 1.084 | 0.961 | 0.00541 | -5.666 | 1.181 | -0.208 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.477 | 1.204 | -0.186 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| **Normal GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | |
| Correlation Coefficient R | 0.842 | 0.829 | 0.804 | 0.889 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.689 | 0.881 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL) | 0.677 | 0.908 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.638 | 0.908 | Data Not Normal | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.792 | 0.908 | Data Not Normal | | |
| Lilliefors (Detects Only) | 0.325 | 0.22 | Data Not Normal | | |
| Lilliefors (NDs = DL) | 0.318 | 0.188 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.336 | 0.188 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.284 | 0.188 | Data Not Normal | | |
| **Gamma GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | 0.89 | 0.917 | 0.905 | 0.824 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | 1.207 | 0.766 | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.208 | 0.228 | Detected Data appear Approximate Gamma Distribution | | |
| Anderson-Darling (NDs = DL) | 1.379 | 0.769 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.218 | 0.195 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 1.647 | 0.776 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.233 | 0.196 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 1.705 | 0.768 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.297 | 0.195 | Data Not Gamma Distributed | | |
| **Lognormal GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.939 | 0.956 | 0.954 | 0.952 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.855 | 0.881 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.899 | 0.908 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.902 | 0.908 | Data Not Lognormal | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.903 | 0.908 | Data Not Lognormal | | | |
| Lilliefors (Detects Only) | 0.182 | 0.22 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL) | 0.141 | 0.188 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.202 | 0.188 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.183 | 0.188 | Data Appear Lognormal | | | |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Arsenic (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 7 | 14 | 66.67% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 14 | 5.0000E-4 | 0.005 | 0.00163 | 0.001 | 0.00154 |
| Statistics (Non-Detects Only) | 7 | 5.9000E-4 | 0.0013 | 9.6143E-4 | 9.9000E-4 | 2.8783E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 5.0000E-4 | 0.005 | 0.00141 | 0.001 | 0.00129 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.0025 | 8.6333E-4 | 6.5000E-4 | 6.4422E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | 2.0615E-5 | 0.0013 | 6.4094E-4 | 5.9909E-4 | 3.4475E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 5.9000E-4 | 0.01 | 0.00699 | 0.01 | 0.00437 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 3.3161E-4 | 0.0013 | 6.9744E-4 | 6.2171E-4 | 2.7715E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 12 | 6.95 | 8.0146E-5 | -6.989 | 0.321 | -0.046 |
| Statistics (NDs = DL) | 2.014 | 1.758 | 6.9815E-4 | -6.835 | 0.695 | -0.102 |
| Statistics (NDs = DL/2) | 2.213 | 1.929 | 3.9004E-4 | -7.297 | 0.721 | -0.0988 |
| Statistics (Gamma ROS Estimates) | 1.287 | 1.135 | 0.00543 | -5.4 | 1.165 | -0.216 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.338 | 0.377 | -0.0514 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.962 | 0.812 | 0.9 | 0.989 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.899 | 0.803 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.662 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.808 | 0.908 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.973 | 0.908 | Data Appear Normal |

# Appendix B
# Goodness of Fit Statistics

| | | | | |
|---|---|---|---|---|
| Lilliefors (Detects Only) | 0.225 | 0.304 | Data Appear Normal | |
| Lilliefors (NDs = DL) | 0.295 | 0.188 | Data Not Normal | |
| Lilliefors (NDs = DL/2) | 0.178 | 0.188 | Data Appear Normal | |
| Lilliefors (Normal ROS Estimates) | 0.129 | 0.188 | Data Appear Normal | |
| | | | | |
| **Gamma GOF Test Results** | | | | |
| | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
| Correlation Coefficient R | 0.943 | 0.921 | 0.962 | 0.623 |
| | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | |
| Anderson-Darling (Detects Only) | 0.426 | 0.708 | | |
| Kolmogorov-Smirnov (Detects Only) | 0.242 | 0.312 | Detected Data Appear Gamma Distributed | |
| Anderson-Darling (NDs = DL) | 1.186 | 0.754 | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.211 | 0.192 | Data Not Gamma Distributed | |
| Anderson-Darling (NDs = DL/2) | 0.568 | 0.753 | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.139 | 0.192 | Data Appear Gamma Distributed | |
| Anderson-Darling (Gamma ROS Estimates) | 3.948 | 0.763 | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.431 | 0.194 | Data Not Gamma Distributed | |
| | | | | |
| **Lognormal GOF Test Results** | | | | |
| | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
| Correlation Coefficient R | 0.954 | 0.946 | 0.967 | 0.988 |
| | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | |
| Shapiro-Wilk (Detects Only) | 0.886 | 0.803 | Data Appear Lognormal | |
| Shapiro-Wilk (NDs = DL) | 0.886 | 0.908 | Data Not Lognormal | |
| Shapiro-Wilk (NDs = DL/2) | 0.921 | 0.908 | Data Appear Lognormal | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.969 | 0.908 | Data Appear Lognormal | |
| Lilliefors (Detects Only) | 0.223 | 0.304 | Data Appear Lognormal | |
| Lilliefors (NDs = DL) | 0.154 | 0.188 | Data Appear Lognormal | |
| Lilliefors (NDs = DL/2) | 0.155 | 0.188 | Data Appear Lognormal | |
| Lilliefors (Lognormal ROS Estimates) | 0.129 | 0.188 | Data Appear Lognormal | |
| | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | |
| | | | | |
| **Arsenic (mw-64)** | | | | |

# Appendix B
# Goodness of Fit Statistics

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 4 | 17 | 80.95% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 17 | 5.0000E-4 | 0.005 | 0.00141 | 9.6000E-4 | 0.00146 |
| Statistics (Non-Detects Only) | 4 | 5.6000E-4 | 0.001 | 8.0750E-4 | 8.3500E-4 | 2.1313E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 5.0000E-4 | 0.005 | 0.00129 | 9.6000E-4 | 0.00133 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.0025 | 7.2429E-4 | 5.0000E-4 | 6.5987E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | -1.354E-4 | 0.001 | 3.9293E-4 | 3.5649E-4 | 2.8920E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 5.6000E-4 | 0.01 | 0.00825 | 0.01 | 0.0037 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 2.3437E-4 | 0.001 | 4.9433E-4 | 4.4040E-4 | 2.0131E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 18.07 | 4.684 | 4.4688E-5 | -7.149 | 0.277 | -0.0388 |
| Statistics (NDs = DL) | 1.72 | 1.506 | 7.5286E-4 | -6.967 | 0.737 | -0.106 |
| Statistics (NDs = DL/2) | 1.825 | 1.596 | 3.9683E-4 | -7.529 | 0.755 | -0.1 |
| Statistics (Gamma ROS Estimates) | 1.861 | 1.627 | 0.00443 | -5.09 | 1.029 | -0.202 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.681 | 0.371 | -0.0483 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.952 | 0.784 | 0.836 | 0.986 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.887 | 0.748 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.618 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.699 | 0.908 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.972 | 0.908 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.277 | 0.375 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.35 | 0.188 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.243 | 0.188 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.0862 | 0.188 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.927 | 0.914 | 0.936 | 0.518 |

# Appendix B
# Goodness of Fit Statistics

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.392 | 0.657 | |
| Kolmogorov-Smirnov (Detects Only) | 0.311 | 0.394 | Detected Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL) | 1.94 | 0.756 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.287 | 0.192 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 1.268 | 0.755 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.212 | 0.192 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 5.689 | 0.755 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.506 | 0.192 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.953 | 0.904 | 0.933 | 0.986 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.891 | 0.748 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.808 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.858 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.971 | 0.908 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.277 | 0.375 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.23 | 0.188 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.226 | 0.188 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.0863 | 0.188 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Arsenic (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 4 | 17 | 80.95% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 17 | 5.0000E-4 | 0.005 | 0.00115 | 5.0000E-4 | 0.00114 |
| Statistics (Non-Detects Only) | 4 | 5.9000E-4 | 0.0013 | 9.2500E-4 | 9.0500E-4 | 3.3151E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 5.0000E-4 | 0.005 | 0.0011 | 7.1000E-4 | 0.00103 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.0025 | 6.4024E-4 | 5.0000E-4 | 5.4551E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | -0.00103 | 0.0013 | 5.0731E-5 | 3.5416E-5 | 5.8338E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 5.9000E-4 | 0.01 | 0.00827 | 0.01 | 0.00365 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (Lognormal ROS Imputed Data) | 21 | 1.0147E-4 | 0.0013 | 4.1256E-4 | 3.2900E-4 | 3.0610E-4 | | |
| | | | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV | | |
| Statistics (Non-Detects Only) | 10.13 | 2.7 | 9.1279E-5 | -7.036 | 0.369 | -0.0524 | | |
| Statistics (NDs = DL) | 2.189 | 1.908 | 5.0449E-4 | -7.054 | 0.647 | -0.0918 | | |
| Statistics (NDs = DL/2) | 2.063 | 1.8 | 3.1030E-4 | -7.615 | 0.708 | -0.093 | | |
| Statistics (Gamma ROS Estimates) | 1.981 | 1.729 | 0.00418 | -5.068 | 0.988 | -0.195 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -8.003 | 0.645 | -0.0806 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.973 | 0.772 | 0.847 | 0.99 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.929 | 0.748 | Data Appear Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.615 | 0.908 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.729 | 0.908 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.981 | 0.908 | Data Appear Normal | | | | | |
| Lilliefors (Detects Only) | 0.242 | 0.375 | Data Appear Normal | | | | | |
| Lilliefors (NDs = DL) | 0.279 | 0.188 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.237 | 0.188 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.123 | 0.188 | Data Appear Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | 0.969 | 0.903 | 0.954 | 0.525 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | 0.321 | 0.657 | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.258 | 0.395 | Detected Data Appear Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL) | 1.661 | 0.753 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.216 | 0.192 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 1.288 | 0.754 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.25 | 0.192 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 5.61 | 0.754 | | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.505 | 0.192 | Data Not Gamma Distributed | | | | | |

# Appendix B
# Goodness of Fit Statistics

| Lognormal GOF Test Results | | | | |
|---|---|---|---|---|
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
| Correlation Coefficient R | 0.974 | 0.906 | 0.928 | 0.99 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.931 | 0.748 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.819 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.852 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.979 | 0.908 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.228 | 0.375 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.229 | 0.188 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.26 | 0.188 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.123 | 0.188 | Data Appear Lognormal |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Barium (mw-62)**

| Raw Statistics | |
|---|---|
| Number of Valid Observations | 21 |
| Number of Missing Observations | 11 |
| Number of Distinct Observations | 13 |
| Minimum | 0.015 |
| Maximum | 0.043 |
| Mean of Raw Data | 0.0257 |
| Standard Deviation of Raw Data | 0.00618 |
| Khat | 18.92 |
| Theta hat | 0.00136 |
| Kstar | 16.25 |
| Theta star | 0.00158 |
| Mean of Log Transformed Data | -3.689 |
| Standard Deviation of Log Transformed Data | 0.237 |

| Normal GOF Test Results | |
|---|---|
| Correlation Coefficient R | 0.958 |
| Shapiro Wilk Test Statistic | 0.93 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Approximate Shapiro Wilk P Value | 0.133 |
| Lilliefors Test Statistic | 0.176 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data appear Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.973 |
| A-D Test Statistic | 0.421 |
| A-D Critical (0.05) Value | 0.743 |
| K-S Test Statistic | 0.145 |
| K-S Critical(0.05) Value | 0.189 |
| Data appear Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.974 |
| Shapiro Wilk Test Statistic | 0.958 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 0.465 |
| Lilliefors Test Statistic | 0.136 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data appear Lognormal at (0.05) Significance Level | |
| | |
| **Barium (mw-63)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 21 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 12 |
| Minimum | 0.014 |
| Maximum | 0.033 |
| Mean of Raw Data | 0.02 |
| Standard Deviation of Raw Data | 0.00415 |
| Khat | 27.01 |
| Theta hat | 7.3859E-4 |
| Kstar | 23.19 |
| Theta star | 8.6051E-4 |
| Mean of Log Transformed Data | -3.933 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Standard Deviation of Log Transformed Data | 0.194 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.934 |
| Shapiro Wilk Test Statistic | 0.887 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 0.0174 |
| Lilliefors Test Statistic | 0.168 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data appear Approximate Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.953 |
| A-D Test Statistic | 0.411 |
| A-D Critical (0.05) Value | 0.742 |
| K-S Test Statistic | 0.138 |
| K-S Critical(0.05) Value | 0.189 |
| Data appear Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.971 |
| Shapiro Wilk Test Statistic | 0.952 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 0.359 |
| Lilliefors Test Statistic | 0.131 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data appear Lognormal at (0.05) Significance Level | |
| | |
| **Barium (mw-64)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 21 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 9 |
| Minimum | 0.022 |
| Maximum | 0.035 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Mean of Raw Data | 0.0268 |
| Standard Deviation of Raw Data | 0.00351 |
| Khat | 64.62 |
| Theta hat | 4.1414E-4 |
| Kstar | 55.42 |
| Theta star | 4.8289E-4 |
| Mean of Log Transformed Data | -3.629 |
| Standard Deviation of Log Transformed Data | 0.126 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.953 |
| Shapiro Wilk Test Statistic | 0.906 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 0.0426 |
| Lilliefors Test Statistic | 0.235 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data not Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.963 |
| A-D Test Statistic | 0.632 |
| A-D Critical (0.05) Value | 0.741 |
| K-S Test Statistic | 0.217 |
| K-S Critical(0.05) Value | 0.189 |
| Data follow Appr. Gamma Distribution at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.968 |
| Shapiro Wilk Test Statistic | 0.933 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 0.152 |
| Lilliefors Test Statistic | 0.21 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data appear Approximate_Lognormal at (0.05) Significance Level | |
| | |
| **Barium (mw-65)** | |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| **Raw Statistics** | |
| Number of Valid Observations | 21 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 13 |
| Minimum | 0.012 |
| Maximum | 0.042 |
| Mean of Raw Data | 0.0187 |
| Standard Deviation of Raw Data | 0.00723 |
| Khat | 9.06 |
| Theta hat | 0.00207 |
| Kstar | 7.798 |
| Theta star | 0.0024 |
| Mean of Log Transformed Data | -4.035 |
| Standard Deviation of Log Transformed Data | 0.327 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.886 |
| Shapiro Wilk Test Statistic | 0.795 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 3.2704E-4 |
| Lilliefors Test Statistic | 0.186 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data appear Approximate Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.937 |
| A-D Test Statistic | 0.712 |
| A-D Critical (0.05) Value | 0.743 |
| K-S Test Statistic | 0.145 |
| K-S Critical(0.05) Value | 0.19 |
| Data appear Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.954 |
| Shapiro Wilk Test Statistic | 0.91 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shapiro Wilk Critical (0.05) Value | 0.908 | | | | | | | |
| Approximate Shapiro Wilk P Value | 0.0527 | | | | | | | |
| Lilliefors Test Statistic | 0.144 | | | | | | | |
| Lilliefors Critical (0.05) Value | 0.188 | | | | | | | |
| Data appear Lognormal at (0.05) Significance Level | | | | | | | | |
| | | | | | | | | |
| **Beryllium (mw-62)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 32 | 11 | 21 | 1 | 20 | 95.24% | | |
| | | | | | | | | |
| Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! | | | | | | | | |
| It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Beryllium (mw-62) was not processed! | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Beryllium (mw-63)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 1 | 20 | 95.24% | | |
| | | | | | | | | |
| Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! | | | | | | | | |
| It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Beryllium (mw-63) was not processed! | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Beryllium (mw-64)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 1 | 20 | 95.24% | | |
| | | | | | | | | |
| Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! | | | | | | | | |
| It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Beryllium (mw-64) was not processed! | | | | | | | | |

# Appendix B
# Goodness of Fit Statistics

**Beryllium (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 0 | 21 | 100.00% |

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Beryllium (mw-65) was not processed!

**Cadmium (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 11 | 21 | 1 | 20 | 95.24% |

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Cadmium (mw-62) was not processed!

**Cadmium (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 2 | 19 | 90.48% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 19 | 1.0000E-4 | 0.001 | 3.1579E-4 | 1.0000E-4 | 3.3210E-4 |
| Statistics (Non-Detects Only) | 2 | 6.4000E-5 | 1.3000E-4 | 9.7000E-5 | 9.7000E-5 | 4.6669E-5 |
| Statistics (All: NDs treated as DL value) | 21 | 6.4000E-5 | 0.001 | 2.9495E-4 | 1.0000E-4 | 3.2203E-4 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 5.0000E-5 | 5.0000E-4 | 1.5210E-4 | 5.0000E-5 | 1.5893E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | 1.6960E-5 | 1.3000E-4 | 6.7831E-5 | 6.7416E-5 | 2.6060E-5 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Statistics (Gamma ROS Imputed Data) | 21 | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Imputed Data) | 21 | 3.8621E-5 | 1.3000E-4 | 6.9290E-5 | 6.6391E-5 | 2.0571E-5 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (NDs = DL) | 1.242 | 1.096 | 2.3747E-4 | -8.582 | 0.915 | -0.107 |
| Statistics (NDs = DL/2) | 1.337 | 1.177 | 1.1379E-4 | -9.21 | 0.883 | -0.0959 |
| Statistics (Gamma ROS Estimates) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -9.615 | 0.28 | -0.0291 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 1 | 0.819 | 0.826 | 0.986 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (NDs = DL) | 0.665 | 0.908 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.674 | 0.908 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.978 | 0.908 | Data Appear Normal | | | |
| Lilliefors (Detects Only) | N/A | N/A | | | | |
| Lilliefors (NDs = DL) | 0.315 | 0.188 | Data Not Normal | | | |
| Lilliefors (NDs = DL/2) | 0.282 | 0.188 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.125 | 0.188 | Data Appear Normal | | | |
| | | | | | | |
| **Gamma GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
| Correlation Coefficient R | N/A | 0.928 | 0.932 | 0.363 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | N/A | N/A | | | | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | | | | |
| Anderson-Darling (NDs = DL) | 2.487 | 0.764 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.33 | 0.194 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 2.317 | 0.762 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.305 | 0.193 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | N/A | 0.74 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | N/A | 0.189 | | | | |

# Appendix B
# Goodness of Fit Statistics

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 1 | 0.886 | 0.881 | N/A |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (NDs = DL) | 0.775 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.76 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.978 | 0.908 | Data Appear Lognormal |
| Lilliefors (Detects Only) | N/A | N/A | |
| Lilliefors (NDs = DL) | 0.325 | 0.188 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.308 | 0.188 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.125 | 0.188 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Cadmium (mw-64)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 1 | 20 | 95.24% |

**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**
**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**

**The data set for variable Cadmium (mw-64) was not processed!**

**Cadmium (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 0 | 21 | 100.00% |

**Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!**
**Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!**
**The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).**

**The data set for variable Cadmium (mw-65) was not processed!**

# Appendix B
# Goodness of Fit Statistics

**Chromium (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 11 | 21 | 4 | 17 | 80.95% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 17 | 5.0000E-4 | 0.01 | 0.00206 | 0.001 | 0.00226 |
| Statistics (Non-Detects Only) | 4 | 5.1000E-4 | 0.0015 | 0.001 | 0.001 | 4.0418E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 5.0000E-4 | 0.01 | 0.00186 | 0.001 | 0.00207 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.005 | 0.00102 | 0.001 | 0.00102 |
| Statistics (Normal ROS Imputed Data) | 21 | -8.825E-4 | 0.0015 | 1.4994E-4 | 1.3742E-4 | 6.0378E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 5.1000E-4 | 0.01 | 0.00829 | 0.01 | 0.00362 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 1.1663E-4 | 0.0015 | 4.5554E-4 | 3.5974E-4 | 3.4563E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 7.36 | 2.007 | 1.3620E-4 | -6.975 | 0.447 | -0.0641 |
| Statistics (NDs = DL) | 1.674 | 1.467 | 0.00111 | -6.616 | 0.757 | -0.114 |
| Statistics (NDs = DL/2) | 1.854 | 1.621 | 5.5239E-4 | -7.177 | 0.743 | -0.103 |
| Statistics (Gamma ROS Estimates) | 2.05 | 1.789 | 0.00404 | -5.057 | 0.969 | -0.192 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.916 | 0.667 | -0.0842 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.962 | 0.753 | 0.778 | 0.988 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.944 | 0.748 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.589 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.629 | 0.908 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.974 | 0.908 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.252 | 0.375 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.282 | 0.188 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.271 | 0.188 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.127 | 0.188 | Data Appear Normal |

**Gamma GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
|---|---|---|---|---|---|---|
| Correlation Coefficient R | 0.951 | 0.897 | 0.902 | 0.528 | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | 0.353 | 0.658 | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.296 | 0.395 | Detected Data Appear Gamma Distributed | | | |
| Anderson-Darling (NDs = DL) | 1.158 | 0.757 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.247 | 0.192 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 0.924 | 0.755 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.199 | 0.192 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | 5.563 | 0.754 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.504 | 0.192 | Data Not Gamma Distributed | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 0.947 | 0.951 | 0.959 | 0.987 | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.916 | 0.748 | Data Appear Lognormal | | | |
| Shapiro-Wilk (NDs = DL) | 0.906 | 0.908 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.923 | 0.908 | Data Appear Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.971 | 0.908 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | 0.31 | 0.375 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL) | 0.222 | 0.188 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.183 | 0.188 | Data Appear Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.127 | 0.188 | Data Appear Lognormal | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | |
| **Chromium (mw-63)** | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 31 | 10 | 21 | 2 | 19 | 90.48% |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 19 | 5.0000E-4 | 0.01 | 0.00187 | 0.001 | 0.0022 |
| Statistics (Non-Detects Only) | 2 | 4.3000E-4 | 8.4000E-4 | 6.3500E-4 | 6.3500E-4 | 2.8991E-4 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (All: NDs treated as DL value) | 21 | 4.3000E-4 | 0.01 | 0.00175 | 0.001 | 0.00212 | | |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.005 | 9.0571E-4 | 5.0000E-4 | 0.00105 | | |
| Statistics (Normal ROS Imputed Data) | 21 | 1.8929E-4 | 8.4000E-4 | 4.7075E-4 | 4.6813E-4 | 1.5895E-4 | | |
| Statistics (Gamma ROS Imputed Data) | 21 | N/A | N/A | N/A | N/A | N/A | | |
| Statistics (Lognormal ROS Imputed Data) | 21 | 2.9022E-4 | 8.4000E-4 | 4.7499E-4 | 4.5763E-4 | 1.3029E-4 | | |
| | | | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV | | |
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A | | |
| Statistics (NDs = DL) | 1.383 | 1.218 | 0.00127 | -6.751 | 0.846 | -0.125 | | |
| Statistics (NDs = DL/2) | 1.492 | 1.311 | 6.0685E-4 | -7.378 | 0.816 | -0.111 | | |
| Statistics (Gamma ROS Estimates) | N/A | N/A | N/A | N/A | N/A | N/A | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.685 | 0.26 | -0.0338 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 1 | 0.76 | 0.763 | 0.984 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.599 | 0.908 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.604 | 0.908 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.971 | 0.908 | Data Appear Normal | | | | | |
| Lilliefors (Detects Only) | N/A | N/A | | | | | | |
| Lilliefors (NDs = DL) | 0.267 | 0.188 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.274 | 0.188 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.173 | 0.188 | Data Appear Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | N/A | 0.915 | 0.911 | 0.422 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | N/A | N/A | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | | | | | | |
| Anderson-Darling (NDs = DL) | 1.141 | 0.761 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.239 | 0.193 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 1.009 | 0.758 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.217 | 0.193 | Data Not Gamma Distributed | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Anderson-Darling (Gamma ROS Estimates) | N/A | 0.74 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | N/A | 0.189 | | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 1 | 0.948 | 0.951 | N/A | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (NDs = DL) | 0.897 | 0.908 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.902 | 0.908 | Data Not Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.971 | 0.908 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | N/A | N/A | | | | |
| Lilliefors (NDs = DL) | 0.193 | 0.188 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.179 | 0.188 | Data Appear Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.173 | 0.188 | Data Appear Lognormal | | | |
| | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | |
| | | | | | | |
| **Chromium (mw-64)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 31 | 10 | 21 | 3 | 18 | 85.71% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 18 | 5.0000E-4 | 0.01 | 0.00194 | 0.001 | 0.00224 |
| Statistics (Non-Detects Only) | 3 | 2.3000E-4 | 9.3000E-4 | 6.2333E-4 | 7.1000E-4 | 3.5796E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 2.3000E-4 | 0.01 | 0.00176 | 0.001 | 0.00212 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.3000E-4 | 0.005 | 9.2238E-4 | 5.0000E-4 | 0.00105 |
| Statistics (Normal ROS Imputed Data) | 21 | -1.120E-4 | 9.3000E-4 | 3.5482E-4 | 3.5085E-4 | 2.6576E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 2.3000E-4 | 0.01 | 0.00866 | 0.01 | 0.00336 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 1.1616E-4 | 9.3000E-4 | 3.5475E-4 | 3.0325E-4 | 2.1167E-4 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (NDs = DL) | 1.35 | 1.189 | 0.0013 | -6.759 | 0.878 | -0.13 |
| Statistics (NDs = DL/2) | 1.517 | 1.332 | 6.0804E-4 | -7.353 | 0.819 | -0.111 |
| Statistics (Gamma ROS Estimates) | 1.969 | 1.72 | 0.0044 | -5.024 | 1.077 | -0.214 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -8.093 | 0.551 | -0.0681 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| **Normal GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | |
| Correlation Coefficient R | 0.978 | 0.766 | 0.768 | 0.984 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.956 | 0.767 | Data Appear Normal | | |
| Shapiro-Wilk (NDs = DL) | 0.61 | 0.908 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.612 | 0.908 | Data Not Normal | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.968 | 0.908 | Data Appear Normal | | |
| Lilliefors (Detects Only) | 0.262 | 0.425 | Data Appear Normal | | |
| Lilliefors (NDs = DL) | 0.264 | 0.188 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.28 | 0.188 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.173 | 0.188 | Data Appear Normal | | |
| **Gamma GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | N/A | 0.917 | 0.911 | 0.462 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | N/A | N/A | | | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | | | |
| Anderson-Darling (NDs = DL) | 0.893 | 0.762 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.236 | 0.193 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 0.892 | 0.758 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.179 | 0.193 | Detected Data appear Approximate Gamma Distribution | | |
| Anderson-Darling (Gamma ROS Estimates) | 6.283 | 0.754 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.529 | 0.192 | Data Not Gamma Distributed | | |
| **Lognormal GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.943 | 0.971 | 0.958 | 0.984 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.888 | 0.767 | Data Appear Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.95 | 0.908 | Data Appear Lognormal | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Shapiro-Wilk (NDs = DL/2) | 0.915 | 0.908 | Data Appear Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.965 | 0.908 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | 0.317 | 0.425 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL) | 0.186 | 0.188 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.16 | 0.188 | Data Appear Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.173 | 0.188 | Data Appear Lognormal | | | |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Chromium (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 2 | 19 | 90.48% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 19 | 5.0000E-4 | 0.004 | 0.00139 | 0.001 | 9.9413E-4 |
| Statistics (Non-Detects Only) | 2 | 4.9000E-4 | 0.0015 | 9.9500E-4 | 9.9500E-4 | 7.1418E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 4.9000E-4 | 0.004 | 0.00136 | 0.001 | 9.6407E-4 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.002 | 7.2571E-4 | 5.0000E-4 | 5.0585E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | -5.668E-5 | 0.0015 | 5.4711E-4 | 5.3784E-4 | 3.7614E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Imputed Data) | 21 | 2.6742E-4 | 0.0015 | 5.7028E-4 | 5.1667E-4 | 2.7513E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (NDs = DL) | 2.388 | 2.079 | 5.6809E-4 | -6.826 | 0.682 | -0.0999 |
| Statistics (NDs = DL/2) | 2.373 | 2.066 | 3.0581E-4 | -7.454 | 0.69 | -0.0926 |
| Statistics (Gamma ROS Estimates) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.558 | 0.417 | -0.0551 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 1 | 0.913 | 0.92 | 0.977 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (NDs = DL) | 0.832 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.842 | 0.908 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.957 | 0.908 | Data Appear Normal |

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| Lilliefors (Detects Only) | N/A | N/A | | | |
| Lilliefors (NDs = DL) | 0.263 | 0.188 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.291 | 0.188 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.133 | 0.188 | Data Appear Normal | | |
| | | | | | |
| **Gamma GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | N/A | 0.979 | 0.974 | 0.437 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | N/A | N/A | | | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | | | |
| Anderson-Darling (NDs = DL) | 0.977 | 0.752 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.209 | 0.191 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 1.013 | 0.752 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.243 | 0.191 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | N/A | 0.74 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | N/A | 0.189 | | | |
| | | | | | |
| **Lognormal GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 1 | 0.949 | 0.95 | N/A | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (NDs = DL) | 0.887 | 0.908 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.887 | 0.908 | Data Not Lognormal | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.957 | 0.908 | Data Appear Lognormal | | |
| Lilliefors (Detects Only) | N/A | N/A | | | |
| Lilliefors (NDs = DL) | 0.205 | 0.188 | Data Not Lognormal | | |
| Lilliefors (NDs = DL/2) | 0.204 | 0.188 | Data Not Lognormal | | |
| Lilliefors (Lognormal ROS Estimates) | 0.133 | 0.188 | Data Appear Lognormal | | |
| | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | |
| | | | | | |
| **Cobalt (mw-62)** | | | | | |
| | | | | | |
| **Raw Statistics** | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Number of Valid Observations | 21 |
| Number of Missing Observations | 11 |
| Number of Distinct Observations | 17 |
| Minimum | 6.5000E-4 |
| Maximum | 0.014 |
| Mean of Raw Data | 0.00675 |
| Standard Deviation of Raw Data | 0.00334 |
| Khat | 2.97 |
| Theta hat | 0.00227 |
| Kstar | 2.577 |
| Theta star | 0.00262 |
| Mean of Log Transformed Data | -5.176 |
| Standard Deviation of Log Transformed Data | 0.718 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.982 |
| Shapiro Wilk Test Statistic | 0.965 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 0.607 |
| Lilliefors Test Statistic | 0.149 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data appear Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.965 |
| A-D Test Statistic | 0.708 |
| A-D Critical (0.05) Value | 0.75 |
| K-S Test Statistic | 0.224 |
| K-S Critical(0.05) Value | 0.191 |
| Data follow Appr. Gamma Distribution at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.909 |
| Shapiro Wilk Test Statistic | 0.838 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 0.0019 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Lilliefors Test Statistic | 0.257 | | | | | |
| Lilliefors Critical (0.05) Value | 0.188 | | | | | |
| Data not Lognormal at (0.05) Significance Level | | | | | | |
| | | | | | | |
| **Cobalt (mw-63)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 31 | 10 | 21 | 20 | 1 | 4.76% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 1 | 0.001 | 0.001 | 0.001 | 0.001 | N/A |
| Statistics (Non-Detects Only) | 20 | 6.2000E-4 | 0.0086 | 0.00481 | 0.00555 | 0.00217 |
| Statistics (All: NDs treated as DL value) | 21 | 6.2000E-4 | 0.0086 | 0.00462 | 0.0055 | 0.00227 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 5.0000E-4 | 0.0086 | 0.0046 | 0.0055 | 0.00231 |
| Statistics (Normal ROS Imputed Data) | 21 | 5.9108E-4 | 0.0086 | 0.00461 | 0.0055 | 0.0023 |
| Statistics (Gamma ROS Imputed Data) | 21 | 6.2000E-4 | 0.01 | 0.00505 | 0.0056 | 0.0024 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 6.2000E-4 | 0.0086 | 0.00463 | 0.0055 | 0.00225 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 3.196 | 2.75 | 0.0015 | -5.502 | 0.688 | -0.125 |
| Statistics (NDs = DL) | 2.746 | 2.385 | 0.00168 | -5.569 | 0.738 | -0.132 |
| Statistics (NDs = DL/2) | 2.418 | 2.104 | 0.0019 | -5.602 | 0.812 | -0.145 |
| Statistics (Gamma ROS Estimates) | 3.064 | 2.658 | 0.00165 | -5.46 | 0.699 | -0.128 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -5.562 | 0.724 | -0.13 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.963 | 0.961 | 0.961 | 0.961 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.923 | 0.905 | Data Appear Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.918 | 0.908 | Data Appear Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.917 | 0.908 | Data Appear Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.915 | 0.908 | Data Appear Normal | | | |
| Lilliefors (Detects Only) | 0.208 | 0.192 | Data Not Normal | | | |
| Lilliefors (NDs = DL) | 0.205 | 0.188 | Data Not Normal | | | |
| Lilliefors (NDs = DL/2) | 0.207 | 0.188 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.206 | 0.188 | Data Not Normal | | | |

# Appendix B
# Goodness of Fit Statistics

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.899 | 0.897 | 0.887 | 0.936 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 1.361 | 0.747 | |
| Kolmogorov-Smirnov (Detects Only) | 0.255 | 0.195 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 1.398 | 0.751 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.25 | 0.191 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 1.48 | 0.752 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.254 | 0.191 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 1.141 | 0.749 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.24 | 0.191 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.893 | 0.906 | 0.892 | 0.907 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.803 | 0.905 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.819 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.794 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.821 | 0.908 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.267 | 0.192 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.262 | 0.188 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.265 | 0.188 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.261 | 0.188 | Data Not Lognormal |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Cobalt (mw-64)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 17 | 4 | 19.05% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 4 | 0.002 | 0.005 | 0.00275 | 0.002 | 0.0015 |
| Statistics (Non-Detects Only) | 17 | 8.3000E-4 | 0.0018 | 0.0014 | 0.0015 | 2.9734E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 8.3000E-4 | 0.005 | 0.00165 | 0.0015 | 8.3971E-4 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 8.3000E-4 | 0.0025 | 0.00139 | 0.0012 | 3.9392E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | 8.3000E-4 | 0.0018 | 0.0014 | 0.0014 | 2.7490E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 8.3000E-4 | 0.01 | 0.00303 | 0.0015 | 0.00347 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 8.3000E-4 | 0.0018 | 0.00139 | 0.00136 | 2.7550E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 22.12 | 18.25 | 6.3113E-5 | -6.597 | 0.224 | -0.034 |
| Statistics (NDs = DL) | 6.753 | 5.82 | 2.4489E-4 | -6.481 | 0.364 | -0.0561 |
| Statistics (NDs = DL/2) | 14.26 | 12.25 | 9.7632E-5 | -6.613 | 0.27 | -0.0408 |
| Statistics (Gamma ROS Estimates) | 1.333 | 1.174 | 0.00228 | -6.218 | 0.826 | -0.133 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.597 | 0.207 | -0.0314 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.961 | 0.765 | 0.947 | 0.973 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.912 | 0.892 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.614 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.904 | 0.908 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.938 | 0.908 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.216 | 0.207 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.292 | 0.188 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.211 | 0.188 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.191 | 0.188 | Data Not Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.95 | 0.832 | 0.967 | 0.857 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.712 | 0.738 | |
| Kolmogorov-Smirnov (Detects Only) | 0.204 | 0.209 | Detected Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL) | 1.188 | 0.744 | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Kolmogorov-Smirnov (NDs = DL) | 0.215 | 0.19 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 0.568 | 0.743 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.2 | 0.189 | Detected Data appear Approximate Gamma Distribution | | | |
| Anderson-Darling (Gamma ROS Estimates) | 3.628 | 0.762 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.409 | 0.193 | Data Not Gamma Distributed | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 0.954 | 0.914 | 0.974 | 0.965 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.904 | 0.892 | Data Appear Lognormal | | | |
| Shapiro-Wilk (NDs = DL) | 0.858 | 0.908 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.951 | 0.908 | Data Appear Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.928 | 0.908 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | 0.193 | 0.207 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL) | 0.185 | 0.188 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.186 | 0.188 | Data Appear Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.161 | 0.188 | Data Appear Lognormal | | | |
| | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | |
| | | | | | | |
| **Cobalt (mw-65)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 31 | 10 | 21 | 18 | 3 | 14.29% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 3 | 0.002 | 0.002 | 0.002 | 0.002 | 0 |
| Statistics (Non-Detects Only) | 18 | 0.001 | 0.0029 | 0.00149 | 0.0012 | 5.0977E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 0.001 | 0.0029 | 0.00156 | 0.0014 | 5.0446E-4 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 0.001 | 0.0029 | 0.00142 | 0.0012 | 5.0162E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | 0.001 | 0.0029 | 0.00147 | 0.0012 | 4.8079E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 0.001 | 0.01 | 0.0027 | 0.0014 | 0.00309 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 0.001 | 0.0029 | 0.00147 | 0.0012 | 4.7923E-4 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 10.81 | 9.043 | 1.3777E-4 | -6.557 | 0.304 | -0.0463 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (NDs = DL) | 11.04 | 9.492 | 1.4151E-4 | -6.508 | 0.306 | -0.047 | | |
| Statistics (NDs = DL/2) | 10.35 | 8.903 | 1.3711E-4 | -6.607 | 0.307 | -0.0465 | | |
| Statistics (Gamma ROS Estimates) | 1.514 | 1.33 | 0.00179 | -6.278 | 0.754 | -0.12 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.568 | 0.287 | -0.0437 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.904 | 0.93 | 0.891 | 0.907 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.821 | 0.897 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.866 | 0.908 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.797 | 0.908 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.827 | 0.908 | Data Not Normal | | | | | |
| Lilliefors (Detects Only) | 0.27 | 0.202 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL) | 0.24 | 0.188 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.288 | 0.188 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.237 | 0.188 | Data Not Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | 0.949 | 0.958 | 0.941 | 0.869 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | 1.053 | 0.739 | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.275 | 0.203 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL) | 1.048 | 0.743 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.245 | 0.189 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 1.334 | 0.743 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.282 | 0.189 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 3.155 | 0.758 | | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.297 | 0.193 | Data Not Gamma Distributed | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | | |
| Correlation Coefficient R | 0.937 | 0.948 | 0.929 | 0.94 | | | | |

# Appendix B
# Goodness of Fit Statistics

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.874 | 0.897 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.893 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.857 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.882 | 0.908 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.266 | 0.202 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.238 | 0.188 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.269 | 0.188 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.232 | 0.188 | Data Not Lognormal |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Fluoride (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 0 | 32 | 31 | 1 | 3.13% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1 | 80 | 80 | 80 | 80 | N/A |
| Statistics (Non-Detects Only) | 31 | 1.2 | 3.3 | 1.555 | 1.5 | 0.369 |
| Statistics (All: NDs treated as DL value) | 32 | 1.2 | 80 | 4.006 | 1.5 | 13.87 |
| Statistics (All: NDs treated as DL/2 value) | 32 | 1.2 | 40 | 2.756 | 1.5 | 6.806 |
| Statistics (Normal ROS Imputed Data) | 32 | 1.2 | 3.3 | 1.555 | 1.5 | 0.363 |
| Statistics (Gamma ROS Imputed Data) | 32 | 1.2 | 3.3 | 1.554 | 1.5 | 0.363 |
| Statistics (Lognormal ROS Imputed Data) | 32 | 1.2 | 3.3 | 1.554 | 1.5 | 0.363 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 26.17 | 23.66 | 0.0594 | 0.422 | 0.185 | 0.438 |
| Statistics (NDs = DL) | 0.716 | 0.669 | 5.599 | 0.546 | 0.723 | 1.325 |
| Statistics (NDs = DL/2) | 1.159 | 1.072 | 2.377 | 0.524 | 0.605 | 1.155 |
| Statistics (Gamma ROS Estimates) | 27.01 | 24.49 | 0.0576 | 0.422 | 0.182 | 0.43 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | 0.422 | 0.182 | 0.431 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.757 | 0.404 | 0.422 | 0.755 |

# Appendix B
# Goodness of Fit Statistics

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.608 | 0.929 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.196 | 0.93 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.211 | 0.93 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.606 | 0.93 | Data Not Normal |
| Lilliefors (Detects Only) | 0.322 | 0.156 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.495 | 0.154 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.482 | 0.154 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.325 | 0.154 | Data Not Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.796 | 0.656 | 0.629 | 0.792 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 2.464 | 0.745 | |
| Kolmogorov-Smirnov (Detects Only) | 0.287 | 0.157 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 10.33 | 0.791 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.483 | 0.162 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 9.266 | 0.772 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.449 | 0.16 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 2.566 | 0.745 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.29 | 0.155 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.855 | 0.567 | 0.599 | 0.853 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.76 | 0.929 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.359 | 0.93 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.396 | 0.93 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.757 | 0.93 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.269 | 0.156 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.386 | 0.154 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.379 | 0.154 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.271 | 0.154 | Data Not Lognormal |

# Appendix B
# Goodness of Fit Statistics

Note: Substitution methods such as DL or DL/2 are not recommended.

**Fluoride (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 0 | 31 | 30 | 1 | 3.23% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1 | 8 | 8 | 8 | 8 | N/A |
| Statistics (Non-Detects Only) | 30 | 0.28 | 2.5 | 1.899 | 1.95 | 0.374 |
| Statistics (All: NDs treated as DL value) | 31 | 0.28 | 8 | 2.096 | 2 | 1.156 |
| Statistics (All: NDs treated as DL/2 value) | 31 | 0.28 | 4 | 1.967 | 2 | 0.527 |
| Statistics (Normal ROS Imputed Data) | 31 | 0.28 | 2.5 | 1.899 | 1.9 | 0.368 |
| Statistics (Gamma ROS Imputed Data) | 31 | 0.28 | 2.5 | 1.899 | 1.9 | 0.368 |
| Statistics (Lognormal ROS Imputed Data) | 31 | 0.28 | 2.5 | 1.897 | 1.9 | 0.368 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 12.17 | 10.98 | 0.156 | 0.6 | 0.37 | 0.617 |
| Statistics (NDs = DL) | 5.567 | 5.05 | 0.377 | 0.648 | 0.451 | 0.696 |
| Statistics (NDs = DL/2) | 9.906 | 8.969 | 0.199 | 0.625 | 0.391 | 0.625 |
| Statistics (Gamma ROS Estimates) | 12.57 | 11.38 | 0.151 | 0.601 | 0.364 | 0.606 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | 0.6 | 0.364 | 0.607 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.844 | 0.62 | 0.826 | 0.841 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.749 | 0.927 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.433 | 0.929 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.738 | 0.929 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.745 | 0.929 | Data Not Normal |
| Lilliefors (Detects Only) | 0.195 | 0.159 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.367 | 0.156 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.239 | 0.156 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.2 | 0.156 | Data Not Normal |

# Appendix B
# Goodness of Fit Statistics

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.807 | 0.691 | 0.839 | 0.807 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 3.944 | 0.745 | |
| Kolmogorov-Smirnov (Detects Only) | 0.281 | 0.16 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 4.9 | 0.747 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.302 | 0.158 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 3.677 | 0.746 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.269 | 0.158 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 4.08 | 0.746 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.278 | 0.158 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.646 | 0.72 | 0.706 | 0.644 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.457 | 0.927 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.579 | 0.929 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.55 | 0.929 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.455 | 0.929 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.33 | 0.159 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.315 | 0.156 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.313 | 0.156 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.328 | 0.156 | Data Not Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Fluoride (mw-64)**

**Raw Statistics**

| | |
|---|---|
| Number of Valid Observations | 31 |
| Number of Distinct Observations | 4 |
| Minimum | 1.3 |
| Maximum | 1.6 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Mean of Raw Data | 1.448 |
| Standard Deviation of Raw Data | 0.0811 |
| Khat | 328.9 |
| Theta hat | 0.0044 |
| Kstar | 297.1 |
| Theta star | 0.00487 |
| Mean of Log Transformed Data | 0.369 |
| Standard Deviation of Log Transformed Data | 0.0561 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.935 |
| Shapiro Wilk Test Statistic | 0.866 |
| Shapiro Wilk Critical (0.05) Value | 0.929 |
| Approximate Shapiro Wilk P Value | 8.8283E-4 |
| Lilliefors Test Statistic | 0.241 |
| Lilliefors Critical (0.05) Value | 0.156 |
| Data not Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.935 |
| A-D Test Statistic | 1.998 |
| A-D Critical (0.05) Value | 0.745 |
| K-S Test Statistic | 0.24 |
| K-S Critical(0.05) Value | 0.157 |
| Data not Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.934 |
| Shapiro Wilk Test Statistic | 0.865 |
| Shapiro Wilk Critical (0.05) Value | 0.929 |
| Approximate Shapiro Wilk P Value | 8.6415E-4 |
| Lilliefors Test Statistic | 0.235 |
| Lilliefors Critical (0.05) Value | 0.156 |
| Data not Lognormal at (0.05) Significance Level | |
| | |
| Non-parametric GOF Test Results | |

# Appendix B
# Goodness of Fit Statistics

Data do not follow a discernible distribution at (0.05) Level of Significance

**Fluoride (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 0 | 31 | 30 | 1 | 3.23% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1 | 2 | 2 | 2 | 2 | N/A |
| Statistics (Non-Detects Only) | 30 | 1.4 | 2.1 | 1.843 | 1.9 | 0.192 |
| Statistics (All: NDs treated as DL value) | 31 | 1.4 | 2.1 | 1.848 | 1.9 | 0.191 |
| Statistics (All: NDs treated as DL/2 value) | 31 | 1 | 2.1 | 1.816 | 1.9 | 0.242 |
| Statistics (Normal ROS Imputed Data) | 31 | 1.4 | 2.1 | 1.84 | 1.9 | 0.19 |
| Statistics (Gamma ROS Imputed Data) | 31 | 1.4 | 2.1 | 1.84 | 1.9 | 0.19 |
| Statistics (Lognormal ROS Imputed Data) | 31 | 1.4 | 2.1 | 1.84 | 1.9 | 0.19 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 88.94 | 80.07 | 0.0207 | 0.606 | 0.11 | 0.181 |
| Statistics (NDs = DL) | 90.14 | 81.44 | 0.0205 | 0.609 | 0.109 | 0.179 |
| Statistics (NDs = DL/2) | 48.66 | 43.97 | 0.0373 | 0.586 | 0.153 | 0.261 |
| Statistics (Gamma ROS Estimates) | 91.01 | 82.23 | 0.0202 | 0.604 | 0.108 | 0.179 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | 0.604 | 0.108 | 0.18 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.946 | 0.941 | 0.917 | 0.952 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.886 | 0.927 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.876 | 0.929 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.849 | 0.929 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.896 | 0.929 | Data Not Normal |
| Lilliefors (Detects Only) | 0.192 | 0.159 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.205 | 0.156 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.184 | 0.156 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.187 | 0.156 | Data Not Normal |

# Appendix B
# Goodness of Fit Statistics

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.933 | 0.927 | 0.894 | 0.939 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 1.465 | 0.745 | |
| Kolmogorov-Smirnov (Detects Only) | 0.193 | 0.16 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 1.648 | 0.745 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.206 | 0.157 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 1.792 | 0.744 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.204 | 0.157 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 1.343 | 0.745 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.187 | 0.157 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.936 | 0.93 | 0.876 | 0.942 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.868 | 0.927 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.858 | 0.929 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.783 | 0.929 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.879 | 0.929 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.195 | 0.159 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.2 | 0.156 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.213 | 0.156 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.185 | 0.156 | Data Not Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Lead (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 11 | 21 | 2 | 19 | 90.48% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 19 | 5.0000E-4 | 0.005 | 0.00105 | 5.0000E-4 | 0.0011 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 2 | 5.0000E-4 | 5.8000E-4 | 5.4000E-4 | 5.4000E-4 | 5.6569E-5 |
| Statistics (All: NDs treated as DL value) | 21 | 5.0000E-4 | 0.005 | 0.001 | 5.0000E-4 | 0.00106 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.0025 | 5.2762E-4 | 2.5000E-4 | 5.2395E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | -1.271E-4 | 5.8000E-4 | 2.1051E-4 | 2.0844E-4 | 1.7588E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Imputed Data) | 21 | 1.5620E-4 | 5.8000E-4 | 3.0764E-4 | 2.9111E-4 | 1.0438E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (NDs = DL) | 1.916 | 1.674 | 5.2402E-4 | -7.187 | 0.668 | -0.093 |
| Statistics (NDs = DL/2) | 2.023 | 1.765 | 2.6086E-4 | -7.814 | 0.666 | -0.0852 |
| Statistics (Gamma ROS Estimates) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -8.138 | 0.326 | -0.0401 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 1 | 0.724 | 0.751 | 0.994 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (NDs = DL) | 0.543 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.583 | 0.908 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.987 | 0.908 | Data Appear Normal |
| Lilliefors (Detects Only) | N/A | N/A | |
| Lilliefors (NDs = DL) | 0.322 | 0.188 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.298 | 0.188 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.0889 | 0.188 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | N/A | 0.881 | 0.895 | 0.418 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | N/A | N/A | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | |
| Anderson-Darling (NDs = DL) | 3.18 | 0.755 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.348 | 0.192 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 2.412 | 0.754 | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Kolmogorov-Smirnov (NDs = DL/2) | 0.329 | 0.192 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | N/A | 0.74 | | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | N/A | 0.189 | | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | | |
| Correlation Coefficient R | 1 | 0.824 | 0.865 | N/A | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.681 | 0.908 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.747 | 0.908 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.987 | 0.908 | Data Appear Lognormal | | | | | |
| Lilliefors (Detects Only) | N/A | N/A | | | | | | |
| Lilliefors (NDs = DL) | 0.351 | 0.188 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL/2) | 0.336 | 0.188 | Data Not Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.0889 | 0.188 | Data Appear Lognormal | | | | | |
| | | | | | | | | |
| Note: Substitution methods such as DL or DL/2 are not recommended. | | | | | | | | |
| | | | | | | | | |
| **Lead (mw-63)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 1 | 20 | 95.24% | | |
| | | | | | | | | |
| Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! | | | | | | | | |
| It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Lead (mw-63) was not processed! | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Lead (mw-64)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 1 | 20 | 95.24% | | |
| | | | | | | | | |
| Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! | | | | | | | | |
| It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |

# Appendix B
# Goodness of Fit Statistics

The data set for variable Lead (mw-64) was not processed!

**Lead (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 0 | 21 | 100.00% |

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Lead (mw-65) was not processed!

**Lithium (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 9 | 23 | 8 | 15 | 65.22% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 15 | 0.2 | 0.2 | 0.2 | 0.2 | 2.873E-17 |
| Statistics (Non-Detects Only) | 8 | 0.11 | 0.15 | 0.133 | 0.135 | 0.0128 |
| Statistics (All: NDs treated as DL value) | 23 | 0.11 | 0.2 | 0.177 | 0.2 | 0.0337 |
| Statistics (All: NDs treated as DL/2 value) | 23 | 0.1 | 0.15 | 0.111 | 0.1 | 0.0174 |
| Statistics (Normal ROS Imputed Data) | 23 | 0.109 | 0.156 | 0.133 | 0.133 | 0.0128 |
| Statistics (Gamma ROS Imputed Data) | 23 | 0.11 | 0.157 | 0.133 | 0.132 | 0.0128 |
| Statistics (Lognormal ROS Imputed Data) | 23 | 0.11 | 0.158 | 0.133 | 0.132 | 0.013 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 117.6 | 73.59 | 0.00113 | -2.025 | 0.0997 | -0.0492 |
| Statistics (NDs = DL) | 25.39 | 22.11 | 0.00695 | -1.754 | 0.21 | -0.12 |
| Statistics (NDs = DL/2) | 46.91 | 40.82 | 0.00237 | -2.206 | 0.146 | -0.0663 |
| Statistics (Gamma ROS Estimates) | 110.4 | 96.06 | 0.0012 | -2.025 | 0.0978 | -0.0483 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -2.025 | 0.0993 | -0.049 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| **Normal GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | |
| Correlation Coefficient R | 0.966 | 0.833 | 0.828 | 0.992 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.938 | 0.818 | Data Appear Normal | | |
| Shapiro-Wilk (NDs = DL) | 0.681 | 0.914 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.677 | 0.914 | Data Not Normal | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.976 | 0.914 | Data Appear Normal | | |
| Lilliefors (Detects Only) | 0.221 | 0.283 | Data Appear Normal | | |
| Lilliefors (NDs = DL) | 0.409 | 0.18 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.394 | 0.18 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.111 | 0.18 | Data Appear Normal | | |
| **Gamma GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | 0.96 | 0.796 | 0.852 | 0.99 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | 0.383 | 0.715 | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.237 | 0.294 | Detected Data Appear Gamma Distributed | | |
| Anderson-Darling (NDs = DL) | 3.624 | 0.742 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.413 | 0.181 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 3.651 | 0.741 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.401 | 0.181 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 0.22 | 0.74 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.116 | 0.181 | Data Appear Gamma Distributed | | |
| **Lognormal GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.959 | 0.838 | 0.829 | 0.992 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.925 | 0.818 | Data Appear Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.692 | 0.914 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.677 | 0.914 | Data Not Lognormal | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.975 | 0.914 | Data Appear Lognormal | | | | | |
| Lilliefors (Detects Only) | 0.224 | 0.283 | Data Appear Lognormal | | | | | |
| Lilliefors (NDs = DL) | 0.407 | 0.18 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL/2) | 0.397 | 0.18 | Data Not Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.111 | 0.18 | Data Appear Lognormal | | | | | |
| | | | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | | | |
| | | | | | | | | |
| **Lithium (mw-63)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 8 | 23 | 8 | 15 | 65.22% | | |
| | | | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD | | |
| Statistics (Non-Detects Only) | 15 | 0.2 | 0.2 | 0.2 | 0.2 | 2.873E-17 | | |
| Statistics (Non-Detects Only) | 8 | 0.045 | 0.085 | 0.06 | 0.0575 | 0.0118 | | |
| Statistics (All: NDs treated as DL value) | 23 | 0.045 | 0.2 | 0.151 | 0.2 | 0.0685 | | |
| Statistics (All: NDs treated as DL/2 value) | 23 | 0.045 | 0.1 | 0.0861 | 0.1 | 0.0206 | | |
| Statistics (Normal ROS Imputed Data) | 23 | 0.0393 | 0.085 | 0.06 | 0.058 | 0.0115 | | |
| Statistics (Gamma ROS Imputed Data) | 23 | 0.0405 | 0.085 | 0.0601 | 0.058 | 0.0116 | | |
| Statistics (Lognormal ROS Imputed Data) | 23 | 0.0423 | 0.085 | 0.06 | 0.058 | 0.0112 | | |
| | | | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV | | |
| Statistics (Non-Detects Only) | 32.48 | 20.38 | 0.00185 | -2.829 | 0.184 | -0.0652 | | |
| Statistics (NDs = DL) | 3.603 | 3.162 | 0.042 | -2.034 | 0.603 | -0.296 | | |
| Statistics (NDs = DL/2) | 15.2 | 13.25 | 0.00566 | -2.486 | 0.277 | -0.111 | | |
| Statistics (Gamma ROS Estimates) | 28.8 | 25.07 | 0.00209 | -2.83 | 0.191 | -0.0674 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -2.829 | 0.183 | -0.0647 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.93 | 0.81 | 0.827 | 0.992 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.889 | 0.818 | Data Appear Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.64 | 0.914 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.673 | 0.914 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.982 | 0.914 | Data Appear Normal | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| Lilliefors (Detects Only) | 0.216 | 0.283 | Data Appear Normal | | |
| Lilliefors (NDs = DL) | 0.414 | 0.18 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.403 | 0.18 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.0909 | 0.18 | Data Appear Normal | | |
| | | | | | |
| **Gamma GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | 0.951 | 0.718 | 0.778 | 0.994 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | 0.372 | 0.716 | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.189 | 0.294 | Detected Data Appear Gamma Distributed | | |
| Anderson-Darling (NDs = DL) | 4.053 | 0.75 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.419 | 0.183 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 3.716 | 0.743 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.405 | 0.181 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 0.143 | 0.742 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.0714 | 0.181 | Data Appear Gamma Distributed | | |
| | | | | | |
| **Lognormal GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.958 | 0.823 | 0.83 | 0.994 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.94 | 0.818 | Data Appear Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.663 | 0.914 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.68 | 0.914 | Data Not Lognormal | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.983 | 0.914 | Data Appear Lognormal | | |
| Lilliefors (Detects Only) | 0.181 | 0.283 | Data Appear Lognormal | | |
| Lilliefors (NDs = DL) | 0.411 | 0.18 | Data Not Lognormal | | |
| Lilliefors (NDs = DL/2) | 0.398 | 0.18 | Data Not Lognormal | | |
| Lilliefors (Lognormal ROS Estimates) | 0.0781 | 0.18 | Data Appear Lognormal | | |
| | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | |
| | | | | | |
| **Lithium (mw-64)** | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 8 | 23 | 7 | 16 | 69.57% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 16 | 0.05 | 0.2 | 0.191 | 0.2 | 0.0375 |
| Statistics (Non-Detects Only) | 7 | 0.019 | 0.027 | 0.0216 | 0.021 | 0.00282 |
| Statistics (All: NDs treated as DL value) | 23 | 0.019 | 0.2 | 0.139 | 0.2 | 0.0854 |
| Statistics (All: NDs treated as DL/2 value) | 23 | 0.019 | 0.1 | 0.0729 | 0.1 | 0.038 |
| Statistics (Normal ROS Imputed Data) | 23 | 0.0165 | 0.027 | 0.0216 | 0.0216 | 0.00274 |
| Statistics (Gamma ROS Imputed Data) | 23 | 0.0166 | 0.027 | 0.0216 | 0.0215 | 0.00276 |
| Statistics (Lognormal ROS Imputed Data) | 23 | 0.017 | 0.027 | 0.0216 | 0.0214 | 0.00268 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 72.96 | 41.79 | 2.9566E-4 | -3.843 | 0.125 | -0.0324 |
| Statistics (NDs = DL) | 1.469 | 1.306 | 0.0948 | -2.35 | 1.052 | -0.448 |
| Statistics (NDs = DL/2) | 2.505 | 2.207 | 0.0291 | -2.832 | 0.744 | -0.263 |
| Statistics (Gamma ROS Estimates) | 64.86 | 56.43 | 3.3274E-4 | -3.844 | 0.127 | -0.033 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -3.843 | 0.123 | -0.0319 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.937 | 0.801 | 0.801 | 0.993 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.88 | 0.803 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.623 | 0.914 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.623 | 0.914 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.981 | 0.914 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.181 | 0.304 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.414 | 0.18 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.414 | 0.18 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.0763 | 0.18 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.953 | 0.648 | 0.692 | 0.992 |

# Appendix B
# Goodness of Fit Statistics

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.356 | 0.708 | |
| Kolmogorov-Smirnov (Detects Only) | 0.154 | 0.311 | Detected Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL) | 4.228 | 0.761 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.422 | 0.185 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 4.289 | 0.753 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.421 | 0.183 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 0.153 | 0.741 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.0697 | 0.181 | Data Appear Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.952 | 0.814 | 0.812 | 0.993 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.904 | 0.803 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.645 | 0.914 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.642 | 0.914 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.98 | 0.914 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.168 | 0.304 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.411 | 0.18 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.414 | 0.18 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.0665 | 0.18 | Data Appear Lognormal |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Lithium (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 8 | 23 | 7 | 16 | 69.57% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 16 | 0.05 | 0.2 | 0.191 | 0.2 | 0.0375 |
| Statistics (Non-Detects Only) | 7 | 0.045 | 0.081 | 0.0563 | 0.053 | 0.0119 |
| Statistics (All: NDs treated as DL value) | 23 | 0.045 | 0.2 | 0.15 | 0.2 | 0.0707 |
| Statistics (All: NDs treated as DL/2 value) | 23 | 0.025 | 0.1 | 0.0834 | 0.1 | 0.0248 |
| Statistics (Normal ROS Imputed Data) | 23 | 0.0342 | 0.081 | 0.0542 | 0.053 | 0.0115 |
| Statistics (Gamma ROS Imputed Data) | 23 | 0.0353 | 0.081 | 0.0543 | 0.053 | 0.0116 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Statistics (Lognormal ROS Imputed Data) | 23 | 0.0382 | 0.081 | 0.0544 | 0.053 | 0.0108 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 29.88 | 17.17 | 0.00188 | -2.894 | 0.192 | -0.0662 |
| Statistics (NDs = DL) | 3.246 | 2.852 | 0.0461 | -2.061 | 0.64 | -0.311 |
| Statistics (NDs = DL/2) | 8.608 | 7.514 | 0.00969 | -2.543 | 0.385 | -0.151 |
| Statistics (Gamma ROS Estimates) | 23.55 | 20.51 | 0.00231 | -2.934 | 0.211 | -0.0719 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -2.928 | 0.191 | -0.0651 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.889 | 0.807 | 0.833 | 0.989 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.811 | 0.803 | Data Appear Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.633 | 0.914 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.687 | 0.914 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.979 | 0.914 | Data Appear Normal | | | |
| Lilliefors (Detects Only) | 0.29 | 0.304 | Data Appear Normal | | | |
| Lilliefors (NDs = DL) | 0.414 | 0.18 | Data Not Normal | | | |
| Lilliefors (NDs = DL/2) | 0.4 | 0.18 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.107 | 0.18 | Data Appear Normal | | | |
| | | | | | | |
| **Gamma GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
| Correlation Coefficient R | 0.92 | 0.711 | 0.761 | 0.995 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | 0.566 | 0.707 | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.279 | 0.311 | Detected Data Appear Gamma Distributed | | | |
| Anderson-Darling (NDs = DL) | 4.149 | 0.75 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.419 | 0.183 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 3.437 | 0.745 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.398 | 0.182 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | 0.143 | 0.742 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.0924 | 0.181 | Data Appear Gamma Distributed | | | |

# Appendix B
# Goodness of Fit Statistics

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.922 | 0.817 | 0.822 | 0.993 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.868 | 0.803 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.651 | 0.914 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.679 | 0.914 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.982 | 0.914 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.265 | 0.304 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.412 | 0.18 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.386 | 0.18 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.0885 | 0.18 | Data Appear Lognormal |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Mercury (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 11 | 21 | 3 | 18 | 85.71% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 18 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 5.578E-20 |
| Statistics (Non-Detects Only) | 3 | 2.5000E-4 | 4.4000E-4 | 3.5333E-4 | 3.7000E-4 | 9.6090E-5 |
| Statistics (All: NDs treated as DL value) | 21 | 2.0000E-4 | 4.4000E-4 | 2.2190E-4 | 2.0000E-4 | 6.2819E-5 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 1.0000E-4 | 4.4000E-4 | 1.3619E-4 | 1.0000E-4 | 9.5785E-5 |
| Statistics (Normal ROS Imputed Data) | 21 | -6.960E-4 | 4.4000E-4 | -1.367E-4 | -1.431E-4 | 3.0321E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 2.5000E-4 | 0.01 | 0.00862 | 0.01 | 0.00346 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 1.5567E-5 | 4.4000E-4 | 1.1814E-4 | 7.9531E-5 | 1.1297E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (NDs = DL) | 19.06 | 16.37 | 1.1644E-5 | -8.44 | 0.215 | -0.0255 |
| Statistics (NDs = DL/2) | 3.935 | 3.405 | 3.4606E-5 | -9.034 | 0.452 | -0.0501 |
| Statistics (Gamma ROS Estimates) | 1.648 | 1.444 | 0.00523 | -5.087 | 1.212 | -0.238 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -9.421 | 0.895 | -0.095 |

**Normal GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | |
| Correlation Coefficient R | 0.989 | 0.622 | 0.65 | 0.998 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.977 | 0.767 | Data Appear Normal | | |
| Shapiro-Wilk (NDs = DL) | 0.404 | 0.908 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.435 | 0.908 | Data Not Normal | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.991 | 0.908 | Data Appear Normal | | |
| Lilliefors (Detects Only) | 0.236 | 0.425 | Data Appear Normal | | |
| Lilliefors (NDs = DL) | 0.493 | 0.188 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.504 | 0.188 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.0479 | 0.188 | Data Appear Normal | | |
| | | | | | |
| **Gamma GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | N/A | 0.687 | 0.775 | 0.443 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | N/A | N/A | | | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | | | |
| Anderson-Darling (NDs = DL) | 5.987 | 0.743 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.501 | 0.189 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 6.016 | 0.747 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.516 | 0.19 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 6.496 | 0.757 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.532 | 0.192 | Data Not Gamma Distributed | | |
| | | | | | |
| **Lognormal GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.976 | 0.634 | 0.657 | 0.998 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.952 | 0.767 | Data Appear Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.415 | 0.908 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.439 | 0.908 | Data Not Lognormal | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.99 | 0.908 | Data Appear Lognormal | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Lilliefors (Detects Only) | 0.266 | 0.425 | Data Appear Lognormal | | | | | |
| Lilliefors (NDs = DL) | 0.498 | 0.188 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL/2) | 0.509 | 0.188 | Data Not Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.0504 | 0.188 | Data Appear Lognormal | | | | | |
| | | | | | | | | |
| Note: Substitution methods such as DL or DL/2 are not recommended. | | | | | | | | |
| | | | | | | | | |
| **Mercury (mw-63)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 0 | 21 | 100.00% | | |
| | | | | | | | | |
| Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! | | | | | | | | |
| Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! | | | | | | | | |
| The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Mercury (mw-63) was not processed! | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Mercury (mw-64)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 0 | 21 | 100.00% | | |
| | | | | | | | | |
| Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! | | | | | | | | |
| Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! | | | | | | | | |
| The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Mercury (mw-64) was not processed! | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Mercury (mw-65)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 0 | 21 | 100.00% | | |
| | | | | | | | | |
| Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! | | | | | | | | |

# Appendix B
# Goodness of Fit Statistics

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Mercury (mw-65) was not processed!

**Molybdenum (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 11 | 21 | 20 | 1 | 4.76% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1 | 0.002 | 0.002 | 0.002 | 0.002 | N/A |
| Statistics (Non-Detects Only) | 20 | 0.0012 | 0.012 | 0.00345 | 0.003 | 0.00212 |
| Statistics (All: NDs treated as DL value) | 21 | 0.0012 | 0.012 | 0.00338 | 0.003 | 0.00209 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 0.001 | 0.012 | 0.00333 | 0.003 | 0.00213 |
| Statistics (Normal ROS Imputed Data) | 21 | 4.9611E-4 | 0.012 | 0.00331 | 0.003 | 0.00216 |
| Statistics (Gamma ROS Imputed Data) | 21 | 0.0012 | 0.012 | 0.00376 | 0.003 | 0.00251 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 0.0012 | 0.012 | 0.00336 | 0.003 | 0.00211 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 5.227 | 4.476 | 6.6008E-4 | -5.768 | 0.41 | -0.0711 |
| Statistics (NDs = DL) | 5.173 | 4.466 | 6.5352E-4 | -5.789 | 0.411 | -0.071 |
| Statistics (NDs = DL/2) | 4.377 | 3.783 | 7.6163E-4 | -5.822 | 0.471 | -0.0808 |
| Statistics (Gamma ROS Estimates) | 4.009 | 3.468 | 9.3840E-4 | -5.713 | 0.473 | -0.0829 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -5.802 | 0.429 | -0.0739 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.693 | 0.702 | 0.724 | 0.737 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.517 | 0.905 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.525 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.557 | 0.908 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.578 | 0.908 | Data Not Normal |
| Lilliefors (Detects Only) | 0.322 | 0.192 | Data Not Normal |

# Appendix B
# Goodness of Fit Statistics

| | | | | |
|---|---|---|---|---|
| Lilliefors (NDs = DL) | 0.315 | 0.188 | Data Not Normal | |
| Lilliefors (NDs = DL/2) | 0.307 | 0.188 | Data Not Normal | |
| Lilliefors (Normal ROS Estimates) | 0.304 | 0.188 | Data Not Normal | |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.779 | 0.785 | 0.805 | 0.848 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 2.297 | 0.745 | |
| Kolmogorov-Smirnov (Detects Only) | 0.259 | 0.194 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 2.107 | 0.745 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.252 | 0.19 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 2.008 | 0.747 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.232 | 0.19 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 2.55 | 0.747 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.277 | 0.19 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.852 | 0.872 | 0.881 | 0.883 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.769 | 0.905 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.797 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.805 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.811 | 0.908 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.227 | 0.192 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.219 | 0.188 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.232 | 0.188 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.209 | 0.188 | Data Not Lognormal |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Molybdenum (mw-63)**

**Raw Statistics**

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Number of Valid Observations | 21 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 15 |
| Minimum | 0.0019 |
| Maximum | 0.017 |
| Mean of Raw Data | 0.00348 |
| Standard Deviation of Raw Data | 0.00321 |
| Khat | 3.245 |
| Theta hat | 0.00107 |
| Kstar | 2.813 |
| Theta star | 0.00124 |
| Mean of Log Transformed Data | -5.822 |
| Standard Deviation of Log Transformed Data | 0.469 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.624 |
| Shapiro Wilk Test Statistic | 0.417 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 2.4784E-9 |
| Lilliefors Test Statistic | 0.39 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data not Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.754 |
| A-D Test Statistic | 3.025 |
| A-D Critical (0.05) Value | 0.749 |
| K-S Test Statistic | 0.307 |
| K-S Critical(0.05) Value | 0.191 |
| Data not Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.81 |
| Shapiro Wilk Test Statistic | 0.679 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 4.6987E-6 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Lilliefors Test Statistic | 0.243 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data not Lognormal at (0.05) Significance Level | |
| | |
| Non-parametric GOF Test Results | |
| | |
| Data do not follow a discernible distribution at (0.05) Level of Significance | |
| | |
| **Molybdenum (mw-64)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 21 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 12 |
| Minimum | 0.0042 |
| Maximum | 0.0073 |
| Mean of Raw Data | 0.00498 |
| Standard Deviation of Raw Data | 6.3531E-4 |
| Khat | 75.2 |
| Theta hat | 6.6238E-5 |
| Kstar | 64.49 |
| Theta star | 7.7239E-5 |
| Mean of Log Transformed Data | -5.309 |
| Standard Deviation of Log Transformed Data | 0.114 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.853 |
| Shapiro Wilk Test Statistic | 0.751 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 6.0569E-5 |
| Lilliefors Test Statistic | 0.27 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data not Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.874 |
| A-D Test Statistic | 1.082 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| A-D Critical (0.05) Value | 0.74 |
| K-S Test Statistic | 0.244 |
| K-S Critical(0.05) Value | 0.189 |
| Data not Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.898 |
| Shapiro Wilk Test Statistic | 0.827 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 0.00124 |
| Lilliefors Test Statistic | 0.237 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data not Lognormal at (0.05) Significance Level | |
| | |
| Non-parametric GOF Test Results | |
| | |
| Data do not follow a discernible distribution at (0.05) Level of Significance | |
| | |
| **Molybdenum (mw-65)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 21 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 16 |
| Minimum | 0.0066 |
| Maximum | 0.013 |
| Mean of Raw Data | 0.00854 |
| Standard Deviation of Raw Data | 0.00139 |
| Khat | 44.2 |
| Theta hat | 1.9318E-4 |
| Kstar | 37.92 |
| Theta star | 2.2519E-4 |
| Mean of Log Transformed Data | -4.775 |
| Standard Deviation of Log Transformed Data | 0.151 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.927 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shapiro Wilk Test Statistic | 0.876 | | | | | | | |
| Shapiro Wilk Critical (0.05) Value | 0.908 | | | | | | | |
| Approximate Shapiro Wilk P Value | 0.0103 | | | | | | | |
| Lilliefors Test Statistic | 0.159 | | | | | | | |
| Lilliefors Critical (0.05) Value | 0.188 | | | | | | | |
| Data appear Approximate Normal at (0.05) Significance Level | | | | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| Correlation Coefficient R | 0.946 | | | | | | | |
| A-D Test Statistic | 0.455 | | | | | | | |
| A-D Critical (0.05) Value | 0.741 | | | | | | | |
| K-S Test Statistic | 0.142 | | | | | | | |
| K-S Critical(0.05) Value | 0.189 | | | | | | | |
| Data appear Gamma Distributed at (0.05) Significance Level | | | | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| Correlation Coefficient R | 0.962 | | | | | | | |
| Shapiro Wilk Test Statistic | 0.937 | | | | | | | |
| Shapiro Wilk Critical (0.05) Value | 0.908 | | | | | | | |
| Approximate Shapiro Wilk P Value | 0.19 | | | | | | | |
| Lilliefors Test Statistic | 0.132 | | | | | | | |
| Lilliefors Critical (0.05) Value | 0.188 | | | | | | | |
| Data appear Lognormal at (0.05) Significance Level | | | | | | | | |
| | | | | | | | | |
| **Total Radium (mw-62)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 32 | 9 | 23 | 14 | 9 | 39.13% | | |
| | | | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD | | |
| Statistics (Non-Detects Only) | 9 | 0.6 | 0.8 | 0.656 | 0.6 | 0.0726 | | |
| Statistics (Non-Detects Only) | 14 | 0.6 | 1.9 | 1.143 | 1.05 | 0.372 | | |
| Statistics (All: NDs treated as DL value) | 23 | 0.6 | 1.9 | 0.952 | 0.9 | 0.378 | | |
| Statistics (All: NDs treated as DL/2 value) | 23 | 0.3 | 1.9 | 0.824 | 0.9 | 0.498 | | |
| Statistics (Normal ROS Imputed Data) | 23 | -0.202 | 1.9 | 0.778 | 0.9 | 0.563 | | |
| Statistics (Gamma ROS Imputed Data) | 23 | 0.0711 | 1.9 | 0.831 | 0.9 | 0.499 | | |
| Statistics (Lognormal ROS Imputed Data) | 23 | 0.339 | 1.9 | 0.889 | 0.9 | 0.436 | | |

# Appendix B
# Goodness of Fit Statistics

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 10.42 | 8.231 | 0.11 | 0.085 | 0.325 | 3.827 |
| Statistics (NDs = DL) | 7.658 | 6.688 | 0.124 | -0.116 | 0.364 | -3.147 |
| Statistics (NDs = DL/2) | 2.742 | 2.413 | 0.301 | -0.387 | 0.655 | -1.693 |
| Statistics (Gamma ROS Estimates) | 2.291 | 2.021 | 0.363 | -0.418 | 0.791 | -1.89 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -0.232 | 0.49 | -2.112 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.974 | 0.929 | 0.951 | 0.992 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.946 | 0.874 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.855 | 0.914 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.891 | 0.914 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.978 | 0.914 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.189 | 0.226 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.183 | 0.18 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.194 | 0.18 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.108 | 0.18 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.987 | 0.969 | 0.972 | 0.979 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.273 | 0.735 | |
| Kolmogorov-Smirnov (Detects Only) | 0.151 | 0.229 | Detected Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL) | 0.874 | 0.745 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.189 | 0.182 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 0.974 | 0.751 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.196 | 0.183 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 0.263 | 0.753 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.156 | 0.183 | Data Appear Gamma Distributed |

**Lognormal GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.987 | 0.957 | 0.948 | 0.987 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.971 | 0.874 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.901 | 0.914 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.878 | 0.914 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.964 | 0.914 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.136 | 0.226 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.181 | 0.18 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.192 | 0.18 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.134 | 0.18 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Total Radium (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 8 | 23 | 12 | 11 | 47.83% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 11 | 0.6 | 0.8 | 0.682 | 0.7 | 0.0751 |
| Statistics (Non-Detects Only) | 12 | 0.4 | 2.1 | 0.958 | 0.8 | 0.521 |
| Statistics (All: NDs treated as DL value) | 23 | 0.4 | 2.1 | 0.826 | 0.7 | 0.398 |
| Statistics (All: NDs treated as DL/2 value) | 23 | 0.3 | 2.1 | 0.663 | 0.4 | 0.486 |
| Statistics (Normal ROS Imputed Data) | 23 | -0.151 | 2.1 | 0.621 | 0.551 | 0.544 |
| Statistics (Gamma ROS Imputed Data) | 23 | 0.01 | 2.1 | 0.632 | 0.504 | 0.522 |
| Statistics (Lognormal ROS Imputed Data) | 23 | 0.27 | 2.1 | 0.703 | 0.56 | 0.464 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 4.447 | 3.39 | 0.215 | -0.159 | 0.49 | -3.076 |
| Statistics (NDs = DL) | 6.591 | 5.76 | 0.125 | -0.269 | 0.373 | -1.388 |
| Statistics (NDs = DL/2) | 2.796 | 2.46 | 0.237 | -0.6 | 0.589 | -0.982 |
| Statistics (Gamma ROS Estimates) | 1.161 | 1.039 | 0.544 | -0.947 | 1.334 | -1.408 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -0.509 | 0.54 | -1.062 |

**Normal GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | |
| Correlation Coefficient R | 0.916 | 0.821 | 0.86 | 0.947 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.839 | 0.859 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL) | 0.689 | 0.914 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.742 | 0.914 | Data Not Normal | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.902 | 0.914 | Data Not Normal | | |
| Lilliefors (Detects Only) | 0.286 | 0.243 | Data Not Normal | | |
| Lilliefors (NDs = DL) | 0.352 | 0.18 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.228 | 0.18 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.197 | 0.18 | Data Not Normal | | |
| | | | | | |
| **Gamma GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | 0.967 | 0.891 | 0.955 | 0.987 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | 0.502 | 0.734 | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.249 | 0.246 | Detected Data appear Approximate Gamma Distribution | | |
| Anderson-Darling (NDs = DL) | 1.951 | 0.746 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.307 | 0.182 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 1.337 | 0.751 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.238 | 0.183 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 0.568 | 0.766 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.142 | 0.186 | Data Appear Gamma Distributed | | |
| | | | | | |
| **Lognormal GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.975 | 0.913 | 0.94 | 0.975 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.949 | 0.859 | Data Appear Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.847 | 0.914 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.873 | 0.914 | Data Not Lognormal | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.946 | 0.914 | Data Appear Lognormal | | |
| Lilliefors (Detects Only) | 0.218 | 0.243 | Data Appear Lognormal | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Lilliefors (NDs = DL) | 0.277 | 0.18 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.226 | 0.18 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.125 | 0.18 | Data Appear Lognormal | | | |
| | | | | | | |
| Note: Substitution methods such as DL or DL/2 are not recommended. | | | | | | |
| | | | | | | |
| **Total Radium (mw-64)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 31 | 8 | 23 | 6 | 17 | 73.91% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 17 | 0.5 | 0.8 | 0.659 | 0.6 | 0.087 |
| Statistics (Non-Detects Only) | 6 | 0.731 | 1.7 | 1.089 | 0.8 | 0.474 |
| Statistics (All: NDs treated as DL value) | 23 | 0.5 | 1.7 | 0.771 | 0.7 | 0.306 |
| Statistics (All: NDs treated as DL/2 value) | 23 | 0.25 | 1.7 | 0.527 | 0.35 | 0.411 |
| Statistics (Normal ROS Imputed Data) | 23 | -1.621 | 1.7 | -0.128 | -0.193 | 0.903 |
| Statistics (Gamma ROS Imputed Data) | 23 | 0.01 | 1.7 | 0.325 | 0.01 | 0.522 |
| Statistics (Lognormal ROS Imputed Data) | 23 | 0.0993 | 1.7 | 0.485 | 0.338 | 0.442 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 7.134 | 3.678 | 0.153 | 0.0131 | 0.402 | 30.76 |
| Statistics (NDs = DL) | 9.993 | 8.719 | 0.0771 | -0.311 | 0.297 | -0.954 |
| Statistics (NDs = DL/2) | 2.879 | 2.532 | 0.183 | -0.823 | 0.555 | -0.674 |
| Statistics (Gamma ROS Estimates) | 0.377 | 0.357 | 0.862 | -2.886 | 2.091 | -0.725 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -1.029 | 0.774 | -0.752 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.838 | 0.758 | 0.782 | 0.984 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.681 | 0.788 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.586 | 0.914 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.617 | 0.914 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.96 | 0.914 | Data Appear Normal | | | |
| Lilliefors (Detects Only) | 0.395 | 0.325 | Data Not Normal | | | |
| Lilliefors (NDs = DL) | 0.375 | 0.18 | Data Not Normal | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Lilliefors (NDs = DL/2) | 0.361 | 0.18 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.1 | 0.18 | Data Appear Normal | | | |
| | | | | | | |
| **Gamma GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
| Correlation Coefficient R | 0.87 | 0.818 | 0.893 | 0.953 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | 1.069 | 0.698 | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.41 | 0.333 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL) | 2.693 | 0.744 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.325 | 0.182 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 2.781 | 0.751 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.337 | 0.183 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | 2.523 | 0.832 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.356 | 0.195 | Data Not Gamma Distributed | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 0.85 | 0.845 | 0.871 | 0.984 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.703 | 0.788 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL) | 0.725 | 0.914 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.757 | 0.914 | Data Not Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.961 | 0.914 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | 0.388 | 0.325 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL) | 0.297 | 0.18 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.306 | 0.18 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.1 | 0.18 | Data Appear Lognormal | | | |
| | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | |
| | | | | | | |
| **Total Radium (mw-65)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 31 | 8 | 23 | 6 | 17 | 73.91% |

# Appendix B
# Goodness of Fit Statistics

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 17 | 0.4 | 0.8 | 0.624 | 0.6 | 0.109 |
| Statistics (Non-Detects Only) | 6 | 0.478 | 1.9 | 0.98 | 0.85 | 0.504 |
| Statistics (All: NDs treated as DL value) | 23 | 0.4 | 1.9 | 0.716 | 0.6 | 0.303 |
| Statistics (All: NDs treated as DL/2 value) | 23 | 0.2 | 1.9 | 0.486 | 0.3 | 0.387 |
| Statistics (Normal ROS Imputed Data) | 23 | -0.998 | 1.9 | 0.14 | 0.137 | 0.669 |
| Statistics (Gamma ROS Imputed Data) | 23 | 0.01 | 1.9 | 0.346 | 0.181 | 0.473 |
| Statistics (Lognormal ROS Imputed Data) | 23 | 0.117 | 1.9 | 0.479 | 0.375 | 0.402 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 5.24 | 2.731 | 0.187 | -0.119 | 0.476 | -4.005 |
| Statistics (NDs = DL) | 8.829 | 7.706 | 0.0811 | -0.391 | 0.32 | -0.818 |
| Statistics (NDs = DL/2) | 2.904 | 2.554 | 0.167 | -0.903 | 0.55 | -0.608 |
| Statistics (Gamma ROS Estimates) | 0.484 | 0.45 | 0.716 | -2.379 | 1.964 | -0.826 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -0.978 | 0.678 | -0.693 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.927 | 0.804 | 0.785 | 0.981 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.873 | 0.788 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.672 | 0.914 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.634 | 0.914 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.967 | 0.914 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.239 | 0.325 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.261 | 0.18 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.327 | 0.18 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.0938 | 0.18 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.974 | 0.868 | 0.905 | 0.993 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.298 | 0.698 | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Kolmogorov-Smirnov (Detects Only) | 0.219 | 0.333 | Detected Data Appear Gamma Distributed | | | |
| Anderson-Darling (NDs = DL) | 1.532 | 0.745 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.222 | 0.182 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 2.286 | 0.751 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.288 | 0.183 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | 1.12 | 0.809 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.249 | 0.192 | Data Not Gamma Distributed | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 0.977 | 0.916 | 0.902 | 0.986 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.963 | 0.788 | Data Appear Lognormal | | | |
| Shapiro-Wilk (NDs = DL) | 0.859 | 0.914 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.82 | 0.914 | Data Not Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.973 | 0.914 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | 0.191 | 0.325 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL) | 0.211 | 0.18 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.248 | 0.18 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.096 | 0.18 | Data Appear Lognormal | | | |
| | | | | | | |
| Note: Substitution methods such as DL or DL/2 are not recommended. | | | | | | |
| | | | | | | |
| **Selenium (mw-62)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 32 | 11 | 21 | 6 | 15 | 71.43% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 15 | 5.0000E-4 | 0.005 | 0.00142 | 8.0000E-4 | 0.00129 |
| Statistics (Non-Detects Only) | 6 | 5.4000E-4 | 0.002 | 9.5667E-4 | 8.5500E-4 | 5.4032E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 5.0000E-4 | 0.005 | 0.00129 | 8.0000E-4 | 0.00113 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.0025 | 7.8048E-4 | 5.5000E-4 | 6.1264E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | -0.00109 | 0.002 | 1.7708E-4 | 1.3791E-4 | 6.9099E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 5.4000E-4 | 0.01 | 0.00742 | 0.01 | 0.00419 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 1.3163E-4 | 0.002 | 5.1790E-4 | 4.0581E-4 | 4.0971E-4 |

# Appendix B
# Goodness of Fit Statistics

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 4.863 | 2.543 | 1.9673E-4 | -7.058 | 0.48 | -0.068 |
| Statistics (NDs = DL) | 1.958 | 1.71 | 6.5748E-4 | -6.931 | 0.721 | -0.104 |
| Statistics (NDs = DL/2) | 1.996 | 1.742 | 3.9107E-4 | -7.427 | 0.755 | -0.102 |
| Statistics (Gamma ROS Estimates) | 1.387 | 1.22 | 0.00535 | -5.306 | 1.161 | -0.219 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.774 | 0.631 | -0.0812 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.87 | 0.843 | 0.902 | 0.978 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.772 | 0.788 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.72 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.815 | 0.908 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.967 | 0.908 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.346 | 0.325 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.267 | 0.188 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.217 | 0.188 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.131 | 0.188 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.937 | 0.952 | 0.978 | 0.588 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.497 | 0.698 | |
| Kolmogorov-Smirnov (Detects Only) | 0.288 | 0.333 | Detected Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL) | 1.521 | 0.754 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.214 | 0.192 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 0.875 | 0.754 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.198 | 0.192 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 4.351 | 0.761 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.456 | 0.193 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.936 | 0.923 | 0.95 | 0.985 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.881 | 0.788 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.841 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.889 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.977 | 0.908 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.26 | 0.325 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.216 | 0.188 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.208 | 0.188 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.131 | 0.188 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Selenium (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 4 | 17 | 80.95% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 17 | 5.0000E-4 | 0.005 | 0.00129 | 5.0000E-4 | 0.00125 |
| Statistics (Non-Detects Only) | 4 | 5.1000E-4 | 0.0013 | 8.1250E-4 | 7.2000E-4 | 3.4131E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 5.0000E-4 | 0.005 | 0.0012 | 5.1000E-4 | 0.00114 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.0025 | 6.7857E-4 | 5.0000E-4 | 5.7860E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | -0.00111 | 0.0013 | -1.470E-5 | -2.516E-5 | 5.7433E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 5.1000E-4 | 0.01 | 0.00825 | 0.01 | 0.0037 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 8.5481E-5 | 0.0013 | 3.6850E-4 | 2.9381E-4 | 2.7937E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 8.478 | 2.286 | 9.5831E-5 | -7.176 | 0.391 | -0.0545 |
| Statistics (NDs = DL) | 1.791 | 1.567 | 6.7126E-4 | -7.028 | 0.741 | -0.105 |
| Statistics (NDs = DL/2) | 1.853 | 1.62 | 3.6617E-4 | -7.589 | 0.765 | -0.101 |
| Statistics (Gamma ROS Estimates) | 1.831 | 1.601 | 0.0045 | -5.095 | 1.045 | -0.205 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -8.121 | 0.656 | -0.0808 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| Correlation Coefficient R | 0.935 | 0.817 | 0.87 | 0.991 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.886 | 0.748 | Data Appear Normal | | |
| Shapiro-Wilk (NDs = DL) | 0.677 | 0.908 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.763 | 0.908 | Data Not Normal | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.986 | 0.908 | Data Appear Normal | | |
| Lilliefors (Detects Only) | 0.311 | 0.375 | Data Appear Normal | | |
| Lilliefors (NDs = DL) | 0.27 | 0.188 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.247 | 0.188 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.0988 | 0.188 | Data Appear Normal | | |
| | | | | | |
| **Gamma GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | 0.976 | 0.947 | 0.969 | 0.517 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | 0.323 | 0.658 | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.281 | 0.395 | Detected Data Appear Gamma Distributed | | |
| Anderson-Darling (NDs = DL) | 2.187 | 0.756 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.294 | 0.192 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 1.54 | 0.755 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.293 | 0.192 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 5.635 | 0.755 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.506 | 0.192 | Data Not Gamma Distributed | | |
| | | | | | |
| **Lognormal GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.97 | 0.885 | 0.915 | 0.992 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.953 | 0.748 | Data Appear Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.775 | 0.908 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.824 | 0.908 | Data Not Lognormal | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.987 | 0.908 | Data Appear Lognormal | | |
| Lilliefors (Detects Only) | 0.257 | 0.375 | Data Appear Lognormal | | |
| Lilliefors (NDs = DL) | 0.296 | 0.188 | Data Not Lognormal | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Lilliefors (NDs = DL/2) | 0.298 | 0.188 | Data Not Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.0988 | 0.188 | Data Appear Lognormal | | | | | |
| | | | | | | | | |
| Note: Substitution methods such as DL or DL/2 are not recommended. | | | | | | | | |
| | | | | | | | | |
| **Selenium (mw-64)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 1 | 20 | 95.24% | | |
| | | | | | | | | |
| Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! | | | | | | | | |
| It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Selenium (mw-64) was not processed! | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Selenium (mw-65)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 1 | 20 | 95.24% | | |
| | | | | | | | | |
| Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! | | | | | | | | |
| It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Selenium (mw-65) was not processed! | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Thallium (mw-62)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 32 | 11 | 21 | 1 | 20 | 95.24% | | |
| | | | | | | | | |
| Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! | | | | | | | | |
| It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Thallium (mw-62) was not processed! | | | | | | | | |

# Appendix B
# Goodness of Fit Statistics

**Thallium (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 2 | 19 | 90.48% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 19 | 1.0000E-4 | 0.001 | 2.6842E-4 | 1.0000E-4 | 2.9069E-4 |
| Statistics (Non-Detects Only) | 2 | 1.1000E-4 | 1.5000E-4 | 1.3000E-4 | 1.3000E-4 | 2.8284E-5 |
| Statistics (All: NDs treated as DL value) | 21 | 1.0000E-4 | 0.001 | 2.5524E-4 | 1.0000E-4 | 2.7897E-4 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 5.0000E-5 | 5.0000E-4 | 1.3381E-4 | 5.0000E-5 | 1.3804E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | -2.036E-4 | 1.5000E-4 | -3.475E-5 | -3.578E-5 | 8.6020E-5 |
| Statistics (Gamma ROS Imputed Data) | 21 | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Imputed Data) | 21 | 9.6712E-6 | 1.5000E-4 | 4.4526E-5 | 3.5521E-5 | 3.3493E-5 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (NDs = DL) | 1.439 | 1.265 | 1.7742E-4 | -8.66 | 0.814 | -0.094 |
| Statistics (NDs = DL/2) | 1.505 | 1.322 | 8.8890E-5 | -9.287 | 0.815 | -0.0877 |
| Statistics (Gamma ROS Estimates) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -10.24 | 0.667 | -0.0652 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 1 | 0.785 | 0.812 | 0.994 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (NDs = DL) | 0.618 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.659 | 0.908 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.99 | 0.908 | Data Appear Normal |
| Lilliefors (Detects Only) | N/A | N/A | |
| Lilliefors (NDs = DL) | 0.318 | 0.188 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.3 | 0.188 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.0883 | 0.188 | Data Appear Normal |

**Gamma GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
|---|---|---|---|---|---|---|
| Correlation Coefficient R | N/A | 0.927 | 0.94 | 0.372 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | N/A | N/A | | | | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | | | | |
| Anderson-Darling (NDs = DL) | 2.971 | 0.76 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.342 | 0.193 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 2.351 | 0.758 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.344 | 0.193 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | N/A | 0.74 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | N/A | 0.189 | | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 1 | 0.846 | 0.876 | N/A | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (NDs = DL) | 0.707 | 0.908 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.755 | 0.908 | Data Not Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.99 | 0.908 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | N/A | N/A | | | | |
| Lilliefors (NDs = DL) | 0.331 | 0.188 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.347 | 0.188 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.0883 | 0.188 | Data Appear Lognormal | | | |
| | | | | | | |
| Note: Substitution methods such as DL or DL/2 are not recommended. | | | | | | |
| | | | | | | |
| **Thallium (mw-64)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 31 | 10 | 21 | 11 | 10 | 47.62% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 10 | 1.0000E-4 | 0.001 | 3.3000E-4 | 3.0000E-4 | 2.8304E-4 |
| Statistics (Non-Detects Only) | 11 | 1.1000E-4 | 4.1000E-4 | 1.5545E-4 | 1.2000E-4 | 8.8359E-5 |
| Statistics (All: NDs treated as DL value) | 21 | 1.0000E-4 | 0.001 | 2.3857E-4 | 1.3000E-4 | 2.1894E-4 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 5.0000E-5 | 5.0000E-4 | 1.6000E-4 | 1.2000E-4 | 1.1375E-4 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Statistics (Normal ROS Imputed Data) | 21 | -5.782E-5 | 4.1000E-4 | 1.0786E-4 | 1.1000E-4 | 9.2942E-5 |
| Statistics (Gamma ROS Imputed Data) | 21 | 1.1000E-4 | 0.01 | 0.00484 | 4.1000E-4 | 0.00504 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 5.0905E-5 | 4.1000E-4 | 1.2531E-4 | 1.1224E-4 | 7.3136E-5 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 5.741 | 4.236 | 2.7079E-5 | -8.859 | 0.393 | -0.0443 |
| Statistics (NDs = DL) | 2.016 | 1.76 | 1.1832E-4 | -8.609 | 0.687 | -0.0798 |
| Statistics (NDs = DL/2) | 2.673 | 2.323 | 5.9863E-5 | -8.939 | 0.638 | -0.0714 |
| Statistics (Gamma ROS Estimates) | 0.432 | 0.402 | 0.0112 | -6.833 | 2.194 | -0.321 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -9.088 | 0.432 | -0.0476 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.731 | 0.807 | 0.882 | 0.901 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.56 | 0.85 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.664 | 0.908 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.785 | 0.908 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.837 | 0.908 | Data Not Normal | | | |
| Lilliefors (Detects Only) | 0.343 | 0.251 | Data Not Normal | | | |
| Lilliefors (NDs = DL) | 0.284 | 0.188 | Data Not Normal | | | |
| Lilliefors (NDs = DL/2) | 0.223 | 0.188 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.215 | 0.188 | Data Not Normal | | | |
| | | | | | | |
| **Gamma GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
| Correlation Coefficient R | 0.828 | 0.931 | 0.959 | 0.645 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | 1.683 | 0.731 | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.335 | 0.256 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL) | 1.977 | 0.754 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.276 | 0.192 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 0.709 | 0.751 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.167 | 0.191 | Data Appear Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | 3.26 | 0.819 | | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.324 | 0.202 | Data Not Gamma Distributed | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | | |
| Correlation Coefficient R | 0.812 | 0.903 | 0.966 | 0.934 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.678 | 0.85 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.809 | 0.908 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.927 | 0.908 | Data Appear Lognormal | | | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.892 | 0.908 | Data Not Lognormal | | | | | |
| Lilliefors (Detects Only) | 0.317 | 0.251 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL) | 0.261 | 0.188 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL/2) | 0.153 | 0.188 | Data Appear Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.19 | 0.188 | Data Not Lognormal | | | | | |
| | | | | | | | | |
| Note: Substitution methods such as DL or DL/2 are not recommended. | | | | | | | | |
| | | | | | | | | |
| **Thallium (mw-65)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 1 | 20 | 95.24% | | |
| | | | | | | | | |
| Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! | | | | | | | | |
| It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Thallium (mw-65) was not processed! | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | **Goodness-of-Fit Test Statistics for Data Sets with Non-Detects** | | | | | | | |
| **User Selected Options** | | | | | | | | |
| Date/Time of Computation | ProUCL 5.13/24/2024 7:45:20 PM | | | | | | | |
| From File | FC_CWTP_AppxIV_ProUCL_Upload_20240312.xls | | | | | | | |
| Full Precision | OFF | | | | | | | |
| Confidence Coefficient | 0.95 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Fluoride (mw-62)** | | | | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| **Raw Statistics** | |
| Number of Valid Observations | 31 |
| Number of Missing Observations | 1 |
| Number of Distinct Observations | 7 |
| Minimum | 1.2 |
| Maximum | 3.3 |
| Mean of Raw Data | 1.555 |
| Standard Deviation of Raw Data | 0.369 |
| Khat | 26.17 |
| Theta hat | 0.0594 |
| Kstar | 23.66 |
| Theta star | 0.0657 |
| Mean of Log Transformed Data | 0.422 |
| Standard Deviation of Log Transformed Data | 0.185 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.757 |
| Shapiro Wilk Test Statistic | 0.608 |
| Shapiro Wilk Critical (0.05) Value | 0.929 |
| Approximate Shapiro Wilk P Value | 3.2228E-9 |
| Lilliefors Test Statistic | 0.322 |
| Lilliefors Critical (0.05) Value | 0.156 |
| Data not Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.796 |
| A-D Test Statistic | 2.464 |
| A-D Critical (0.05) Value | 0.745 |
| K-S Test Statistic | 0.287 |
| K-S Critical(0.05) Value | 0.157 |
| Data not Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.855 |
| Shapiro Wilk Test Statistic | 0.76 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Shapiro Wilk Critical (0.05) Value | 0.929 |
| Approximate Shapiro Wilk P Value | 2.7596E-6 |
| Lilliefors Test Statistic | 0.269 |
| Lilliefors Critical (0.05) Value | 0.156 |
| Data not Lognormal at (0.05) Significance Level | |
| | |
| Non-parametric GOF Test Results | |
| | |
| Data do not follow a discernible distribution at (0.05) Level of Significance | |
| | |
| Fluoride (mw-63) | |
| | |
| Raw Statistics | |
| Number of Valid Observations | 30 |
| Number of Missing Observations | 1 |
| Number of Distinct Observations | 10 |
| Minimum | 0.28 |
| Maximum | 2.5 |
| Mean of Raw Data | 1.899 |
| Standard Deviation of Raw Data | 0.374 |
| Khat | 12.17 |
| Theta hat | 0.156 |
| Kstar | 10.98 |
| Theta star | 0.173 |
| Mean of Log Transformed Data | 0.6 |
| Standard Deviation of Log Transformed Data | 0.37 |
| | |
| Normal GOF Test Results | |
| | |
| Correlation Coefficient R | 0.844 |
| Shapiro Wilk Test Statistic | 0.749 |
| Shapiro Wilk Critical (0.05) Value | 0.927 |
| Approximate Shapiro Wilk P Value | 2.3943E-6 |
| Lilliefors Test Statistic | 0.195 |
| Lilliefors Critical (0.05) Value | 0.159 |
| Data not Normal at (0.05) Significance Level | |
| | |
| Gamma GOF Test Results | |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Correlation Coefficient R | 0.807 |
| A-D Test Statistic | 3.944 |
| A-D Critical (0.05) Value | 0.745 |
| K-S Test Statistic | 0.281 |
| K-S Critical(0.05) Value | 0.16 |
| Data not Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.646 |
| Shapiro Wilk Test Statistic | 0.457 |
| Shapiro Wilk Critical (0.05) Value | 0.927 |
| Approximate Shapiro Wilk P Value | 2.558E-11 |
| Lilliefors Test Statistic | 0.33 |
| Lilliefors Critical (0.05) Value | 0.159 |
| Data not Lognormal at (0.05) Significance Level | |
| | |
| Non-parametric GOF Test Results | |
| | |
| Data do not follow a discernible distribution at (0.05) Level of Significance | |
| | |
| **Fluoride (mw-64)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 31 |
| Number of Distinct Observations | 4 |
| Minimum | 1.3 |
| Maximum | 1.6 |
| Mean of Raw Data | 1.448 |
| Standard Deviation of Raw Data | 0.0811 |
| Khat | 328.9 |
| Theta hat | 0.0044 |
| Kstar | 297.1 |
| Theta star | 0.00487 |
| Mean of Log Transformed Data | 0.369 |
| Standard Deviation of Log Transformed Data | 0.0561 |
| | |
| **Normal GOF Test Results** | |
| | |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Correlation Coefficient R | 0.935 |
| Shapiro Wilk Test Statistic | 0.866 |
| Shapiro Wilk Critical (0.05) Value | 0.929 |
| Approximate Shapiro Wilk P Value | 8.8283E-4 |
| Lilliefors Test Statistic | 0.241 |
| Lilliefors Critical (0.05) Value | 0.156 |

Data not Normal at (0.05) Significance Level

**Gamma GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.935 |
| A-D Test Statistic | 1.998 |
| A-D Critical (0.05) Value | 0.745 |
| K-S Test Statistic | 0.24 |
| K-S Critical(0.05) Value | 0.157 |

Data not Gamma Distributed at (0.05) Significance Level

**Lognormal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.934 |
| Shapiro Wilk Test Statistic | 0.865 |
| Shapiro Wilk Critical (0.05) Value | 0.929 |
| Approximate Shapiro Wilk P Value | 8.6415E-4 |
| Lilliefors Test Statistic | 0.235 |
| Lilliefors Critical (0.05) Value | 0.156 |

Data not Lognormal at (0.05) Significance Level

Non-parametric GOF Test Results

Data do not follow a discernible distribution at (0.05) Level of Significance

**Fluoride (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 0 | 31 | 30 | 1 | 3.23% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1 | 2 | 2 | 2 | 2 | N/A |
| Statistics (Non-Detects Only) | 30 | 1.4 | 2.1 | 1.843 | 1.9 | 0.192 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (All: NDs treated as DL value) | 31 | 1.4 | 2.1 | 1.848 | 1.9 | 0.191 | | |
| Statistics (All: NDs treated as DL/2 value) | 31 | 1 | 2.1 | 1.816 | 1.9 | 0.242 | | |
| Statistics (Normal ROS Imputed Data) | 31 | 1.4 | 2.1 | 1.84 | 1.9 | 0.19 | | |
| Statistics (Gamma ROS Imputed Data) | 31 | 1.4 | 2.1 | 1.84 | 1.9 | 0.19 | | |
| Statistics (Lognormal ROS Imputed Data) | 31 | 1.4 | 2.1 | 1.84 | 1.9 | 0.19 | | |
| | | | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV | | |
| Statistics (Non-Detects Only) | 88.94 | 80.07 | 0.0207 | 0.606 | 0.11 | 0.181 | | |
| Statistics (NDs = DL) | 90.14 | 81.44 | 0.0205 | 0.609 | 0.109 | 0.179 | | |
| Statistics (NDs = DL/2) | 48.66 | 43.97 | 0.0373 | 0.586 | 0.153 | 0.261 | | |
| Statistics (Gamma ROS Estimates) | 91.01 | 82.23 | 0.0202 | 0.604 | 0.108 | 0.179 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | 0.604 | 0.108 | 0.18 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.946 | 0.941 | 0.917 | 0.952 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.886 | 0.927 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.876 | 0.929 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.849 | 0.929 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.896 | 0.929 | Data Not Normal | | | | | |
| Lilliefors (Detects Only) | 0.192 | 0.159 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL) | 0.205 | 0.156 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.184 | 0.156 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.187 | 0.156 | Data Not Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | 0.933 | 0.927 | 0.894 | 0.939 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | 1.465 | 0.745 | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.193 | 0.16 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL) | 1.648 | 0.745 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.206 | 0.157 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 1.792 | 0.744 | | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Kolmogorov-Smirnov (NDs = DL/2) | 0.204 | 0.157 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | 1.343 | 0.745 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.187 | 0.157 | Data Not Gamma Distributed | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 0.936 | 0.93 | 0.876 | 0.942 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.868 | 0.927 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL) | 0.858 | 0.929 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.783 | 0.929 | Data Not Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.879 | 0.929 | Data Not Lognormal | | | |
| Lilliefors (Detects Only) | 0.195 | 0.159 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL) | 0.2 | 0.156 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.213 | 0.156 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.185 | 0.156 | Data Not Lognormal | | | |
| | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | |
| | | | | | | |
| **Molybdenum (mw-62)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 32 | 12 | 20 | 19 | 1 | 5.00% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 1 | 0.002 | 0.002 | 0.002 | 0.002 | N/A |
| Statistics (Non-Detects Only) | 19 | 0.0012 | 0.0044 | 0.003 | 0.003 | 6.8557E-4 |
| Statistics (All: NDs treated as DL value) | 20 | 0.0012 | 0.0044 | 0.00295 | 0.00295 | 7.0375E-4 |
| Statistics (All: NDs treated as DL/2 value) | 20 | 0.001 | 0.0044 | 0.0029 | 0.00295 | 8.0328E-4 |
| Statistics (Normal ROS Imputed Data) | 20 | 0.0012 | 0.0044 | 0.00293 | 0.00295 | 7.2803E-4 |
| Statistics (Gamma ROS Imputed Data) | 20 | 0.0012 | 0.01 | 0.00335 | 0.003 | 0.0017 |
| Statistics (Lognormal ROS Imputed Data) | 20 | 0.0012 | 0.0044 | 0.00294 | 0.00295 | 7.1914E-4 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 16.98 | 14.33 | 1.7673E-4 | -5.839 | 0.268 | -0.0458 |
| Statistics (NDs = DL) | 15.93 | 13.57 | 1.8523E-4 | -5.858 | 0.274 | -0.0467 |
| Statistics (NDs = DL/2) | 10.31 | 8.796 | 2.8131E-4 | -5.892 | 0.353 | -0.06 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (Gamma ROS Estimates) | 6.539 | 5.592 | 5.1229E-4 | -5.777 | 0.379 | -0.0657 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -5.863 | 0.282 | -0.0481 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.937 | 0.955 | 0.938 | 0.955 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.9 | 0.901 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.928 | 0.905 | Data Appear Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.892 | 0.905 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.925 | 0.905 | Data Appear Normal | | | | | |
| Lilliefors (Detects Only) | 0.179 | 0.197 | Data Appear Normal | | | | | |
| Lilliefors (NDs = DL) | 0.166 | 0.192 | Data Appear Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.202 | 0.192 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.173 | 0.192 | Data Appear Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | 0.935 | 0.95 | 0.92 | 0.814 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | 1.045 | 0.741 | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.207 | 0.198 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL) | 0.856 | 0.741 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.196 | 0.194 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 1.507 | 0.742 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.251 | 0.194 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 1.935 | 0.744 | | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.244 | 0.194 | Data Not Gamma Distributed | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | | |
| Correlation Coefficient R | 0.88 | 0.911 | 0.869 | 0.913 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.804 | 0.901 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.853 | 0.905 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.77 | 0.905 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.855 | 0.905 | Data Not Lognormal | | | | | |
| Lilliefors (Detects Only) | 0.231 | 0.197 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL) | 0.218 | 0.192 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL/2) | 0.275 | 0.192 | Data Not Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.227 | 0.192 | Data Not Lognormal | | | | | |
| | | | | | | | | |
| Note: Substitution methods such as DL or DL/2 are not recommended. | | | | | | | | |
| | | | | | | | | |
| **Molybdenum (mw-63)** | | | | | | | | |
| | | | | | | | | |
| **Raw Statistics** | | | | | | | | |
| Number of Valid Observations | 20 | | | | | | | |
| Number of Missing Observations | 11 | | | | | | | |
| Number of Distinct Observations | 14 | | | | | | | |
| Minimum | 0.0019 | | | | | | | |
| Maximum | 0.0058 | | | | | | | |
| Mean of Raw Data | 0.00281 | | | | | | | |
| Standard Deviation of Raw Data | 8.4882E-4 | | | | | | | |
| Khat | 15.13 | | | | | | | |
| Theta hat | 1.8542E-4 | | | | | | | |
| Kstar | 12.89 | | | | | | | |
| Theta star | 2.1758E-4 | | | | | | | |
| Mean of Log Transformed Data | -5.91 | | | | | | | |
| Standard Deviation of Log Transformed Data | 0.251 | | | | | | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| Correlation Coefficient R | 0.86 | | | | | | | |
| Shapiro Wilk Test Statistic | 0.762 | | | | | | | |
| Shapiro Wilk Critical (0.05) Value | 0.905 | | | | | | | |
| Approximate Shapiro Wilk P Value | 1.1149E-4 | | | | | | | |
| Lilliefors Test Statistic | 0.195 | | | | | | | |
| Lilliefors Critical (0.05) Value | 0.192 | | | | | | | |
| Data not Normal at (0.05) Significance Level | | | | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Correlation Coefficient R | 0.904 |
| A-D Test Statistic | 0.77 |
| A-D Critical (0.05) Value | 0.741 |
| K-S Test Statistic | 0.181 |
| K-S Critical(0.05) Value | 0.194 |
| Data follow Appr. Gamma Distribution at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.94 |
| Shapiro Wilk Test Statistic | 0.898 |
| Shapiro Wilk Critical (0.05) Value | 0.905 |
| Approximate Shapiro Wilk P Value | 0.0361 |
| Lilliefors Test Statistic | 0.167 |
| Lilliefors Critical (0.05) Value | 0.192 |
| Data appear Approximate_Lognormal at (0.05) Significance Level | |
| | |
| **Molybdenum (mw-64)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 21 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 12 |
| Minimum | 0.0042 |
| Maximum | 0.0073 |
| Mean of Raw Data | 0.00498 |
| Standard Deviation of Raw Data | 6.3531E-4 |
| Khat | 75.2 |
| Theta hat | 6.6238E-5 |
| Kstar | 64.49 |
| Theta star | 7.7239E-5 |
| Mean of Log Transformed Data | -5.309 |
| Standard Deviation of Log Transformed Data | 0.114 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.853 |
| Shapiro Wilk Test Statistic | 0.751 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 6.0569E-5 |
| Lilliefors Test Statistic | 0.27 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data not Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.874 |
| A-D Test Statistic | 1.082 |
| A-D Critical (0.05) Value | 0.74 |
| K-S Test Statistic | 0.244 |
| K-S Critical(0.05) Value | 0.189 |
| Data not Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.898 |
| Shapiro Wilk Test Statistic | 0.827 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 0.00124 |
| Lilliefors Test Statistic | 0.237 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data not Lognormal at (0.05) Significance Level | |
| | |
| Non-parametric GOF Test Results | |
| | |
| Data do not follow a discernible distribution at (0.05) Level of Significance | |
| | |
| **Molybdenum (mw-65)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 19 |
| Number of Missing Observations | 12 |
| Number of Distinct Observations | 14 |
| Minimum | 0.0066 |
| Maximum | 0.0098 |
| Mean of Raw Data | 0.00823 |
| Standard Deviation of Raw Data | 9.0667E-4 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Khat | 86.43 |
| Theta hat | 9.5179E-5 |
| Kstar | 72.82 |
| Theta star | 1.1297E-4 |
| Mean of Log Transformed Data | -4.806 |
| Standard Deviation of Log Transformed Data | 0.111 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.988 |
| Shapiro Wilk Test Statistic | 0.968 |
| Shapiro Wilk Critical (0.05) Value | 0.901 |
| Approximate Shapiro Wilk P Value | 0.751 |
| Lilliefors Test Statistic | 0.11 |
| Lilliefors Critical (0.05) Value | 0.197 |
| Data appear Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.987 |
| A-D Test Statistic | 0.267 |
| A-D Critical (0.05) Value | 0.739 |
| K-S Test Statistic | 0.117 |
| K-S Critical(0.05) Value | 0.198 |
| Data appear Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.988 |
| Shapiro Wilk Test Statistic | 0.968 |
| Shapiro Wilk Critical (0.05) Value | 0.901 |
| Approximate Shapiro Wilk P Value | 0.764 |
| Lilliefors Test Statistic | 0.11 |
| Lilliefors Critical (0.05) Value | 0.197 |
| Data appear Lognormal at (0.05) Significance Level | |

# Appendix B
# Goodness of Fit Statistics

| | Goodness-of-Fit Test Statistics for Data Sets with Non-Detects |
|---|---|
| **User Selected Options** | |
| Date/Time of Computation | ProUCL 5.13/13/2024 2:09:25 PM |
| From File | FC_CWTP_AppxIV_ProUCL_Upload_20240312.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |

**Antimony (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 11 | 21 | 2 | 19 | 90.48% |

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Antimony (mw-62) was not processed!

**Antimony (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 2 | 19 | 90.48% |

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Antimony (mw-63) was not processed!

**Antimony (mw-64)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 0 | 21 | 100.00% |

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

# Appendix B
# Goodness of Fit Statistics

The data set for variable Antimony (mw-64) was not processed!

**Antimony (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 0 | 21 | 100.00% |

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Antimony (mw-65) was not processed!

**Arsenic (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 11 | 21 | 15 | 6 | 28.57% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 6 | 5.0000E-4 | 0.005 | 0.00207 | 0.00195 | 0.00156 |
| Statistics (Non-Detects Only) | 15 | 6.2000E-4 | 0.012 | 0.00421 | 0.002 | 0.00477 |
| Statistics (All: NDs treated as DL value) | 21 | 5.0000E-4 | 0.012 | 0.0036 | 0.002 | 0.00419 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.012 | 0.0033 | 0.001 | 0.00427 |
| Statistics (Normal ROS Imputed Data) | 21 | -0.00589 | 0.012 | 0.00277 | 0.0015 | 0.00482 |
| Statistics (Gamma ROS Imputed Data) | 21 | 6.2000E-4 | 0.012 | 0.00586 | 0.0031 | 0.00481 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 1.5054E-4 | 0.012 | 0.00321 | 0.00109 | 0.00431 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 0.937 | 0.794 | 0.00449 | -6.091 | 1.148 | -0.188 |
| Statistics (NDs = DL) | 1.033 | 0.917 | 0.00348 | -6.184 | 1.047 | -0.169 |
| Statistics (NDs = DL/2) | 0.877 | 0.783 | 0.00377 | -6.382 | 1.138 | -0.178 |
| Statistics (Gamma ROS Estimates) | 1.084 | 0.961 | 0.00541 | -5.666 | 1.181 | -0.208 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.477 | 1.204 | -0.186 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| **Normal GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | |
| Correlation Coefficient R | 0.842 | 0.829 | 0.804 | 0.889 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.689 | 0.881 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL) | 0.677 | 0.908 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.638 | 0.908 | Data Not Normal | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.792 | 0.908 | Data Not Normal | | |
| Lilliefors (Detects Only) | 0.325 | 0.22 | Data Not Normal | | |
| Lilliefors (NDs = DL) | 0.318 | 0.188 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.336 | 0.188 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.284 | 0.188 | Data Not Normal | | |
| **Gamma GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | 0.89 | 0.917 | 0.905 | 0.824 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | 1.207 | 0.766 | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.208 | 0.228 | Detected Data appear Approximate Gamma Distribution | | |
| Anderson-Darling (NDs = DL) | 1.379 | 0.769 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.218 | 0.195 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 1.647 | 0.776 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.233 | 0.196 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 1.705 | 0.768 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.297 | 0.195 | Data Not Gamma Distributed | | |
| **Lognormal GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.939 | 0.956 | 0.954 | 0.952 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.855 | 0.881 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.899 | 0.908 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.902 | 0.908 | Data Not Lognormal | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.903 | 0.908 | Data Not Lognormal | | | |
| Lilliefors (Detects Only) | 0.182 | 0.22 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL) | 0.141 | 0.188 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.202 | 0.188 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.183 | 0.188 | Data Appear Lognormal | | | |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Arsenic (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 7 | 14 | 66.67% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 14 | 5.0000E-4 | 0.005 | 0.00163 | 0.001 | 0.00154 |
| Statistics (Non-Detects Only) | 7 | 5.9000E-4 | 0.0013 | 9.6143E-4 | 9.9000E-4 | 2.8783E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 5.0000E-4 | 0.005 | 0.00141 | 0.001 | 0.00129 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.0025 | 8.6333E-4 | 6.5000E-4 | 6.4422E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | 2.0615E-5 | 0.0013 | 6.4094E-4 | 5.9909E-4 | 3.4475E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 5.9000E-4 | 0.01 | 0.00699 | 0.01 | 0.00437 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 3.3161E-4 | 0.0013 | 6.9744E-4 | 6.2171E-4 | 2.7715E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 12 | 6.95 | 8.0146E-5 | -6.989 | 0.321 | -0.046 |
| Statistics (NDs = DL) | 2.014 | 1.758 | 6.9815E-4 | -6.835 | 0.695 | -0.102 |
| Statistics (NDs = DL/2) | 2.213 | 1.929 | 3.9004E-4 | -7.297 | 0.721 | -0.0988 |
| Statistics (Gamma ROS Estimates) | 1.287 | 1.135 | 0.00543 | -5.4 | 1.165 | -0.216 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.338 | 0.377 | -0.0514 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.962 | 0.812 | 0.9 | 0.989 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.899 | 0.803 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.662 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.808 | 0.908 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.973 | 0.908 | Data Appear Normal |

# Appendix B
# Goodness of Fit Statistics

| | | | | |
|---|---|---|---|---|
| Lilliefors (Detects Only) | 0.225 | 0.304 | Data Appear Normal | |
| Lilliefors (NDs = DL) | 0.295 | 0.188 | Data Not Normal | |
| Lilliefors (NDs = DL/2) | 0.178 | 0.188 | Data Appear Normal | |
| Lilliefors (Normal ROS Estimates) | 0.129 | 0.188 | Data Appear Normal | |
| | | | | |
| **Gamma GOF Test Results** | | | | |
| | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
| Correlation Coefficient R | 0.943 | 0.921 | 0.962 | 0.623 |
| | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | |
| Anderson-Darling (Detects Only) | 0.426 | 0.708 | | |
| Kolmogorov-Smirnov (Detects Only) | 0.242 | 0.312 | Detected Data Appear Gamma Distributed | |
| Anderson-Darling (NDs = DL) | 1.186 | 0.754 | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.211 | 0.192 | Data Not Gamma Distributed | |
| Anderson-Darling (NDs = DL/2) | 0.568 | 0.753 | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.139 | 0.192 | Data Appear Gamma Distributed | |
| Anderson-Darling (Gamma ROS Estimates) | 3.948 | 0.763 | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.431 | 0.194 | Data Not Gamma Distributed | |
| | | | | |
| **Lognormal GOF Test Results** | | | | |
| | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
| Correlation Coefficient R | 0.954 | 0.946 | 0.967 | 0.988 |
| | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | |
| Shapiro-Wilk (Detects Only) | 0.886 | 0.803 | Data Appear Lognormal | |
| Shapiro-Wilk (NDs = DL) | 0.886 | 0.908 | Data Not Lognormal | |
| Shapiro-Wilk (NDs = DL/2) | 0.921 | 0.908 | Data Appear Lognormal | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.969 | 0.908 | Data Appear Lognormal | |
| Lilliefors (Detects Only) | 0.223 | 0.304 | Data Appear Lognormal | |
| Lilliefors (NDs = DL) | 0.154 | 0.188 | Data Appear Lognormal | |
| Lilliefors (NDs = DL/2) | 0.155 | 0.188 | Data Appear Lognormal | |
| Lilliefors (Lognormal ROS Estimates) | 0.129 | 0.188 | Data Appear Lognormal | |
| | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | |
| | | | | |
| **Arsenic (mw-64)** | | | | |

# Appendix B
# Goodness of Fit Statistics

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 4 | 17 | 80.95% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 17 | 5.0000E-4 | 0.005 | 0.00141 | 9.6000E-4 | 0.00146 |
| Statistics (Non-Detects Only) | 4 | 5.6000E-4 | 0.001 | 8.0750E-4 | 8.3500E-4 | 2.1313E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 5.0000E-4 | 0.005 | 0.00129 | 9.6000E-4 | 0.00133 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.0025 | 7.2429E-4 | 5.0000E-4 | 6.5987E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | -1.354E-4 | 0.001 | 3.9293E-4 | 3.5649E-4 | 2.8920E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 5.6000E-4 | 0.01 | 0.00825 | 0.01 | 0.0037 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 2.3437E-4 | 0.001 | 4.9433E-4 | 4.4040E-4 | 2.0131E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 18.07 | 4.684 | 4.4688E-5 | -7.149 | 0.277 | -0.0388 |
| Statistics (NDs = DL) | 1.72 | 1.506 | 7.5286E-4 | -6.967 | 0.737 | -0.106 |
| Statistics (NDs = DL/2) | 1.825 | 1.596 | 3.9683E-4 | -7.529 | 0.755 | -0.1 |
| Statistics (Gamma ROS Estimates) | 1.861 | 1.627 | 0.00443 | -5.09 | 1.029 | -0.202 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.681 | 0.371 | -0.0483 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.952 | 0.784 | 0.836 | 0.986 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.887 | 0.748 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.618 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.699 | 0.908 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.972 | 0.908 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.277 | 0.375 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.35 | 0.188 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.243 | 0.188 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.0862 | 0.188 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.927 | 0.914 | 0.936 | 0.518 |

# Appendix B
# Goodness of Fit Statistics

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.392 | 0.657 | |
| Kolmogorov-Smirnov (Detects Only) | 0.311 | 0.394 | Detected Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL) | 1.94 | 0.756 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.287 | 0.192 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 1.268 | 0.755 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.212 | 0.192 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 5.689 | 0.755 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.506 | 0.192 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.953 | 0.904 | 0.933 | 0.986 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.891 | 0.748 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.808 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.858 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.971 | 0.908 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.277 | 0.375 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.23 | 0.188 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.226 | 0.188 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.0863 | 0.188 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Arsenic (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 4 | 17 | 80.95% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 17 | 5.0000E-4 | 0.005 | 0.00115 | 5.0000E-4 | 0.00114 |
| Statistics (Non-Detects Only) | 4 | 5.9000E-4 | 0.0013 | 9.2500E-4 | 9.0500E-4 | 3.3151E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 5.0000E-4 | 0.005 | 0.0011 | 7.1000E-4 | 0.00103 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.0025 | 6.4024E-4 | 5.0000E-4 | 5.4551E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | -0.00103 | 0.0013 | 5.0731E-5 | 3.5416E-5 | 5.8338E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 5.9000E-4 | 0.01 | 0.00827 | 0.01 | 0.00365 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (Lognormal ROS Imputed Data) | 21 | 1.0147E-4 | 0.0013 | 4.1256E-4 | 3.2900E-4 | 3.0610E-4 | | |
| | | | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV | | |
| Statistics (Non-Detects Only) | 10.13 | 2.7 | 9.1279E-5 | -7.036 | 0.369 | -0.0524 | | |
| Statistics (NDs = DL) | 2.189 | 1.908 | 5.0449E-4 | -7.054 | 0.647 | -0.0918 | | |
| Statistics (NDs = DL/2) | 2.063 | 1.8 | 3.1030E-4 | -7.615 | 0.708 | -0.093 | | |
| Statistics (Gamma ROS Estimates) | 1.981 | 1.729 | 0.00418 | -5.068 | 0.988 | -0.195 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -8.003 | 0.645 | -0.0806 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.973 | 0.772 | 0.847 | 0.99 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.929 | 0.748 | Data Appear Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.615 | 0.908 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.729 | 0.908 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.981 | 0.908 | Data Appear Normal | | | | | |
| Lilliefors (Detects Only) | 0.242 | 0.375 | Data Appear Normal | | | | | |
| Lilliefors (NDs = DL) | 0.279 | 0.188 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.237 | 0.188 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.123 | 0.188 | Data Appear Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | 0.969 | 0.903 | 0.954 | 0.525 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | 0.321 | 0.657 | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.258 | 0.395 | Detected Data Appear Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL) | 1.661 | 0.753 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.216 | 0.192 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 1.288 | 0.754 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.25 | 0.192 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 5.61 | 0.754 | | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.505 | 0.192 | Data Not Gamma Distributed | | | | | |

# Appendix B
# Goodness of Fit Statistics

| Lognormal GOF Test Results | | | | |
|---|---|---|---|---|
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
| Correlation Coefficient R | 0.974 | 0.906 | 0.928 | 0.99 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.931 | 0.748 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.819 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.852 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.979 | 0.908 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.228 | 0.375 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.229 | 0.188 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.26 | 0.188 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.123 | 0.188 | Data Appear Lognormal |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Barium (mw-62)**

| Raw Statistics | |
|---|---|
| Number of Valid Observations | 21 |
| Number of Missing Observations | 11 |
| Number of Distinct Observations | 13 |
| Minimum | 0.015 |
| Maximum | 0.043 |
| Mean of Raw Data | 0.0257 |
| Standard Deviation of Raw Data | 0.00618 |
| Khat | 18.92 |
| Theta hat | 0.00136 |
| Kstar | 16.25 |
| Theta star | 0.00158 |
| Mean of Log Transformed Data | -3.689 |
| Standard Deviation of Log Transformed Data | 0.237 |

| Normal GOF Test Results | |
|---|---|
| Correlation Coefficient R | 0.958 |
| Shapiro Wilk Test Statistic | 0.93 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Approximate Shapiro Wilk P Value | 0.133 |
| Lilliefors Test Statistic | 0.176 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data appear Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.973 |
| A-D Test Statistic | 0.421 |
| A-D Critical (0.05) Value | 0.743 |
| K-S Test Statistic | 0.145 |
| K-S Critical(0.05) Value | 0.189 |
| Data appear Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.974 |
| Shapiro Wilk Test Statistic | 0.958 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 0.465 |
| Lilliefors Test Statistic | 0.136 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data appear Lognormal at (0.05) Significance Level | |
| | |
| **Barium (mw-63)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 21 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 12 |
| Minimum | 0.014 |
| Maximum | 0.033 |
| Mean of Raw Data | 0.02 |
| Standard Deviation of Raw Data | 0.00415 |
| Khat | 27.01 |
| Theta hat | 7.3859E-4 |
| Kstar | 23.19 |
| Theta star | 8.6051E-4 |
| Mean of Log Transformed Data | -3.933 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Standard Deviation of Log Transformed Data | 0.194 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.934 |
| Shapiro Wilk Test Statistic | 0.887 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 0.0174 |
| Lilliefors Test Statistic | 0.168 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data appear Approximate Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.953 |
| A-D Test Statistic | 0.411 |
| A-D Critical (0.05) Value | 0.742 |
| K-S Test Statistic | 0.138 |
| K-S Critical(0.05) Value | 0.189 |
| Data appear Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.971 |
| Shapiro Wilk Test Statistic | 0.952 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 0.359 |
| Lilliefors Test Statistic | 0.131 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data appear Lognormal at (0.05) Significance Level | |
| | |
| **Barium (mw-64)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 21 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 9 |
| Minimum | 0.022 |
| Maximum | 0.035 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Mean of Raw Data | 0.0268 |
| Standard Deviation of Raw Data | 0.00351 |
| Khat | 64.62 |
| Theta hat | 4.1414E-4 |
| Kstar | 55.42 |
| Theta star | 4.8289E-4 |
| Mean of Log Transformed Data | -3.629 |
| Standard Deviation of Log Transformed Data | 0.126 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.953 |
| Shapiro Wilk Test Statistic | 0.906 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 0.0426 |
| Lilliefors Test Statistic | 0.235 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data not Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.963 |
| A-D Test Statistic | 0.632 |
| A-D Critical (0.05) Value | 0.741 |
| K-S Test Statistic | 0.217 |
| K-S Critical(0.05) Value | 0.189 |
| Data follow Appr. Gamma Distribution at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.968 |
| Shapiro Wilk Test Statistic | 0.933 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 0.152 |
| Lilliefors Test Statistic | 0.21 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data appear Approximate_Lognormal at (0.05) Significance Level | |
| | |
| **Barium (mw-65)** | |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| **Raw Statistics** | |
| Number of Valid Observations | 21 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 13 |
| Minimum | 0.012 |
| Maximum | 0.042 |
| Mean of Raw Data | 0.0187 |
| Standard Deviation of Raw Data | 0.00723 |
| Khat | 9.06 |
| Theta hat | 0.00207 |
| Kstar | 7.798 |
| Theta star | 0.0024 |
| Mean of Log Transformed Data | -4.035 |
| Standard Deviation of Log Transformed Data | 0.327 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.886 |
| Shapiro Wilk Test Statistic | 0.795 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 3.2704E-4 |
| Lilliefors Test Statistic | 0.186 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data appear Approximate Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.937 |
| A-D Test Statistic | 0.712 |
| A-D Critical (0.05) Value | 0.743 |
| K-S Test Statistic | 0.145 |
| K-S Critical(0.05) Value | 0.19 |
| Data appear Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.954 |
| Shapiro Wilk Test Statistic | 0.91 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shapiro Wilk Critical (0.05) Value | 0.908 | | | | | | | |
| Approximate Shapiro Wilk P Value | 0.0527 | | | | | | | |
| Lilliefors Test Statistic | 0.144 | | | | | | | |
| Lilliefors Critical (0.05) Value | 0.188 | | | | | | | |
| Data appear Lognormal at (0.05) Significance Level | | | | | | | | |
| | | | | | | | | |
| **Beryllium (mw-62)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 32 | 11 | 21 | 1 | 20 | 95.24% | | |
| | | | | | | | | |
| Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! | | | | | | | | |
| It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Beryllium (mw-62) was not processed! | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Beryllium (mw-63)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 1 | 20 | 95.24% | | |
| | | | | | | | | |
| Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! | | | | | | | | |
| It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Beryllium (mw-63) was not processed! | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Beryllium (mw-64)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 1 | 20 | 95.24% | | |
| | | | | | | | | |
| Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! | | | | | | | | |
| It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Beryllium (mw-64) was not processed! | | | | | | | | |

# Appendix B
# Goodness of Fit Statistics

**Beryllium (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 0 | 21 | 100.00% |

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Beryllium (mw-65) was not processed!

**Cadmium (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 11 | 21 | 1 | 20 | 95.24% |

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Cadmium (mw-62) was not processed!

**Cadmium (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 2 | 19 | 90.48% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 19 | 1.0000E-4 | 0.001 | 3.1579E-4 | 1.0000E-4 | 3.3210E-4 |
| Statistics (Non-Detects Only) | 2 | 6.4000E-5 | 1.3000E-4 | 9.7000E-5 | 9.7000E-5 | 4.6669E-5 |
| Statistics (All: NDs treated as DL value) | 21 | 6.4000E-5 | 0.001 | 2.9495E-4 | 1.0000E-4 | 3.2203E-4 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 5.0000E-5 | 5.0000E-4 | 1.5210E-4 | 5.0000E-5 | 1.5893E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | 1.6960E-5 | 1.3000E-4 | 6.7831E-5 | 6.7416E-5 | 2.6060E-5 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Statistics (Gamma ROS Imputed Data) | 21 | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Imputed Data) | 21 | 3.8621E-5 | 1.3000E-4 | 6.9290E-5 | 6.6391E-5 | 2.0571E-5 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (NDs = DL) | 1.242 | 1.096 | 2.3747E-4 | -8.582 | 0.915 | -0.107 |
| Statistics (NDs = DL/2) | 1.337 | 1.177 | 1.1379E-4 | -9.21 | 0.883 | -0.0959 |
| Statistics (Gamma ROS Estimates) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -9.615 | 0.28 | -0.0291 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 1 | 0.819 | 0.826 | 0.986 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (NDs = DL) | 0.665 | 0.908 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.674 | 0.908 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.978 | 0.908 | Data Appear Normal | | | |
| Lilliefors (Detects Only) | N/A | N/A | | | | |
| Lilliefors (NDs = DL) | 0.315 | 0.188 | Data Not Normal | | | |
| Lilliefors (NDs = DL/2) | 0.282 | 0.188 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.125 | 0.188 | Data Appear Normal | | | |
| | | | | | | |
| **Gamma GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
| Correlation Coefficient R | N/A | 0.928 | 0.932 | 0.363 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | N/A | N/A | | | | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | | | | |
| Anderson-Darling (NDs = DL) | 2.487 | 0.764 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.33 | 0.194 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 2.317 | 0.762 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.305 | 0.193 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | N/A | 0.74 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | N/A | 0.189 | | | | |

# Appendix B
# Goodness of Fit Statistics

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 1 | 0.886 | 0.881 | N/A |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (NDs = DL) | 0.775 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.76 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.978 | 0.908 | Data Appear Lognormal |
| Lilliefors (Detects Only) | N/A | N/A | |
| Lilliefors (NDs = DL) | 0.325 | 0.188 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.308 | 0.188 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.125 | 0.188 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Cadmium (mw-64)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 1 | 20 | 95.24% |

**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**
**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**

**The data set for variable Cadmium (mw-64) was not processed!**

**Cadmium (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 0 | 21 | 100.00% |

**Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!**
**Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!**
**The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).**

**The data set for variable Cadmium (mw-65) was not processed!**

# Appendix B
# Goodness of Fit Statistics

**Chromium (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 11 | 21 | 4 | 17 | 80.95% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 17 | 5.0000E-4 | 0.01 | 0.00206 | 0.001 | 0.00226 |
| Statistics (Non-Detects Only) | 4 | 5.1000E-4 | 0.0015 | 0.001 | 0.001 | 4.0418E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 5.0000E-4 | 0.01 | 0.00186 | 0.001 | 0.00207 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.005 | 0.00102 | 0.001 | 0.00102 |
| Statistics (Normal ROS Imputed Data) | 21 | -8.825E-4 | 0.0015 | 1.4994E-4 | 1.3742E-4 | 6.0378E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 5.1000E-4 | 0.01 | 0.00829 | 0.01 | 0.00362 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 1.1663E-4 | 0.0015 | 4.5554E-4 | 3.5974E-4 | 3.4563E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 7.36 | 2.007 | 1.3620E-4 | -6.975 | 0.447 | -0.0641 |
| Statistics (NDs = DL) | 1.674 | 1.467 | 0.00111 | -6.616 | 0.757 | -0.114 |
| Statistics (NDs = DL/2) | 1.854 | 1.621 | 5.5239E-4 | -7.177 | 0.743 | -0.103 |
| Statistics (Gamma ROS Estimates) | 2.05 | 1.789 | 0.00404 | -5.057 | 0.969 | -0.192 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.916 | 0.667 | -0.0842 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.962 | 0.753 | 0.778 | 0.988 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.944 | 0.748 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.589 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.629 | 0.908 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.974 | 0.908 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.252 | 0.375 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.282 | 0.188 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.271 | 0.188 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.127 | 0.188 | Data Appear Normal |

**Gamma GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
|---|---|---|---|---|---|---|
| Correlation Coefficient R | 0.951 | 0.897 | 0.902 | 0.528 | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | 0.353 | 0.658 | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.296 | 0.395 | Detected Data Appear Gamma Distributed | | | |
| Anderson-Darling (NDs = DL) | 1.158 | 0.757 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.247 | 0.192 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 0.924 | 0.755 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.199 | 0.192 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | 5.563 | 0.754 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.504 | 0.192 | Data Not Gamma Distributed | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 0.947 | 0.951 | 0.959 | 0.987 | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.916 | 0.748 | Data Appear Lognormal | | | |
| Shapiro-Wilk (NDs = DL) | 0.906 | 0.908 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.923 | 0.908 | Data Appear Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.971 | 0.908 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | 0.31 | 0.375 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL) | 0.222 | 0.188 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.183 | 0.188 | Data Appear Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.127 | 0.188 | Data Appear Lognormal | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | |
| **Chromium (mw-63)** | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 31 | 10 | 21 | 2 | 19 | 90.48% |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 19 | 5.0000E-4 | 0.01 | 0.00187 | 0.001 | 0.0022 |
| Statistics (Non-Detects Only) | 2 | 4.3000E-4 | 8.4000E-4 | 6.3500E-4 | 6.3500E-4 | 2.8991E-4 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (All: NDs treated as DL value) | 21 | 4.3000E-4 | 0.01 | 0.00175 | 0.001 | 0.00212 | | |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.005 | 9.0571E-4 | 5.0000E-4 | 0.00105 | | |
| Statistics (Normal ROS Imputed Data) | 21 | 1.8929E-4 | 8.4000E-4 | 4.7075E-4 | 4.6813E-4 | 1.5895E-4 | | |
| Statistics (Gamma ROS Imputed Data) | 21 | N/A | N/A | N/A | N/A | N/A | | |
| Statistics (Lognormal ROS Imputed Data) | 21 | 2.9022E-4 | 8.4000E-4 | 4.7499E-4 | 4.5763E-4 | 1.3029E-4 | | |
| | | | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV | | |
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A | | |
| Statistics (NDs = DL) | 1.383 | 1.218 | 0.00127 | -6.751 | 0.846 | -0.125 | | |
| Statistics (NDs = DL/2) | 1.492 | 1.311 | 6.0685E-4 | -7.378 | 0.816 | -0.111 | | |
| Statistics (Gamma ROS Estimates) | N/A | N/A | N/A | N/A | N/A | N/A | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.685 | 0.26 | -0.0338 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 1 | 0.76 | 0.763 | 0.984 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.599 | 0.908 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.604 | 0.908 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.971 | 0.908 | Data Appear Normal | | | | | |
| Lilliefors (Detects Only) | N/A | N/A | | | | | | |
| Lilliefors (NDs = DL) | 0.267 | 0.188 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.274 | 0.188 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.173 | 0.188 | Data Appear Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | N/A | 0.915 | 0.911 | 0.422 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | N/A | N/A | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | | | | | | |
| Anderson-Darling (NDs = DL) | 1.141 | 0.761 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.239 | 0.193 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 1.009 | 0.758 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.217 | 0.193 | Data Not Gamma Distributed | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Anderson-Darling (Gamma ROS Estimates) | N/A | 0.74 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | N/A | 0.189 | | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 1 | 0.948 | 0.951 | N/A | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (NDs = DL) | 0.897 | 0.908 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.902 | 0.908 | Data Not Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.971 | 0.908 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | N/A | N/A | | | | |
| Lilliefors (NDs = DL) | 0.193 | 0.188 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.179 | 0.188 | Data Appear Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.173 | 0.188 | Data Appear Lognormal | | | |
| | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | |
| | | | | | | |
| **Chromium (mw-64)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 31 | 10 | 21 | 3 | 18 | 85.71% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 18 | 5.0000E-4 | 0.01 | 0.00194 | 0.001 | 0.00224 |
| Statistics (Non-Detects Only) | 3 | 2.3000E-4 | 9.3000E-4 | 6.2333E-4 | 7.1000E-4 | 3.5796E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 2.3000E-4 | 0.01 | 0.00176 | 0.001 | 0.00212 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.3000E-4 | 0.005 | 9.2238E-4 | 5.0000E-4 | 0.00105 |
| Statistics (Normal ROS Imputed Data) | 21 | -1.120E-4 | 9.3000E-4 | 3.5482E-4 | 3.5085E-4 | 2.6576E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 2.3000E-4 | 0.01 | 0.00866 | 0.01 | 0.00336 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 1.1616E-4 | 9.3000E-4 | 3.5475E-4 | 3.0325E-4 | 2.1167E-4 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (NDs = DL) | 1.35 | 1.189 | 0.0013 | -6.759 | 0.878 | -0.13 |
| Statistics (NDs = DL/2) | 1.517 | 1.332 | 6.0804E-4 | -7.353 | 0.819 | -0.111 |
| Statistics (Gamma ROS Estimates) | 1.969 | 1.72 | 0.0044 | -5.024 | 1.077 | -0.214 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -8.093 | 0.551 | -0.0681 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| **Normal GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | |
| Correlation Coefficient R | 0.978 | 0.766 | 0.768 | 0.984 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.956 | 0.767 | Data Appear Normal | | |
| Shapiro-Wilk (NDs = DL) | 0.61 | 0.908 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.612 | 0.908 | Data Not Normal | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.968 | 0.908 | Data Appear Normal | | |
| Lilliefors (Detects Only) | 0.262 | 0.425 | Data Appear Normal | | |
| Lilliefors (NDs = DL) | 0.264 | 0.188 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.28 | 0.188 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.173 | 0.188 | Data Appear Normal | | |
| **Gamma GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | N/A | 0.917 | 0.911 | 0.462 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | N/A | N/A | | | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | | | |
| Anderson-Darling (NDs = DL) | 0.893 | 0.762 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.236 | 0.193 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 0.892 | 0.758 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.179 | 0.193 | Detected Data appear Approximate Gamma Distribution | | |
| Anderson-Darling (Gamma ROS Estimates) | 6.283 | 0.754 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.529 | 0.192 | Data Not Gamma Distributed | | |
| **Lognormal GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.943 | 0.971 | 0.958 | 0.984 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.888 | 0.767 | Data Appear Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.95 | 0.908 | Data Appear Lognormal | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Shapiro-Wilk (NDs = DL/2) | 0.915 | 0.908 | Data Appear Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.965 | 0.908 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | 0.317 | 0.425 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL) | 0.186 | 0.188 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.16 | 0.188 | Data Appear Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.173 | 0.188 | Data Appear Lognormal | | | |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Chromium (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 2 | 19 | 90.48% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 19 | 5.0000E-4 | 0.004 | 0.00139 | 0.001 | 9.9413E-4 |
| Statistics (Non-Detects Only) | 2 | 4.9000E-4 | 0.0015 | 9.9500E-4 | 9.9500E-4 | 7.1418E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 4.9000E-4 | 0.004 | 0.00136 | 0.001 | 9.6407E-4 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.002 | 7.2571E-4 | 5.0000E-4 | 5.0585E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | -5.668E-5 | 0.0015 | 5.4711E-4 | 5.3784E-4 | 3.7614E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Imputed Data) | 21 | 2.6742E-4 | 0.0015 | 5.7028E-4 | 5.1667E-4 | 2.7513E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (NDs = DL) | 2.388 | 2.079 | 5.6809E-4 | -6.826 | 0.682 | -0.0999 |
| Statistics (NDs = DL/2) | 2.373 | 2.066 | 3.0581E-4 | -7.454 | 0.69 | -0.0926 |
| Statistics (Gamma ROS Estimates) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.558 | 0.417 | -0.0551 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 1 | 0.913 | 0.92 | 0.977 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (NDs = DL) | 0.832 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.842 | 0.908 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.957 | 0.908 | Data Appear Normal |

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| Lilliefors (Detects Only) | N/A | N/A | | | |
| Lilliefors (NDs = DL) | 0.263 | 0.188 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.291 | 0.188 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.133 | 0.188 | Data Appear Normal | | |
| | | | | | |
| **Gamma GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | N/A | 0.979 | 0.974 | 0.437 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | N/A | N/A | | | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | | | |
| Anderson-Darling (NDs = DL) | 0.977 | 0.752 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.209 | 0.191 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 1.013 | 0.752 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.243 | 0.191 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | N/A | 0.74 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | N/A | 0.189 | | | |
| | | | | | |
| **Lognormal GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 1 | 0.949 | 0.95 | N/A | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (NDs = DL) | 0.887 | 0.908 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.887 | 0.908 | Data Not Lognormal | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.957 | 0.908 | Data Appear Lognormal | | |
| Lilliefors (Detects Only) | N/A | N/A | | | |
| Lilliefors (NDs = DL) | 0.205 | 0.188 | Data Not Lognormal | | |
| Lilliefors (NDs = DL/2) | 0.204 | 0.188 | Data Not Lognormal | | |
| Lilliefors (Lognormal ROS Estimates) | 0.133 | 0.188 | Data Appear Lognormal | | |
| | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | |
| | | | | | |
| **Cobalt (mw-62)** | | | | | |
| | | | | | |
| **Raw Statistics** | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Number of Valid Observations | 21 |
| Number of Missing Observations | 11 |
| Number of Distinct Observations | 17 |
| Minimum | 6.5000E-4 |
| Maximum | 0.014 |
| Mean of Raw Data | 0.00675 |
| Standard Deviation of Raw Data | 0.00334 |
| Khat | 2.97 |
| Theta hat | 0.00227 |
| Kstar | 2.577 |
| Theta star | 0.00262 |
| Mean of Log Transformed Data | -5.176 |
| Standard Deviation of Log Transformed Data | 0.718 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.982 |
| Shapiro Wilk Test Statistic | 0.965 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 0.607 |
| Lilliefors Test Statistic | 0.149 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data appear Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.965 |
| A-D Test Statistic | 0.708 |
| A-D Critical (0.05) Value | 0.75 |
| K-S Test Statistic | 0.224 |
| K-S Critical(0.05) Value | 0.191 |
| Data follow Appr. Gamma Distribution at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.909 |
| Shapiro Wilk Test Statistic | 0.838 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 0.0019 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Lilliefors Test Statistic | 0.257 | | | | | |
| Lilliefors Critical (0.05) Value | 0.188 | | | | | |
| Data not Lognormal at (0.05) Significance Level | | | | | | |
| | | | | | | |
| **Cobalt (mw-63)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 31 | 10 | 21 | 20 | 1 | 4.76% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 1 | 0.001 | 0.001 | 0.001 | 0.001 | N/A |
| Statistics (Non-Detects Only) | 20 | 6.2000E-4 | 0.0086 | 0.00481 | 0.00555 | 0.00217 |
| Statistics (All: NDs treated as DL value) | 21 | 6.2000E-4 | 0.0086 | 0.00462 | 0.0055 | 0.00227 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 5.0000E-4 | 0.0086 | 0.0046 | 0.0055 | 0.00231 |
| Statistics (Normal ROS Imputed Data) | 21 | 5.9108E-4 | 0.0086 | 0.00461 | 0.0055 | 0.0023 |
| Statistics (Gamma ROS Imputed Data) | 21 | 6.2000E-4 | 0.01 | 0.00505 | 0.0056 | 0.0024 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 6.2000E-4 | 0.0086 | 0.00463 | 0.0055 | 0.00225 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 3.196 | 2.75 | 0.0015 | -5.502 | 0.688 | -0.125 |
| Statistics (NDs = DL) | 2.746 | 2.385 | 0.00168 | -5.569 | 0.738 | -0.132 |
| Statistics (NDs = DL/2) | 2.418 | 2.104 | 0.0019 | -5.602 | 0.812 | -0.145 |
| Statistics (Gamma ROS Estimates) | 3.064 | 2.658 | 0.00165 | -5.46 | 0.699 | -0.128 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -5.562 | 0.724 | -0.13 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.963 | 0.961 | 0.961 | 0.961 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.923 | 0.905 | Data Appear Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.918 | 0.908 | Data Appear Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.917 | 0.908 | Data Appear Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.915 | 0.908 | Data Appear Normal | | | |
| Lilliefors (Detects Only) | 0.208 | 0.192 | Data Not Normal | | | |
| Lilliefors (NDs = DL) | 0.205 | 0.188 | Data Not Normal | | | |
| Lilliefors (NDs = DL/2) | 0.207 | 0.188 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.206 | 0.188 | Data Not Normal | | | |

# Appendix B
# Goodness of Fit Statistics

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.899 | 0.897 | 0.887 | 0.936 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 1.361 | 0.747 | |
| Kolmogorov-Smirnov (Detects Only) | 0.255 | 0.195 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 1.398 | 0.751 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.25 | 0.191 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 1.48 | 0.752 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.254 | 0.191 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 1.141 | 0.749 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.24 | 0.191 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.893 | 0.906 | 0.892 | 0.907 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.803 | 0.905 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.819 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.794 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.821 | 0.908 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.267 | 0.192 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.262 | 0.188 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.265 | 0.188 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.261 | 0.188 | Data Not Lognormal |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Cobalt (mw-64)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 17 | 4 | 19.05% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 4 | 0.002 | 0.005 | 0.00275 | 0.002 | 0.0015 |
| Statistics (Non-Detects Only) | 17 | 8.3000E-4 | 0.0018 | 0.0014 | 0.0015 | 2.9734E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 8.3000E-4 | 0.005 | 0.00165 | 0.0015 | 8.3971E-4 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 8.3000E-4 | 0.0025 | 0.00139 | 0.0012 | 3.9392E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | 8.3000E-4 | 0.0018 | 0.0014 | 0.0014 | 2.7490E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 8.3000E-4 | 0.01 | 0.00303 | 0.0015 | 0.00347 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 8.3000E-4 | 0.0018 | 0.00139 | 0.00136 | 2.7550E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 22.12 | 18.25 | 6.3113E-5 | -6.597 | 0.224 | -0.034 |
| Statistics (NDs = DL) | 6.753 | 5.82 | 2.4489E-4 | -6.481 | 0.364 | -0.0561 |
| Statistics (NDs = DL/2) | 14.26 | 12.25 | 9.7632E-5 | -6.613 | 0.27 | -0.0408 |
| Statistics (Gamma ROS Estimates) | 1.333 | 1.174 | 0.00228 | -6.218 | 0.826 | -0.133 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.597 | 0.207 | -0.0314 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.961 | 0.765 | 0.947 | 0.973 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.912 | 0.892 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.614 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.904 | 0.908 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.938 | 0.908 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.216 | 0.207 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.292 | 0.188 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.211 | 0.188 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.191 | 0.188 | Data Not Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.95 | 0.832 | 0.967 | 0.857 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.712 | 0.738 | |
| Kolmogorov-Smirnov (Detects Only) | 0.204 | 0.209 | Detected Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL) | 1.188 | 0.744 | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Kolmogorov-Smirnov (NDs = DL) | 0.215 | 0.19 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 0.568 | 0.743 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.2 | 0.189 | Detected Data appear Approximate Gamma Distribution | | | |
| Anderson-Darling (Gamma ROS Estimates) | 3.628 | 0.762 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.409 | 0.193 | Data Not Gamma Distributed | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 0.954 | 0.914 | 0.974 | 0.965 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.904 | 0.892 | Data Appear Lognormal | | | |
| Shapiro-Wilk (NDs = DL) | 0.858 | 0.908 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.951 | 0.908 | Data Appear Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.928 | 0.908 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | 0.193 | 0.207 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL) | 0.185 | 0.188 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.186 | 0.188 | Data Appear Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.161 | 0.188 | Data Appear Lognormal | | | |
| | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | |
| | | | | | | |
| **Cobalt (mw-65)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 31 | 10 | 21 | 18 | 3 | 14.29% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 3 | 0.002 | 0.002 | 0.002 | 0.002 | 0 |
| Statistics (Non-Detects Only) | 18 | 0.001 | 0.0029 | 0.00149 | 0.0012 | 5.0977E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 0.001 | 0.0029 | 0.00156 | 0.0014 | 5.0446E-4 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 0.001 | 0.0029 | 0.00142 | 0.0012 | 5.0162E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | 0.001 | 0.0029 | 0.00147 | 0.0012 | 4.8079E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 0.001 | 0.01 | 0.0027 | 0.0014 | 0.00309 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 0.001 | 0.0029 | 0.00147 | 0.0012 | 4.7923E-4 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 10.81 | 9.043 | 1.3777E-4 | -6.557 | 0.304 | -0.0463 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (NDs = DL) | 11.04 | 9.492 | 1.4151E-4 | -6.508 | 0.306 | -0.047 | | |
| Statistics (NDs = DL/2) | 10.35 | 8.903 | 1.3711E-4 | -6.607 | 0.307 | -0.0465 | | |
| Statistics (Gamma ROS Estimates) | 1.514 | 1.33 | 0.00179 | -6.278 | 0.754 | -0.12 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.568 | 0.287 | -0.0437 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.904 | 0.93 | 0.891 | 0.907 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.821 | 0.897 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.866 | 0.908 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.797 | 0.908 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.827 | 0.908 | Data Not Normal | | | | | |
| Lilliefors (Detects Only) | 0.27 | 0.202 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL) | 0.24 | 0.188 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.288 | 0.188 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.237 | 0.188 | Data Not Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | 0.949 | 0.958 | 0.941 | 0.869 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | 1.053 | 0.739 | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.275 | 0.203 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL) | 1.048 | 0.743 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.245 | 0.189 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 1.334 | 0.743 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.282 | 0.189 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 3.155 | 0.758 | | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.297 | 0.193 | Data Not Gamma Distributed | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | | |
| Correlation Coefficient R | 0.937 | 0.948 | 0.929 | 0.94 | | | | |

# Appendix B
# Goodness of Fit Statistics

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.874 | 0.897 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.893 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.857 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.882 | 0.908 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.266 | 0.202 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.238 | 0.188 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.269 | 0.188 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.232 | 0.188 | Data Not Lognormal |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Fluoride (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 0 | 32 | 31 | 1 | 3.13% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1 | 80 | 80 | 80 | 80 | N/A |
| Statistics (Non-Detects Only) | 31 | 1.2 | 3.3 | 1.555 | 1.5 | 0.369 |
| Statistics (All: NDs treated as DL value) | 32 | 1.2 | 80 | 4.006 | 1.5 | 13.87 |
| Statistics (All: NDs treated as DL/2 value) | 32 | 1.2 | 40 | 2.756 | 1.5 | 6.806 |
| Statistics (Normal ROS Imputed Data) | 32 | 1.2 | 3.3 | 1.555 | 1.5 | 0.363 |
| Statistics (Gamma ROS Imputed Data) | 32 | 1.2 | 3.3 | 1.554 | 1.5 | 0.363 |
| Statistics (Lognormal ROS Imputed Data) | 32 | 1.2 | 3.3 | 1.554 | 1.5 | 0.363 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 26.17 | 23.66 | 0.0594 | 0.422 | 0.185 | 0.438 |
| Statistics (NDs = DL) | 0.716 | 0.669 | 5.599 | 0.546 | 0.723 | 1.325 |
| Statistics (NDs = DL/2) | 1.159 | 1.072 | 2.377 | 0.524 | 0.605 | 1.155 |
| Statistics (Gamma ROS Estimates) | 27.01 | 24.49 | 0.0576 | 0.422 | 0.182 | 0.43 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | 0.422 | 0.182 | 0.431 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.757 | 0.404 | 0.422 | 0.755 |

# Appendix B
# Goodness of Fit Statistics

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.608 | 0.929 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.196 | 0.93 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.211 | 0.93 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.606 | 0.93 | Data Not Normal |
| Lilliefors (Detects Only) | 0.322 | 0.156 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.495 | 0.154 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.482 | 0.154 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.325 | 0.154 | Data Not Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.796 | 0.656 | 0.629 | 0.792 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 2.464 | 0.745 | |
| Kolmogorov-Smirnov (Detects Only) | 0.287 | 0.157 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 10.33 | 0.791 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.483 | 0.162 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 9.266 | 0.772 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.449 | 0.16 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 2.566 | 0.745 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.29 | 0.155 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.855 | 0.567 | 0.599 | 0.853 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.76 | 0.929 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.359 | 0.93 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.396 | 0.93 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.757 | 0.93 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.269 | 0.156 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.386 | 0.154 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.379 | 0.154 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.271 | 0.154 | Data Not Lognormal |

# Appendix B
# Goodness of Fit Statistics

Note: Substitution methods such as DL or DL/2 are not recommended.

**Fluoride (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 0 | 31 | 30 | 1 | 3.23% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1 | 8 | 8 | 8 | 8 | N/A |
| Statistics (Non-Detects Only) | 30 | 0.28 | 2.5 | 1.899 | 1.95 | 0.374 |
| Statistics (All: NDs treated as DL value) | 31 | 0.28 | 8 | 2.096 | 2 | 1.156 |
| Statistics (All: NDs treated as DL/2 value) | 31 | 0.28 | 4 | 1.967 | 2 | 0.527 |
| Statistics (Normal ROS Imputed Data) | 31 | 0.28 | 2.5 | 1.899 | 1.9 | 0.368 |
| Statistics (Gamma ROS Imputed Data) | 31 | 0.28 | 2.5 | 1.899 | 1.9 | 0.368 |
| Statistics (Lognormal ROS Imputed Data) | 31 | 0.28 | 2.5 | 1.897 | 1.9 | 0.368 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 12.17 | 10.98 | 0.156 | 0.6 | 0.37 | 0.617 |
| Statistics (NDs = DL) | 5.567 | 5.05 | 0.377 | 0.648 | 0.451 | 0.696 |
| Statistics (NDs = DL/2) | 9.906 | 8.969 | 0.199 | 0.625 | 0.391 | 0.625 |
| Statistics (Gamma ROS Estimates) | 12.57 | 11.38 | 0.151 | 0.601 | 0.364 | 0.606 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | 0.6 | 0.364 | 0.607 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.844 | 0.62 | 0.826 | 0.841 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.749 | 0.927 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.433 | 0.929 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.738 | 0.929 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.745 | 0.929 | Data Not Normal |
| Lilliefors (Detects Only) | 0.195 | 0.159 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.367 | 0.156 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.239 | 0.156 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.2 | 0.156 | Data Not Normal |

# Appendix B
# Goodness of Fit Statistics

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.807 | 0.691 | 0.839 | 0.807 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 3.944 | 0.745 | |
| Kolmogorov-Smirnov (Detects Only) | 0.281 | 0.16 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 4.9 | 0.747 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.302 | 0.158 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 3.677 | 0.746 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.269 | 0.158 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 4.08 | 0.746 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.278 | 0.158 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.646 | 0.72 | 0.706 | 0.644 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.457 | 0.927 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.579 | 0.929 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.55 | 0.929 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.455 | 0.929 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.33 | 0.159 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.315 | 0.156 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.313 | 0.156 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.328 | 0.156 | Data Not Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Fluoride (mw-64)**

**Raw Statistics**

| | |
|---|---|
| Number of Valid Observations | 31 |
| Number of Distinct Observations | 4 |
| Minimum | 1.3 |
| Maximum | 1.6 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Mean of Raw Data | 1.448 |
| Standard Deviation of Raw Data | 0.0811 |
| Khat | 328.9 |
| Theta hat | 0.0044 |
| Kstar | 297.1 |
| Theta star | 0.00487 |
| Mean of Log Transformed Data | 0.369 |
| Standard Deviation of Log Transformed Data | 0.0561 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.935 |
| Shapiro Wilk Test Statistic | 0.866 |
| Shapiro Wilk Critical (0.05) Value | 0.929 |
| Approximate Shapiro Wilk P Value | 8.8283E-4 |
| Lilliefors Test Statistic | 0.241 |
| Lilliefors Critical (0.05) Value | 0.156 |
| Data not Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.935 |
| A-D Test Statistic | 1.998 |
| A-D Critical (0.05) Value | 0.745 |
| K-S Test Statistic | 0.24 |
| K-S Critical(0.05) Value | 0.157 |
| Data not Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.934 |
| Shapiro Wilk Test Statistic | 0.865 |
| Shapiro Wilk Critical (0.05) Value | 0.929 |
| Approximate Shapiro Wilk P Value | 8.6415E-4 |
| Lilliefors Test Statistic | 0.235 |
| Lilliefors Critical (0.05) Value | 0.156 |
| Data not Lognormal at (0.05) Significance Level | |
| | |
| Non-parametric GOF Test Results | |

# Appendix B
# Goodness of Fit Statistics

Data do not follow a discernible distribution at (0.05) Level of Significance

**Fluoride (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 0 | 31 | 30 | 1 | 3.23% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1 | 2 | 2 | 2 | 2 | N/A |
| Statistics (Non-Detects Only) | 30 | 1.4 | 2.1 | 1.843 | 1.9 | 0.192 |
| Statistics (All: NDs treated as DL value) | 31 | 1.4 | 2.1 | 1.848 | 1.9 | 0.191 |
| Statistics (All: NDs treated as DL/2 value) | 31 | 1 | 2.1 | 1.816 | 1.9 | 0.242 |
| Statistics (Normal ROS Imputed Data) | 31 | 1.4 | 2.1 | 1.84 | 1.9 | 0.19 |
| Statistics (Gamma ROS Imputed Data) | 31 | 1.4 | 2.1 | 1.84 | 1.9 | 0.19 |
| Statistics (Lognormal ROS Imputed Data) | 31 | 1.4 | 2.1 | 1.84 | 1.9 | 0.19 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 88.94 | 80.07 | 0.0207 | 0.606 | 0.11 | 0.181 |
| Statistics (NDs = DL) | 90.14 | 81.44 | 0.0205 | 0.609 | 0.109 | 0.179 |
| Statistics (NDs = DL/2) | 48.66 | 43.97 | 0.0373 | 0.586 | 0.153 | 0.261 |
| Statistics (Gamma ROS Estimates) | 91.01 | 82.23 | 0.0202 | 0.604 | 0.108 | 0.179 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | 0.604 | 0.108 | 0.18 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.946 | 0.941 | 0.917 | 0.952 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.886 | 0.927 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.876 | 0.929 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.849 | 0.929 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.896 | 0.929 | Data Not Normal |
| Lilliefors (Detects Only) | 0.192 | 0.159 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.205 | 0.156 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.184 | 0.156 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.187 | 0.156 | Data Not Normal |

# Appendix B
# Goodness of Fit Statistics

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.933 | 0.927 | 0.894 | 0.939 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 1.465 | 0.745 | |
| Kolmogorov-Smirnov (Detects Only) | 0.193 | 0.16 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 1.648 | 0.745 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.206 | 0.157 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 1.792 | 0.744 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.204 | 0.157 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 1.343 | 0.745 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.187 | 0.157 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.936 | 0.93 | 0.876 | 0.942 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.868 | 0.927 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.858 | 0.929 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.783 | 0.929 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.879 | 0.929 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.195 | 0.159 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.2 | 0.156 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.213 | 0.156 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.185 | 0.156 | Data Not Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Lead (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 11 | 21 | 2 | 19 | 90.48% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 19 | 5.0000E-4 | 0.005 | 0.00105 | 5.0000E-4 | 0.0011 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 2 | 5.0000E-4 | 5.8000E-4 | 5.4000E-4 | 5.4000E-4 | 5.6569E-5 |
| Statistics (All: NDs treated as DL value) | 21 | 5.0000E-4 | 0.005 | 0.001 | 5.0000E-4 | 0.00106 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.0025 | 5.2762E-4 | 2.5000E-4 | 5.2395E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | -1.271E-4 | 5.8000E-4 | 2.1051E-4 | 2.0844E-4 | 1.7588E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Imputed Data) | 21 | 1.5620E-4 | 5.8000E-4 | 3.0764E-4 | 2.9111E-4 | 1.0438E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (NDs = DL) | 1.916 | 1.674 | 5.2402E-4 | -7.187 | 0.668 | -0.093 |
| Statistics (NDs = DL/2) | 2.023 | 1.765 | 2.6086E-4 | -7.814 | 0.666 | -0.0852 |
| Statistics (Gamma ROS Estimates) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -8.138 | 0.326 | -0.0401 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 1 | 0.724 | 0.751 | 0.994 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (NDs = DL) | 0.543 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.583 | 0.908 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.987 | 0.908 | Data Appear Normal |
| Lilliefors (Detects Only) | N/A | N/A | |
| Lilliefors (NDs = DL) | 0.322 | 0.188 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.298 | 0.188 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.0889 | 0.188 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | N/A | 0.881 | 0.895 | 0.418 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | N/A | N/A | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | |
| Anderson-Darling (NDs = DL) | 3.18 | 0.755 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.348 | 0.192 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 2.412 | 0.754 | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Kolmogorov-Smirnov (NDs = DL/2) | 0.329 | 0.192 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | N/A | 0.74 | | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | N/A | 0.189 | | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | | |
| Correlation Coefficient R | 1 | 0.824 | 0.865 | N/A | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.681 | 0.908 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.747 | 0.908 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.987 | 0.908 | Data Appear Lognormal | | | | | |
| Lilliefors (Detects Only) | N/A | N/A | | | | | | |
| Lilliefors (NDs = DL) | 0.351 | 0.188 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL/2) | 0.336 | 0.188 | Data Not Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.0889 | 0.188 | Data Appear Lognormal | | | | | |
| | | | | | | | | |
| Note: Substitution methods such as DL or DL/2 are not recommended. | | | | | | | | |
| | | | | | | | | |
| **Lead (mw-63)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 1 | 20 | 95.24% | | |
| | | | | | | | | |
| Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! | | | | | | | | |
| It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Lead (mw-63) was not processed! | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Lead (mw-64)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 1 | 20 | 95.24% | | |
| | | | | | | | | |
| Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! | | | | | | | | |
| It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |

# Appendix B
# Goodness of Fit Statistics

The data set for variable Lead (mw-64) was not processed!

**Lead (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 0 | 21 | 100.00% |

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Lead (mw-65) was not processed!

**Lithium (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 9 | 23 | 8 | 15 | 65.22% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 15 | 0.2 | 0.2 | 0.2 | 0.2 | 2.873E-17 |
| Statistics (Non-Detects Only) | 8 | 0.11 | 0.15 | 0.133 | 0.135 | 0.0128 |
| Statistics (All: NDs treated as DL value) | 23 | 0.11 | 0.2 | 0.177 | 0.2 | 0.0337 |
| Statistics (All: NDs treated as DL/2 value) | 23 | 0.1 | 0.15 | 0.111 | 0.1 | 0.0174 |
| Statistics (Normal ROS Imputed Data) | 23 | 0.109 | 0.156 | 0.133 | 0.133 | 0.0128 |
| Statistics (Gamma ROS Imputed Data) | 23 | 0.11 | 0.157 | 0.133 | 0.132 | 0.0128 |
| Statistics (Lognormal ROS Imputed Data) | 23 | 0.11 | 0.158 | 0.133 | 0.132 | 0.013 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 117.6 | 73.59 | 0.00113 | -2.025 | 0.0997 | -0.0492 |
| Statistics (NDs = DL) | 25.39 | 22.11 | 0.00695 | -1.754 | 0.21 | -0.12 |
| Statistics (NDs = DL/2) | 46.91 | 40.82 | 0.00237 | -2.206 | 0.146 | -0.0663 |
| Statistics (Gamma ROS Estimates) | 110.4 | 96.06 | 0.0012 | -2.025 | 0.0978 | -0.0483 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -2.025 | 0.0993 | -0.049 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| **Normal GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | |
| Correlation Coefficient R | 0.966 | 0.833 | 0.828 | 0.992 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.938 | 0.818 | Data Appear Normal | | |
| Shapiro-Wilk (NDs = DL) | 0.681 | 0.914 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.677 | 0.914 | Data Not Normal | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.976 | 0.914 | Data Appear Normal | | |
| Lilliefors (Detects Only) | 0.221 | 0.283 | Data Appear Normal | | |
| Lilliefors (NDs = DL) | 0.409 | 0.18 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.394 | 0.18 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.111 | 0.18 | Data Appear Normal | | |
| **Gamma GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | 0.96 | 0.796 | 0.852 | 0.99 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | 0.383 | 0.715 | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.237 | 0.294 | Detected Data Appear Gamma Distributed | | |
| Anderson-Darling (NDs = DL) | 3.624 | 0.742 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.413 | 0.181 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 3.651 | 0.741 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.401 | 0.181 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 0.22 | 0.74 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.116 | 0.181 | Data Appear Gamma Distributed | | |
| **Lognormal GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.959 | 0.838 | 0.829 | 0.992 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.925 | 0.818 | Data Appear Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.692 | 0.914 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.677 | 0.914 | Data Not Lognormal | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.975 | 0.914 | Data Appear Lognormal | | | | | |
| Lilliefors (Detects Only) | 0.224 | 0.283 | Data Appear Lognormal | | | | | |
| Lilliefors (NDs = DL) | 0.407 | 0.18 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL/2) | 0.397 | 0.18 | Data Not Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.111 | 0.18 | Data Appear Lognormal | | | | | |
| | | | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | | | |
| | | | | | | | | |
| **Lithium (mw-63)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 8 | 23 | 8 | 15 | 65.22% | | |
| | | | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD | | |
| Statistics (Non-Detects Only) | 15 | 0.2 | 0.2 | 0.2 | 0.2 | 2.873E-17 | | |
| Statistics (Non-Detects Only) | 8 | 0.045 | 0.085 | 0.06 | 0.0575 | 0.0118 | | |
| Statistics (All: NDs treated as DL value) | 23 | 0.045 | 0.2 | 0.151 | 0.2 | 0.0685 | | |
| Statistics (All: NDs treated as DL/2 value) | 23 | 0.045 | 0.1 | 0.0861 | 0.1 | 0.0206 | | |
| Statistics (Normal ROS Imputed Data) | 23 | 0.0393 | 0.085 | 0.06 | 0.058 | 0.0115 | | |
| Statistics (Gamma ROS Imputed Data) | 23 | 0.0405 | 0.085 | 0.0601 | 0.058 | 0.0116 | | |
| Statistics (Lognormal ROS Imputed Data) | 23 | 0.0423 | 0.085 | 0.06 | 0.058 | 0.0112 | | |
| | | | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV | | |
| Statistics (Non-Detects Only) | 32.48 | 20.38 | 0.00185 | -2.829 | 0.184 | -0.0652 | | |
| Statistics (NDs = DL) | 3.603 | 3.162 | 0.042 | -2.034 | 0.603 | -0.296 | | |
| Statistics (NDs = DL/2) | 15.2 | 13.25 | 0.00566 | -2.486 | 0.277 | -0.111 | | |
| Statistics (Gamma ROS Estimates) | 28.8 | 25.07 | 0.00209 | -2.83 | 0.191 | -0.0674 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -2.829 | 0.183 | -0.0647 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.93 | 0.81 | 0.827 | 0.992 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.889 | 0.818 | Data Appear Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.64 | 0.914 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.673 | 0.914 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.982 | 0.914 | Data Appear Normal | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| Lilliefors (Detects Only) | 0.216 | 0.283 | Data Appear Normal | | |
| Lilliefors (NDs = DL) | 0.414 | 0.18 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.403 | 0.18 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.0909 | 0.18 | Data Appear Normal | | |
| | | | | | |
| **Gamma GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | 0.951 | 0.718 | 0.778 | 0.994 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | 0.372 | 0.716 | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.189 | 0.294 | Detected Data Appear Gamma Distributed | | |
| Anderson-Darling (NDs = DL) | 4.053 | 0.75 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.419 | 0.183 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 3.716 | 0.743 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.405 | 0.181 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 0.143 | 0.742 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.0714 | 0.181 | Data Appear Gamma Distributed | | |
| | | | | | |
| **Lognormal GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.958 | 0.823 | 0.83 | 0.994 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.94 | 0.818 | Data Appear Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.663 | 0.914 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.68 | 0.914 | Data Not Lognormal | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.983 | 0.914 | Data Appear Lognormal | | |
| Lilliefors (Detects Only) | 0.181 | 0.283 | Data Appear Lognormal | | |
| Lilliefors (NDs = DL) | 0.411 | 0.18 | Data Not Lognormal | | |
| Lilliefors (NDs = DL/2) | 0.398 | 0.18 | Data Not Lognormal | | |
| Lilliefors (Lognormal ROS Estimates) | 0.0781 | 0.18 | Data Appear Lognormal | | |
| | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | |
| | | | | | |
| **Lithium (mw-64)** | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 8 | 23 | 7 | 16 | 69.57% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 16 | 0.05 | 0.2 | 0.191 | 0.2 | 0.0375 |
| Statistics (Non-Detects Only) | 7 | 0.019 | 0.027 | 0.0216 | 0.021 | 0.00282 |
| Statistics (All: NDs treated as DL value) | 23 | 0.019 | 0.2 | 0.139 | 0.2 | 0.0854 |
| Statistics (All: NDs treated as DL/2 value) | 23 | 0.019 | 0.1 | 0.0729 | 0.1 | 0.038 |
| Statistics (Normal ROS Imputed Data) | 23 | 0.0165 | 0.027 | 0.0216 | 0.0216 | 0.00274 |
| Statistics (Gamma ROS Imputed Data) | 23 | 0.0166 | 0.027 | 0.0216 | 0.0215 | 0.00276 |
| Statistics (Lognormal ROS Imputed Data) | 23 | 0.017 | 0.027 | 0.0216 | 0.0214 | 0.00268 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 72.96 | 41.79 | 2.9566E-4 | -3.843 | 0.125 | -0.0324 |
| Statistics (NDs = DL) | 1.469 | 1.306 | 0.0948 | -2.35 | 1.052 | -0.448 |
| Statistics (NDs = DL/2) | 2.505 | 2.207 | 0.0291 | -2.832 | 0.744 | -0.263 |
| Statistics (Gamma ROS Estimates) | 64.86 | 56.43 | 3.3274E-4 | -3.844 | 0.127 | -0.033 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -3.843 | 0.123 | -0.0319 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.937 | 0.801 | 0.801 | 0.993 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.88 | 0.803 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.623 | 0.914 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.623 | 0.914 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.981 | 0.914 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.181 | 0.304 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.414 | 0.18 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.414 | 0.18 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.0763 | 0.18 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.953 | 0.648 | 0.692 | 0.992 |

# Appendix B
# Goodness of Fit Statistics

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.356 | 0.708 | |
| Kolmogorov-Smirnov (Detects Only) | 0.154 | 0.311 | Detected Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL) | 4.228 | 0.761 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.422 | 0.185 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 4.289 | 0.753 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.421 | 0.183 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 0.153 | 0.741 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.0697 | 0.181 | Data Appear Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.952 | 0.814 | 0.812 | 0.993 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.904 | 0.803 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.645 | 0.914 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.642 | 0.914 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.98 | 0.914 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.168 | 0.304 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.411 | 0.18 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.414 | 0.18 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.0665 | 0.18 | Data Appear Lognormal |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Lithium (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 8 | 23 | 7 | 16 | 69.57% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 16 | 0.05 | 0.2 | 0.191 | 0.2 | 0.0375 |
| Statistics (Non-Detects Only) | 7 | 0.045 | 0.081 | 0.0563 | 0.053 | 0.0119 |
| Statistics (All: NDs treated as DL value) | 23 | 0.045 | 0.2 | 0.15 | 0.2 | 0.0707 |
| Statistics (All: NDs treated as DL/2 value) | 23 | 0.025 | 0.1 | 0.0834 | 0.1 | 0.0248 |
| Statistics (Normal ROS Imputed Data) | 23 | 0.0342 | 0.081 | 0.0542 | 0.053 | 0.0115 |
| Statistics (Gamma ROS Imputed Data) | 23 | 0.0353 | 0.081 | 0.0543 | 0.053 | 0.0116 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Statistics (Lognormal ROS Imputed Data) | 23 | 0.0382 | 0.081 | 0.0544 | 0.053 | 0.0108 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 29.88 | 17.17 | 0.00188 | -2.894 | 0.192 | -0.0662 |
| Statistics (NDs = DL) | 3.246 | 2.852 | 0.0461 | -2.061 | 0.64 | -0.311 |
| Statistics (NDs = DL/2) | 8.608 | 7.514 | 0.00969 | -2.543 | 0.385 | -0.151 |
| Statistics (Gamma ROS Estimates) | 23.55 | 20.51 | 0.00231 | -2.934 | 0.211 | -0.0719 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -2.928 | 0.191 | -0.0651 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.889 | 0.807 | 0.833 | 0.989 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.811 | 0.803 | Data Appear Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.633 | 0.914 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.687 | 0.914 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.979 | 0.914 | Data Appear Normal | | | |
| Lilliefors (Detects Only) | 0.29 | 0.304 | Data Appear Normal | | | |
| Lilliefors (NDs = DL) | 0.414 | 0.18 | Data Not Normal | | | |
| Lilliefors (NDs = DL/2) | 0.4 | 0.18 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.107 | 0.18 | Data Appear Normal | | | |
| | | | | | | |
| **Gamma GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
| Correlation Coefficient R | 0.92 | 0.711 | 0.761 | 0.995 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | 0.566 | 0.707 | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.279 | 0.311 | Detected Data Appear Gamma Distributed | | | |
| Anderson-Darling (NDs = DL) | 4.149 | 0.75 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.419 | 0.183 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 3.437 | 0.745 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.398 | 0.182 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | 0.143 | 0.742 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.0924 | 0.181 | Data Appear Gamma Distributed | | | |

# Appendix B
# Goodness of Fit Statistics

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.922 | 0.817 | 0.822 | 0.993 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.868 | 0.803 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.651 | 0.914 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.679 | 0.914 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.982 | 0.914 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.265 | 0.304 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.412 | 0.18 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.386 | 0.18 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.0885 | 0.18 | Data Appear Lognormal |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Mercury (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 11 | 21 | 3 | 18 | 85.71% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 18 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 5.578E-20 |
| Statistics (Non-Detects Only) | 3 | 2.5000E-4 | 4.4000E-4 | 3.5333E-4 | 3.7000E-4 | 9.6090E-5 |
| Statistics (All: NDs treated as DL value) | 21 | 2.0000E-4 | 4.4000E-4 | 2.2190E-4 | 2.0000E-4 | 6.2819E-5 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 1.0000E-4 | 4.4000E-4 | 1.3619E-4 | 1.0000E-4 | 9.5785E-5 |
| Statistics (Normal ROS Imputed Data) | 21 | -6.960E-4 | 4.4000E-4 | -1.367E-4 | -1.431E-4 | 3.0321E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 2.5000E-4 | 0.01 | 0.00862 | 0.01 | 0.00346 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 1.5567E-5 | 4.4000E-4 | 1.1814E-4 | 7.9531E-5 | 1.1297E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (NDs = DL) | 19.06 | 16.37 | 1.1644E-5 | -8.44 | 0.215 | -0.0255 |
| Statistics (NDs = DL/2) | 3.935 | 3.405 | 3.4606E-5 | -9.034 | 0.452 | -0.0501 |
| Statistics (Gamma ROS Estimates) | 1.648 | 1.444 | 0.00523 | -5.087 | 1.212 | -0.238 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -9.421 | 0.895 | -0.095 |

**Normal GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | |
| Correlation Coefficient R | 0.989 | 0.622 | 0.65 | 0.998 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.977 | 0.767 | Data Appear Normal | | |
| Shapiro-Wilk (NDs = DL) | 0.404 | 0.908 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.435 | 0.908 | Data Not Normal | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.991 | 0.908 | Data Appear Normal | | |
| Lilliefors (Detects Only) | 0.236 | 0.425 | Data Appear Normal | | |
| Lilliefors (NDs = DL) | 0.493 | 0.188 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.504 | 0.188 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.0479 | 0.188 | Data Appear Normal | | |
| | | | | | |
| **Gamma GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | N/A | 0.687 | 0.775 | 0.443 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | N/A | N/A | | | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | | | |
| Anderson-Darling (NDs = DL) | 5.987 | 0.743 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.501 | 0.189 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 6.016 | 0.747 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.516 | 0.19 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 6.496 | 0.757 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.532 | 0.192 | Data Not Gamma Distributed | | |
| | | | | | |
| **Lognormal GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.976 | 0.634 | 0.657 | 0.998 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.952 | 0.767 | Data Appear Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.415 | 0.908 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.439 | 0.908 | Data Not Lognormal | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.99 | 0.908 | Data Appear Lognormal | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Lilliefors (Detects Only) | 0.266 | 0.425 | Data Appear Lognormal | | | | | |
| Lilliefors (NDs = DL) | 0.498 | 0.188 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL/2) | 0.509 | 0.188 | Data Not Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.0504 | 0.188 | Data Appear Lognormal | | | | | |
| | | | | | | | | |
| Note: Substitution methods such as DL or DL/2 are not recommended. | | | | | | | | |
| | | | | | | | | |
| **Mercury (mw-63)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 0 | 21 | 100.00% | | |
| | | | | | | | | |
| Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! | | | | | | | | |
| Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! | | | | | | | | |
| The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Mercury (mw-63) was not processed! | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Mercury (mw-64)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 0 | 21 | 100.00% | | |
| | | | | | | | | |
| Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! | | | | | | | | |
| Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit! | | | | | | | | |
| The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Mercury (mw-64) was not processed! | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Mercury (mw-65)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 0 | 21 | 100.00% | | |
| | | | | | | | | |
| Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs! | | | | | | | | |

# Appendix B
# Goodness of Fit Statistics

Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Mercury (mw-65) was not processed!

**Molybdenum (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 11 | 21 | 20 | 1 | 4.76% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1 | 0.002 | 0.002 | 0.002 | 0.002 | N/A |
| Statistics (Non-Detects Only) | 20 | 0.0012 | 0.012 | 0.00345 | 0.003 | 0.00212 |
| Statistics (All: NDs treated as DL value) | 21 | 0.0012 | 0.012 | 0.00338 | 0.003 | 0.00209 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 0.001 | 0.012 | 0.00333 | 0.003 | 0.00213 |
| Statistics (Normal ROS Imputed Data) | 21 | 4.9611E-4 | 0.012 | 0.00331 | 0.003 | 0.00216 |
| Statistics (Gamma ROS Imputed Data) | 21 | 0.0012 | 0.012 | 0.00376 | 0.003 | 0.00251 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 0.0012 | 0.012 | 0.00336 | 0.003 | 0.00211 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 5.227 | 4.476 | 6.6008E-4 | -5.768 | 0.41 | -0.0711 |
| Statistics (NDs = DL) | 5.173 | 4.466 | 6.5352E-4 | -5.789 | 0.411 | -0.071 |
| Statistics (NDs = DL/2) | 4.377 | 3.783 | 7.6163E-4 | -5.822 | 0.471 | -0.0808 |
| Statistics (Gamma ROS Estimates) | 4.009 | 3.468 | 9.3840E-4 | -5.713 | 0.473 | -0.0829 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -5.802 | 0.429 | -0.0739 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.693 | 0.702 | 0.724 | 0.737 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.517 | 0.905 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.525 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.557 | 0.908 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.578 | 0.908 | Data Not Normal |
| Lilliefors (Detects Only) | 0.322 | 0.192 | Data Not Normal |

# Appendix B
# Goodness of Fit Statistics

| | | | | |
|---|---|---|---|---|
| Lilliefors (NDs = DL) | 0.315 | 0.188 | Data Not Normal | |
| Lilliefors (NDs = DL/2) | 0.307 | 0.188 | Data Not Normal | |
| Lilliefors (Normal ROS Estimates) | 0.304 | 0.188 | Data Not Normal | |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.779 | 0.785 | 0.805 | 0.848 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 2.297 | 0.745 | |
| Kolmogorov-Smirnov (Detects Only) | 0.259 | 0.194 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 2.107 | 0.745 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.252 | 0.19 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 2.008 | 0.747 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.232 | 0.19 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 2.55 | 0.747 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.277 | 0.19 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.852 | 0.872 | 0.881 | 0.883 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.769 | 0.905 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.797 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.805 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.811 | 0.908 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.227 | 0.192 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.219 | 0.188 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.232 | 0.188 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.209 | 0.188 | Data Not Lognormal |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Molybdenum (mw-63)**

**Raw Statistics**

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Number of Valid Observations | 21 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 15 |
| Minimum | 0.0019 |
| Maximum | 0.017 |
| Mean of Raw Data | 0.00348 |
| Standard Deviation of Raw Data | 0.00321 |
| Khat | 3.245 |
| Theta hat | 0.00107 |
| Kstar | 2.813 |
| Theta star | 0.00124 |
| Mean of Log Transformed Data | -5.822 |
| Standard Deviation of Log Transformed Data | 0.469 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.624 |
| Shapiro Wilk Test Statistic | 0.417 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 2.4784E-9 |
| Lilliefors Test Statistic | 0.39 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data not Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.754 |
| A-D Test Statistic | 3.025 |
| A-D Critical (0.05) Value | 0.749 |
| K-S Test Statistic | 0.307 |
| K-S Critical(0.05) Value | 0.191 |
| Data not Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.81 |
| Shapiro Wilk Test Statistic | 0.679 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 4.6987E-6 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Lilliefors Test Statistic | 0.243 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data not Lognormal at (0.05) Significance Level | |
| | |
| Non-parametric GOF Test Results | |
| | |
| Data do not follow a discernible distribution at (0.05) Level of Significance | |
| | |
| **Molybdenum (mw-64)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 21 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 12 |
| Minimum | 0.0042 |
| Maximum | 0.0073 |
| Mean of Raw Data | 0.00498 |
| Standard Deviation of Raw Data | 6.3531E-4 |
| Khat | 75.2 |
| Theta hat | 6.6238E-5 |
| Kstar | 64.49 |
| Theta star | 7.7239E-5 |
| Mean of Log Transformed Data | -5.309 |
| Standard Deviation of Log Transformed Data | 0.114 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.853 |
| Shapiro Wilk Test Statistic | 0.751 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 6.0569E-5 |
| Lilliefors Test Statistic | 0.27 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data not Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.874 |
| A-D Test Statistic | 1.082 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| A-D Critical (0.05) Value | 0.74 |
| K-S Test Statistic | 0.244 |
| K-S Critical(0.05) Value | 0.189 |
| Data not Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.898 |
| Shapiro Wilk Test Statistic | 0.827 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 0.00124 |
| Lilliefors Test Statistic | 0.237 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data not Lognormal at (0.05) Significance Level | |
| | |
| Non-parametric GOF Test Results | |
| | |
| Data do not follow a discernible distribution at (0.05) Level of Significance | |
| | |
| **Molybdenum (mw-65)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 21 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 16 |
| Minimum | 0.0066 |
| Maximum | 0.013 |
| Mean of Raw Data | 0.00854 |
| Standard Deviation of Raw Data | 0.00139 |
| Khat | 44.2 |
| Theta hat | 1.9318E-4 |
| Kstar | 37.92 |
| Theta star | 2.2519E-4 |
| Mean of Log Transformed Data | -4.775 |
| Standard Deviation of Log Transformed Data | 0.151 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.927 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shapiro Wilk Test Statistic | 0.876 | | | | | | | |
| Shapiro Wilk Critical (0.05) Value | 0.908 | | | | | | | |
| Approximate Shapiro Wilk P Value | 0.0103 | | | | | | | |
| Lilliefors Test Statistic | 0.159 | | | | | | | |
| Lilliefors Critical (0.05) Value | 0.188 | | | | | | | |
| Data appear Approximate Normal at (0.05) Significance Level | | | | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| Correlation Coefficient R | 0.946 | | | | | | | |
| A-D Test Statistic | 0.455 | | | | | | | |
| A-D Critical (0.05) Value | 0.741 | | | | | | | |
| K-S Test Statistic | 0.142 | | | | | | | |
| K-S Critical(0.05) Value | 0.189 | | | | | | | |
| Data appear Gamma Distributed at (0.05) Significance Level | | | | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| Correlation Coefficient R | 0.962 | | | | | | | |
| Shapiro Wilk Test Statistic | 0.937 | | | | | | | |
| Shapiro Wilk Critical (0.05) Value | 0.908 | | | | | | | |
| Approximate Shapiro Wilk P Value | 0.19 | | | | | | | |
| Lilliefors Test Statistic | 0.132 | | | | | | | |
| Lilliefors Critical (0.05) Value | 0.188 | | | | | | | |
| Data appear Lognormal at (0.05) Significance Level | | | | | | | | |
| | | | | | | | | |
| **Total Radium (mw-62)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 32 | 9 | 23 | 14 | 9 | 39.13% | | |
| | | | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD | | |
| Statistics (Non-Detects Only) | 9 | 0.6 | 0.8 | 0.656 | 0.6 | 0.0726 | | |
| Statistics (Non-Detects Only) | 14 | 0.6 | 1.9 | 1.143 | 1.05 | 0.372 | | |
| Statistics (All: NDs treated as DL value) | 23 | 0.6 | 1.9 | 0.952 | 0.9 | 0.378 | | |
| Statistics (All: NDs treated as DL/2 value) | 23 | 0.3 | 1.9 | 0.824 | 0.9 | 0.498 | | |
| Statistics (Normal ROS Imputed Data) | 23 | -0.202 | 1.9 | 0.778 | 0.9 | 0.563 | | |
| Statistics (Gamma ROS Imputed Data) | 23 | 0.0711 | 1.9 | 0.831 | 0.9 | 0.499 | | |
| Statistics (Lognormal ROS Imputed Data) | 23 | 0.339 | 1.9 | 0.889 | 0.9 | 0.436 | | |

# Appendix B
# Goodness of Fit Statistics

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 10.42 | 8.231 | 0.11 | 0.085 | 0.325 | 3.827 |
| Statistics (NDs = DL) | 7.658 | 6.688 | 0.124 | -0.116 | 0.364 | -3.147 |
| Statistics (NDs = DL/2) | 2.742 | 2.413 | 0.301 | -0.387 | 0.655 | -1.693 |
| Statistics (Gamma ROS Estimates) | 2.291 | 2.021 | 0.363 | -0.418 | 0.791 | -1.89 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -0.232 | 0.49 | -2.112 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.974 | 0.929 | 0.951 | 0.992 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.946 | 0.874 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.855 | 0.914 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.891 | 0.914 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.978 | 0.914 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.189 | 0.226 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.183 | 0.18 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.194 | 0.18 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.108 | 0.18 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.987 | 0.969 | 0.972 | 0.979 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.273 | 0.735 | |
| Kolmogorov-Smirnov (Detects Only) | 0.151 | 0.229 | Detected Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL) | 0.874 | 0.745 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.189 | 0.182 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 0.974 | 0.751 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.196 | 0.183 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 0.263 | 0.753 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.156 | 0.183 | Data Appear Gamma Distributed |

**Lognormal GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.987 | 0.957 | 0.948 | 0.987 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.971 | 0.874 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.901 | 0.914 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.878 | 0.914 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.964 | 0.914 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.136 | 0.226 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.181 | 0.18 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.192 | 0.18 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.134 | 0.18 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Total Radium (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 8 | 23 | 12 | 11 | 47.83% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 11 | 0.6 | 0.8 | 0.682 | 0.7 | 0.0751 |
| Statistics (Non-Detects Only) | 12 | 0.4 | 2.1 | 0.958 | 0.8 | 0.521 |
| Statistics (All: NDs treated as DL value) | 23 | 0.4 | 2.1 | 0.826 | 0.7 | 0.398 |
| Statistics (All: NDs treated as DL/2 value) | 23 | 0.3 | 2.1 | 0.663 | 0.4 | 0.486 |
| Statistics (Normal ROS Imputed Data) | 23 | -0.151 | 2.1 | 0.621 | 0.551 | 0.544 |
| Statistics (Gamma ROS Imputed Data) | 23 | 0.01 | 2.1 | 0.632 | 0.504 | 0.522 |
| Statistics (Lognormal ROS Imputed Data) | 23 | 0.27 | 2.1 | 0.703 | 0.56 | 0.464 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 4.447 | 3.39 | 0.215 | -0.159 | 0.49 | -3.076 |
| Statistics (NDs = DL) | 6.591 | 5.76 | 0.125 | -0.269 | 0.373 | -1.388 |
| Statistics (NDs = DL/2) | 2.796 | 2.46 | 0.237 | -0.6 | 0.589 | -0.982 |
| Statistics (Gamma ROS Estimates) | 1.161 | 1.039 | 0.544 | -0.947 | 1.334 | -1.408 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -0.509 | 0.54 | -1.062 |

**Normal GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | |
| Correlation Coefficient R | 0.916 | 0.821 | 0.86 | 0.947 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.839 | 0.859 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL) | 0.689 | 0.914 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.742 | 0.914 | Data Not Normal | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.902 | 0.914 | Data Not Normal | | |
| Lilliefors (Detects Only) | 0.286 | 0.243 | Data Not Normal | | |
| Lilliefors (NDs = DL) | 0.352 | 0.18 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.228 | 0.18 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.197 | 0.18 | Data Not Normal | | |
| | | | | | |
| **Gamma GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | 0.967 | 0.891 | 0.955 | 0.987 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | 0.502 | 0.734 | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.249 | 0.246 | Detected Data appear Approximate Gamma Distribution | | |
| Anderson-Darling (NDs = DL) | 1.951 | 0.746 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.307 | 0.182 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 1.337 | 0.751 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.238 | 0.183 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 0.568 | 0.766 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.142 | 0.186 | Data Appear Gamma Distributed | | |
| | | | | | |
| **Lognormal GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.975 | 0.913 | 0.94 | 0.975 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.949 | 0.859 | Data Appear Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.847 | 0.914 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.873 | 0.914 | Data Not Lognormal | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.946 | 0.914 | Data Appear Lognormal | | |
| Lilliefors (Detects Only) | 0.218 | 0.243 | Data Appear Lognormal | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Lilliefors (NDs = DL) | 0.277 | 0.18 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.226 | 0.18 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.125 | 0.18 | Data Appear Lognormal | | | |
| | | | | | | |
| Note: Substitution methods such as DL or DL/2 are not recommended. | | | | | | |
| | | | | | | |
| **Total Radium (mw-64)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 31 | 8 | 23 | 6 | 17 | 73.91% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 17 | 0.5 | 0.8 | 0.659 | 0.6 | 0.087 |
| Statistics (Non-Detects Only) | 6 | 0.731 | 1.7 | 1.089 | 0.8 | 0.474 |
| Statistics (All: NDs treated as DL value) | 23 | 0.5 | 1.7 | 0.771 | 0.7 | 0.306 |
| Statistics (All: NDs treated as DL/2 value) | 23 | 0.25 | 1.7 | 0.527 | 0.35 | 0.411 |
| Statistics (Normal ROS Imputed Data) | 23 | -1.621 | 1.7 | -0.128 | -0.193 | 0.903 |
| Statistics (Gamma ROS Imputed Data) | 23 | 0.01 | 1.7 | 0.325 | 0.01 | 0.522 |
| Statistics (Lognormal ROS Imputed Data) | 23 | 0.0993 | 1.7 | 0.485 | 0.338 | 0.442 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 7.134 | 3.678 | 0.153 | 0.0131 | 0.402 | 30.76 |
| Statistics (NDs = DL) | 9.993 | 8.719 | 0.0771 | -0.311 | 0.297 | -0.954 |
| Statistics (NDs = DL/2) | 2.879 | 2.532 | 0.183 | -0.823 | 0.555 | -0.674 |
| Statistics (Gamma ROS Estimates) | 0.377 | 0.357 | 0.862 | -2.886 | 2.091 | -0.725 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -1.029 | 0.774 | -0.752 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.838 | 0.758 | 0.782 | 0.984 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.681 | 0.788 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.586 | 0.914 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.617 | 0.914 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.96 | 0.914 | Data Appear Normal | | | |
| Lilliefors (Detects Only) | 0.395 | 0.325 | Data Not Normal | | | |
| Lilliefors (NDs = DL) | 0.375 | 0.18 | Data Not Normal | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Lilliefors (NDs = DL/2) | 0.361 | 0.18 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.1 | 0.18 | Data Appear Normal | | | |
| | | | | | | |
| **Gamma GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
| Correlation Coefficient R | 0.87 | 0.818 | 0.893 | 0.953 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | 1.069 | 0.698 | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.41 | 0.333 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL) | 2.693 | 0.744 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.325 | 0.182 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 2.781 | 0.751 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.337 | 0.183 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | 2.523 | 0.832 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.356 | 0.195 | Data Not Gamma Distributed | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 0.85 | 0.845 | 0.871 | 0.984 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.703 | 0.788 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL) | 0.725 | 0.914 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.757 | 0.914 | Data Not Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.961 | 0.914 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | 0.388 | 0.325 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL) | 0.297 | 0.18 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.306 | 0.18 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.1 | 0.18 | Data Appear Lognormal | | | |
| | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | |
| | | | | | | |
| **Total Radium (mw-65)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 31 | 8 | 23 | 6 | 17 | 73.91% |

# Appendix B
# Goodness of Fit Statistics

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 17 | 0.4 | 0.8 | 0.624 | 0.6 | 0.109 |
| Statistics (Non-Detects Only) | 6 | 0.478 | 1.9 | 0.98 | 0.85 | 0.504 |
| Statistics (All: NDs treated as DL value) | 23 | 0.4 | 1.9 | 0.716 | 0.6 | 0.303 |
| Statistics (All: NDs treated as DL/2 value) | 23 | 0.2 | 1.9 | 0.486 | 0.3 | 0.387 |
| Statistics (Normal ROS Imputed Data) | 23 | -0.998 | 1.9 | 0.14 | 0.137 | 0.669 |
| Statistics (Gamma ROS Imputed Data) | 23 | 0.01 | 1.9 | 0.346 | 0.181 | 0.473 |
| Statistics (Lognormal ROS Imputed Data) | 23 | 0.117 | 1.9 | 0.479 | 0.375 | 0.402 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 5.24 | 2.731 | 0.187 | -0.119 | 0.476 | -4.005 |
| Statistics (NDs = DL) | 8.829 | 7.706 | 0.0811 | -0.391 | 0.32 | -0.818 |
| Statistics (NDs = DL/2) | 2.904 | 2.554 | 0.167 | -0.903 | 0.55 | -0.608 |
| Statistics (Gamma ROS Estimates) | 0.484 | 0.45 | 0.716 | -2.379 | 1.964 | -0.826 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -0.978 | 0.678 | -0.693 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.927 | 0.804 | 0.785 | 0.981 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.873 | 0.788 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.672 | 0.914 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.634 | 0.914 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.967 | 0.914 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.239 | 0.325 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.261 | 0.18 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.327 | 0.18 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.0938 | 0.18 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.974 | 0.868 | 0.905 | 0.993 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.298 | 0.698 | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Kolmogorov-Smirnov (Detects Only) | 0.219 | 0.333 | Detected Data Appear Gamma Distributed | | | |
| Anderson-Darling (NDs = DL) | 1.532 | 0.745 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.222 | 0.182 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 2.286 | 0.751 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.288 | 0.183 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | 1.12 | 0.809 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.249 | 0.192 | Data Not Gamma Distributed | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 0.977 | 0.916 | 0.902 | 0.986 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.963 | 0.788 | Data Appear Lognormal | | | |
| Shapiro-Wilk (NDs = DL) | 0.859 | 0.914 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.82 | 0.914 | Data Not Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.973 | 0.914 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | 0.191 | 0.325 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL) | 0.211 | 0.18 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.248 | 0.18 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.096 | 0.18 | Data Appear Lognormal | | | |
| | | | | | | |
| Note: Substitution methods such as DL or DL/2 are not recommended. | | | | | | |
| | | | | | | |
| **Selenium (mw-62)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 32 | 11 | 21 | 6 | 15 | 71.43% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 15 | 5.0000E-4 | 0.005 | 0.00142 | 8.0000E-4 | 0.00129 |
| Statistics (Non-Detects Only) | 6 | 5.4000E-4 | 0.002 | 9.5667E-4 | 8.5500E-4 | 5.4032E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 5.0000E-4 | 0.005 | 0.00129 | 8.0000E-4 | 0.00113 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.0025 | 7.8048E-4 | 5.5000E-4 | 6.1264E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | -0.00109 | 0.002 | 1.7708E-4 | 1.3791E-4 | 6.9099E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 5.4000E-4 | 0.01 | 0.00742 | 0.01 | 0.00419 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 1.3163E-4 | 0.002 | 5.1790E-4 | 4.0581E-4 | 4.0971E-4 |

# Appendix B
# Goodness of Fit Statistics

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 4.863 | 2.543 | 1.9673E-4 | -7.058 | 0.48 | -0.068 |
| Statistics (NDs = DL) | 1.958 | 1.71 | 6.5748E-4 | -6.931 | 0.721 | -0.104 |
| Statistics (NDs = DL/2) | 1.996 | 1.742 | 3.9107E-4 | -7.427 | 0.755 | -0.102 |
| Statistics (Gamma ROS Estimates) | 1.387 | 1.22 | 0.00535 | -5.306 | 1.161 | -0.219 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.774 | 0.631 | -0.0812 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.87 | 0.843 | 0.902 | 0.978 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.772 | 0.788 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.72 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.815 | 0.908 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.967 | 0.908 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.346 | 0.325 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.267 | 0.188 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.217 | 0.188 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.131 | 0.188 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.937 | 0.952 | 0.978 | 0.588 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.497 | 0.698 | |
| Kolmogorov-Smirnov (Detects Only) | 0.288 | 0.333 | Detected Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL) | 1.521 | 0.754 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.214 | 0.192 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 0.875 | 0.754 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.198 | 0.192 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 4.351 | 0.761 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.456 | 0.193 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.936 | 0.923 | 0.95 | 0.985 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.881 | 0.788 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.841 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.889 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.977 | 0.908 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.26 | 0.325 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.216 | 0.188 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.208 | 0.188 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.131 | 0.188 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Selenium (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 4 | 17 | 80.95% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 17 | 5.0000E-4 | 0.005 | 0.00129 | 5.0000E-4 | 0.00125 |
| Statistics (Non-Detects Only) | 4 | 5.1000E-4 | 0.0013 | 8.1250E-4 | 7.2000E-4 | 3.4131E-4 |
| Statistics (All: NDs treated as DL value) | 21 | 5.0000E-4 | 0.005 | 0.0012 | 5.1000E-4 | 0.00114 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 2.5000E-4 | 0.0025 | 6.7857E-4 | 5.0000E-4 | 5.7860E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | -0.00111 | 0.0013 | -1.470E-5 | -2.516E-5 | 5.7433E-4 |
| Statistics (Gamma ROS Imputed Data) | 21 | 5.1000E-4 | 0.01 | 0.00825 | 0.01 | 0.0037 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 8.5481E-5 | 0.0013 | 3.6850E-4 | 2.9381E-4 | 2.7937E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 8.478 | 2.286 | 9.5831E-5 | -7.176 | 0.391 | -0.0545 |
| Statistics (NDs = DL) | 1.791 | 1.567 | 6.7126E-4 | -7.028 | 0.741 | -0.105 |
| Statistics (NDs = DL/2) | 1.853 | 1.62 | 3.6617E-4 | -7.589 | 0.765 | -0.101 |
| Statistics (Gamma ROS Estimates) | 1.831 | 1.601 | 0.0045 | -5.095 | 1.045 | -0.205 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -8.121 | 0.656 | -0.0808 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| Correlation Coefficient R | 0.935 | 0.817 | 0.87 | 0.991 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.886 | 0.748 | Data Appear Normal | | |
| Shapiro-Wilk (NDs = DL) | 0.677 | 0.908 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.763 | 0.908 | Data Not Normal | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.986 | 0.908 | Data Appear Normal | | |
| Lilliefors (Detects Only) | 0.311 | 0.375 | Data Appear Normal | | |
| Lilliefors (NDs = DL) | 0.27 | 0.188 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.247 | 0.188 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.0988 | 0.188 | Data Appear Normal | | |
| | | | | | |
| **Gamma GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | 0.976 | 0.947 | 0.969 | 0.517 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | 0.323 | 0.658 | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.281 | 0.395 | Detected Data Appear Gamma Distributed | | |
| Anderson-Darling (NDs = DL) | 2.187 | 0.756 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.294 | 0.192 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 1.54 | 0.755 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.293 | 0.192 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 5.635 | 0.755 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.506 | 0.192 | Data Not Gamma Distributed | | |
| | | | | | |
| **Lognormal GOF Test Results** | | | | | |
| | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.97 | 0.885 | 0.915 | 0.992 | |
| | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.953 | 0.748 | Data Appear Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.775 | 0.908 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.824 | 0.908 | Data Not Lognormal | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.987 | 0.908 | Data Appear Lognormal | | |
| Lilliefors (Detects Only) | 0.257 | 0.375 | Data Appear Lognormal | | |
| Lilliefors (NDs = DL) | 0.296 | 0.188 | Data Not Lognormal | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Lilliefors (NDs = DL/2) | 0.298 | 0.188 | Data Not Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.0988 | 0.188 | Data Appear Lognormal | | | | | |
| | | | | | | | | |
| Note: Substitution methods such as DL or DL/2 are not recommended. | | | | | | | | |
| | | | | | | | | |
| **Selenium (mw-64)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 1 | 20 | 95.24% | | |
| | | | | | | | | |
| Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! | | | | | | | | |
| It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Selenium (mw-64) was not processed! | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Selenium (mw-65)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 1 | 20 | 95.24% | | |
| | | | | | | | | |
| Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! | | | | | | | | |
| It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Selenium (mw-65) was not processed! | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Thallium (mw-62)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 32 | 11 | 21 | 1 | 20 | 95.24% | | |
| | | | | | | | | |
| Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! | | | | | | | | |
| It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Thallium (mw-62) was not processed! | | | | | | | | |

# Appendix B
# Goodness of Fit Statistics

**Thallium (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 10 | 21 | 2 | 19 | 90.48% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 19 | 1.0000E-4 | 0.001 | 2.6842E-4 | 1.0000E-4 | 2.9069E-4 |
| Statistics (Non-Detects Only) | 2 | 1.1000E-4 | 1.5000E-4 | 1.3000E-4 | 1.3000E-4 | 2.8284E-5 |
| Statistics (All: NDs treated as DL value) | 21 | 1.0000E-4 | 0.001 | 2.5524E-4 | 1.0000E-4 | 2.7897E-4 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 5.0000E-5 | 5.0000E-4 | 1.3381E-4 | 5.0000E-5 | 1.3804E-4 |
| Statistics (Normal ROS Imputed Data) | 21 | -2.036E-4 | 1.5000E-4 | -3.475E-5 | -3.578E-5 | 8.6020E-5 |
| Statistics (Gamma ROS Imputed Data) | 21 | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Imputed Data) | 21 | 9.6712E-6 | 1.5000E-4 | 4.4526E-5 | 3.5521E-5 | 3.3493E-5 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (NDs = DL) | 1.439 | 1.265 | 1.7742E-4 | -8.66 | 0.814 | -0.094 |
| Statistics (NDs = DL/2) | 1.505 | 1.322 | 8.8890E-5 | -9.287 | 0.815 | -0.0877 |
| Statistics (Gamma ROS Estimates) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -10.24 | 0.667 | -0.0652 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 1 | 0.785 | 0.812 | 0.994 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (NDs = DL) | 0.618 | 0.908 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.659 | 0.908 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.99 | 0.908 | Data Appear Normal |
| Lilliefors (Detects Only) | N/A | N/A | |
| Lilliefors (NDs = DL) | 0.318 | 0.188 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.3 | 0.188 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.0883 | 0.188 | Data Appear Normal |

**Gamma GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
|---|---|---|---|---|---|---|
| Correlation Coefficient R | N/A | 0.927 | 0.94 | 0.372 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | N/A | N/A | | | | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | | | | |
| Anderson-Darling (NDs = DL) | 2.971 | 0.76 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.342 | 0.193 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 2.351 | 0.758 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.344 | 0.193 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | N/A | 0.74 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | N/A | 0.189 | | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 1 | 0.846 | 0.876 | N/A | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (NDs = DL) | 0.707 | 0.908 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.755 | 0.908 | Data Not Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.99 | 0.908 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | N/A | N/A | | | | |
| Lilliefors (NDs = DL) | 0.331 | 0.188 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.347 | 0.188 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.0883 | 0.188 | Data Appear Lognormal | | | |
| | | | | | | |
| Note: Substitution methods such as DL or DL/2 are not recommended. | | | | | | |
| | | | | | | |
| **Thallium (mw-64)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 31 | 10 | 21 | 11 | 10 | 47.62% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 10 | 1.0000E-4 | 0.001 | 3.3000E-4 | 3.0000E-4 | 2.8304E-4 |
| Statistics (Non-Detects Only) | 11 | 1.1000E-4 | 4.1000E-4 | 1.5545E-4 | 1.2000E-4 | 8.8359E-5 |
| Statistics (All: NDs treated as DL value) | 21 | 1.0000E-4 | 0.001 | 2.3857E-4 | 1.3000E-4 | 2.1894E-4 |
| Statistics (All: NDs treated as DL/2 value) | 21 | 5.0000E-5 | 5.0000E-4 | 1.6000E-4 | 1.2000E-4 | 1.1375E-4 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Statistics (Normal ROS Imputed Data) | 21 | -5.782E-5 | 4.1000E-4 | 1.0786E-4 | 1.1000E-4 | 9.2942E-5 |
| Statistics (Gamma ROS Imputed Data) | 21 | 1.1000E-4 | 0.01 | 0.00484 | 4.1000E-4 | 0.00504 |
| Statistics (Lognormal ROS Imputed Data) | 21 | 5.0905E-5 | 4.1000E-4 | 1.2531E-4 | 1.1224E-4 | 7.3136E-5 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 5.741 | 4.236 | 2.7079E-5 | -8.859 | 0.393 | -0.0443 |
| Statistics (NDs = DL) | 2.016 | 1.76 | 1.1832E-4 | -8.609 | 0.687 | -0.0798 |
| Statistics (NDs = DL/2) | 2.673 | 2.323 | 5.9863E-5 | -8.939 | 0.638 | -0.0714 |
| Statistics (Gamma ROS Estimates) | 0.432 | 0.402 | 0.0112 | -6.833 | 2.194 | -0.321 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -9.088 | 0.432 | -0.0476 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.731 | 0.807 | 0.882 | 0.901 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.56 | 0.85 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.664 | 0.908 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.785 | 0.908 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.837 | 0.908 | Data Not Normal | | | |
| Lilliefors (Detects Only) | 0.343 | 0.251 | Data Not Normal | | | |
| Lilliefors (NDs = DL) | 0.284 | 0.188 | Data Not Normal | | | |
| Lilliefors (NDs = DL/2) | 0.223 | 0.188 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.215 | 0.188 | Data Not Normal | | | |
| | | | | | | |
| **Gamma GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
| Correlation Coefficient R | 0.828 | 0.931 | 0.959 | 0.645 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | 1.683 | 0.731 | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.335 | 0.256 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL) | 1.977 | 0.754 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.276 | 0.192 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 0.709 | 0.751 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.167 | 0.191 | Data Appear Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | 3.26 | 0.819 | | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.324 | 0.202 | Data Not Gamma Distributed | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | | |
| Correlation Coefficient R | 0.812 | 0.903 | 0.966 | 0.934 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.678 | 0.85 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.809 | 0.908 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.927 | 0.908 | Data Appear Lognormal | | | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.892 | 0.908 | Data Not Lognormal | | | | | |
| Lilliefors (Detects Only) | 0.317 | 0.251 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL) | 0.261 | 0.188 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL/2) | 0.153 | 0.188 | Data Appear Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.19 | 0.188 | Data Not Lognormal | | | | | |
| | | | | | | | | |
| Note: Substitution methods such as DL or DL/2 are not recommended. | | | | | | | | |
| | | | | | | | | |
| **Thallium (mw-65)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 31 | 10 | 21 | 1 | 20 | 95.24% | | |
| | | | | | | | | |
| Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set! | | | | | | | | |
| It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV). | | | | | | | | |
| | | | | | | | | |
| The data set for variable Thallium (mw-65) was not processed! | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | **Goodness-of-Fit Test Statistics for Data Sets with Non-Detects** | | | | | | | |
| **User Selected Options** | | | | | | | | |
| Date/Time of Computation | ProUCL 5.13/24/2024 7:45:20 PM | | | | | | | |
| From File | FC_CWTP_AppxIV_ProUCL_Upload_20240312.xls | | | | | | | |
| Full Precision | OFF | | | | | | | |
| Confidence Coefficient | 0.95 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Fluoride (mw-62)** | | | | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| **Raw Statistics** | |
| Number of Valid Observations | 31 |
| Number of Missing Observations | 1 |
| Number of Distinct Observations | 7 |
| Minimum | 1.2 |
| Maximum | 3.3 |
| Mean of Raw Data | 1.555 |
| Standard Deviation of Raw Data | 0.369 |
| Khat | 26.17 |
| Theta hat | 0.0594 |
| Kstar | 23.66 |
| Theta star | 0.0657 |
| Mean of Log Transformed Data | 0.422 |
| Standard Deviation of Log Transformed Data | 0.185 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.757 |
| Shapiro Wilk Test Statistic | 0.608 |
| Shapiro Wilk Critical (0.05) Value | 0.929 |
| Approximate Shapiro Wilk P Value | 3.2228E-9 |
| Lilliefors Test Statistic | 0.322 |
| Lilliefors Critical (0.05) Value | 0.156 |
| Data not Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.796 |
| A-D Test Statistic | 2.464 |
| A-D Critical (0.05) Value | 0.745 |
| K-S Test Statistic | 0.287 |
| K-S Critical(0.05) Value | 0.157 |
| Data not Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.855 |
| Shapiro Wilk Test Statistic | 0.76 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Shapiro Wilk Critical (0.05) Value | 0.929 |
| Approximate Shapiro Wilk P Value | 2.7596E-6 |
| Lilliefors Test Statistic | 0.269 |
| Lilliefors Critical (0.05) Value | 0.156 |
| Data not Lognormal at (0.05) Significance Level | |
| | |
| Non-parametric GOF Test Results | |
| | |
| Data do not follow a discernible distribution at (0.05) Level of Significance | |
| | |
| Fluoride (mw-63) | |
| | |
| Raw Statistics | |
| Number of Valid Observations | 30 |
| Number of Missing Observations | 1 |
| Number of Distinct Observations | 10 |
| Minimum | 0.28 |
| Maximum | 2.5 |
| Mean of Raw Data | 1.899 |
| Standard Deviation of Raw Data | 0.374 |
| Khat | 12.17 |
| Theta hat | 0.156 |
| Kstar | 10.98 |
| Theta star | 0.173 |
| Mean of Log Transformed Data | 0.6 |
| Standard Deviation of Log Transformed Data | 0.37 |
| | |
| Normal GOF Test Results | |
| | |
| Correlation Coefficient R | 0.844 |
| Shapiro Wilk Test Statistic | 0.749 |
| Shapiro Wilk Critical (0.05) Value | 0.927 |
| Approximate Shapiro Wilk P Value | 2.3943E-6 |
| Lilliefors Test Statistic | 0.195 |
| Lilliefors Critical (0.05) Value | 0.159 |
| Data not Normal at (0.05) Significance Level | |
| | |
| Gamma GOF Test Results | |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Correlation Coefficient R | 0.807 |
| A-D Test Statistic | 3.944 |
| A-D Critical (0.05) Value | 0.745 |
| K-S Test Statistic | 0.281 |
| K-S Critical(0.05) Value | 0.16 |
| Data not Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.646 |
| Shapiro Wilk Test Statistic | 0.457 |
| Shapiro Wilk Critical (0.05) Value | 0.927 |
| Approximate Shapiro Wilk P Value | 2.558E-11 |
| Lilliefors Test Statistic | 0.33 |
| Lilliefors Critical (0.05) Value | 0.159 |
| Data not Lognormal at (0.05) Significance Level | |
| | |
| Non-parametric GOF Test Results | |
| | |
| Data do not follow a discernible distribution at (0.05) Level of Significance | |
| | |
| **Fluoride (mw-64)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 31 |
| Number of Distinct Observations | 4 |
| Minimum | 1.3 |
| Maximum | 1.6 |
| Mean of Raw Data | 1.448 |
| Standard Deviation of Raw Data | 0.0811 |
| Khat | 328.9 |
| Theta hat | 0.0044 |
| Kstar | 297.1 |
| Theta star | 0.00487 |
| Mean of Log Transformed Data | 0.369 |
| Standard Deviation of Log Transformed Data | 0.0561 |
| | |
| **Normal GOF Test Results** | |
| | |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Correlation Coefficient R | 0.935 |
| Shapiro Wilk Test Statistic | 0.866 |
| Shapiro Wilk Critical (0.05) Value | 0.929 |
| Approximate Shapiro Wilk P Value | 8.8283E-4 |
| Lilliefors Test Statistic | 0.241 |
| Lilliefors Critical (0.05) Value | 0.156 |

Data not Normal at (0.05) Significance Level

**Gamma GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.935 |
| A-D Test Statistic | 1.998 |
| A-D Critical (0.05) Value | 0.745 |
| K-S Test Statistic | 0.24 |
| K-S Critical(0.05) Value | 0.157 |

Data not Gamma Distributed at (0.05) Significance Level

**Lognormal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.934 |
| Shapiro Wilk Test Statistic | 0.865 |
| Shapiro Wilk Critical (0.05) Value | 0.929 |
| Approximate Shapiro Wilk P Value | 8.6415E-4 |
| Lilliefors Test Statistic | 0.235 |
| Lilliefors Critical (0.05) Value | 0.156 |

Data not Lognormal at (0.05) Significance Level

Non-parametric GOF Test Results

Data do not follow a discernible distribution at (0.05) Level of Significance

**Fluoride (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 31 | 0 | 31 | 30 | 1 | 3.23% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1 | 2 | 2 | 2 | 2 | N/A |
| Statistics (Non-Detects Only) | 30 | 1.4 | 2.1 | 1.843 | 1.9 | 0.192 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (All: NDs treated as DL value) | 31 | 1.4 | 2.1 | 1.848 | 1.9 | 0.191 | | |
| Statistics (All: NDs treated as DL/2 value) | 31 | 1 | 2.1 | 1.816 | 1.9 | 0.242 | | |
| Statistics (Normal ROS Imputed Data) | 31 | 1.4 | 2.1 | 1.84 | 1.9 | 0.19 | | |
| Statistics (Gamma ROS Imputed Data) | 31 | 1.4 | 2.1 | 1.84 | 1.9 | 0.19 | | |
| Statistics (Lognormal ROS Imputed Data) | 31 | 1.4 | 2.1 | 1.84 | 1.9 | 0.19 | | |
| | | | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV | | |
| Statistics (Non-Detects Only) | 88.94 | 80.07 | 0.0207 | 0.606 | 0.11 | 0.181 | | |
| Statistics (NDs = DL) | 90.14 | 81.44 | 0.0205 | 0.609 | 0.109 | 0.179 | | |
| Statistics (NDs = DL/2) | 48.66 | 43.97 | 0.0373 | 0.586 | 0.153 | 0.261 | | |
| Statistics (Gamma ROS Estimates) | 91.01 | 82.23 | 0.0202 | 0.604 | 0.108 | 0.179 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | 0.604 | 0.108 | 0.18 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.946 | 0.941 | 0.917 | 0.952 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.886 | 0.927 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.876 | 0.929 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.849 | 0.929 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.896 | 0.929 | Data Not Normal | | | | | |
| Lilliefors (Detects Only) | 0.192 | 0.159 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL) | 0.205 | 0.156 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.184 | 0.156 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.187 | 0.156 | Data Not Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | 0.933 | 0.927 | 0.894 | 0.939 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | 1.465 | 0.745 | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.193 | 0.16 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL) | 1.648 | 0.745 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.206 | 0.157 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 1.792 | 0.744 | | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Kolmogorov-Smirnov (NDs = DL/2) | 0.204 | 0.157 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | 1.343 | 0.745 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.187 | 0.157 | Data Not Gamma Distributed | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 0.936 | 0.93 | 0.876 | 0.942 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.868 | 0.927 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL) | 0.858 | 0.929 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.783 | 0.929 | Data Not Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.879 | 0.929 | Data Not Lognormal | | | |
| Lilliefors (Detects Only) | 0.195 | 0.159 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL) | 0.2 | 0.156 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.213 | 0.156 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.185 | 0.156 | Data Not Lognormal | | | |
| | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | |
| | | | | | | |
| **Molybdenum (mw-62)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 32 | 12 | 20 | 19 | 1 | 5.00% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 1 | 0.002 | 0.002 | 0.002 | 0.002 | N/A |
| Statistics (Non-Detects Only) | 19 | 0.0012 | 0.0044 | 0.003 | 0.003 | 6.8557E-4 |
| Statistics (All: NDs treated as DL value) | 20 | 0.0012 | 0.0044 | 0.00295 | 0.00295 | 7.0375E-4 |
| Statistics (All: NDs treated as DL/2 value) | 20 | 0.001 | 0.0044 | 0.0029 | 0.00295 | 8.0328E-4 |
| Statistics (Normal ROS Imputed Data) | 20 | 0.0012 | 0.0044 | 0.00293 | 0.00295 | 7.2803E-4 |
| Statistics (Gamma ROS Imputed Data) | 20 | 0.0012 | 0.01 | 0.00335 | 0.003 | 0.0017 |
| Statistics (Lognormal ROS Imputed Data) | 20 | 0.0012 | 0.0044 | 0.00294 | 0.00295 | 7.1914E-4 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 16.98 | 14.33 | 1.7673E-4 | -5.839 | 0.268 | -0.0458 |
| Statistics (NDs = DL) | 15.93 | 13.57 | 1.8523E-4 | -5.858 | 0.274 | -0.0467 |
| Statistics (NDs = DL/2) | 10.31 | 8.796 | 2.8131E-4 | -5.892 | 0.353 | -0.06 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (Gamma ROS Estimates) | 6.539 | 5.592 | 5.1229E-4 | -5.777 | 0.379 | -0.0657 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -5.863 | 0.282 | -0.0481 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.937 | 0.955 | 0.938 | 0.955 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.9 | 0.901 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.928 | 0.905 | Data Appear Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.892 | 0.905 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.925 | 0.905 | Data Appear Normal | | | | | |
| Lilliefors (Detects Only) | 0.179 | 0.197 | Data Appear Normal | | | | | |
| Lilliefors (NDs = DL) | 0.166 | 0.192 | Data Appear Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.202 | 0.192 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.173 | 0.192 | Data Appear Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | 0.935 | 0.95 | 0.92 | 0.814 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | 1.045 | 0.741 | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.207 | 0.198 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL) | 0.856 | 0.741 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.196 | 0.194 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 1.507 | 0.742 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.251 | 0.194 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 1.935 | 0.744 | | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.244 | 0.194 | Data Not Gamma Distributed | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | | |
| Correlation Coefficient R | 0.88 | 0.911 | 0.869 | 0.913 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.804 | 0.901 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.853 | 0.905 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.77 | 0.905 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.855 | 0.905 | Data Not Lognormal | | | | | |
| Lilliefors (Detects Only) | 0.231 | 0.197 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL) | 0.218 | 0.192 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL/2) | 0.275 | 0.192 | Data Not Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.227 | 0.192 | Data Not Lognormal | | | | | |
| | | | | | | | | |
| Note: Substitution methods such as DL or DL/2 are not recommended. | | | | | | | | |
| | | | | | | | | |
| **Molybdenum (mw-63)** | | | | | | | | |
| | | | | | | | | |
| **Raw Statistics** | | | | | | | | |
| Number of Valid Observations | 20 | | | | | | | |
| Number of Missing Observations | 11 | | | | | | | |
| Number of Distinct Observations | 14 | | | | | | | |
| Minimum | 0.0019 | | | | | | | |
| Maximum | 0.0058 | | | | | | | |
| Mean of Raw Data | 0.00281 | | | | | | | |
| Standard Deviation of Raw Data | 8.4882E-4 | | | | | | | |
| Khat | 15.13 | | | | | | | |
| Theta hat | 1.8542E-4 | | | | | | | |
| Kstar | 12.89 | | | | | | | |
| Theta star | 2.1758E-4 | | | | | | | |
| Mean of Log Transformed Data | -5.91 | | | | | | | |
| Standard Deviation of Log Transformed Data | 0.251 | | | | | | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| Correlation Coefficient R | 0.86 | | | | | | | |
| Shapiro Wilk Test Statistic | 0.762 | | | | | | | |
| Shapiro Wilk Critical (0.05) Value | 0.905 | | | | | | | |
| Approximate Shapiro Wilk P Value | 1.1149E-4 | | | | | | | |
| Lilliefors Test Statistic | 0.195 | | | | | | | |
| Lilliefors Critical (0.05) Value | 0.192 | | | | | | | |
| Data not Normal at (0.05) Significance Level | | | | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Correlation Coefficient R | 0.904 |
| A-D Test Statistic | 0.77 |
| A-D Critical (0.05) Value | 0.741 |
| K-S Test Statistic | 0.181 |
| K-S Critical(0.05) Value | 0.194 |
| Data follow Appr. Gamma Distribution at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.94 |
| Shapiro Wilk Test Statistic | 0.898 |
| Shapiro Wilk Critical (0.05) Value | 0.905 |
| Approximate Shapiro Wilk P Value | 0.0361 |
| Lilliefors Test Statistic | 0.167 |
| Lilliefors Critical (0.05) Value | 0.192 |
| Data appear Approximate_Lognormal at (0.05) Significance Level | |
| | |
| **Molybdenum (mw-64)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 21 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 12 |
| Minimum | 0.0042 |
| Maximum | 0.0073 |
| Mean of Raw Data | 0.00498 |
| Standard Deviation of Raw Data | 6.3531E-4 |
| Khat | 75.2 |
| Theta hat | 6.6238E-5 |
| Kstar | 64.49 |
| Theta star | 7.7239E-5 |
| Mean of Log Transformed Data | -5.309 |
| Standard Deviation of Log Transformed Data | 0.114 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.853 |
| Shapiro Wilk Test Statistic | 0.751 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 6.0569E-5 |
| Lilliefors Test Statistic | 0.27 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data not Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.874 |
| A-D Test Statistic | 1.082 |
| A-D Critical (0.05) Value | 0.74 |
| K-S Test Statistic | 0.244 |
| K-S Critical(0.05) Value | 0.189 |
| Data not Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.898 |
| Shapiro Wilk Test Statistic | 0.827 |
| Shapiro Wilk Critical (0.05) Value | 0.908 |
| Approximate Shapiro Wilk P Value | 0.00124 |
| Lilliefors Test Statistic | 0.237 |
| Lilliefors Critical (0.05) Value | 0.188 |
| Data not Lognormal at (0.05) Significance Level | |
| | |
| Non-parametric GOF Test Results | |
| | |
| Data do not follow a discernible distribution at (0.05) Level of Significance | |
| | |
| **Molybdenum (mw-65)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 19 |
| Number of Missing Observations | 12 |
| Number of Distinct Observations | 14 |
| Minimum | 0.0066 |
| Maximum | 0.0098 |
| Mean of Raw Data | 0.00823 |
| Standard Deviation of Raw Data | 9.0667E-4 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Khat | 86.43 |
| Theta hat | 9.5179E-5 |
| Kstar | 72.82 |
| Theta star | 1.1297E-4 |
| Mean of Log Transformed Data | -4.806 |
| Standard Deviation of Log Transformed Data | 0.111 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.988 |
| Shapiro Wilk Test Statistic | 0.968 |
| Shapiro Wilk Critical (0.05) Value | 0.901 |
| Approximate Shapiro Wilk P Value | 0.751 |
| Lilliefors Test Statistic | 0.11 |
| Lilliefors Critical (0.05) Value | 0.197 |
| Data appear Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.987 |
| A-D Test Statistic | 0.267 |
| A-D Critical (0.05) Value | 0.739 |
| K-S Test Statistic | 0.117 |
| K-S Critical(0.05) Value | 0.198 |
| Data appear Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.988 |
| Shapiro Wilk Test Statistic | 0.968 |
| Shapiro Wilk Critical (0.05) Value | 0.901 |
| Approximate Shapiro Wilk P Value | 0.764 |
| Lilliefors Test Statistic | 0.11 |
| Lilliefors Critical (0.05) Value | 0.197 |
| Data appear Lognormal at (0.05) Significance Level | |

# APPENDIX

# K

## CCR GROUNDWATER ASSESSMENT MONITORING STATISTICAL ANALYSIS AND RESULTS FOR THE CWTP APPENDIX IV CONSTITUENT DATA COLLECTED THROUGH MAY 2024

# TECHNICAL MEMORANDUM

| | | | |
|---|---|---|---|
| To: | Arizona Public Service Company | Project No. | US0023513.6155-US-2024 APS FC CCR Compliance SVC |
| By: | Samantha O'Shea | Reviewed by: | Maren Henley, PE |
| Tel: | 602-733-6000 | CC: | File |
| Date: | November 25, 2024 | | |
| **Re:** | CCR GROUNDWATER ASSESSMENT MONITORING<br>STATISTICAL ANALYSIS AND RESULTS FOR THE CWTP<br>APPENDIX IV CONSTITUENT DATA COLLECTED THROUGH MAY 2024<br>Arizona Public Service Company Four Corners Power Plant – Fruitland, New Mexico | | |

## 1.0 INTRODUCTION

This Technical Memorandum presents the results of a statistical evaluation of groundwater monitoring data collected from monitoring wells downgradient of the Combined Waste Treatment Pond (CWTP) located at the Arizona Public Service Company (APS) Four Corners Power Plant (Site) in Fruitland, New Mexico. The statistical evaluation was performed by Geosciences Consulting Strategies, LLC (Geosciences Consulting), a subcontractor to WSP USA Environment and Infrastructure, Inc. (WSP) pursuant to Coal Combustion Residuals (CCR) Rule requirements for groundwater monitoring and corrective action detailed in 40 Code of Federal Regulations Sections 257.90 through 257.98 (CCR Rule) (Federal Register, 2020).

The statistical analysis documented herein presents an evaluation of assessment monitoring (i.e., Appendix IV constituent) groundwater data collected from the CWTP to date. Statistically significant increases (SSIs) over background concentrations were declared on April 10, 2023 at CWTP monitoring well, MW-62 for two detection monitoring constituents (boron and calcium). CWTP downgradient compliance wells include MW-62, MW-63, MW-64, and MW-65 and CWTP background wells include MW-71, MW-72, and MW-73 during the May 2024 semi-annual sampling event. The statistical evaluation was performed using the results of 8 subsequent semi-annual sampling rounds conducted from October 2017 to May 2024 (Attachment A). Groundwater concentrations are then compared to the CWTP's groundwater protection standards (GWPSs) established in the October 2023 CWTP statistical evaluation (WSP, 2023c). Details of the results of the statistical evaluation are presented in Section 2.0.

## 2.0 STATISTICAL EVALUATION RESULTS

Attachment A presents the statistical evaluation of Appendix IV constituents performed by Geosciences Consulting. The results of the evaluation are summarized as follows:

- This statistical evaluation indicates there is insufficient evidence to declare statistically significant levels (SSLs) in Appendix IV constituent concentrations above respective GWPSs at the CWTP.
- The antimony laboratory reporting limit (RL) during the May 2024 sampling event was elevated at a concentration of less than (<) 0.01 mg/L which is above the GWPS of 0.006 mg/L.

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- Several compliance monitoring wells exhibit statistically significant ($p < 0.05$) temporal trends as follows:
    - Increasing temporal trends are evident at downgradient wells MW-62 for detections of arsenic and at MW-65 for detections of barium and cobalt.
    - Decreasing temporal trends are evident at downgradient wells MW-62 for detections of barium and molybdenum, MW-63 for detections of cobalt, MW-64 for detections of barium and molybdenum, and MW-65 for detections of fluoride and molybdenum.

## 3.0 RECOMMENDATIONS

Based on the statistical evaluation presented in Attachment A and pursuant to the CCR Rule, the CWTP should remain in assessment monitoring until criteria under §257.95(e) of the CCR Rule are met (Federal Register, 2020).

In light of the number of recent occurrences of laboratory sample dilutions and elevated reporting limits for other CCR units (WSP, 2023b and WSP, 2024), WSP recommends verifying all reporting limits (RLs) upon sampling receipt for future monitoring events. If the appropriate RL can not be met, re-analysis or re-sampling may be necessary. All RLs need to be at or below the respective GWPSs. If the laboratory can not meet the required detection limit (e.g; the RL) and the result is reported as non-detect; then the detection limit is evaluated during the statistical analysis to determine if it is an outlier within the dataset. The statistical evaluation requires consistency when comparing non-detect values. Changes in detection limits are evaluated on a case by case basis and if the detection limit is continually required as the limit of detection to achieve analyte concentrations at or below the GWPS, then the GWPS determination will be reevaluated to ensure the GWPS is set at the appropriate value based on the changes in the laboratory detection limit. This re-evaluation will support that the laboratory can effectively achieve detection limits at or below the GWPS in cases where the sample is not detected and the GWPS is set at the detection limit where no United States Environmental Protection Agency (US EPA) maximum contaminant level (MCL) is established.

WSP recommends performing continued trend testing after each monitoring event and updates to the BTVs every 2 to 3 years.

## 4.0 REFERENCES


- Federal Register, 2020. 40 Code of Federal Regulations Part 257 – Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities; Final Rule promulgated at 80 FR 21468 on April 17, 2015 with amendments issued through November 12, 2020 at 85 FR 72539 (A Holistic Approach to Closure Part B: Alternate Demonstration for Unlined Surface Impoundments).
- United States Environmental Protection Agency (USEPA), 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance. EPA 530/R-09-007*. Environmental Protection Agency Office of Resource Conservation and Recovery.
- Wood, 2022. Alternative Source Demonstration for Boron and pH at the CWTP. Arizona Public Service Company Four Corners Power Plant. Fruitland, New Mexico. Prepared on behalf of APS. Report dated January 11, 2022.
- WSP USA Environment & Infrastructure, Inc. (WSP), 2023a. *Statistical Data Analysis Work Plan*. Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Four Corners Power Plant, Fruitland, New Mexico. Prepared for Arizona Public Service. January 10, 2023.

- WSP, 2023b. CCR Groundwater Assessment Monitoring. Technical Evaluation of Laboratory Split Sampling Data Collected from Four Corners and Cholla Power Plants, Four Corners Power Plant, Fruitland, New Mexico. Arizona Public Service Company Cholla Power Plant – Navajo County, Arizona. Prepared for Arizona Public Service. January 30, 2023.
- WSP, 2023c. CCR Groundwater Assessment Monitoring Statistical Analysis and Results for the CWTP Appendix IV Constituent Data Collected through June 2023. Arizona Public Service Company Four Corners Power Plant - Fruitland, New Mexico. Prepared for Arizona Public Service. October 9, 2023.
- WSP 2024. CCR Groundwater Assessment Monitoring. Technical Evaluation of Laboratory Analytical Method Split Sampling Data for Fluoride Collected from Four Corners and Cholla Power Plants. Arizona Public Service Company Four Corners Power Plant - Fruitland, New Mexico. Arizona Public Service Company Cholla Power Plant – Navajo County, Arizona. Prepared for Arizona Public Service. December 2, 2024.

# ATTACHMENT A

## CCR GROUNDWATER ASSESSMENT MONITORING STATISTICAL EVALUATION OF CWTP DATA–

GEOSCIENCE CONSULTING STRATERGIES LLC

# Technical Memorandum

**To:** Maren Henley, PE
Wood Environment & Infrastructure Solutions, Inc.

**From:** Carla Landrum, PhD, PG
Geoscience Consulting Strategies LLC

**Date:** October 25, 2024

**Subject:** **CCR Groundwater Assessment Monitoring**
**Statistical Evaluation of CWTP Data through May 2024**
**Arizona Public Service Company Four Corners Power Plant – Fruitland, New Mexico**

## 1.0 INTRODUCTION

This Technical Memorandum (Tech Memo) documents the statistical evaluation of assessment monitoring (i.e., Appendix IV constituents) groundwater data associated with the Combined Waste Treatment Pond (CWTP) unit located at the Arizona Public Service Company (APS) Four Corners Power Plant (FCPP) in Fruitland, New Mexico. This statistical evaluation is completed by Geoscience Consulting Strategies LLC in accordance with the Statistical Data Analysis Work Plan (SDAWP) for the FCPP and the Coal Combustion Residuals (CCR) Rule (Federal Register, 2020; WSP USA Environment & Infrastructure Inc (WSP), 2023a).

On 10 April 2023 APS declared a statistically significant increase for two detection monitoring (i.e., Appendix III) constituents (boron and calcium) at the CWTP. Per the CCR Rule, within 90 days of this declaration APS initiated an assessment monitoring program for the CWTP.

This statistical evaluation incorporates the May 2024 semiannual assessment monitoring at the CWTP. The following sections present data inputs, statistical methods, results and recommendations for the subject analysis.

## 2.0 DATA INPUTS

The CWTP groundwater monitoring well network consists of three background monitoring wells (MW-71, MW-72, and MW-73) and four compliance (i.e., downgradient) monitoring wells (MW-62, MW-63, MW-64 and MW-65). The period of evaluation for the CWTP Appendix IV constituent statistical analysis ranges from November 2015 through May 2024 and includes the minimum of eight initial, or baseline, sampling rounds required by the CCR Rule and eight subsequent sampling rounds for Appendix IV groundwater constituents that occur on a semi-annual frequency (spanning from October 2017 to May 2024, as shown in the table inset below). Due principally to the CCR Rule requirement that a minimum of eight initial rounds of data be collected from the site prior to October 17, 2017, the frequency of sample collection prior to this date is short and variable (e.g., biweekly to quarterly sampling).

| CWTP Appendix IV Sampling Round | Date |
|---|---|
| 1st | October 2017 |
| 2nd | April 2021 |
| 3rd | November 2021 |
| 4th | May 2022 |
| 5th | November 2022 |
| 6th | May/June 2023 |
| 7th | November 2023 |
| 8th | May 2024 |

Depending on the Appendix IV constituent, the minimal sample numbers in this statistical evaluation ranges between 22 to 33. Appendix A contains the sample data for the subject analysis. Data inputs for this statistical analysis were prepared, and provided by, WSP. The Appendix IV analytes are listed by name or chemical symbol as column headers in the ProUCL data upload table. By ProUCL convention, each analyte has a corresponding data column (indicated with a "D_" prefix) that indicates if the analyte was detected or not at a concentration that exceeds the analytical reporting limit, where detectable concentrations are symbolized by a "1" and non-detectable concentrations are symbolized by a "0."

## 3.0 METHODS

The methods applied in this statistical analysis were performed in accordance with the Four Corners SDAWP (WSP, 2023a) and the Groundwater Protection Standards (GWPSs) established in October 2023 (WSP, 2023b). Table 1 summarizes the GWPSs for the CWTP Appendix IV constituents and their respective method of calculation. The GWPS constitutes either: 1) the statistically calculated BTV, 2) the U.S. EPA's promulgated Maximum Contaminant Level (MCL) (40 CFR. Part 141), or 3) the risk-based alternative GWPS identified for constituents without MCLs (40 CFR 257.95(h)(2)), whichever value is highest.

Assessment monitoring, unlike detection monitoring, does not compare individual sample observations to a GWPS. To determine CWTP compliance under assessment monitoring, the Appendix IV sample data from downgradient compliance wells are statistically compared to respective GWPSs using confidence intervals. Confidence intervals are a recommended approach for comparing compliance well (i.e., downgradient) data to a GWPS during assessment monitoring or corrective action (U.S. EPA, 2009). In this case, the central tendency of the sample population is the parameter of interest, consisting of the mean or median. The confidence interval surrounding the central tendency accounts for both the level of statistical variation in the data and the desired confidence level. For this statistical analysis, the lower limit of the confidence interval is the parameter of interest and reflects the lowest concentration boundary beyond which the true central tendency of the downgradient sample data is not expected to reside. The lower confidence limit (LCL) for each Appendix IV constituent is compared to its respective GWPS to assess if the lower limit exceeds the GWPS and, if so, declares constituent concentrations at a statistically significant level (SSL) above the GWPS.

In cases where the background non-detection frequency is equal to 100% (e.g., mercury at the CWTP), the U.S. EPA's Unified Guidance (2009) and the SDAWP (WSP, 2023a) promote the use of the Double Quantification Rule (DQR). The DQR is appropriate when the analyte exhibits 100% non-detectable concentrations in the background data set. The DQR states that, for any given compliance well analyte, two consecutive detectable concentrations that are above the maximum reporting limit are sufficient evidence to declare an SSL.

Each compliance well analyte underwent Exploratory Data Analysis (EDA) to assess the sample data for outliers and statistically significant ($p<0.05$) increasing or decreasing temporal trends. The EDA process also identified which statistical distribution the sample data best fit to select an appropriate statistical comparison (e.g. parametric versus non-parametric) to the GWPS (WSP, 2023a).

Results from this statistical evaluation are discussed below.

## 4.0 Results

Table 2 summarizes: 1) the LCL value for each constituent in each well, 2) which compliance wells exhibit statistically significant temporal trends and 3) the type of LCL test applied

This statistical evaluation indicates there is insufficient evidence to declare Appendix IV concentrations observed at the CWTP are above their respective GWPS at SSLs.

Several compliance monitoring wells exhibit statistically significant ($p<0.05$) temporal trends when incorporating the May 2024 data. Arsenic (MW-62), barium (MW-65) and cobalt (MW-65) demonstrate statistically significant ($p<0.05$) increasing trends during the May 2024 sampling period.
Notably, arsenic concentrations in MW-62 have increased to concentrations near, but not exceeding, the GWPS of 0.013 mg/L in the five most recent sampling events. Barium (MW-62), cobalt (MW-63), fluoride (MW-64 and MW-65) and molybdenum (MW-62, MW-64 and MW-65) demonstrate statistically significant ($p<0.05$) decreasing trends.

## 5.0 Recommendations

Based on the results of this statistical analysis, the CWTP should remain in assessment monitoring until criteria under §257.95(e) of the CCR Rule are met. When the criteria under §257.95(e) are met, the CWTP can return to detection monitoring. While criteria have been met under §257.95(e) for most Appendix IV constituents, the reporting limit for antimony did exceed the GWPS for this constituent for the May 2024 sampling event. No reporting limit should exceed respective GWPSs.

Further, mercury is a constituent subject to the DQR. Because mercury has generally been reported with concentrations below the detection limit, the DQR requires resampling in the case a sample concentration is detected in a compliance well. It is recommended to resample a compliance well if mercury is detected in the well. The resample event should follow the sample event that produced the detectable concentration and before the next scheduled monitoring event. The Unified Guidance (US EPA, 2009) suggests resampling within 1-2 months following the detected concentration and it is recommended to resample as soon as possible within this timeframe. If the resample event results in a detectable concentration, there is sufficient evidence to declare a SSL above the GWPS.

Finally, when submitting future ProUCL data upload tables (i.e., Appendix A), it is recommended to describe if the reporting limit or method detection limit is used to define the detection status of a sample result and

define the value of this limit. Changing the method of determining "detection limit" may affect the resulting statistical analysis and BTV determination.

## 6.0 REFERENCES

Federal Register, 2020. 40 Code of Federal Regulations Part 257 – Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule promulgated at 80 FR 21468 on April 17, 2015 with amendments issued through November 12, 2020 at 85 FR 72539 (A Holistic Approach to Closure Part B: Alternate Demonstration for Unlined Surface Impoundments).

WSP USA Environment & Infrastructure Inc (WSP), 2023a. *Statistical Data Analysis Work Plan*. Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Four Corners Power Plant, Fruitland, New Mexico. Prepared for Arizona Public Service. January 10, 2023.

WSP USA Environment & Infrastructure Inc (WSP), 2023b. *CCR Groundwater Assessment Monitoring Statistical Analysis and Results for the CWTP Appendix IV Constituent Data Collected through June 2023*. Arizona Public Service Company Four Corners Power Plant - Fruitland, New Mexico. Prepared for Arizona Public Service. October 9, 2023.

United States Environmental Protection Agency (US EPA), 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance. EPA 530/R-09-007. Environmental Protection Agency Office of Resource Conservation and Recovery.

## ATTACHMENTS

Table 1 – GWPS selection for the Four Corners CWTP
Table 2 – CWTP Downgradient Sample Data Summary

Appendix A – ProUCL Data Upload Table
Appendix B – ProUCL EDA Output Files

# TABLES

Table 1
GWPS Selection - Four Corners Power Plant Combined Waste Treatment Pond
Appendix IV Statistical Comparison

| Grouped Background Wells | Constituent | US EPA MCL | Alternative Risk-Based GWPS | Background Threshold Value (Calculation Method[1,2,3]) | Units | GWPS Selection[4] |
|---|---|---|---|---|---|---|
| MW-71, MW-72, MW-73 | Antimony | **0.006** | --- | 0.00027 (NP-UTL) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Arsenic | 0.01 | --- | **0.013 (P-UTLT)** | mg/L | BTV |
| MW-71, MW-72, MW-73 | Barium | **2** | --- | 0.051 (NP-UTL) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Beryllium | **0.004** | --- | 0.0022 (NP-UTL) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Cadmium | **0.005** | --- | 0.00021 (NP-UTL) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Chromium | **0.1** | --- | 0.0014 (NP-UTL) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Cobalt | --- | 0.006 | **0.014 (P-UTL)** | mg/L | BTV |
| MW-71, MW-72, MW-73 | Fluoride | 4 | --- | **4.2 (NP-UTL)** | mg/L | BTV |
| MW-71, MW-72, MW-73 | Lead | --- | **0.015** | 0.0011 (NP-UTL) | mg/L | Alternative Risk-Based GWPS |
| MW-71, MW-72, MW-73 | Lithium | --- | 0.04 | **0.89 (NP-UTL)** | mg/L | BTV |
| MW-71, MW-72, MW-73 | Mercury | **0.002** | --- | 0.0002 (DQR) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Molybdenum | --- | **0.1** | 0.011 (NP-UTL) | mg/L | Alternative Risk-Based GWPS |
| MW-71, MW-72, MW-73 | Selenium | 0.05 | --- | **0.47 (P-UTLT)** | mg/L | BTV |
| MW-71, MW-72, MW-73 | Thallium | **0.002** | --- | 0.0012 (NP-UTL) | mg/L | US EPA MCL |
| MW-71, MW-72, MW-73 | Combined Radium | **5** | --- | 4.16 (P-UTL) | pCi/L | US EPA MCL |

**Notes:**

BTV = Background Threshold Value
GWPS = Groundwater Protection Standard
mg/L= milligrams per liter
pCi/L = picocuries per liter
US EPA MCL = United States Environmental Protection Agency Maximum Contaminant Level under the Safe Drinking Water Act

[1] Double Quantification Rule (DQR), Parametric Upper Tolerance Limit (P-UTL), Non-Parametric Upper Tolerance Limit (NP-UTL), Parametric Upper Tolerance Limit with a trend (P-UTLT)

[2] The DQR BTV represents the maximum reporting limit value

[3] Background Threshold Values were updated in September 2023.

[4] The GWPS selection represents the highest value between the US EPA MCL, the Alternative Risk-Based GWPS and the BTV

Table 2
Statistical Results Summary - Four Corners Power Plant
Combined Waste Treatment Pond
Appendix IV Statistical Comparison

| Appendix IV Constituent | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Fluoride | Lead | Lithium | Mercury | Molybdenum | Selenium | Thallium | Combined Radium |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Units* | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | pCi/L |
| *GWPS* | 0.006 | 0.013 | 2 | 0.004 | 0.005 | 0.1 | 0.014 | 4.2 | 0.015 | 0.89 | 0.002 | 0.1 | 0.47 | 0.002 | 5 |
| MW-62 | NP-LCL (0.001) | P-LCLT (0.0037) | P-LCLT (0.016) | NP-LCL (0.001) | NP-LCL (0.0001) | NP-LCL (0.001) | P-LCL (0.007) | NP-LCL (1.4) | NP-LCL (0.0005) | NP-LCL (0.14) | NP-LCL (0.0002) | P-LCLT (0.0019) | NP-LCL (0.0005) | NP-LCL (0.0001) | P-LCL (1.15) |
| MW-63 | NP-LCL (0.001) | NP-LCL (0.0059) | P-LCL (0.022) | NP-LCL (0.001) | NP-LCL (0.0001) | NP-LCL (0.0005) | P-LCLT (0.000) | NP-LCL (1.4) | NP-LCL (0.0005) | NP_LCL (0.07) | NP-LCL (0.0002) | P-LCL (0.0024) | NP-LCL (0.0005) | NP-LCL (0.0001) | P-LCL (0.83) |
| MW-64 | NP-LCL (0.001) | NP-LCL (0.0005) | P-LCL (0.024) | NP-LCL (0.001) | NP-LCL (0.0001) | NP-LCL (0.0005) | P-LCL (0.003) | P-LCLT (1.26) | NP-LCL (0.0005) | NP-LCL (0.045) | NP-LCL (0.0002) | P-LCLT (0.0039) | NP-LCL (0.0005) | NP-LCL (0.0001) | NP-LCL (0.6) |
| MW-65 | NP-LCL (0.001) | NP-LCL (0.0005) | P-LCLT (0.036) | NP-LCL (0.001) | NP-LCL (0.0001) | NP-LCL (0.0005) | P-LCLT (0.00195) | P-LCLT (1.41) | NP-LCL (0.0005) | NP-LCL (0.073) | NP-LCL (0.0002) | P-LCLT (0.0062) | NP-LCL (0.0005) | NP-LCL (0.0001) | NP-LCL (0.6) |

**Legend**

| | |
|---|---|
| Method (LCL) | There is insufficient evidence to declare an SSI over the GWPS |
| Method (LCL) | Statistically significant increasing trend (p<0.05 |
| Method (LCL) | Statistically significant decreasing trend (p<0.05) |
| ***Method (LCL)*** | There is sufficient evidence to declare an SSI over the GWPS |

| | |
|---|---|
| **NP-LCL** | Non-Parametric Lower Confidence Limit |
| **P-LCLT** | Parametric Lower Confidence Limit with a Trend |
| **P-LCL** | Parametric Lower Confidence Limit |
| **GWPS** | Groundwater Protection Standard |
| **mg/L** | milligrams per liter |
| **pCi/L** | picocuries per liter |

# APPENDIX A

## PROUCL DATA UPLOAD TABLE

# CWTP Appendix IV Analytical Results - ProUCL

| Designation | StationName | QC_SampleID | NumDate | Antimony | D_Antimony | Arsenic | D_Arsenic | Barium | D_Barium | Beryllium |
|---|---|---|---|---|---|---|---|---|---|---|
| Background | MW-71 | FC-CCR-MW- | 3/5/2016 | 0.00016 | 1 | 0.016 | 1 | 0.027 | 1 | 0.00064 |
| Background | MW-71 | FC-CCR-MW- | 4/26/2016 | 0.0025 | 0 | 0.0064 | 1 | 0.019 | 1 | 0.0010 |
| Background | MW-71 | FC-CCR-MW71- | 6/6/2016 | 0.00012 | 1 | 0.0069 | 1 | 0.020 | 1 | 0.0010 |
| Background | MW-71 | FC-CCR-MW71- | 8/21/2016 | 0.00022 | 1 | 0.0066 | 1 | 0.014 | 1 | 0.0010 |
| Background | MW-71 | FC-CCR-MW71- | 9/12/2016 | 0.0025 | 0 | 0.0010 | 0 | 0.013 | 1 | 0.0010 |
| Background | MW-71 | FC-CCR-MW71- | 10/20/2016 | NA | NA | NA | NA | NA | NA | NA |
| Background | MW-71 | FC-CCR-MW71- | 2/2/2017 | 0.0010 | 0 | 0.0094 | 1 | 0.012 | 1 | 0.0010 |
| Background | MW-71 | FC-CCR-MW71- | 4/17/2017 | 0.0040 | 0 | 0.0063 | 1 | 0.010 | 1 | 0.0010 |
| Background | MW-71 | FC-CCR-MW71- | 5/2/2017 | 0.0010 | 0 | 0.0072 | 1 | 0.0087 | 1 | 0.0010 |
| Background | MW-71 | FC-CCR-MW71- | 5/29/2017 | 0.010 | 0 | 0.0070 | 1 | 0.010 | 1 | 0.0010 |
| Background | MW-71 | FC-CCR-MW71- | 6/22/2017 | 0.0040 | 0 | 0.0063 | 1 | 0.012 | 1 | 0.0010 |
| Background | MW-71 | FC-CCR-MW71- | 7/21/2017 | 0.0040 | 0 | 0.0053 | 1 | 0.0086 | 1 | 0.0010 |
| Background | MW-71 | FC-CCR-MW71- | 8/10/2017 | 0.010 | 0 | 0.0048 | 1 | 0.0092 | 1 | 0.0010 |
| Background | MW-71 | FC-CCR-MW71- | 8/17/2017 | NA | NA | NA | NA | NA | NA | NA |
| Background | MW-71 | FC-CCR-MW71- | 9/11/2017 | 0.0040 | 0 | 0.0048 | 1 | 0.0089 | 1 | 0.0010 |
| Background | MW-71 | FC-CCR-MW71- | 10/13/2017 | 0.010 | 0 | 0.0050 | 0 | 0.012 | 1 | 0.0010 |
| Background | MW-71 | FC-CCR-MW71- | 11/30/2017 | NA | NA | NA | NA | NA | NA | NA |
| Background | MW-71 | FC-CCR-MW71- | 3/16/2018 | NA | NA | NA | NA | NA | NA | NA |
| Background | MW-71 | FC-CCR-MW- | 6/2/2018 | NA | NA | 0.012 | 1 | 0.010 | 0 | NA |
| Background | MW-71 | FC-CCR-MW71- | 11/3/2018 | NA | NA | 0.0046 | 1 | 0.0098 | 1 | NA |
| Background | MW-71 | FC-CCR-MW71- | 3/18/2019 | 0.0010 | 0 | 0.0069 | 1 | 0.010 | 1 | 0.0010 |
| Background | MW-71 | FC-CCR-MW71- | 5/6/2019 | NA | NA | NA | NA | NA | NA | NA |
| Background | MW-71 | FC-CCR-MW71- | 12/2/2019 | 0.0040 | 0 | 0.0095 | 1 | 0.012 | 1 | 0.0010 |
| Background | MW-71 | FC-CCR-MW71- | 6/20/2020 | 0.002 | 0 | 0.0048 | 1 | 0.0045 | 1 | NA |
| Background | MW-71 | FC-CCR-MW71- | 11/5/2020 | 0.002 | 0 | 0.012 | 1 | 0.0092 | 1 | 0.001 |
| Background | MW-71 | FC-CCR-MW71- | 4/22/2021 | 0.004 | 0 | 0.0013 | 1 | 0.014 | 1 | 0.001 |
| Background | MW-71 | FC-CCR-MW71- | 11/12/2021 | 0.002 | 0 | 0.001 | 0 | 0.01 | 1 | 0.001 |
| Background | MW-71 | FC-CCR-MW71- | 5/21/2022 | 0.002 | 0 | 0.001 | 0 | 0.0094 | 1 | 0.001 |
| Background | MW-71 | FC-CCR-MW71- | 11/13/2022 | 0.001 | 0 | 0.00073 | 1 | 0.012 | 1 | 0.001 |
| Background | MW-71 | FC-CCR-MW71- | 5/8/2023 | 0.002 | 0 | 0.005 | 0 | 0.0095 | 1 | 0.001 |
| Background | MW-71 | FC-CCR-MW71- | 6/27/2023 | 0.01 | 0 | 0.005 | 0 | 0.011 | 1 | 0.0022 |
| Background | MW-71 | FC-CCR-MW71- | 11/8/2023 | 0.004 | 0 | 0.0024 | 1 | 0.01 | 1 | 0.001 |
| Background | MW-71 | FC-CCR-MW71- | 5/16/2024 | 0.01 | 0 | 0.007 | 1 | 0.011 | 1 | 0.005 |
| Background | MW-72 | FC-CCR-MW72- | 3/7/2016 | 0.0020 | 0 | 0.011 | 1 | 0.035 | 1 | 0.0010 |
| Background | MW-72 | FC-CCR-MW- | 4/26/2016 | 0.0025 | 0 | 0.0038 | 1 | 0.034 | 1 | 0.0010 |
| Background | MW-72 | FC-CCR-MW72- | 6/6/2016 | 0.00027 | 1 | 0.0084 | 1 | 0.051 | 1 | 0.0010 |
| Background | MW-72 | FC-CCR-MW72- | 8/21/2016 | 0.00026 | 1 | 0.0047 | 1 | 0.016 | 1 | 0.0010 |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | D_Beryllium | Cadmium | D_Cadmium | Chromium | D_Chromium | Cobalt | D_Cobalt |
|---|---|---|---|---|---|---|---|---|---|
| MW-71 | FC-CCR-MW- | 3/5/2016 | 1 | 0.00019 | 1 | 0.00078 | 1 | 0.0028 | 1 |
| MW-71 | FC-CCR-MW- | 4/26/2016 | 0 | 0.00015 | 1 | 0.00050 | 0 | 0.0049 | 1 |
| MW-71 | FC-CCR-MW71- | 6/6/2016 | 0 | 0.00015 | 1 | 0.00050 | 0 | 0.0041 | 1 |
| MW-71 | FC-CCR-MW71- | 8/21/2016 | 0 | 0.00020 | 0 | 0.0010 | 0 | 0.0010 | 0 |
| MW-71 | FC-CCR-MW71- | 9/12/2016 | 0 | 0.00050 | 0 | 0.0025 | 0 | 0.0012 | 1 |
| MW-71 | FC-CCR-MW71- | 10/20/2016 | NA | NA | NA | NA | NA | NA | NA |
| MW-71 | FC-CCR-MW71- | 2/2/2017 | 0 | 0.00011 | 1 | 0.00050 | 0 | 0.0012 | 1 |
| MW-71 | FC-CCR-MW71- | 4/17/2017 | 0 | 0.00040 | 0 | 0.0020 | 0 | 0.0020 | 0 |
| MW-71 | FC-CCR-MW71- | 5/2/2017 | 0 | 0.00010 | 0 | 0.0010 | 0 | 0.0010 | 0 |
| MW-71 | FC-CCR-MW71- | 5/29/2017 | 0 | 0.0010 | 0 | 0.0050 | 0 | 0.0050 | 0 |
| MW-71 | FC-CCR-MW71- | 6/22/2017 | 0 | 0.00040 | 0 | 0.0020 | 0 | 0.0020 | 0 |
| MW-71 | FC-CCR-MW71- | 7/21/2017 | 0 | 0.00040 | 0 | 0.0020 | 0 | 0.0010 | 0 |
| MW-71 | FC-CCR-MW71- | 8/10/2017 | 0 | 0.0010 | 0 | 0.0040 | 0 | 0.0020 | 0 |
| MW-71 | FC-CCR-MW71- | 8/17/2017 | NA | NA | NA | NA | NA | NA | NA |
| MW-71 | FC-CCR-MW71- | 9/11/2017 | 0 | 0.00040 | 0 | 0.0040 | 0 | 0.0020 | 0 |
| MW-71 | FC-CCR-MW71- | 10/13/2017 | 0 | 0.0010 | 0 | 0.010 | 0 | 0.0050 | 0 |
| MW-71 | FC-CCR-MW71- | 11/30/2017 | NA | NA | NA | NA | NA | NA | NA |
| MW-71 | FC-CCR-MW71- | 3/16/2018 | NA | NA | NA | NA | NA | NA | NA |
| MW-71 | FC-CCR-MW- | 6/2/2018 | NA | NA | NA | NA | NA | 0.010 | 0 |
| MW-71 | FC-CCR-MW71- | 11/3/2018 | NA | NA | NA | NA | NA | 0.00050 | 0 |
| MW-71 | FC-CCR-MW71- | 3/18/2019 | 0 | 0.00010 | 0 | 0.0010 | 0 | 0.00050 | 0 |
| MW-71 | FC-CCR-MW71- | 5/6/2019 | NA | NA | NA | NA | NA | NA | NA |
| MW-71 | FC-CCR-MW71- | 12/2/2019 | 0 | 0.00040 | 0 | 0.0040 | 0 | 0.0020 | 0 |
| MW-71 | FC-CCR-MW71- | 6/20/2020 | NA | 0.0002 | 0 | 0.002 | 0 | 0.001 | 0 |
| MW-71 | FC-CCR-MW71- | 11/5/2020 | 0 | 0.0002 | 0 | 0.002 | 0 | 0.00026 | 1 |
| MW-71 | FC-CCR-MW71- | 4/22/2021 | 0 | 0.00012 | 1 | 0.004 | 0 | 0.0003 | 1 |
| MW-71 | FC-CCR-MW71- | 11/12/2021 | 0 | 0.0001 | 1 | 0.002 | 0 | 0.00013 | 1 |
| MW-71 | FC-CCR-MW71- | 5/21/2022 | 0 | 0.0002 | 0 | 0.002 | 0 | 0.001 | 0 |
| MW-71 | FC-CCR-MW71- | 11/13/2022 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.0005 | 0 |
| MW-71 | FC-CCR-MW71- | 5/8/2023 | 0 | 0.001 | 0 | 0.003 | 0 | 0.001 | 0 |
| MW-71 | FC-CCR-MW71- | 6/27/2023 | 1 | 0.001 | 0 | 0.01 | 0 | 0.005 | 0 |
| MW-71 | FC-CCR-MW71- | 11/8/2023 | 0 | 0.0004 | 0 | 0.004 | 0 | 0.002 | 0 |
| MW-71 | FC-CCR-MW71- | 5/16/2024 | 0 | 0.001 | 0 | 0.01 | 0 | 0.005 | 0 |
| MW-72 | FC-CCR-MW72- | 3/7/2016 | 0 | 0.000078 | 1 | 0.00044 | 1 | 0.019 | 1 |
| MW-72 | FC-CCR-MW- | 4/26/2016 | 0 | 0.00010 | 0 | 0.0028 | 1 | 0.0087 | 1 |
| MW-72 | FC-CCR-MW72- | 6/6/2016 | 0 | 0.00020 | 0 | 0.00060 | 1 | 0.0029 | 1 |
| MW-72 | FC-CCR-MW72- | 8/21/2016 | 0 | 0.00020 | 0 | 0.0010 | 0 | 0.0034 | 1 |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | Fluoride | D_Fluoride | Lead | D_Lead | Lithium | D_Lithium | Mercury | D_Mercury |
|---|---|---|---|---|---|---|---|---|---|---|
| MW-71 | FC-CCR-MW- | 3/5/2016 | 0.050 | 0 | 0.00061 | 1 | 0.28 | 1 | 0.00020 | 0 |
| MW-71 | FC-CCR-MW- | 4/26/2016 | 2.0 | 0 | 0.00050 | 0 | 0.45 | 1 | 0.00020 | 0 |
| MW-71 | FC-CCR-MW71- | 6/6/2016 | 0.40 | 0 | 0.00073 | 1 | 0.41 | 1 | 0.00020 | 0 |
| MW-71 | FC-CCR-MW71- | 8/21/2016 | 0.80 | 0 | 0.0010 | 0 | 0.36 | 1 | 0.00020 | 0 |
| MW-71 | FC-CCR-MW71- | 9/12/2016 | 0.40 | 0 | 0.00050 | 0 | 0.30 | 1 | 0.00020 | 0 |
| MW-71 | FC-CCR-MW71- | 10/20/2016 | 0.40 | 0 | NA | NA | NA | NA | NA | NA |
| MW-71 | FC-CCR-MW71- | 2/2/2017 | 0.40 | 0 | 0.00050 | 0 | 0.39 | 1 | 0.00020 | 0 |
| MW-71 | FC-CCR-MW71- | 4/17/2017 | 2.0 | 0 | 0.0020 | 0 | 0.32 | 1 | 0.00020 | 0 |
| MW-71 | FC-CCR-MW71- | 5/2/2017 | 13 | 0 | 0.00050 | 0 | 0.34 | 1 | 0.00020 | 0 |
| MW-71 | FC-CCR-MW71- | 5/29/2017 | 2.0 | 0 | 0.0050 | 0 | 0.33 | 1 | 0.00020 | 0 |
| MW-71 | FC-CCR-MW71- | 6/22/2017 | 2.0 | 0 | 0.0020 | 0 | 0.38 | 1 | 0.00020 | 0 |
| MW-71 | FC-CCR-MW71- | 7/21/2017 | 2.0 | 0 | 0.0020 | 0 | 0.40 | 0 | 0.00020 | 0 |
| MW-71 | FC-CCR-MW71- | 8/10/2017 | 2.0 | 0 | 0.0050 | 0 | 0.34 | 1 | 0.00020 | 0 |
| MW-71 | FC-CCR-MW71- | 8/17/2017 | 2.0 | 0 | NA | NA | NA | NA | NA | NA |
| MW-71 | FC-CCR-MW71- | 9/11/2017 | 2.0 | 0 | 0.0020 | 0 | 0.32 | 1 | 0.00020 | 0 |
| MW-71 | FC-CCR-MW71- | 10/13/2017 | 2.0 | 0 | 0.0050 | 0 | 0.33 | 1 | 0.00020 | 0 |
| MW-71 | FC-CCR-MW71- | 11/30/2017 | 2.0 | 0 | NA | NA | NA | NA | NA | NA |
| MW-71 | FC-CCR-MW71- | 3/16/2018 | NA | NA | NA | NA | NA | NA | NA | NA |
| MW-71 | FC-CCR-MW- | 6/2/2018 | 0.80 | 0 | NA | NA | 0.32 | 1 | 0.00020 | 0 |
| MW-71 | FC-CCR-MW71- | 11/3/2018 | 0.80 | 0 | NA | NA | 0.35 | 1 | NA | NA |
| MW-71 | FC-CCR-MW71- | 3/18/2019 | 0.80 | 0 | 0.00050 | 0 | 0.32 | 1 | 0.00020 | 0 |
| MW-71 | FC-CCR-MW71- | 5/6/2019 | NA | NA | NA | NA | NA | NA | NA | NA |
| MW-71 | FC-CCR-MW71- | 12/2/2019 | 0.80 | 0 | 0.0020 | 0 | 0.32 | 1 | 0.00020 | 0 |
| MW-71 | FC-CCR-MW71- | 6/20/2020 | 0.8 | 0 | 0.001 | 0 | 0.75 | 1 | NA | NA |
| MW-71 | FC-CCR-MW71- | 11/5/2020 | 0.4 | 0 | 0.001 | 0 | 0.35 | 1 | 0.0002 | 0 |
| MW-71 | FC-CCR-MW71- | 4/22/2021 | 3.8 | 1 | 0.002 | 0 | 0.4 | 1 | 0.0002 | 0 |
| MW-71 | FC-CCR-MW71- | 11/12/2021 | 0.14 | 1 | 0.001 | 0 | 0.37 | 1 | 0.0002 | 0 |
| MW-71 | FC-CCR-MW71- | 5/21/2022 | 0.8 | 0 | 0.001 | 0 | 0.37 | 1 | 0.0002 | 0 |
| MW-71 | FC-CCR-MW71- | 11/13/2022 | 0.8 | 0 | 0.0005 | 0 | 0.37 | 1 | 0.0002 | 0 |
| MW-71 | FC-CCR-MW71- | 5/8/2023 | 2 | 0 | 0.001 | 0 | 0.4 | 1 | 0.0002 | 0 |
| MW-71 | FC-CCR-MW71- | 6/27/2023 | 20 | 0 | 0.0005 | 0 | 0.45 | 1 | 0.0002 | 0 |
| MW-71 | FC-CCR-MW71- | 11/8/2023 | 0.8 | 0 | 0.0005 | 0 | 0.4 | 1 | 0.0002 | 0 |
| MW-71 | FC-CCR-MW71- | 5/16/2024 | 0.4 | 0 | 0.005 | 0 | 0.39 | 1 | 0.0002 | 0 |
| MW-72 | FC-CCR-MW72- | 3/7/2016 | 0.050 | 0 | 0.00013 | 1 | 0.33 | 1 | 0.00020 | 0 |
| MW-72 | FC-CCR-MW- | 4/26/2016 | 2.0 | 0 | 0.0011 | 1 | 0.40 | 1 | 0.00020 | 0 |
| MW-72 | FC-CCR-MW72- | 6/6/2016 | 0.40 | 0 | 0.0010 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-72 | FC-CCR-MW72- | 8/21/2016 | 0.40 | 0 | 0.0010 | 0 | 0.42 | 1 | 0.00020 | 0 |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | Molybdenum | D_Molybdenum | Total Radium | D_Total Radium | Selenium | D_Selenium |
|---|---|---|---|---|---|---|---|---|
| MW-71 | FC-CCR-MW- | 3/5/2016 | 0.0028 | 1 | 1.86 | 1 | 0.19 | 1 |
| MW-71 | FC-CCR-MW- | 4/26/2016 | 0.0018 | 1 | 2.2 | 1 | 0.31 | 1 |
| MW-71 | FC-CCR-MW71- | 6/6/2016 | 0.0014 | 1 | 3.2 | 1 | 0.28 | 1 |
| MW-71 | FC-CCR-MW71- | 8/21/2016 | 0.0025 | 1 | 1.6 | 1 | 0.26 | 1 |
| MW-71 | FC-CCR-MW71- | 9/12/2016 | 0.0013 | 1 | 2.1 | 1 | 0.18 | 1 |
| MW-71 | FC-CCR-MW71- | 10/20/2016 | NA | NA | 0.4 | 1 | NA | NA |
| MW-71 | FC-CCR-MW71- | 2/2/2017 | 0.00078 | 1 | 1.9 | 1 | 0.34 | 1 |
| MW-71 | FC-CCR-MW71- | 4/17/2017 | 0.0020 | 0 | 1.2 | 1 | 0.20 | 1 |
| MW-71 | FC-CCR-MW71- | 5/2/2017 | 0.0010 | 0 | 0.7 | 1 | 0.27 | 1 |
| MW-71 | FC-CCR-MW71- | 5/29/2017 | 0.0050 | 0 | 0.6 | 0 | 0.21 | 1 |
| MW-71 | FC-CCR-MW71- | 6/22/2017 | 0.0020 | 0 | 2.7 | 1 | 0.25 | 1 |
| MW-71 | FC-CCR-MW71- | 7/21/2017 | 0.0020 | 0 | 0.5 | 0 | 0.24 | 1 |
| MW-71 | FC-CCR-MW71- | 8/10/2017 | 0.0050 | 0 | 0.7 | 0 | 0.21 | 1 |
| MW-71 | FC-CCR-MW71- | 8/17/2017 | NA | NA | 2.0 | 1 | NA | NA |
| MW-71 | FC-CCR-MW71- | 9/11/2017 | 0.0020 | 0 | 0.7 | 0 | 0.20 | 1 |
| MW-71 | FC-CCR-MW71- | 10/13/2017 | 0.0050 | 0 | 1.6 | 1 | 0.20 | 1 |
| MW-71 | FC-CCR-MW71- | 11/30/2017 | NA | NA | NA | NA | NA | NA |
| MW-71 | FC-CCR-MW71- | 3/16/2018 | NA | NA | 0.8 | 1 | NA | NA |
| MW-71 | FC-CCR-MW- | 6/2/2018 | 0.010 | 0 | 1.9 | 1 | 0.20 | 1 |
| MW-71 | FC-CCR-MW71- | 11/3/2018 | 0.00079 | 1 | 1.2 | 1 | 0.27 | 1 |
| MW-71 | FC-CCR-MW71- | 3/18/2019 | 0.00066 | 1 | 0.7 | 0 | 0.37 | 1 |
| MW-71 | FC-CCR-MW71- | 5/6/2019 | NA | NA | 1.0 | 1 | NA | NA |
| MW-71 | FC-CCR-MW71- | 12/2/2019 | 0.0020 | 0 | NA | NA | 0.27 | 1 |
| MW-71 | FC-CCR-MW71- | 6/20/2020 | 0.001 | 0 | 0.8 | 0 | 0.15 | 1 |
| MW-71 | FC-CCR-MW71- | 11/5/2020 | 0.00061 | 1 | 0.8 | 0 | 0.28 | 1 |
| MW-71 | FC-CCR-MW71- | 4/22/2021 | 0.002 | 0 | 0.7 | 1 | 0.36 | 1 |
| MW-71 | FC-CCR-MW71- | 11/12/2021 | 0.001 | 0 | 0.5 | 1 | 0.24 | 1 |
| MW-71 | FC-CCR-MW71- | 5/21/2022 | 0.001 | 0 | 1.2 | 1 | 0.28 | 1 |
| MW-71 | FC-CCR-MW71- | 11/13/2022 | 0.00052 | 1 | 1 | 1 | 0.36 | 1 |
| MW-71 | FC-CCR-MW71- | 5/8/2023 | 0.002 | 0 | 1.7 | 1 | 0.2 | 1 |
| MW-71 | FC-CCR-MW71- | 6/27/2023 | 0.005 | 0 | 2.2 | 1 | 0.25 | 1 |
| MW-71 | FC-CCR-MW71- | 11/8/2023 | 0.002 | 0 | 1.8 | 1 | 0.28 | 1 |
| MW-71 | FC-CCR-MW71- | 5/16/2024 | 0.005 | 0 | 1.4 | 1 | 0.25 | 1 |
| MW-72 | FC-CCR-MW72- | 3/7/2016 | 0.011 | 1 | 2.91 | 1 | 0.13 | 1 |
| MW-72 | FC-CCR-MW- | 4/26/2016 | 0.0093 | 1 | 0.8 | 0 | 0.16 | 1 |
| MW-72 | FC-CCR-MW72- | 6/6/2016 | 0.0052 | 1 | 1.3 | 1 | 0.39 | 1 |
| MW-72 | FC-CCR-MW72- | 8/21/2016 | 0.0061 | 1 | 3.2 | 1 | 0.18 | 1 |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | Thallium | D_Thallium |
|---|---|---|---|---|
| MW-71 | FC-CCR-MW- | 3/5/2016 | 0.00031 | 1 |
| MW-71 | FC-CCR-MW- | 4/26/2016 | 0.00047 | 1 |
| MW-71 | FC-CCR-MW71- | 6/6/2016 | 0.00043 | 1 |
| MW-71 | FC-CCR-MW71- | 8/21/2016 | 0.00029 | 1 |
| MW-71 | FC-CCR-MW71- | 9/12/2016 | 0.00050 | 0 |
| MW-71 | FC-CCR-MW71- | 10/20/2016 | NA | NA |
| MW-71 | FC-CCR-MW71- | 2/2/2017 | 0.00037 | 1 |
| MW-71 | FC-CCR-MW71- | 4/17/2017 | 0.00040 | 0 |
| MW-71 | FC-CCR-MW71- | 5/2/2017 | 0.00025 | 1 |
| MW-71 | FC-CCR-MW71- | 5/29/2017 | 0.0010 | 0 |
| MW-71 | FC-CCR-MW71- | 6/22/2017 | 0.00040 | 0 |
| MW-71 | FC-CCR-MW71- | 7/21/2017 | 0.00040 | 0 |
| MW-71 | FC-CCR-MW71- | 8/10/2017 | 0.0010 | 0 |
| MW-71 | FC-CCR-MW71- | 8/17/2017 | NA | NA |
| MW-71 | FC-CCR-MW71- | 9/11/2017 | 0.00040 | 0 |
| MW-71 | FC-CCR-MW71- | 10/13/2017 | 0.0010 | 0 |
| MW-71 | FC-CCR-MW71- | 11/30/2017 | NA | NA |
| MW-71 | FC-CCR-MW71- | 3/16/2018 | NA | NA |
| MW-71 | FC-CCR-MW- | 6/2/2018 | 0.0020 | 0 |
| MW-71 | FC-CCR-MW71- | 11/3/2018 | 0.00031 | 1 |
| MW-71 | FC-CCR-MW71- | 3/18/2019 | 0.00031 | 1 |
| MW-71 | FC-CCR-MW71- | 5/6/2019 | NA | NA |
| MW-71 | FC-CCR-MW71- | 12/2/2019 | 0.00065 | 1 |
| MW-71 | FC-CCR-MW71- | 6/20/2020 | 0.00025 | 1 |
| MW-71 | FC-CCR-MW71- | 11/5/2020 | 0.00023 | 1 |
| MW-71 | FC-CCR-MW71- | 4/22/2021 | 0.0004 | 1 |
| MW-71 | FC-CCR-MW71- | 11/12/2021 | 0.00042 | 1 |
| MW-71 | FC-CCR-MW71- | 5/21/2022 | 0.00037 | 1 |
| MW-71 | FC-CCR-MW71- | 11/13/2022 | 0.00043 | 1 |
| MW-71 | FC-CCR-MW71- | 5/8/2023 | 0.001 | 0 |
| MW-71 | FC-CCR-MW71- | 6/27/2023 | 0.00039 | 1 |
| MW-71 | FC-CCR-MW71- | 11/8/2023 | 0.0004 | 1 |
| MW-71 | FC-CCR-MW71- | 5/16/2024 | 0.001 | 0 |
| MW-72 | FC-CCR-MW72- | 3/7/2016 | 0.0012 | 1 |
| MW-72 | FC-CCR-MW- | 4/26/2016 | 0.00081 | 1 |
| MW-72 | FC-CCR-MW72- | 6/6/2016 | 0.00058 | 1 |
| MW-72 | FC-CCR-MW72- | 8/21/2016 | 0.0011 | 1 |

# CWTP Appendix IV Analytical Results - ProUCL

| Designation | StationName | QC_SampleID | NumDate | Antimony | D_Antimony | Arsenic | D_Arsenic | Barium | D_Barium | Beryllium |
|---|---|---|---|---|---|---|---|---|---|---|
| Background | MW-72 | FC-CCR-MW72- | 9/13/2016 | 0.0025 | 0 | 0.0010 | 0 | 0.019 | 1 | 0.0010 |
| Background | MW-72 | FC-CCR-MW72- | 10/20/2016 | NA | NA | NA | NA | NA | NA | NA |
| Background | MW-72 | FC-CCR-MW72- | 2/2/2017 | 0.0010 | 0 | 0.0041 | 1 | 0.0093 | 1 | 0.0010 |
| Background | MW-72 | FC-CCR-MW72- | 4/17/2017 | 0.0040 | 0 | 0.0028 | 1 | 0.0096 | 1 | 0.0010 |
| Background | MW-72 | FC-CCR-MW72- | 5/2/2017 | 0.0010 | 0 | 0.0030 | 1 | 0.0079 | 1 | 0.0010 |
| Background | MW-72 | FC-CCR-MW72- | 5/29/2017 | 0.010 | 0 | 0.0050 | 0 | 0.0093 | 1 | 0.0010 |
| Background | MW-72 | FC-CCR-MW72- | 6/22/2017 | 0.0040 | 0 | 0.0023 | 1 | 0.0077 | 1 | 0.0010 |
| Background | MW-72 | FC-CCR-MW72- | 7/21/2017 | 0.0040 | 0 | 0.0026 | 1 | 0.0073 | 1 | 0.0010 |
| Background | MW-72 | FC-CCR-MW72- | 8/10/2017 | 0.0010 | 0 | 0.0040 | 1 | 0.0075 | 1 | 0.0010 |
| Background | MW-72 | FC-CCR-MW72- | 8/17/2017 | NA | NA | NA | NA | NA | NA | NA |
| Background | MW-72 | FC-CCR-MW72- | 9/10/2017 | 0.0040 | 0 | 0.0029 | 1 | 0.0086 | 1 | 0.0010 |
| Background | MW-72 | FC-CCR-MW72- | 10/13/2017 | 0.010 | 0 | 0.0052 | 1 | 0.011 | 1 | 0.0010 |
| Background | MW-72 | FC-CCR-MW72- | 11/29/2017 | NA | NA | NA | NA | NA | NA | NA |
| Background | MW-72 | FC-CCR-MW72- | 3/16/2018 | NA | NA | NA | NA | NA | NA | NA |
| Background | MW-72 | FC-CCR-MW- | 6/2/2018 | NA | NA | 0.010 | 0 | 0.010 | 0 | NA |
| Background | MW-72 | FC-CCR-MW72- | 11/3/2018 | NA | NA | 0.0031 | 1 | 0.0075 | 1 | NA |
| Background | MW-72 | FC-CCR-MW72- | 3/17/2019 | 0.0010 | 0 | 0.0034 | 1 | 0.0077 | 1 | 0.0010 |
| Background | MW-72 | FC-CCR-MW72- | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA |
| Background | MW-72 | FC-CCR-MW72- | 12/2/2019 | 0.0020 | 0 | 0.0031 | 1 | 0.0081 | 1 | 0.0010 |
| Background | MW-72 | FC-CCR-MW72- | 6/19/2020 | 0.004 | 0 | 0.0044 | 1 | 0.02 | 1 | NA |
| Background | MW-72 | FC-CCR-MW72- | 11/5/2020 | 0.001 | 0 | 0.0053 | 1 | 0.018 | 1 | 0.001 |
| Background | MW-72 | FC-CCR-MW72- | 4/22/2021 | 0.004 | 0 | 0.0026 | 1 | 0.0086 | 1 | 0.001 |
| Background | MW-72 | FC-CCR-MW72- | 11/12/2021 | 0.002 | 0 | 0.001 | 0 | 0.0085 | 1 | 0.001 |
| Background | MW-72 | FC-CCR-MW72- | 5/22/2022 | 0.002 | 0 | 0.001 | 0 | 0.0073 | 1 | 0.001 |
| Background | MW-72 | FC-CCR-MW72- | 11/13/2022 | 0.001 | 0 | 0.0007 | 1 | 0.0086 | 1 | 0.001 |
| Background | MW-72 | FC-CCR-MW72- | 5/8/2023 | 0.002 | 0 | 0.005 | 0 | 0.0068 | 1 | 0.005 |
| Background | MW-72 | FC-CCR-MW72- | 6/27/2023 | 0.01 | 0 | 0.0014 | 1 | 0.0073 | 1 | 0.0011 |
| Background | MW-72 | FC-CCR-MW72- | 11/8/2023 | 0.001 | 0 | 0.0024 | 1 | 0.008 | 1 | 0.001 |
| Background | MW-72 | FC-CCR-MW72- | 5/16/2024 | 0.01 | 0 | 0.0069 | 1 | 0.0073 | 1 | 0.005 |
| Background | MW-73 | FC-CCR-MW73- | 2/2/2017 | 0.0010 | 0 | 0.0015 | 1 | 0.043 | 1 | 0.0010 |
| Background | MW-73 | FC-CCR-MW73- | 4/18/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.027 | 1 | 0.0010 |
| Background | MW-73 | FC-CCR-MW73- | 5/2/2017 | 0.0020 | 0 | 0.0010 | 0 | 0.026 | 1 | 0.0010 |
| Background | MW-73 | FC-CCR-MW73- | 5/29/2017 | 0.010 | 0 | 0.0050 | 0 | 0.028 | 1 | 0.0010 |
| Background | MW-73 | FC-CCR-MW73- | 6/22/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.029 | 1 | 0.0010 |
| Background | MW-73 | FC-CCR-MW73- | 7/22/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.025 | 1 | 0.0010 |
| Background | MW-73 | FC-CCR-MW73- | 8/10/2017 | 0.010 | 0 | 0.0020 | 0 | 0.024 | 1 | 0.0010 |
| Background | MW-73 | FC-CCR-MW73- | 8/17/2017 | NA | NA | NA | NA | NA | NA | NA |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | D_Beryllium | Cadmium | D_Cadmium | Chromium | D_Chromium | Cobalt | D_Cobalt |
|---|---|---|---|---|---|---|---|---|---|
| MW-72 | FC-CCR-MW72- | 9/13/2016 | 0 | 0.00050 | 0 | 0.0025 | 0 | 0.0073 | 1 |
| MW-72 | FC-CCR-MW72- | 10/20/2016 | NA | NA | NA | NA | NA | NA | NA |
| MW-72 | FC-CCR-MW72- | 2/2/2017 | 0 | 0.00010 | 0 | 0.0010 | 0 | 0.0025 | 1 |
| MW-72 | FC-CCR-MW72- | 4/17/2017 | 0 | 0.00040 | 0 | 0.0020 | 0 | 0.0024 | 1 |
| MW-72 | FC-CCR-MW72- | 5/2/2017 | 0 | 0.00010 | 0 | 0.0010 | 0 | 0.0024 | 1 |
| MW-72 | FC-CCR-MW72- | 5/29/2017 | 0 | 0.0010 | 0 | 0.0050 | 0 | 0.0050 | 0 |
| MW-72 | FC-CCR-MW72- | 6/22/2017 | 0 | 0.00040 | 0 | 0.0020 | 0 | 0.0025 | 1 |
| MW-72 | FC-CCR-MW72- | 7/21/2017 | 0 | 0.00040 | 0 | 0.0020 | 0 | 0.0024 | 1 |
| MW-72 | FC-CCR-MW72- | 8/10/2017 | 0 | 0.00010 | 0 | 0.0010 | 0 | 0.0023 | 1 |
| MW-72 | FC-CCR-MW72- | 8/17/2017 | NA | NA | NA | NA | NA | NA | NA |
| MW-72 | FC-CCR-MW72- | 9/10/2017 | 0 | 0.00040 | 0 | 0.0040 | 0 | 0.0023 | 1 |
| MW-72 | FC-CCR-MW72- | 10/13/2017 | 0 | 0.0010 | 0 | 0.010 | 0 | 0.0050 | 0 |
| MW-72 | FC-CCR-MW72- | 11/29/2017 | NA | NA | NA | NA | NA | NA | NA |
| MW-72 | FC-CCR-MW72- | 3/16/2018 | NA | NA | NA | NA | NA | NA | NA |
| MW-72 | FC-CCR-MW- | 6/2/2018 | NA | NA | NA | NA | NA | 0.010 | 0 |
| MW-72 | FC-CCR-MW72- | 11/3/2018 | NA | NA | NA | NA | NA | 0.0020 | 1 |
| MW-72 | FC-CCR-MW72- | 3/17/2019 | 0 | 0.00010 | 0 | 0.0010 | 0 | 0.0022 | 1 |
| MW-72 | FC-CCR-MW72- | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA |
| MW-72 | FC-CCR-MW72- | 12/2/2019 | 0 | 0.00020 | 0 | 0.0040 | 0 | 0.0023 | 1 |
| MW-72 | FC-CCR-MW72- | 6/19/2020 | NA | 0.0004 | 0 | 0.004 | 0 | 0.0027 | 1 |
| MW-72 | FC-CCR-MW72- | 11/5/2020 | 0 | 0.0001 | 0 | 0.00071 | 1 | 0.0013 | 1 |
| MW-72 | FC-CCR-MW72- | 4/22/2021 | 0 | 0.00012 | 1 | 0.004 | 0 | 0.0029 | 1 |
| MW-72 | FC-CCR-MW72- | 11/12/2021 | 0 | 0.00006 | 1 | 0.002 | 0 | 0.0026 | 1 |
| MW-72 | FC-CCR-MW72- | 5/22/2022 | 0 | 0.0002 | 0 | 0.002 | 0 | 0.0025 | 1 |
| MW-72 | FC-CCR-MW72- | 11/13/2022 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.0026 | 1 |
| MW-72 | FC-CCR-MW72- | 5/8/2023 | 0 | 0.001 | 0 | 0.003 | 0 | 0.0025 | 1 |
| MW-72 | FC-CCR-MW72- | 6/27/2023 | 1 | 0.001 | 0 | 0.001 | 0 | 0.0023 | 1 |
| MW-72 | FC-CCR-MW72- | 11/8/2023 | 0 | 0.0001 | 0 | 0.004 | 0 | 0.0023 | 1 |
| MW-72 | FC-CCR-MW72- | 5/16/2024 | 0 | 0.001 | 0 | 0.01 | 0 | 0.005 | 0 |
| MW-73 | FC-CCR-MW73- | 2/2/2017 | 0 | 0.00017 | 1 | 0.0010 | 0 | 0.0073 | 1 |
| MW-73 | FC-CCR-MW73- | 4/18/2017 | 0 | 0.00040 | 0 | 0.0020 | 0 | 0.0058 | 1 |
| MW-73 | FC-CCR-MW73- | 5/2/2017 | 0 | 0.00021 | 1 | 0.0010 | 0 | 0.0067 | 1 |
| MW-73 | FC-CCR-MW73- | 5/29/2017 | 0 | 0.0010 | 0 | 0.0050 | 0 | 0.0050 | 0 |
| MW-73 | FC-CCR-MW73- | 6/22/2017 | 0 | 0.00040 | 0 | 0.0020 | 0 | 0.0066 | 1 |
| MW-73 | FC-CCR-MW73- | 7/22/2017 | 0 | 0.00040 | 0 | 0.0020 | 0 | 0.0067 | 1 |
| MW-73 | FC-CCR-MW73- | 8/10/2017 | 0 | 0.0010 | 0 | 0.0041 | 1 | 0.0065 | 1 |
| MW-73 | FC-CCR-MW73- | 8/17/2017 | NA | NA | NA | NA | NA | NA | NA |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | Fluoride | D_Fluoride | Lead | D_Lead | Lithium | D_Lithium | Mercury | D_Mercury |
|---|---|---|---|---|---|---|---|---|---|---|
| MW-72 | FC-CCR-MW72- | 9/13/2016 | 0.40 | 0 | 0.00050 | 0 | 0.35 | 1 | 0.00020 | 0 |
| MW-72 | FC-CCR-MW72- | 10/20/2016 | 0.40 | 0 | NA | NA | NA | NA | NA | NA |
| MW-72 | FC-CCR-MW72- | 2/2/2017 | 0.40 | 0 | 0.00050 | 0 | 0.39 | 1 | 0.00020 | 0 |
| MW-72 | FC-CCR-MW72- | 4/17/2017 | 2.0 | 0 | 0.0020 | 0 | 0.35 | 1 | 0.00020 | 0 |
| MW-72 | FC-CCR-MW72- | 5/2/2017 | 13 | 0 | 0.00050 | 0 | 0.38 | 1 | 0.00020 | 0 |
| MW-72 | FC-CCR-MW72- | 5/29/2017 | 2.0 | 0 | 0.0050 | 0 | 0.37 | 1 | 0.00020 | 0 |
| MW-72 | FC-CCR-MW72- | 6/22/2017 | 2.0 | 0 | 0.0020 | 0 | 0.39 | 1 | 0.00020 | 0 |
| MW-72 | FC-CCR-MW72- | 7/21/2017 | 2.0 | 0 | 0.0020 | 0 | 0.80 | 0 | 0.00020 | 0 |
| MW-72 | FC-CCR-MW72- | 8/10/2017 | 2.0 | 0 | 0.00050 | 0 | 0.41 | 1 | 0.00020 | 0 |
| MW-72 | FC-CCR-MW72- | 8/17/2017 | 2.0 | 0 | NA | NA | NA | NA | NA | NA |
| MW-72 | FC-CCR-MW72- | 9/10/2017 | 2.0 | 0 | 0.0020 | 0 | 0.37 | 1 | 0.00020 | 0 |
| MW-72 | FC-CCR-MW72- | 10/13/2017 | 2.0 | 0 | 0.0050 | 0 | 0.38 | 1 | 0.00020 | 0 |
| MW-72 | FC-CCR-MW72- | 11/29/2017 | 2.0 | 0 | NA | NA | NA | NA | NA | NA |
| MW-72 | FC-CCR-MW72- | 3/16/2018 | NA | NA | NA | NA | NA | NA | NA | NA |
| MW-72 | FC-CCR-MW- | 6/2/2018 | 0.80 | 0 | NA | NA | 0.35 | 1 | 0.00020 | 0 |
| MW-72 | FC-CCR-MW72- | 11/3/2018 | 0.80 | 0 | NA | NA | 0.37 | 1 | NA | NA |
| MW-72 | FC-CCR-MW72- | 3/17/2019 | 0.80 | 0 | 0.00050 | 0 | 0.36 | 1 | 0.00020 | 0 |
| MW-72 | FC-CCR-MW72- | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA | NA |
| MW-72 | FC-CCR-MW72- | 12/2/2019 | 0.80 | 0 | 0.0010 | 0 | 0.36 | 1 | 0.00020 | 0 |
| MW-72 | FC-CCR-MW72- | 6/19/2020 | 0.8 | 0 | 0.001 | 0 | 0.89 | 1 | NA | NA |
| MW-72 | FC-CCR-MW72- | 11/5/2020 | 0.4 | 0 | 0.0005 | 0 | 0.38 | 1 | 0.0002 | 0 |
| MW-72 | FC-CCR-MW72- | 4/22/2021 | 0.8 | 0 | 0.002 | 0 | 0.37 | 1 | 0.0002 | 0 |
| MW-72 | FC-CCR-MW72- | 11/12/2021 | 0.8 | 0 | 0.001 | 0 | 0.38 | 1 | 0.0002 | 0 |
| MW-72 | FC-CCR-MW72- | 5/22/2022 | 0.8 | 0 | 0.001 | 0 | 0.37 | 1 | 0.0002 | 0 |
| MW-72 | FC-CCR-MW72- | 11/13/2022 | 0.8 | 0 | 0.0005 | 0 | 0.34 | 1 | 0.0002 | 0 |
| MW-72 | FC-CCR-MW72- | 5/8/2023 | 4.2 | 1 | 0.001 | 0 | 0.38 | 1 | 0.0002 | 0 |
| MW-72 | FC-CCR-MW72- | 6/27/2023 | 20 | 0 | 0.0005 | 0 | 0.37 | 1 | 0.0002 | 0 |
| MW-72 | FC-CCR-MW72- | 11/8/2023 | 0.8 | 0 | 0.0005 | 0 | 0.29 | 1 | 0.0002 | 0 |
| MW-72 | FC-CCR-MW72- | 5/16/2024 | 0.4 | 0 | 0.005 | 0 | 0.36 | 1 | 0.0002 | 0 |
| MW-73 | FC-CCR-MW73- | 2/2/2017 | 0.40 | 0 | 0.00050 | 0 | 0.21 | 1 | 0.00020 | 0 |
| MW-73 | FC-CCR-MW73- | 4/18/2017 | 0.80 | 0 | 0.0020 | 0 | 0.22 | 1 | 0.00020 | 0 |
| MW-73 | FC-CCR-MW73- | 5/2/2017 | 5.0 | 0 | 0.00050 | 0 | 0.24 | 1 | 0.00020 | 0 |
| MW-73 | FC-CCR-MW73- | 5/29/2017 | 0.80 | 0 | 0.0050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-73 | FC-CCR-MW73- | 6/22/2017 | 0.80 | 0 | 0.0020 | 0 | 0.25 | 1 | 0.00020 | 0 |
| MW-73 | FC-CCR-MW73- | 7/22/2017 | 0.80 | 0 | 0.0020 | 0 | 0.27 | 1 | 0.00020 | 0 |
| MW-73 | FC-CCR-MW73- | 8/10/2017 | 0.80 | 0 | 0.0050 | 0 | 0.27 | 1 | 0.00020 | 0 |
| MW-73 | FC-CCR-MW73- | 8/17/2017 | 0.80 | 0 | NA | NA | NA | NA | NA | NA |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | Molybdenum | D_Molybdenum | Total Radium | D_Total Radium | Selenium | D_Selenium |
|---|---|---|---|---|---|---|---|---|
| MW-72 | FC-CCR-MW72- | 9/13/2016 | 0.011 | 1 | 3.9 | 1 | 0.0030 | 0 |
| MW-72 | FC-CCR-MW72- | 10/20/2016 | NA | NA | 4.2 | 1 | NA | NA |
| MW-72 | FC-CCR-MW72- | 2/2/2017 | 0.00093 | 1 | 4.0 | 1 | 0.13 | 1 |
| MW-72 | FC-CCR-MW72- | 4/17/2017 | 0.0020 | 0 | 3.5 | 1 | 0.10 | 1 |
| MW-72 | FC-CCR-MW72- | 5/2/2017 | 0.0010 | 0 | 3.8 | 1 | 0.12 | 1 |
| MW-72 | FC-CCR-MW72- | 5/29/2017 | 0.0050 | 0 | NA | NA | 0.11 | 1 |
| MW-72 | FC-CCR-MW72- | 6/22/2017 | 0.0020 | 0 | 2.8 | 1 | 0.10 | 1 |
| MW-72 | FC-CCR-MW72- | 7/21/2017 | 0.0020 | 0 | 1.7 | 1 | 0.13 | 1 |
| MW-72 | FC-CCR-MW72- | 8/10/2017 | 0.00087 | 1 | 2.8 | 1 | 0.14 | 1 |
| MW-72 | FC-CCR-MW72- | 8/17/2017 | NA | NA | 2.1 | 1 | NA | NA |
| MW-72 | FC-CCR-MW72- | 9/10/2017 | 0.0020 | 0 | 2.3 | 1 | 0.10 | 1 |
| MW-72 | FC-CCR-MW72- | 10/13/2017 | 0.0050 | 0 | 3.1 | 1 | 0.11 | 1 |
| MW-72 | FC-CCR-MW72- | 11/29/2017 | NA | NA | NA | NA | NA | NA |
| MW-72 | FC-CCR-MW72- | 3/16/2018 | NA | NA | 1.9 | 1 | NA | NA |
| MW-72 | FC-CCR-MW- | 6/2/2018 | 0.010 | 0 | 2.8 | 1 | 0.10 | 1 |
| MW-72 | FC-CCR-MW72- | 11/3/2018 | 0.00078 | 1 | 1.7 | 1 | 0.13 | 1 |
| MW-72 | FC-CCR-MW72- | 3/17/2019 | 0.00095 | 1 | 2.4 | 1 | 0.13 | 1 |
| MW-72 | FC-CCR-MW72- | 5/7/2019 | NA | NA | 3.4 | 1 | NA | NA |
| MW-72 | FC-CCR-MW72- | 12/2/2019 | 0.0014 | 1 | NA | NA | 0.11 | 1 |
| MW-72 | FC-CCR-MW72- | 6/19/2020 | 0.002 | 0 | 3.5 | 1 | 0.11 | 1 |
| MW-72 | FC-CCR-MW72- | 11/5/2020 | 0.002 | 1 | 2.4 | 1 | 0.11 | 1 |
| MW-72 | FC-CCR-MW72- | 4/22/2021 | 0.0011 | 1 | 2.2 | 1 | 0.11 | 1 |
| MW-72 | FC-CCR-MW72- | 11/12/2021 | 0.00055 | 1 | 3.7 | 1 | 0.087 | 1 |
| MW-72 | FC-CCR-MW72- | 5/22/2022 | 0.001 | 0 | 1.2 | 1 | 0.095 | 1 |
| MW-72 | FC-CCR-MW72- | 11/13/2022 | 0.00077 | 1 | 1.9 | 1 | 0.12 | 1 |
| MW-72 | FC-CCR-MW72- | 5/8/2023 | 0.002 | 0 | 4.0 | 1 | 0.064 | 1 |
| MW-72 | FC-CCR-MW72- | 6/27/2023 | 0.005 | 0 | 1.9 | 1 | 0.11 | 1 |
| MW-72 | FC-CCR-MW72- | 11/8/2023 | 0.0008 | 1 | 5.1 | 1 | 0.076 | 1 |
| MW-72 | FC-CCR-MW72- | 5/16/2024 | 0.005 | 0 | 3.1 | 1 | 0.078 | 1 |
| MW-73 | FC-CCR-MW73- | 2/2/2017 | 0.0086 | 1 | 3.2 | 1 | 0.029 | 1 |
| MW-73 | FC-CCR-MW73- | 4/18/2017 | 0.0041 | 1 | 1.8 | 1 | 0.019 | 1 |
| MW-73 | FC-CCR-MW73- | 5/2/2017 | 0.0037 | 1 | 2.3 | 1 | 0.015 | 1 |
| MW-73 | FC-CCR-MW73- | 5/29/2017 | 0.0050 | 0 | 0.6 | 0 | 0.043 | 1 |
| MW-73 | FC-CCR-MW73- | 6/22/2017 | 0.0020 | 0 | 3.1 | 1 | 0.019 | 1 |
| MW-73 | FC-CCR-MW73- | 7/22/2017 | 0.0023 | 1 | 2.0 | 1 | 0.016 | 1 |
| MW-73 | FC-CCR-MW73- | 8/10/2017 | 0.0050 | 0 | 1.1 | 1 | 0.017 | 1 |
| MW-73 | FC-CCR-MW73- | 8/17/2017 | NA | NA | 1.5 | 1 | NA | NA |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | Thallium | D_Thallium |
|---|---|---|---|---|
| MW-72 | FC-CCR-MW72- | 9/13/2016 | 0.00056 | 1 |
| MW-72 | FC-CCR-MW72- | 10/20/2016 | NA | NA |
| MW-72 | FC-CCR-MW72- | 2/2/2017 | 0.00094 | 1 |
| MW-72 | FC-CCR-MW72- | 4/17/2017 | 0.00096 | 1 |
| MW-72 | FC-CCR-MW72- | 5/2/2017 | 0.00091 | 1 |
| MW-72 | FC-CCR-MW72- | 5/29/2017 | 0.0011 | 1 |
| MW-72 | FC-CCR-MW72- | 6/22/2017 | 0.0010 | 1 |
| MW-72 | FC-CCR-MW72- | 7/21/2017 | 0.00089 | 1 |
| MW-72 | FC-CCR-MW72- | 8/10/2017 | 0.00091 | 1 |
| MW-72 | FC-CCR-MW72- | 8/17/2017 | NA | NA |
| MW-72 | FC-CCR-MW72- | 9/10/2017 | 0.00095 | 1 |
| MW-72 | FC-CCR-MW72- | 10/13/2017 | 0.0010 | 1 |
| MW-72 | FC-CCR-MW72- | 11/29/2017 | NA | NA |
| MW-72 | FC-CCR-MW72- | 3/16/2018 | NA | NA |
| MW-72 | FC-CCR-MW- | 6/2/2018 | 0.0020 | 0 |
| MW-72 | FC-CCR-MW72- | 11/3/2018 | 0.00088 | 1 |
| MW-72 | FC-CCR-MW72- | 3/17/2019 | 0.00095 | 1 |
| MW-72 | FC-CCR-MW72- | 5/7/2019 | NA | NA |
| MW-72 | FC-CCR-MW72- | 12/2/2019 | 0.0011 | 1 |
| MW-72 | FC-CCR-MW72- | 6/19/2020 | 0.0011 | 1 |
| MW-72 | FC-CCR-MW72- | 11/5/2020 | 0.00011 | 0 |
| MW-72 | FC-CCR-MW72- | 4/22/2021 | 0.001 | 1 |
| MW-72 | FC-CCR-MW72- | 11/12/2021 | 0.001 | 1 |
| MW-72 | FC-CCR-MW72- | 5/22/2022 | 0.00094 | 1 |
| MW-72 | FC-CCR-MW72- | 11/13/2022 | 0.001 | 1 |
| MW-72 | FC-CCR-MW72- | 5/8/2023 | 0.001 | 0 |
| MW-72 | FC-CCR-MW72- | 6/27/2023 | 0.00093 | 1 |
| MW-72 | FC-CCR-MW72- | 11/8/2023 | 0.00096 | 1 |
| MW-72 | FC-CCR-MW72- | 5/16/2024 | 0.001 | 0 |
| MW-73 | FC-CCR-MW73- | 2/2/2017 | 0.00020 | 1 |
| MW-73 | FC-CCR-MW73- | 4/18/2017 | 0.00040 | 0 |
| MW-73 | FC-CCR-MW73- | 5/2/2017 | 0.00024 | 1 |
| MW-73 | FC-CCR-MW73- | 5/29/2017 | 0.0010 | 0 |
| MW-73 | FC-CCR-MW73- | 6/22/2017 | 0.00040 | 0 |
| MW-73 | FC-CCR-MW73- | 7/22/2017 | 0.00040 | 0 |
| MW-73 | FC-CCR-MW73- | 8/10/2017 | 0.0010 | 0 |
| MW-73 | FC-CCR-MW73- | 8/17/2017 | NA | NA |

# CWTP Appendix IV Analytical Results - ProUCL

| Designation | StationName | QC_SampleID | NumDate | Antimony | D_Antimony | Arsenic | D_Arsenic | Barium | D_Barium | Beryllium |
|---|---|---|---|---|---|---|---|---|---|---|
| Background | MW-73 | FC-CCR-MW73- | 9/10/2017 | 0.0040 | 0 | 0.0020 | 1 | 0.023 | 1 | 0.0010 |
| Background | MW-73 | FC-CCR-MW73- | 10/12/2017 | 0.010 | 0 | 0.0050 | 0 | 0.024 | 1 | 0.0010 |
| Background | MW-73 | FC-CCR-MW73- | 11/29/2017 | NA | NA | NA | NA | NA | NA | NA |
| Background | MW-73 | FC-CCR-MW73- | 3/16/2018 | NA | NA | NA | NA | NA | NA | NA |
| Background | MW-73 | FC-CCR-MW- | 6/2/2018 | NA | NA | 0.010 | 0 | 0.023 | 1 | NA |
| Background | MW-73 | FC-CCR-MW73- | 11/3/2018 | NA | NA | 0.00050 | 0 | 0.022 | 1 | NA |
| Background | MW-73 | FC-CCR-MW73- | 3/18/2019 | 0.0010 | 0 | 0.00050 | 0 | 0.023 | 1 | 0.0010 |
| Background | MW-73 | FC-CCR-MW73- | 5/6/2019 | NA | NA | NA | NA | NA | NA | NA |
| Background | MW-73 | FC-CCR-MW73- | 12/2/2019 | 0.0020 | 0 | 0.0010 | 0 | 0.020 | 1 | 0.0010 |
| Background | MW-73 | FC-CCR-MW73- | 6/20/2020 | 0.004 | 0 | 0.002 | 0 | 0.033 | 1 | NA |
| Background | MW-73 | FC-CCR-MW73- | 11/5/2020 | 0.002 | 0 | 0.0012 | 1 | 0.02 | 1 | 0.001 |
| Background | MW-73 | FC-CCR-MW73- | 4/22/2021 | 0.004 | 0 | 0.002 | 0 | 0.021 | 1 | 0.001 |
| Background | MW-73 | FC-CCR-MW73- | 11/13/2021 | 0.00017 | 1 | 0.001 | 0 | 0.022 | 1 | 0.001 |
| Background | MW-73 | FC-CCR-MW73- | 5/22/2022 | 0.002 | 0 | 0.001 | 0 | 0.018 | 1 | 0.001 |
| Background | MW-73 | FC-CCR-MW73- | 11/14/2022 | 0.001 | 0 | 0.00092 | 1 | 0.022 | 1 | 0.001 |
| Background | MW-73 | FC-CCR-MW73- | 5/7/2023 | 0.002 | 0 | 0.005 | 0 | 0.018 | 1 | 0.001 |
| Background | MW-73 | FC-CCR-MW73- | 6/27/2023 | 0.01 | 0 | 0.005 | 0 | 0.016 | 1 | 0.0014 |
| Background | MW-73 | FC-CCR-MW73- | 11/8/2023 | 0.001 | 0 | 0.0021 | 1 | 0.017 | 1 | 0.001 |
| Background | MW-73 | FC-CCR-MW73- | 5/16/2024 | 0.01 | 0 | 0.0065 | 1 | 0.016 | 1 | 0.005 |
| Downgradient | MW-62 | FC-CCR-MW62- | 11/9/2015 | 0.0020 | 0 | 0.00098 | 1 | 0.043 | 1 | 0.000086 |
| Downgradient | MW-62 | FC-CCR-MW- | 4/27/2016 | 0.0025 | 0 | 0.0010 | 1 | 0.033 | 1 | 0.0010 |
| Downgradient | MW-62 | FC-CCR-MW62- | 6/5/2016 | 0.00011 | 1 | 0.00062 | 1 | 0.027 | 1 | 0.0010 |
| Downgradient | MW-62 | FC-CCR-MW62- | 8/20/2016 | 0.00011 | 1 | 0.0023 | 1 | 0.034 | 1 | 0.0010 |
| Downgradient | MW-62 | FC-CCR-MW62- | 9/12/2016 | 0.0025 | 0 | 0.0020 | 1 | 0.026 | 1 | 0.0010 |
| Downgradient | MW-62 | FC-CCR-MW62- | 10/19/2016 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62- | 2/1/2017 | 0.0010 | 0 | 0.0025 | 1 | 0.027 | 1 | 0.0010 |
| Downgradient | MW-62 | FC-CCR-MW62- | 4/16/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.022 | 1 | 0.0010 |
| Downgradient | MW-62 | FC-CCR-MW62- | 5/1/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.021 | 1 | 0.0010 |
| Downgradient | MW-62 | FC-CCR-MW62- | 5/29/2017 | 0.0010 | 0 | 0.00067 | 1 | 0.021 | 1 | 0.0010 |
| Downgradient | MW-62 | FC-CCR-MW62- | 6/21/2017 | 0.0010 | 0 | 0.00065 | 1 | 0.023 | 1 | 0.0010 |
| Downgradient | MW-62 | FC-CCR-MW62- | 7/21/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.023 | 1 | 0.0010 |
| Downgradient | MW-62 | FC-CCR-MW62- | 8/9/2017 | 0.0010 | 0 | 0.0016 | 1 | 0.027 | 1 | 0.0010 |
| Downgradient | MW-62 | FC-CCR-MW62- | 8/16/2017 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62- | 9/9/2017 | 0.0040 | 0 | 0.0031 | 1 | 0.026 | 1 | 0.0010 |
| Downgradient | MW-62 | FC-CCR-MW62- | 10/13/2017 | 0.0040 | 0 | 0.0050 | 0 | 0.028 | 1 | 0.0010 |
| Downgradient | MW-62 | FC-CCR-MW62- | 11/30/2017 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW- | 6/3/2018 | NA | NA | NA | NA | NA | NA | NA |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | D_Beryllium | Cadmium | D_Cadmium | Chromium | D_Chromium | Cobalt | D_Cobalt |
|---|---|---|---|---|---|---|---|---|---|
| MW-73 | FC-CCR-MW73- | 9/10/2017 | 0 | 0.00040 | 0 | 0.0040 | 0 | 0.0048 | 1 |
| MW-73 | FC-CCR-MW73- | 10/12/2017 | 0 | 0.0010 | 0 | 0.010 | 0 | 0.0050 | 0 |
| MW-73 | FC-CCR-MW73- | 11/29/2017 | NA | NA | NA | NA | NA | NA | NA |
| MW-73 | FC-CCR-MW73- | 3/16/2018 | NA | NA | NA | NA | NA | NA | NA |
| MW-73 | FC-CCR-MW- | 6/2/2018 | NA | NA | NA | NA | NA | 0.010 | 0 |
| MW-73 | FC-CCR-MW73- | 11/3/2018 | NA | NA | NA | NA | NA | 0.0078 | 1 |
| MW-73 | FC-CCR-MW73- | 3/18/2019 | 0 | 0.00013 | 1 | 0.0010 | 0 | 0.0038 | 1 |
| MW-73 | FC-CCR-MW73- | 5/6/2019 | NA | NA | NA | NA | NA | NA | NA |
| MW-73 | FC-CCR-MW73- | 12/2/2019 | 0 | 0.00020 | 0 | 0.0040 | 0 | 0.0040 | 1 |
| MW-73 | FC-CCR-MW73- | 6/20/2020 | NA | 0.0004 | 0 | 0.004 | 0 | 0.0062 | 1 |
| MW-73 | FC-CCR-MW73- | 11/5/2020 | 0 | 0.0002 | 0 | 0.00073 | 1 | 0.0067 | 1 |
| MW-73 | FC-CCR-MW73- | 4/22/2021 | 0 | 0.00016 | 1 | 0.004 | 0 | 0.0027 | 1 |
| MW-73 | FC-CCR-MW73- | 11/13/2021 | 0 | 0.00018 | 1 | 0.002 | 0 | 0.0041 | 1 |
| MW-73 | FC-CCR-MW73- | 5/22/2022 | 0 | 0.0002 | 0 | 0.002 | 0 | 0.0042 | 1 |
| MW-73 | FC-CCR-MW73- | 11/14/2022 | 0 | 0.00017 | 1 | 0.001 | 0 | 0.0042 | 1 |
| MW-73 | FC-CCR-MW73- | 5/7/2023 | 0 | 0.001 | 0 | 0.003 | 0 | 0.0045 | 1 |
| MW-73 | FC-CCR-MW73- | 6/27/2023 | 1 | 0.001 | 0 | 0.01 | 0 | 0.005 | 0 |
| MW-73 | FC-CCR-MW73- | 11/8/2023 | 0 | 0.00018 | 1 | 0.004 | 0 | 0.0037 | 1 |
| MW-73 | FC-CCR-MW73- | 5/16/2024 | 0 | 0.001 | 0 | 0.01 | 0 | 0.005 | 0 |
| MW-62 | FC-CCR-MW62- | 11/9/2015 | 1 | 0.000084 | 1 | 0.0020 | 0 | 0.011 | 1 |
| MW-62 | FC-CCR-MW- | 4/27/2016 | 0 | 0.00010 | 0 | 0.0010 | 1 | 0.0062 | 1 |
| MW-62 | FC-CCR-MW62- | 6/5/2016 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0062 | 1 |
| MW-62 | FC-CCR-MW62- | 8/20/2016 | 0 | 0.00010 | 0 | 0.0015 | 1 | 0.0061 | 1 |
| MW-62 | FC-CCR-MW62- | 9/12/2016 | 0 | 0.00050 | 0 | 0.0025 | 0 | 0.0069 | 1 |
| MW-62 | FC-CCR-MW62- | 10/19/2016 | NA | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 2/1/2017 | 0 | 0.00010 | 0 | 0.00051 | 1 | 0.0062 | 1 |
| MW-62 | FC-CCR-MW62- | 4/16/2017 | 0 | 0.00040 | 0 | 0.0020 | 0 | 0.0070 | 1 |
| MW-62 | FC-CCR-MW62- | 5/1/2017 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0066 | 1 |
| MW-62 | FC-CCR-MW62- | 5/29/2017 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0073 | 1 |
| MW-62 | FC-CCR-MW62- | 6/21/2017 | 0 | 0.00010 | 0 | 0.0010 | 1 | 0.0084 | 1 |
| MW-62 | FC-CCR-MW62- | 7/21/2017 | 0 | 0.00040 | 0 | 0.0020 | 0 | 0.0044 | 1 |
| MW-62 | FC-CCR-MW62- | 8/9/2017 | 0 | 0.00010 | 0 | 0.0010 | 0 | 0.0048 | 1 |
| MW-62 | FC-CCR-MW62- | 8/16/2017 | NA | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 9/9/2017 | 0 | 0.00040 | 0 | 0.0040 | 0 | 0.0064 | 1 |
| MW-62 | FC-CCR-MW62- | 10/13/2017 | 0 | 0.0010 | 0 | 0.010 | 0 | 0.010 | 1 |
| MW-62 | FC-CCR-MW62- | 11/30/2017 | NA | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW- | 6/3/2018 | NA | NA | NA | NA | NA | NA | NA |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | Fluoride | D_Fluoride | Lead | D_Lead | Lithium | D_Lithium | Mercury | D_Mercury |
|---|---|---|---|---|---|---|---|---|---|---|
| MW-73 | FC-CCR-MW73- | 9/10/2017 | 0.80 | 0 | 0.0020 | 0 | 0.22 | 1 | 0.00020 | 0 |
| MW-73 | FC-CCR-MW73- | 10/12/2017 | 0.80 | 0 | 0.0050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-73 | FC-CCR-MW73- | 11/29/2017 | 0.80 | 0 | NA | NA | NA | NA | NA | NA |
| MW-73 | FC-CCR-MW73- | 3/16/2018 | NA | NA | NA | NA | NA | NA | NA | NA |
| MW-73 | FC-CCR-MW- | 6/2/2018 | 0.80 | 0 | NA | NA | 0.26 | 1 | 0.00020 | 0 |
| MW-73 | FC-CCR-MW73- | 11/3/2018 | 0.80 | 0 | NA | NA | 0.31 | 1 | NA | NA |
| MW-73 | FC-CCR-MW73- | 3/18/2019 | 0.80 | 0 | 0.00050 | 0 | 0.26 | 1 | 0.00020 | 0 |
| MW-73 | FC-CCR-MW73- | 5/6/2019 | NA | NA | NA | NA | NA | NA | NA | NA |
| MW-73 | FC-CCR-MW73- | 12/2/2019 | 0.80 | 0 | 0.0010 | 0 | 0.23 | 1 | 0.00020 | 0 |
| MW-73 | FC-CCR-MW73- | 6/20/2020 | 0.8 | 0 | 0.002 | 0 | 0.65 | 1 | NA | NA |
| MW-73 | FC-CCR-MW73- | 11/5/2020 | 0.063 | 1 | 0.001 | 0 | 0.29 | 1 | 0.0002 | 0 |
| MW-73 | FC-CCR-MW73- | 4/22/2021 | 0.4 | 0 | 0.002 | 0 | 0.23 | 1 | 0.0002 | 0 |
| MW-73 | FC-CCR-MW73- | 11/13/2021 | 0.12 | 1 | 0.001 | 0 | 0.31 | 1 | 0.0002 | 0 |
| MW-73 | FC-CCR-MW73- | 5/22/2022 | 0.8 | 0 | 0.001 | 0 | 0.34 | 1 | 0.0002 | 0 |
| MW-73 | FC-CCR-MW73- | 11/14/2022 | 0.8 | 0 | 0.0005 | 0 | 0.29 | 1 | 0.0002 | 0 |
| MW-73 | FC-CCR-MW73- | 5/7/2023 | 80 | 0 | 0.001 | 0 | 0.33 | 1 | 0.0002 | 0 |
| MW-73 | FC-CCR-MW73- | 6/27/2023 | 20 | 0 | 0.0005 | 0 | 0.34 | 1 | 0.0002 | 0 |
| MW-73 | FC-CCR-MW73- | 11/8/2023 | 0.8 | 0 | 0.0005 | 0 | 0.32 | 1 | 0.0002 | 0 |
| MW-73 | FC-CCR-MW73- | 5/16/2024 | 0.4 | 0 | 0.005 | 0 | 0.3 | 1 | 0.0002 | 0 |
| MW-62 | FC-CCR-MW62- | 11/9/2015 | 1.6 | 1 | 0.0010 | 0 | 0.11 | 1 | 0.00020 | 0 |
| MW-62 | FC-CCR-MW- | 4/27/2016 | 1.6 | 1 | 0.00058 | 1 | 0.20 | 0 | 0.00020 | 0 |
| MW-62 | FC-CCR-MW62- | 6/5/2016 | 1.5 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-62 | FC-CCR-MW62- | 8/20/2016 | 1.5 | 1 | 0.00050 | 1 | 0.20 | 0 | 0.00020 | 0 |
| MW-62 | FC-CCR-MW62- | 9/12/2016 | 1.5 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-62 | FC-CCR-MW62- | 10/19/2016 | 1.2 | 1 | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 2/1/2017 | 1.4 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-62 | FC-CCR-MW62- | 4/16/2017 | 1.2 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-62 | FC-CCR-MW62- | 5/1/2017 | 3.3 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-62 | FC-CCR-MW62- | 5/29/2017 | 1.2 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-62 | FC-CCR-MW62- | 6/21/2017 | 1.4 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00025 | 1 |
| MW-62 | FC-CCR-MW62- | 7/21/2017 | 1.5 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-62 | FC-CCR-MW62- | 8/9/2017 | 1.4 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-62 | FC-CCR-MW62- | 8/16/2017 | 1.6 | 1 | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 9/9/2017 | 1.5 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-62 | FC-CCR-MW62- | 10/13/2017 | 1.5 | 1 | 0.0050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-62 | FC-CCR-MW62- | 11/30/2017 | 1.4 | 1 | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW- | 6/3/2018 | 1.6 | 1 | NA | NA | NA | NA | NA | NA |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | Molybdenum | D_Molybdenum | Total Radium | D_Total Radium | Selenium | D_Selenium |
|---|---|---|---|---|---|---|---|---|
| MW-73 | FC-CCR-MW73- | 9/10/2017 | 0.0024 | 1 | 2.5 | 1 | 0.033 | 1 |
| MW-73 | FC-CCR-MW73- | 10/12/2017 | 0.0050 | 0 | 0.9 | 1 | 0.048 | 1 |
| MW-73 | FC-CCR-MW73- | 11/29/2017 | NA | NA | NA | NA | NA | NA |
| MW-73 | FC-CCR-MW73- | 3/16/2018 | NA | NA | 2.6 | 1 | NA | NA |
| MW-73 | FC-CCR-MW- | 6/2/2018 | 0.010 | 0 | 2.8 | 1 | 0.011 | 1 |
| MW-73 | FC-CCR-MW73- | 11/3/2018 | 0.0026 | 1 | 2.9 | 1 | 0.0062 | 1 |
| MW-73 | FC-CCR-MW73- | 3/18/2019 | 0.0017 | 1 | 1.6 | 1 | 0.0069 | 1 |
| MW-73 | FC-CCR-MW73- | 5/6/2019 | NA | NA | 1.7 | 1 | NA | NA |
| MW-73 | FC-CCR-MW73- | 12/2/2019 | 0.0020 | 1 | NA | NA | 0.0086 | 1 |
| MW-73 | FC-CCR-MW73- | 6/20/2020 | 0.0035 | 1 | 3.4 | 1 | 0.0077 | 1 |
| MW-73 | FC-CCR-MW73- | 11/5/2020 | 0.0016 | 1 | 2.8 | 1 | 0.0099 | 1 |
| MW-73 | FC-CCR-MW73- | 4/22/2021 | 0.0011 | 1 | 1.8 | 1 | 0.015 | 1 |
| MW-73 | FC-CCR-MW73- | 11/13/2021 | 0.00093 | 1 | 2.8 | 1 | 0.0072 | 1 |
| MW-73 | FC-CCR-MW73- | 5/22/2022 | 0.0012 | 1 | 1.4 | 1 | 0.0038 | 1 |
| MW-73 | FC-CCR-MW73- | 11/14/2022 | 0.0011 | 1 | 4.9 | 1 | 0.0095 | 1 |
| MW-73 | FC-CCR-MW73- | 5/7/2023 | 0.002 | 0 | 0.8 | 1 | 0.005 | 0 |
| MW-73 | FC-CCR-MW73- | 6/27/2023 | 0.005 | 0 | 3.2 | 1 | 0.005 | 0 |
| MW-73 | FC-CCR-MW73- | 11/8/2023 | 0.0011 | 1 | 2.3 | 1 | 0.002 | 1 |
| MW-73 | FC-CCR-MW73- | 5/16/2024 | 0.005 | 0 | 3.2 | 1 | 0.005 | 0 |
| MW-62 | FC-CCR-MW62- | 11/9/2015 | 0.0043 | 1 | 1.6045 | 1 | 0.00093 | 1 |
| MW-62 | FC-CCR-MW- | 4/27/2016 | 0.0029 | 1 | 0.6 | 1 | 0.00078 | 1 |
| MW-62 | FC-CCR-MW62- | 6/5/2016 | 0.0030 | 1 | 1.1 | 1 | 0.00050 | 0 |
| MW-62 | FC-CCR-MW62- | 8/20/2016 | 0.012 | 1 | 1.4 | 1 | 0.00054 | 1 |
| MW-62 | FC-CCR-MW62- | 9/12/2016 | 0.0044 | 1 | 1.3 | 1 | 0.0030 | 0 |
| MW-62 | FC-CCR-MW62- | 10/19/2016 | NA | NA | 0.9 | 1 | NA | NA |
| MW-62 | FC-CCR-MW62- | 2/1/2017 | 0.0034 | 1 | 1.9 | 1 | 0.00050 | 0 |
| MW-62 | FC-CCR-MW62- | 4/16/2017 | 0.0036 | 1 | 0.6 | 0 | 0.0020 | 0 |
| MW-62 | FC-CCR-MW62- | 5/1/2017 | 0.0032 | 1 | 0.6 | 0 | 0.00050 | 0 |
| MW-62 | FC-CCR-MW62- | 5/29/2017 | 0.0030 | 1 | 1.6 | 1 | 0.00050 | 0 |
| MW-62 | FC-CCR-MW62- | 6/21/2017 | 0.0030 | 1 | 0.6 | 0 | 0.00050 | 0 |
| MW-62 | FC-CCR-MW62- | 7/21/2017 | 0.0029 | 1 | 0.6 | 0 | 0.0020 | 0 |
| MW-62 | FC-CCR-MW62- | 8/9/2017 | 0.0025 | 1 | 0.7 | 0 | 0.00050 | 0 |
| MW-62 | FC-CCR-MW62- | 8/16/2017 | NA | NA | 1.0 | 1 | NA | NA |
| MW-62 | FC-CCR-MW62- | 9/9/2017 | 0.0028 | 1 | 0.6 | 0 | 0.0020 | 0 |
| MW-62 | FC-CCR-MW62- | 10/13/2017 | 0.0031 | 1 | 0.7 | 1 | 0.0020 | 0 |
| MW-62 | FC-CCR-MW62- | 11/30/2017 | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW- | 6/3/2018 | NA | NA | NA | NA | NA | NA |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | Thallium | D_Thallium |
|---|---|---|---|---|
| MW-73 | FC-CCR-MW73- | 9/10/2017 | 0.00040 | 0 |
| MW-73 | FC-CCR-MW73- | 10/12/2017 | 0.0010 | 0 |
| MW-73 | FC-CCR-MW73- | 11/29/2017 | NA | NA |
| MW-73 | FC-CCR-MW73- | 3/16/2018 | NA | NA |
| MW-73 | FC-CCR-MW- | 6/2/2018 | 0.0020 | 0 |
| MW-73 | FC-CCR-MW73- | 11/3/2018 | 0.00020 | 1 |
| MW-73 | FC-CCR-MW73- | 3/18/2019 | 0.00025 | 1 |
| MW-73 | FC-CCR-MW73- | 5/6/2019 | NA | NA |
| MW-73 | FC-CCR-MW73- | 12/2/2019 | 0.00022 | 1 |
| MW-73 | FC-CCR-MW73- | 6/20/2020 | 0.0004 | 0 |
| MW-73 | FC-CCR-MW73- | 11/5/2020 | 0.00022 | 1 |
| MW-73 | FC-CCR-MW73- | 4/22/2021 | 0.00026 | 1 |
| MW-73 | FC-CCR-MW73- | 11/13/2021 | 0.00023 | 1 |
| MW-73 | FC-CCR-MW73- | 5/22/2022 | 0.00023 | 1 |
| MW-73 | FC-CCR-MW73- | 11/14/2022 | 0.00025 | 1 |
| MW-73 | FC-CCR-MW73- | 5/7/2023 | 0.001 | 0 |
| MW-73 | FC-CCR-MW73- | 6/27/2023 | 0.00021 | 1 |
| MW-73 | FC-CCR-MW73- | 11/8/2023 | 0.00025 | 1 |
| MW-73 | FC-CCR-MW73- | 5/16/2024 | 0.001 | 0 |
| MW-62 | FC-CCR-MW62- | 11/9/2015 | 0.0010 | 0 |
| MW-62 | FC-CCR-MW- | 4/27/2016 | 0.00010 | 0 |
| MW-62 | FC-CCR-MW62- | 6/5/2016 | 0.00010 | 0 |
| MW-62 | FC-CCR-MW62- | 8/20/2016 | 0.00010 | 0 |
| MW-62 | FC-CCR-MW62- | 9/12/2016 | 0.00050 | 0 |
| MW-62 | FC-CCR-MW62- | 10/19/2016 | NA | NA |
| MW-62 | FC-CCR-MW62- | 2/1/2017 | 0.00010 | 0 |
| MW-62 | FC-CCR-MW62- | 4/16/2017 | 0.00040 | 0 |
| MW-62 | FC-CCR-MW62- | 5/1/2017 | 0.00010 | 0 |
| MW-62 | FC-CCR-MW62- | 5/29/2017 | 0.00010 | 0 |
| MW-62 | FC-CCR-MW62- | 6/21/2017 | 0.00010 | 0 |
| MW-62 | FC-CCR-MW62- | 7/21/2017 | 0.00040 | 0 |
| MW-62 | FC-CCR-MW62- | 8/9/2017 | 0.00010 | 0 |
| MW-62 | FC-CCR-MW62- | 8/16/2017 | NA | NA |
| MW-62 | FC-CCR-MW62- | 9/9/2017 | 0.00040 | 0 |
| MW-62 | FC-CCR-MW62- | 10/13/2017 | 0.0010 | 0 |
| MW-62 | FC-CCR-MW62- | 11/30/2017 | NA | NA |
| MW-62 | FC-CCR-MW- | 6/3/2018 | NA | NA |

# CWTP Appendix IV Analytical Results - ProUCL

| Designation | StationName | QC_SampleID | NumDate | Antimony | D_Antimony | Arsenic | D_Arsenic | Barium | D_Barium | Beryllium |
|---|---|---|---|---|---|---|---|---|---|---|
| Downgradient | MW-62 | FC-CCR-MW62- | 11/2/2018 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62- | 4/1/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62- | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62- | 12/3/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62- | 6/19/2020 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62- | 11/5/2020 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62- | 1/14/2021 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-62 | FC-CCR-MW62- | 4/22/2021 | 0.0010 | 0 | 0.0019 | 0 | 0.016 | 1 | 0.001 |
| Downgradient | MW-62 | FC-CCR-MW62- | 11/15/2021 | 0.002 | 0 | 0.001 | 0 | 0.025 | 1 | 0.001 |
| Downgradient | MW-62 | FC-CCR-MW62- | 5/20/2022 | 0.001 | 0 | 0.00073 | 1 | 0.015 | 1 | 0.001 |
| Downgradient | MW-62 | FC-CCR-MW62- | 11/13/2022 | 0.001 | 0 | 0.012 | 1 | 0.031 | 1 | 0.001 |
| Downgradient | MW-62 | FC-CCR-MW62- | 5/7/2023 | 0.002 | 0 | 0.011 | 1 | 0.026 | 1 | 0.001 |
| Downgradient | MW-62 | FC-CCR-MW62- | 6/28/2023 | 0.001 | 0 | 0.012 | 1 | 0.022 | 1 | 0.001 |
| Downgradient | MW-62 | FC-CCR-MW62- | 11/6/2023 | 0.001 | 0 | 0.012 | 1 | 0.023 | 1 | 0.001 |
| Downgradient | MW-62 | FC-CCR-MW62- | 5/22/2024 | 0.01 | 0 | 0.012 | 1 | 0.021 | 1 | 0.001 |
| Downgradient | MW-63 | FC-CCR-MW63- | 11/4/2015 | 0.0020 | 0 | 0.0012 | 1 | 0.033 | 1 | 0.000073 |
| Downgradient | MW-63 | FC-CCR-MW- | 4/27/2016 | 0.0025 | 0 | 0.00099 | 1 | 0.021 | 1 | 0.0010 |
| Downgradient | MW-63 | FC-CCR-MW63- | 6/5/2016 | 0.00013 | 1 | 0.00059 | 1 | 0.020 | 1 | 0.0010 |
| Downgradient | MW-63 | FC-CCR-MW63- | 8/20/2016 | 0.00013 | 1 | 0.00082 | 1 | 0.022 | 1 | 0.0010 |
| Downgradient | MW-63 | FC-CCR-MW63- | 9/12/2016 | 0.0025 | 0 | 0.0010 | 0 | 0.022 | 1 | 0.0010 |
| Downgradient | MW-63 | FC-CCR-MW63- | 10/19/2016 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63- | 1/31/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.016 | 1 | 0.0010 |
| Downgradient | MW-63 | FC-CCR-MW63- | 4/17/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.017 | 1 | 0.0010 |
| Downgradient | MW-63 | FC-CCR-MW63- | 5/2/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.017 | 1 | 0.0010 |
| Downgradient | MW-63 | FC-CCR-MW63- | 5/28/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.017 | 1 | 0.0010 |
| Downgradient | MW-63 | FC-CCR-MW63- | 6/21/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.019 | 1 | 0.0010 |
| Downgradient | MW-63 | FC-CCR-MW63- | 7/21/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.018 | 1 | 0.0010 |
| Downgradient | MW-63 | FC-CCR-MW63- | 8/9/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.020 | 1 | 0.0010 |
| Downgradient | MW-63 | FC-CCR-MW63- | 8/16/2017 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63- | 9/9/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.020 | 1 | 0.0010 |
| Downgradient | MW-63 | FC-CCR-MW63- | 10/13/2017 | 0.0040 | 0 | 0.0050 | 0 | 0.022 | 1 | 0.0010 |
| Downgradient | MW-63 | FC-CCR-MW63- | 11/30/2017 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW- | 6/3/2018 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63- | 11/2/2018 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63- | 4/1/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63- | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63- | 12/3/2019 | NA | NA | NA | NA | NA | NA | NA |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | D_Beryllium | Cadmium | D_Cadmium | Chromium | D_Chromium | Cobalt | D_Cobalt |
|---|---|---|---|---|---|---|---|---|---|
| MW-62 | FC-CCR-MW62- | 11/2/2018 | NA | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 4/1/2019 | NA | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 12/3/2019 | NA | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 6/19/2020 | NA | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 11/5/2020 | NA | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 1/14/2021 | NA | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 4/22/2021 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.00065 | 1 |
| MW-62 | FC-CCR-MW62- | 11/15/2021 | 0 | 0.0002 | 0 | 0.002 | 0 | 0.014 | 1 |
| MW-62 | FC-CCR-MW62- | 5/20/2022 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.0014 | 1 |
| MW-62 | FC-CCR-MW62- | 11/13/2022 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.011 | 1 |
| MW-62 | FC-CCR-MW62- | 5/7/2023 | 0 | 0.001 | 0 | 0.003 | 0 | 0.0033 | 1 |
| MW-62 | FC-CCR-MW62- | 6/28/2023 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.0029 | 1 |
| MW-62 | FC-CCR-MW62- | 11/6/2023 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.011 | 1 |
| MW-62 | FC-CCR-MW62- | 5/22/2024 | 0 | 0.001 | 0 | 0.01 | 0 | 0.0036 | 1 |
| MW-63 | FC-CCR-MW63- | 11/4/2015 | 1 | 0.0010 | 0 | 0.00043 | 1 | 0.0086 | 1 |
| MW-63 | FC-CCR-MW- | 4/27/2016 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0059 | 1 |
| MW-63 | FC-CCR-MW63- | 6/5/2016 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0054 | 1 |
| MW-63 | FC-CCR-MW63- | 8/20/2016 | 0 | 0.00010 | 0 | 0.00084 | 1 | 0.0064 | 1 |
| MW-63 | FC-CCR-MW63- | 9/12/2016 | 0 | 0.00050 | 0 | 0.0025 | 0 | 0.0069 | 1 |
| MW-63 | FC-CCR-MW63- | 10/19/2016 | NA | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 1/31/2017 | 0 | 0.00013 | 1 | 0.00050 | 0 | 0.0041 | 1 |
| MW-63 | FC-CCR-MW63- | 4/17/2017 | 0 | 0.00040 | 0 | 0.0020 | 0 | 0.0055 | 1 |
| MW-63 | FC-CCR-MW63- | 5/2/2017 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0050 | 1 |
| MW-63 | FC-CCR-MW63- | 5/28/2017 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0056 | 1 |
| MW-63 | FC-CCR-MW63- | 6/21/2017 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0060 | 1 |
| MW-63 | FC-CCR-MW63- | 7/21/2017 | 0 | 0.00040 | 0 | 0.0020 | 0 | 0.0057 | 1 |
| MW-63 | FC-CCR-MW63- | 8/9/2017 | 0 | 0.00010 | 0 | 0.0010 | 0 | 0.0063 | 1 |
| MW-63 | FC-CCR-MW63- | 8/16/2017 | NA | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 9/9/2017 | 0 | 0.00040 | 0 | 0.0040 | 0 | 0.0060 | 1 |
| MW-63 | FC-CCR-MW63- | 10/13/2017 | 0 | 0.0010 | 0 | 0.010 | 0 | 0.0069 | 1 |
| MW-63 | FC-CCR-MW63- | 11/30/2017 | NA | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW- | 6/3/2018 | NA | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 11/2/2018 | NA | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 4/1/2019 | NA | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 12/3/2019 | NA | NA | NA | NA | NA | NA | NA |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | Fluoride | D_Fluoride | Lead | D_Lead | Lithium | D_Lithium | Mercury | D_Mercury |
|---|---|---|---|---|---|---|---|---|---|---|
| MW-62 | FC-CCR-MW62- | 11/2/2018 | 1.5 | 1 | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 4/1/2019 | 1.6 | 1 | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 5/7/2019 | 1.4 | 1 | NA | NA | 0.20 | 0 | NA | NA |
| MW-62 | FC-CCR-MW62- | 12/3/2019 | 1.5 | 1 | NA | NA | 0.20 | 0 | NA | NA |
| MW-62 | FC-CCR-MW62- | 6/19/2020 | 1.8 | 1 | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 11/5/2020 | 1.8 | 1 | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 1/14/2021 | 1.2 | 1 | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 4/22/2021 | 1.5 | 1 | 0.0005 | 0 | 0.12 | 1 | 0.0002 | 0 |
| MW-62 | FC-CCR-MW62- | 11/15/2021 | 1.4 | 1 | 0.001 | 0 | 0.14 | 1 | 0.0002 | 0 |
| MW-62 | FC-CCR-MW62- | 5/20/2022 | 1.4 | 1 | 0.0005 | 0 | 0.13 | 1 | 0.0002 | 0 |
| MW-62 | FC-CCR-MW62- | 11/13/2022 | 1.6 | 1 | 0.0005 | 0 | 0.15 | 1 | 0.00037 | 1 |
| MW-62 | FC-CCR-MW62- | 5/7/2023 | 80 | 0 | 0.001 | 0 | 0.14 | 1 | 0.00044 | 1 |
| MW-62 | FC-CCR-MW62- | 6/28/2023 | 2 | 1 | 0.0005 | 0 | 0.13 | 1 | 0.0002 | 0 |
| MW-62 | FC-CCR-MW62- | 11/6/2023 | 1.6 | 1 | 0.0005 | 0 | 0.14 | 1 | 0.0002 | 0 |
| MW-62 | FC-CCR-MW62- | 5/22/2024 | 1.3 | 1 | 0.005 | 0 | 0.13 | 1 | 0.0002 | 0 |
| MW-63 | FC-CCR-MW63- | 11/4/2015 | 2.4 | 1 | 0.00015 | 1 | 0.085 | 1 | 0.00020 | 0 |
| MW-63 | FC-CCR-MW- | 4/27/2016 | 2.0 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-63 | FC-CCR-MW63- | 6/5/2016 | 1.9 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-63 | FC-CCR-MW63- | 8/20/2016 | 1.9 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-63 | FC-CCR-MW63- | 9/12/2016 | 2.1 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-63 | FC-CCR-MW63- | 10/19/2016 | 1.8 | 1 | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 1/31/2017 | 2.0 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-63 | FC-CCR-MW63- | 4/17/2017 | 1.6 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-63 | FC-CCR-MW63- | 5/2/2017 | 2.5 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-63 | FC-CCR-MW63- | 5/28/2017 | 1.6 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-63 | FC-CCR-MW63- | 6/21/2017 | 1.9 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-63 | FC-CCR-MW63- | 7/21/2017 | 2.0 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-63 | FC-CCR-MW63- | 8/9/2017 | 1.9 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-63 | FC-CCR-MW63- | 8/16/2017 | 2.1 | 1 | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 9/9/2017 | 2.0 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-63 | FC-CCR-MW63- | 10/13/2017 | 2.0 | 1 | 0.0050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-63 | FC-CCR-MW63- | 11/30/2017 | 1.8 | 1 | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW- | 6/3/2018 | 1.7 | 1 | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 11/2/2018 | 1.9 | 1 | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 4/1/2019 | 1.7 | 1 | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 5/7/2019 | 1.6 | 1 | NA | NA | 0.20 | 0 | NA | NA |
| MW-63 | FC-CCR-MW63- | 12/3/2019 | 1.8 | 1 | NA | NA | 0.20 | 0 | NA | NA |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | Molybdenum | D_Molybdenum | Total Radium | D_Total Radium | Selenium | D_Selenium |
|---|---|---|---|---|---|---|---|---|
| MW-62 | FC-CCR-MW62- | 11/2/2018 | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 4/1/2019 | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 5/7/2019 | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 12/3/2019 | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 6/19/2020 | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 11/5/2020 | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 1/14/2021 | NA | NA | NA | NA | NA | NA |
| MW-62 | FC-CCR-MW62- | 4/22/2021 | 0.0029 | 1 | 0.7 | 0 | 0.0008 | 0 |
| MW-62 | FC-CCR-MW62- | 11/15/2021 | 0.0027 | 1 | 1.1 | 1 | 0.001 | 0 |
| MW-62 | FC-CCR-MW62- | 5/20/2022 | 0.0027 | 1 | 0.7 | 0 | 0.002 | 1 |
| MW-62 | FC-CCR-MW62- | 11/13/2022 | 0.0023 | 1 | 1 | 1 | 0.0005 | 0 |
| MW-62 | FC-CCR-MW62- | 5/7/2023 | 0.002 | 0 | 0.9 | 1 | 0.005 | 0 |
| MW-62 | FC-CCR-MW62- | 6/28/2023 | 0.0012 | 1 | 0.9 | 1 | 0.00094 | 1 |
| MW-62 | FC-CCR-MW62- | 11/6/2023 | 0.0031 | 1 | 0.8 | 0 | 0.00055 | 1 |
| MW-62 | FC-CCR-MW62- | 5/22/2024 | 0.0025 | 1 | 0.8 | 0 | 0.005 | 0 |
| MW-63 | FC-CCR-MW63- | 11/4/2015 | 0.0058 | 1 | 1.298 | 1 | 0.00076 | 1 |
| MW-63 | FC-CCR-MW- | 4/27/2016 | 0.0026 | 1 | 0.6 | 1 | 0.00050 | 0 |
| MW-63 | FC-CCR-MW63- | 6/5/2016 | 0.0025 | 1 | 0.8 | 0 | 0.00050 | 0 |
| MW-63 | FC-CCR-MW63- | 8/20/2016 | 0.017 | 1 | 2.1 | 1 | 0.00050 | 0 |
| MW-63 | FC-CCR-MW63- | 9/12/2016 | 0.0031 | 1 | 1.0 | 1 | 0.0030 | 0 |
| MW-63 | FC-CCR-MW63- | 10/19/2016 | NA | NA | 0.7 | 0 | NA | NA |
| MW-63 | FC-CCR-MW63- | 1/31/2017 | 0.0024 | 1 | 0.7 | 1 | 0.00050 | 0 |
| MW-63 | FC-CCR-MW63- | 4/17/2017 | 0.0022 | 1 | 0.6 | 0 | 0.0020 | 0 |
| MW-63 | FC-CCR-MW63- | 5/2/2017 | 0.0020 | 1 | 0.8 | 1 | 0.00050 | 0 |
| MW-63 | FC-CCR-MW63- | 5/28/2017 | 0.0024 | 1 | 0.5 | 1 | 0.00050 | 0 |
| MW-63 | FC-CCR-MW63- | 6/21/2017 | 0.0024 | 1 | 0.4 | 1 | 0.00050 | 0 |
| MW-63 | FC-CCR-MW63- | 7/21/2017 | 0.0023 | 1 | 0.8 | 1 | 0.0020 | 0 |
| MW-63 | FC-CCR-MW63- | 8/9/2017 | 0.0026 | 1 | 0.7 | 0 | 0.00050 | 0 |
| MW-63 | FC-CCR-MW63- | 8/16/2017 | NA | NA | 0.7 | 0 | NA | NA |
| MW-63 | FC-CCR-MW63- | 9/9/2017 | 0.0025 | 1 | 0.7 | 1 | 0.0020 | 0 |
| MW-63 | FC-CCR-MW63- | 10/13/2017 | 0.0029 | 1 | 1.8 | 1 | 0.0020 | 0 |
| MW-63 | FC-CCR-MW63- | 11/30/2017 | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW- | 6/3/2018 | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 11/2/2018 | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 4/1/2019 | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 5/7/2019 | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 12/3/2019 | NA | NA | NA | NA | NA | NA |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | Thallium | D_Thallium |
|---|---|---|---|---|
| MW-62 | FC-CCR-MW62- | 11/2/2018 | NA | NA |
| MW-62 | FC-CCR-MW62- | 4/1/2019 | NA | NA |
| MW-62 | FC-CCR-MW62- | 5/7/2019 | NA | NA |
| MW-62 | FC-CCR-MW62- | 12/3/2019 | NA | NA |
| MW-62 | FC-CCR-MW62- | 6/19/2020 | NA | NA |
| MW-62 | FC-CCR-MW62- | 11/5/2020 | NA | NA |
| MW-62 | FC-CCR-MW62- | 1/14/2021 | NA | NA |
| MW-62 | FC-CCR-MW62- | 4/22/2021 | 0.0001 | 0 |
| MW-62 | FC-CCR-MW62- | 11/15/2021 | 0.000098 | 1 |
| MW-62 | FC-CCR-MW62- | 5/20/2022 | 0.0002 | 0 |
| MW-62 | FC-CCR-MW62- | 11/13/2022 | 0.0001 | 0 |
| MW-62 | FC-CCR-MW62- | 5/7/2023 | 0.001 | 0 |
| MW-62 | FC-CCR-MW62- | 6/28/2023 | 0.0001 | 0 |
| MW-62 | FC-CCR-MW62- | 11/6/2023 | 0.0001 | 0 |
| MW-62 | FC-CCR-MW62- | 5/22/2024 | 0.001 | 0 |
| MW-63 | FC-CCR-MW63- | 11/4/2015 | 0.00011 | 1 |
| MW-63 | FC-CCR-MW- | 4/27/2016 | 0.00010 | 0 |
| MW-63 | FC-CCR-MW63- | 6/5/2016 | 0.00010 | 0 |
| MW-63 | FC-CCR-MW63- | 8/20/2016 | 0.00010 | 0 |
| MW-63 | FC-CCR-MW63- | 9/12/2016 | 0.00050 | 0 |
| MW-63 | FC-CCR-MW63- | 10/19/2016 | NA | NA |
| MW-63 | FC-CCR-MW63- | 1/31/2017 | 0.00010 | 0 |
| MW-63 | FC-CCR-MW63- | 4/17/2017 | 0.00040 | 0 |
| MW-63 | FC-CCR-MW63- | 5/2/2017 | 0.00010 | 0 |
| MW-63 | FC-CCR-MW63- | 5/28/2017 | 0.00010 | 0 |
| MW-63 | FC-CCR-MW63- | 6/21/2017 | 0.00010 | 0 |
| MW-63 | FC-CCR-MW63- | 7/21/2017 | 0.00040 | 0 |
| MW-63 | FC-CCR-MW63- | 8/9/2017 | 0.00010 | 0 |
| MW-63 | FC-CCR-MW63- | 8/16/2017 | NA | NA |
| MW-63 | FC-CCR-MW63- | 9/9/2017 | 0.00040 | 0 |
| MW-63 | FC-CCR-MW63- | 10/13/2017 | 0.0010 | 0 |
| MW-63 | FC-CCR-MW63- | 11/30/2017 | NA | NA |
| MW-63 | FC-CCR-MW- | 6/3/2018 | NA | NA |
| MW-63 | FC-CCR-MW63- | 11/2/2018 | NA | NA |
| MW-63 | FC-CCR-MW63- | 4/1/2019 | NA | NA |
| MW-63 | FC-CCR-MW63- | 5/7/2019 | NA | NA |
| MW-63 | FC-CCR-MW63- | 12/3/2019 | NA | NA |

# CWTP Appendix IV Analytical Results - ProUCL

| Designation | StationName | QC_SampleID | NumDate | Antimony | D_Antimony | Arsenic | D_Arsenic | Barium | D_Barium | Beryllium |
|---|---|---|---|---|---|---|---|---|---|---|
| Downgradient | MW-63 | FC-CCR-MW63- | 6/19/2020 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63- | 11/5/2020 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-63 | FC-CCR-MW63- | 4/22/2021 | 0.0010 | 0 | 0.0013 | 0 | 0.02 | 1 | 0.001 |
| Downgradient | MW-63 | FC-CCR-MW63- | 11/15/2021 | 0.002 | 0 | 0.001 | 0 | 0.022 | 1 | 0.001 |
| Downgradient | MW-63 | FC-CCR-MW63- | 5/20/2022 | 0.002 | 0 | 0.001 | 0 | 0.015 | 1 | 0.001 |
| Downgradient | MW-63 | FC-CCR-MW63- | 11/13/2022 | 0.001 | 0 | 0.00063 | 1 | 0.023 | 1 | 0.001 |
| Downgradient | MW-63 | FC-CCR-MW63- | 5/7/2023 | 0.002 | 0 | 0.005 | 0 | 0.016 | 1 | 0.001 |
| Downgradient | MW-63 | FC-CCR-MW63- | 6/27/2023 | 0.001 | 0 | 0.0012 | 1 | 0.014 | 1 | 0.001 |
| Downgradient | MW-63 | FC-CCR-MW63- | 11/6/2023 | 0.001 | 0 | 0.0013 | 1 | 0.025 | 1 | 0.001 |
| Downgradient | MW-63 | FC-CCR-MW63- | 5/22/2024 | 0.01 | 0 | 0.0053 | 1 | 0.015 | 1 | 0.001 |
| Downgradient | MW-64 | FC-CCR-MW64- | 11/5/2015 | 0.0020 | 0 | 0.00070 | 1 | 0.027 | 1 | 0.0010 |
| Downgradient | MW-64 | FC-CCR-MW- | 4/27/2016 | 0.0025 | 0 | 0.00050 | 0 | 0.027 | 1 | 0.0010 |
| Downgradient | MW-64 | FC-CCR-MW64- | 6/5/2016 | 0.00010 | 0 | 0.00050 | 0 | 0.027 | 1 | 0.0010 |
| Downgradient | MW-64 | FC-CCR-MW64- | 8/20/2016 | 0.00010 | 0 | 0.00056 | 1 | 0.033 | 1 | 0.0010 |
| Downgradient | MW-64 | FC-CCR-MW64- | 9/12/2016 | 0.0025 | 0 | 0.0010 | 0 | 0.027 | 1 | 0.0010 |
| Downgradient | MW-64 | FC-CCR-MW64- | 10/19/2016 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64- | 1/31/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.025 | 1 | 0.0010 |
| Downgradient | MW-64 | FC-CCR-MW64- | 4/17/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.026 | 1 | 0.0010 |
| Downgradient | MW-64 | FC-CCR-MW64- | 5/2/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.026 | 1 | 0.0010 |
| Downgradient | MW-64 | FC-CCR-MW64- | 5/28/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.025 | 1 | 0.0010 |
| Downgradient | MW-64 | FC-CCR-MW64- | 6/21/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.027 | 1 | 0.0010 |
| Downgradient | MW-64 | FC-CCR-MW64- | 7/21/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.024 | 1 | 0.0010 |
| Downgradient | MW-64 | FC-CCR-MW64- | 8/9/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.027 | 1 | 0.0010 |
| Downgradient | MW-64 | FC-CCR-MW64- | 8/16/2017 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64- | 9/9/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.024 | 1 | 0.0010 |
| Downgradient | MW-64 | FC-CCR-MW64- | 10/13/2017 | 0.0040 | 0 | 0.0050 | 0 | 0.029 | 1 | 0.0010 |
| Downgradient | MW-64 | FC-CCR-MW64- | 11/30/2017 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW- | 6/3/2018 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64- | 11/2/2018 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64- | 4/1/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64- | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64- | 12/3/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64- | 6/19/2020 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64- | 11/5/2020 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-64 | FC-CCR-MW64- | 4/22/2021 | 0.0010 | 0 | 0.00096 | 0 | 0.033 | 1 | 0.001 |
| Downgradient | MW-64 | FC-CCR-MW64- | 11/15/2021 | 0.002 | 0 | 0.001 | 0 | 0.024 | 1 | 0.001 |
| Downgradient | MW-64 | FC-CCR-MW64- | 5/20/2022 | 0.002 | 0 | 0.001 | 0 | 0.035 | 1 | 0.001 |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | D_Beryllium | Cadmium | D_Cadmium | Chromium | D_Chromium | Cobalt | D_Cobalt |
|---|---|---|---|---|---|---|---|---|---|
| MW-63 | FC-CCR-MW63- | 6/19/2020 | NA | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 11/5/2020 | NA | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 4/22/2021 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.00062 | 1 |
| MW-63 | FC-CCR-MW63- | 11/15/2021 | 0 | 0.000064 | 1 | 0.002 | 0 | 0.0022 | 1 |
| MW-63 | FC-CCR-MW63- | 5/20/2022 | 0 | 0.0002 | 0 | 0.002 | 0 | 0.0012 | 1 |
| MW-63 | FC-CCR-MW63- | 11/13/2022 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.0026 | 1 |
| MW-63 | FC-CCR-MW63- | 5/7/2023 | 0 | 0.001 | 0 | 0.003 | 0 | 0.001 | 0 |
| MW-63 | FC-CCR-MW63- | 6/27/2023 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.0015 | 1 |
| MW-63 | FC-CCR-MW63- | 11/6/2023 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.0037 | 1 |
| MW-63 | FC-CCR-MW63- | 5/22/2024 | 0 | 0.001 | 0 | 0.01 | 0 | 0.0019 | 1 |
| MW-64 | FC-CCR-MW64- | 11/5/2015 | 0 | 0.0010 | 0 | 0.00023 | 1 | 0.0015 | 1 |
| MW-64 | FC-CCR-MW- | 4/27/2016 | 0 | 0.00010 | 0 | 0.00071 | 1 | 0.0017 | 1 |
| MW-64 | FC-CCR-MW64- | 6/5/2016 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0012 | 1 |
| MW-64 | FC-CCR-MW64- | 8/20/2016 | 0 | 0.00010 | 0 | 0.00093 | 1 | 0.0015 | 1 |
| MW-64 | FC-CCR-MW64- | 9/12/2016 | 0 | 0.00050 | 0 | 0.0025 | 0 | 0.0015 | 1 |
| MW-64 | FC-CCR-MW64- | 10/19/2016 | NA | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 1/31/2017 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0012 | 1 |
| MW-64 | FC-CCR-MW64- | 4/17/2017 | 0 | 0.00040 | 0 | 0.0020 | 0 | 0.0020 | 0 |
| MW-64 | FC-CCR-MW64- | 5/2/2017 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0011 | 1 |
| MW-64 | FC-CCR-MW64- | 5/28/2017 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0011 | 1 |
| MW-64 | FC-CCR-MW64- | 6/21/2017 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0012 | 1 |
| MW-64 | FC-CCR-MW64- | 7/21/2017 | 0 | 0.00040 | 0 | 0.0020 | 0 | 0.0020 | 0 |
| MW-64 | FC-CCR-MW64- | 8/9/2017 | 0 | 0.00010 | 0 | 0.0010 | 0 | 0.0012 | 1 |
| MW-64 | FC-CCR-MW64- | 8/16/2017 | NA | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 9/9/2017 | 0 | 0.00040 | 0 | 0.0040 | 0 | 0.0020 | 0 |
| MW-64 | FC-CCR-MW64- | 10/13/2017 | 0 | 0.0010 | 0 | 0.010 | 0 | 0.0050 | 0 |
| MW-64 | FC-CCR-MW64- | 11/30/2017 | NA | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW- | 6/3/2018 | NA | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 11/2/2018 | NA | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 4/1/2019 | NA | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 12/3/2019 | NA | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 6/19/2020 | NA | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 11/5/2020 | NA | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 4/22/2021 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.00083 | 1 |
| MW-64 | FC-CCR-MW64- | 11/15/2021 | 0 | 0.000058 | 1 | 0.002 | 0 | 0.0018 | 1 |
| MW-64 | FC-CCR-MW64- | 5/20/2022 | 0 | 0.0002 | 0 | 0.002 | 0 | 0.0011 | 1 |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | Fluoride | D_Fluoride | Lead | D_Lead | Lithium | D_Lithium | Mercury | D_Mercury |
|---|---|---|---|---|---|---|---|---|---|---|
| MW-63 | FC-CCR-MW63- | 6/19/2020 | 2.1 | 1 | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 11/5/2020 | 2.2 | 1 | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 4/22/2021 | 2 | 1 | 0.0005 | 0 | 0.057 | 1 | 0.0002 | 0 |
| MW-63 | FC-CCR-MW63- | 11/15/2021 | 0.28 | 1 | 0.001 | 0 | 0.066 | 1 | 0.0002 | 0 |
| MW-63 | FC-CCR-MW63- | 5/20/2022 | 2.1 | 1 | 0.001 | 0 | 0.058 | 1 | 0.0002 | 0 |
| MW-63 | FC-CCR-MW63- | 11/13/2022 | 2.1 | 1 | 0.0005 | 0 | 0.061 | 1 | 0.0002 | 0 |
| MW-63 | FC-CCR-MW63- | 5/7/2023 | 8 | 0 | 0.001 | 0 | 0.055 | 1 | 0.0002 | 0 |
| MW-63 | FC-CCR-MW63- | 6/27/2023 | 1.8 | 1 | 0.0005 | 0 | 0.045 | 1 | 0.0002 | 0 |
| MW-63 | FC-CCR-MW63- | 11/6/2023 | 2.2 | 1 | 0.0005 | 0 | 0.053 | 1 | 0.0002 | 0 |
| MW-63 | FC-CCR-MW63- | 5/22/2024 | 2.1 | 1 | 0.005 | 0 | 0.064 | 1 | 0.0002 | 0 |
| MW-64 | FC-CCR-MW64- | 11/5/2015 | 1.5 | 1 | 0.00016 | 1 | 0.022 | 1 | 0.00020 | 0 |
| MW-64 | FC-CCR-MW- | 4/27/2016 | 1.4 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-64 | FC-CCR-MW64- | 6/5/2016 | 1.5 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-64 | FC-CCR-MW64- | 8/20/2016 | 1.6 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-64 | FC-CCR-MW64- | 9/12/2016 | 1.5 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-64 | FC-CCR-MW64- | 10/19/2016 | 1.5 | 1 | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 1/31/2017 | 1.5 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-64 | FC-CCR-MW64- | 4/17/2017 | 1.4 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-64 | FC-CCR-MW64- | 5/2/2017 | 1.3 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-64 | FC-CCR-MW64- | 5/28/2017 | 1.5 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-64 | FC-CCR-MW64- | 6/21/2017 | 1.4 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-64 | FC-CCR-MW64- | 7/21/2017 | 1.5 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-64 | FC-CCR-MW64- | 8/9/2017 | 1.5 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-64 | FC-CCR-MW64- | 8/16/2017 | 1.5 | 1 | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 9/9/2017 | 1.5 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-64 | FC-CCR-MW64- | 10/13/2017 | 1.4 | 1 | 0.0050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-64 | FC-CCR-MW64- | 11/30/2017 | 1.4 | 1 | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW- | 6/3/2018 | 1.4 | 1 | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 11/2/2018 | 1.4 | 1 | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 4/1/2019 | 1.4 | 1 | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 5/7/2019 | 1.4 | 1 | NA | NA | 0.20 | 0 | NA | NA |
| MW-64 | FC-CCR-MW64- | 12/3/2019 | 1.5 | 1 | NA | NA | 0.20 | 0 | NA | NA |
| MW-64 | FC-CCR-MW64- | 6/19/2020 | 1.3 | 1 | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 11/5/2020 | 1.6 | 1 | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 4/22/2021 | 1.4 | 1 | 0.0005 | 0 | 0.019 | 1 | 0.0002 | 0 |
| MW-64 | FC-CCR-MW64- | 11/15/2021 | 1.4 | 1 | 0.001 | 0 | 0.019 | 1 | 0.0002 | 0 |
| MW-64 | FC-CCR-MW64- | 5/20/2022 | 1.4 | 1 | 0.001 | 0 | 0.027 | 1 | 0.0002 | 0 |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | Molybdenum | D_Molybdenum | Total Radium | D_Total Radium | Selenium | D_Selenium |
|---|---|---|---|---|---|---|---|---|
| MW-63 | FC-CCR-MW63- | 6/19/2020 | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 11/5/2020 | NA | NA | NA | NA | NA | NA |
| MW-63 | FC-CCR-MW63- | 4/22/2021 | 0.0019 | 1 | 0.7 | 0 | 0.00050 | 0 |
| MW-63 | FC-CCR-MW63- | 11/15/2021 | 0.0035 | 1 | 0.6 | 0 | 0.001 | 0 |
| MW-63 | FC-CCR-MW63- | 5/20/2022 | 0.0029 | 1 | 0.7 | 0 | 0.0013 | 1 |
| MW-63 | FC-CCR-MW63- | 11/13/2022 | 0.0036 | 1 | 0.6 | 0 | 0.00051 | 1 |
| MW-63 | FC-CCR-MW63- | 5/7/2023 | 0.0022 | 1 | 0.8 | 1 | 0.005 | 0 |
| MW-63 | FC-CCR-MW63- | 6/27/2023 | 0.003 | 1 | 0.6 | 0 | 0.00068 | 1 |
| MW-63 | FC-CCR-MW63- | 11/6/2023 | 0.0033 | 1 | 0.8 | 0 | 0.0005 | 0 |
| MW-63 | FC-CCR-MW63- | 5/22/2024 | 0.003 | 1 | 1.4 | 1 | 0.005 | 0 |
| MW-64 | FC-CCR-MW64- | 11/5/2015 | 0.0057 | 1 | 0.731 | 1 | 0.00033 | 1 |
| MW-64 | FC-CCR-MW- | 4/27/2016 | 0.0051 | 1 | 0.8 | 0 | 0.00050 | 0 |
| MW-64 | FC-CCR-MW64- | 6/5/2016 | 0.0050 | 1 | 0.8 | 0 | 0.00050 | 0 |
| MW-64 | FC-CCR-MW64- | 8/20/2016 | 0.0073 | 1 | 0.7 | 0 | 0.00050 | 0 |
| MW-64 | FC-CCR-MW64- | 9/12/2016 | 0.0052 | 1 | 0.8 | 1 | 0.0030 | 0 |
| MW-64 | FC-CCR-MW64- | 10/19/2016 | NA | NA | 0.5 | 0 | NA | NA |
| MW-64 | FC-CCR-MW64- | 1/31/2017 | 0.0048 | 1 | 1.7 | 1 | 0.00050 | 0 |
| MW-64 | FC-CCR-MW64- | 4/17/2017 | 0.0049 | 1 | 0.6 | 0 | 0.0020 | 0 |
| MW-64 | FC-CCR-MW64- | 5/2/2017 | 0.0045 | 1 | 0.7 | 0 | 0.00050 | 0 |
| MW-64 | FC-CCR-MW64- | 5/28/2017 | 0.0045 | 1 | 0.6 | 0 | 0.00050 | 0 |
| MW-64 | FC-CCR-MW64- | 6/21/2017 | 0.0051 | 1 | 0.6 | 0 | 0.00050 | 0 |
| MW-64 | FC-CCR-MW64- | 7/21/2017 | 0.0042 | 1 | 0.6 | 0 | 0.0020 | 0 |
| MW-64 | FC-CCR-MW64- | 8/9/2017 | 0.0047 | 1 | 0.8 | 1 | 0.00050 | 0 |
| MW-64 | FC-CCR-MW64- | 8/16/2017 | NA | NA | 0.7 | 0 | NA | NA |
| MW-64 | FC-CCR-MW64- | 9/9/2017 | 0.0045 | 1 | 0.6 | 0 | 0.0020 | 0 |
| MW-64 | FC-CCR-MW64- | 10/13/2017 | 0.0051 | 1 | 0.6 | 0 | 0.0020 | 0 |
| MW-64 | FC-CCR-MW64- | 11/30/2017 | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW- | 6/3/2018 | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 11/2/2018 | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 4/1/2019 | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 5/7/2019 | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 12/3/2019 | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 6/19/2020 | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 11/5/2020 | NA | NA | NA | NA | NA | NA |
| MW-64 | FC-CCR-MW64- | 4/22/2021 | 0.0047 | 1 | 0.7 | 0 | 0.00050 | 0 |
| MW-64 | FC-CCR-MW64- | 11/15/2021 | 0.0052 | 1 | 0.6 | 0 | 0.001 | 0 |
| MW-64 | FC-CCR-MW64- | 5/20/2022 | 0.0049 | 1 | 0.7 | 0 | 0.001 | 0 |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | Thallium | D_Thallium |
|---|---|---|---|---|
| MW-63 | FC-CCR-MW63- | 6/19/2020 | NA | NA |
| MW-63 | FC-CCR-MW63- | 11/5/2020 | NA | NA |
| MW-63 | FC-CCR-MW63- | 4/22/2021 | 0.0001 | 0 |
| MW-63 | FC-CCR-MW63- | 11/15/2021 | 0.00015 | 1 |
| MW-63 | FC-CCR-MW63- | 5/20/2022 | 0.0002 | 0 |
| MW-63 | FC-CCR-MW63- | 11/13/2022 | 0.0001 | 0 |
| MW-63 | FC-CCR-MW63- | 5/7/2023 | 0.001 | 0 |
| MW-63 | FC-CCR-MW63- | 6/27/2023 | 0.0001 | 0 |
| MW-63 | FC-CCR-MW63- | 11/6/2023 | 0.0001 | 0 |
| MW-63 | FC-CCR-MW63- | 5/22/2024 | 0.001 | 0 |
| MW-64 | FC-CCR-MW64- | 11/5/2015 | 0.00011 | 1 |
| MW-64 | FC-CCR-MW- | 4/27/2016 | 0.00012 | 1 |
| MW-64 | FC-CCR-MW64- | 6/5/2016 | 0.00010 | 0 |
| MW-64 | FC-CCR-MW64- | 8/20/2016 | 0.00013 | 1 |
| MW-64 | FC-CCR-MW64- | 9/12/2016 | 0.00050 | 0 |
| MW-64 | FC-CCR-MW64- | 10/19/2016 | NA | NA |
| MW-64 | FC-CCR-MW64- | 1/31/2017 | 0.00011 | 1 |
| MW-64 | FC-CCR-MW64- | 4/17/2017 | 0.00012 | 1 |
| MW-64 | FC-CCR-MW64- | 5/2/2017 | 0.00011 | 1 |
| MW-64 | FC-CCR-MW64- | 5/28/2017 | 0.00010 | 0 |
| MW-64 | FC-CCR-MW64- | 6/21/2017 | 0.00020 | 1 |
| MW-64 | FC-CCR-MW64- | 7/21/2017 | 0.00040 | 0 |
| MW-64 | FC-CCR-MW64- | 8/9/2017 | 0.00010 | 0 |
| MW-64 | FC-CCR-MW64- | 8/16/2017 | NA | NA |
| MW-64 | FC-CCR-MW64- | 9/9/2017 | 0.00040 | 0 |
| MW-64 | FC-CCR-MW64- | 10/13/2017 | 0.00040 | 0 |
| MW-64 | FC-CCR-MW64- | 11/30/2017 | NA | NA |
| MW-64 | FC-CCR-MW- | 6/3/2018 | NA | NA |
| MW-64 | FC-CCR-MW64- | 11/2/2018 | NA | NA |
| MW-64 | FC-CCR-MW64- | 4/1/2019 | NA | NA |
| MW-64 | FC-CCR-MW64- | 5/7/2019 | NA | NA |
| MW-64 | FC-CCR-MW64- | 12/3/2019 | NA | NA |
| MW-64 | FC-CCR-MW64- | 6/19/2020 | NA | NA |
| MW-64 | FC-CCR-MW64- | 11/5/2020 | NA | NA |
| MW-64 | FC-CCR-MW64- | 4/22/2021 | 0.0001 | 0 |
| MW-64 | FC-CCR-MW64- | 11/15/2021 | 0.00041 | 1 |
| MW-64 | FC-CCR-MW64- | 5/20/2022 | 0.0002 | 0 |

# CWTP Appendix IV Analytical Results - ProUCL

| Designation | StationName | QC_SampleID | NumDate | Antimony | D_Antimony | Arsenic | D_Arsenic | Barium | D_Barium | Beryllium |
|---|---|---|---|---|---|---|---|---|---|---|
| Downgradient | MW-64 | FC-CCR-MW64- | 11/13/2022 | 0.001 | 0 | 0.0005 | 0 | 0.023 | 1 | 0.001 |
| Downgradient | MW-64 | FC-CCR-MW64- | 5/7/2023 | 0.002 | 0 | 0.005 | 0 | 0.022 | 1 | 0.0051 |
| Downgradient | MW-64 | FC-CCR-MW64- | 6/27/2023 | 0.001 | 0 | 0.001 | 1 | 0.022 | 1 | 0.001 |
| Downgradient | MW-64 | FC-CCR-MW64- | 11/6/2023 | 0.001 | 0 | 0.00097 | 1 | 0.029 | 1 | 0.001 |
| Downgradient | MW-64 | FC-CCR-MW64- | 5/22/2024 | 0.01 | 0 | 0.0055 | 1 | 0.048 | 1 | 0.001 |
| Downgradient | MW-65 | FC-CCR-MW65- | 11/5/2015 | 0.0020 | 0 | 0.00071 | 1 | 0.014 | 1 | 0.0010 |
| Downgradient | MW-65 | FC-CCR-MW- | 4/27/2016 | 0.0025 | 0 | 0.00050 | 0 | 0.017 | 1 | 0.0010 |
| Downgradient | MW-65 | FC-CCR-MW65- | 6/5/2016 | 0.00010 | 0 | 0.00050 | 0 | 0.014 | 1 | 0.0010 |
| Downgradient | MW-65 | FC-CCR-MW65- | 8/20/2016 | 0.00010 | 0 | 0.00050 | 0 | 0.019 | 1 | 0.0010 |
| Downgradient | MW-65 | FC-CCR-MW65- | 9/12/2016 | 0.0025 | 0 | 0.0010 | 0 | 0.013 | 1 | 0.0010 |
| Downgradient | MW-65 | FC-CCR-MW65- | 10/19/2016 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65- | 2/1/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.014 | 1 | 0.0010 |
| Downgradient | MW-65 | FC-CCR-MW65- | 4/16/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.016 | 1 | 0.0010 |
| Downgradient | MW-65 | FC-CCR-MW65- | 5/1/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.017 | 1 | 0.0010 |
| Downgradient | MW-65 | FC-CCR-MW65- | 5/29/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.021 | 1 | 0.0010 |
| Downgradient | MW-65 | FC-CCR-MW65- | 6/21/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.018 | 1 | 0.0010 |
| Downgradient | MW-65 | FC-CCR-MW65- | 7/21/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.012 | 1 | 0.0010 |
| Downgradient | MW-65 | FC-CCR-MW65- | 8/9/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.012 | 1 | 0.0010 |
| Downgradient | MW-65 | FC-CCR-MW65- | 8/16/2017 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65- | 9/9/2017 | 0.0040 | 0 | 0.0020 | 0 | 0.012 | 1 | 0.0010 |
| Downgradient | MW-65 | FC-CCR-MW65- | 10/13/2017 | 0.0010 | 0 | 0.00050 | 0 | 0.013 | 1 | 0.0010 |
| Downgradient | MW-65 | FC-CCR-MW65- | 11/30/2017 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW- | 6/3/2018 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65- | 11/2/2018 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65- | 4/1/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65- | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65- | 12/3/2019 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65- | 6/19/2020 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65- | 11/5/2020 | NA | NA | NA | NA | NA | NA | NA |
| Downgradient | MW-65 | FC-CCR-MW65- | 4/22/2021 | 0.0010 | 0 | 0.00099 | 0 | 0.032 | 1 | 0.001 |
| Downgradient | MW-65 | FC-CCR-MW65- | 11/15/2021 | 0.002 | 0 | 0.001 | 0 | 0.02 | 1 | 0.001 |
| Downgradient | MW-65 | FC-CCR-MW65- | 5/20/2022 | 0.002 | 0 | 0.001 | 0 | 0.042 | 1 | 0.001 |
| Downgradient | MW-65 | FC-CCR-MW65- | 11/13/2022 | 0.001 | 0 | 0.00059 | 1 | 0.021 | 1 | 0.001 |
| Downgradient | MW-65 | FC-CCR-MW65- | 5/7/2023 | 0.002 | 0 | 0.005 | 0 | 0.023 | 1 | 0.001 |
| Downgradient | MW-65 | FC-CCR-MW65- | 6/28/2023 | 0.001 | 0 | 0.0013 | 1 | 0.022 | 1 | 0.001 |
| Downgradient | MW-65 | FC-CCR-MW65- | 11/6/2023 | 0.001 | 0 | 0.0011 | 1 | 0.021 | 1 | 0.001 |
| Downgradient | MW-65 | FC-CCR-MW65- | 5/22/2024 | 0.01 | 0 | 0.0052 | 1 | 0.037 | 1 | 0.001 |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | D_Beryllium | Cadmium | D_Cadmium | Chromium | D_Chromium | Cobalt | D_Cobalt |
|---|---|---|---|---|---|---|---|---|---|
| MW-64 | FC-CCR-MW64- | 11/13/2022 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.0018 | 1 |
| MW-64 | FC-CCR-MW64- | 5/7/2023 | 1 | 0.001 | 0 | 0.003 | 0 | 0.0017 | 1 |
| MW-64 | FC-CCR-MW64- | 6/27/2023 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.0017 | 1 |
| MW-64 | FC-CCR-MW64- | 11/6/2023 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.0016 | 1 |
| MW-64 | FC-CCR-MW64- | 5/22/2024 | 0 | 0.001 | 0 | 0.01 | 0 | 0.0017 | 1 |
| MW-65 | FC-CCR-MW65- | 11/5/2015 | 0 | 0.0010 | 0 | 0.00049 | 1 | 0.0012 | 1 |
| MW-65 | FC-CCR-MW- | 4/27/2016 | 0 | 0.00010 | 0 | 0.0015 | 1 | 0.0012 | 1 |
| MW-65 | FC-CCR-MW65- | 6/5/2016 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0011 | 1 |
| MW-65 | FC-CCR-MW65- | 8/20/2016 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0012 | 1 |
| MW-65 | FC-CCR-MW65- | 9/12/2016 | 0 | 0.00050 | 0 | 0.0025 | 0 | 0.0014 | 1 |
| MW-65 | FC-CCR-MW65- | 10/19/2016 | NA | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 2/1/2017 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0011 | 1 |
| MW-65 | FC-CCR-MW65- | 4/16/2017 | 0 | 0.00040 | 0 | 0.0020 | 0 | 0.0020 | 0 |
| MW-65 | FC-CCR-MW65- | 5/1/2017 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0011 | 1 |
| MW-65 | FC-CCR-MW65- | 5/29/2017 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0010 | 1 |
| MW-65 | FC-CCR-MW65- | 6/21/2017 | 0 | 0.00010 | 0 | 0.00050 | 0 | 0.0011 | 1 |
| MW-65 | FC-CCR-MW65- | 7/21/2017 | 0 | 0.00040 | 0 | 0.0020 | 0 | 0.0020 | 0 |
| MW-65 | FC-CCR-MW65- | 8/9/2017 | 0 | 0.00010 | 0 | 0.0010 | 0 | 0.0012 | 1 |
| MW-65 | FC-CCR-MW65- | 8/16/2017 | NA | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 9/9/2017 | 0 | 0.00040 | 0 | 0.0040 | 0 | 0.0020 | 0 |
| MW-65 | FC-CCR-MW65- | 10/13/2017 | 0 | 0.00010 | 0 | 0.0010 | 0 | 0.0011 | 1 |
| MW-65 | FC-CCR-MW65- | 11/30/2017 | NA | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW- | 6/3/2018 | NA | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 11/2/2018 | NA | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 4/1/2019 | NA | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 5/7/2019 | NA | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 12/3/2019 | NA | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 6/19/2020 | NA | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 11/5/2020 | NA | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 4/22/2021 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.002 | 1 |
| MW-65 | FC-CCR-MW65- | 11/15/2021 | 0 | 0.0002 | 0 | 0.002 | 0 | 0.0022 | 1 |
| MW-65 | FC-CCR-MW65- | 5/20/2022 | 0 | 0.0002 | 0 | 0.002 | 0 | 0.0029 | 1 |
| MW-65 | FC-CCR-MW65- | 11/13/2022 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.0019 | 1 |
| MW-65 | FC-CCR-MW65- | 5/7/2023 | 0 | 0.001 | 0 | 0.003 | 0 | 0.0018 | 1 |
| MW-65 | FC-CCR-MW65- | 6/28/2023 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.0017 | 1 |
| MW-65 | FC-CCR-MW65- | 11/6/2023 | 0 | 0.0001 | 0 | 0.001 | 0 | 0.0016 | 1 |
| MW-65 | FC-CCR-MW65- | 5/22/2024 | 0 | 0.001 | 0 | 0.01 | 0 | 0.0032 | 1 |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | Fluoride | D_Fluoride | Lead | D_Lead | Lithium | D_Lithium | Mercury | D_Mercury |
|---|---|---|---|---|---|---|---|---|---|---|
| MW-64 | FC-CCR-MW64- | 11/13/2022 | 1.6 | 1 | 0.0005 | 0 | 0.021 | 1 | 0.0002 | 0 |
| MW-64 | FC-CCR-MW64- | 5/7/2023 | 1.4 | 1 | 0.001 | 0 | 0.023 | 1 | 0.0002 | 0 |
| MW-64 | FC-CCR-MW64- | 6/27/2023 | 1.3 | 1 | 0.0005 | 0 | 0.02 | 1 | 0.0002 | 0 |
| MW-64 | FC-CCR-MW64- | 11/6/2023 | 1.5 | 1 | 0.0005 | 0 | 0.05 | 0 | 0.0002 | 0 |
| MW-64 | FC-CCR-MW64- | 5/22/2024 | 1 | 1 | 0.005 | 0 | 0.045 | 1 | 0.0002 | 0 |
| MW-65 | FC-CCR-MW65- | 11/5/2015 | 2.0 | 1 | 0.0010 | 0 | 0.054 | 1 | 0.00020 | 0 |
| MW-65 | FC-CCR-MW- | 4/27/2016 | 1.8 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-65 | FC-CCR-MW65- | 6/5/2016 | 2.0 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-65 | FC-CCR-MW65- | 8/20/2016 | 2.1 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-65 | FC-CCR-MW65- | 9/12/2016 | 2.0 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-65 | FC-CCR-MW65- | 10/19/2016 | 2.0 | 1 | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 2/1/2017 | 2.0 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-65 | FC-CCR-MW65- | 4/16/2017 | 1.8 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-65 | FC-CCR-MW65- | 5/1/2017 | 1.6 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-65 | FC-CCR-MW65- | 5/29/2017 | 1.8 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-65 | FC-CCR-MW65- | 6/21/2017 | 1.9 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-65 | FC-CCR-MW65- | 7/21/2017 | 2.0 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-65 | FC-CCR-MW65- | 8/9/2017 | 2.0 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-65 | FC-CCR-MW65- | 8/16/2017 | 2.0 | 1 | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 9/9/2017 | 2.0 | 1 | 0.0020 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-65 | FC-CCR-MW65- | 10/13/2017 | 1.9 | 1 | 0.00050 | 0 | 0.20 | 0 | 0.00020 | 0 |
| MW-65 | FC-CCR-MW65- | 11/30/2017 | 2.0 | 1 | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW- | 6/3/2018 | 1.9 | 1 | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 11/2/2018 | 1.9 | 1 | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 4/1/2019 | 1.8 | 1 | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 5/7/2019 | 1.7 | 1 | NA | NA | 0.20 | 0 | NA | NA |
| MW-65 | FC-CCR-MW65- | 12/3/2019 | 1.9 | 1 | NA | NA | 0.20 | 0 | NA | NA |
| MW-65 | FC-CCR-MW65- | 6/19/2020 | 1.7 | 1 | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 11/5/2020 | 2.1 | 1 | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 4/22/2021 | 1.5 | 1 | 0.0005 | 0 | 0.061 | 1 | 0.0002 | 0 |
| MW-65 | FC-CCR-MW65- | 11/15/2021 | 1.7 | 1 | 0.001 | 0 | 0.053 | 1 | 0.0002 | 0 |
| MW-65 | FC-CCR-MW65- | 5/20/2022 | 1.5 | 1 | 0.001 | 0 | 0.081 | 1 | 0.0002 | 0 |
| MW-65 | FC-CCR-MW65- | 11/13/2022 | 1.8 | 1 | 0.0005 | 0 | 0.05 | 1 | 0.0002 | 0 |
| MW-65 | FC-CCR-MW65- | 5/7/2023 | 2 | 0 | 0.001 | 0 | 0.045 | 1 | 0.0002 | 0 |
| MW-65 | FC-CCR-MW65- | 6/28/2023 | 1.4 | 1 | 0.0005 | 0 | 0.05 | 1 | 0.0002 | 0 |
| MW-65 | FC-CCR-MW65- | 11/6/2023 | 1.5 | 1 | 0.0005 | 0 | 0.05 | 0 | 0.0002 | 0 |
| MW-65 | FC-CCR-MW65- | 5/22/2024 | 1.3 | 1 | 0.005 | 0 | 0.073 | 1 | 0.0002 | 0 |

# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | Molybdenum | D_Molybdenum | Total Radium | D_Total Radium | Selenium | D_Selenium |
|---|---|---|---|---|---|---|---|---|
| MW-64 | FC-CCR-MW64- | 11/13/2022 | 0.0052 | 1 | 0.8 | 1 | 0.0005 | 0 |
| MW-64 | FC-CCR-MW64- | 5/7/2023 | 0.005 | 1 | 0.6 | 0 | 0.005 | 0 |
| MW-64 | FC-CCR-MW64- | 6/27/2023 | 0.0046 | 1 | 1.7 | 1 | 0.0005 | 0 |
| MW-64 | FC-CCR-MW64- | 11/6/2023 | 0.0044 | 1 | 0.8 | 0 | 0.0005 | 0 |
| MW-64 | FC-CCR-MW64- | 5/22/2024 | 0.0036 | 1 | 1.0 | 1 | 0.005 | 0 |
| MW-65 | FC-CCR-MW65- | 11/5/2015 | 0.0093 | 1 | 0.4784 | 1 | 0.00034 | 1 |
| MW-65 | FC-CCR-MW- | 4/27/2016 | 0.0078 | 1 | 0.8 | 0 | 0.00050 | 0 |
| MW-65 | FC-CCR-MW65- | 6/5/2016 | 0.0083 | 1 | 0.8 | 0 | 0.00050 | 0 |
| MW-65 | FC-CCR-MW65- | 8/20/2016 | 0.013 | 1 | 0.4 | 0 | 0.00050 | 0 |
| MW-65 | FC-CCR-MW65- | 9/12/2016 | 0.0084 | 1 | 1.0 | 1 | 0.0030 | 0 |
| MW-65 | FC-CCR-MW65- | 10/19/2016 | NA | NA | 0.5 | 0 | NA | NA |
| MW-65 | FC-CCR-MW65- | 2/1/2017 | 0.0086 | 1 | 1.9 | 1 | 0.00050 | 0 |
| MW-65 | FC-CCR-MW65- | 4/16/2017 | 0.0082 | 1 | 0.7 | 1 | 0.0020 | 0 |
| MW-65 | FC-CCR-MW65- | 5/1/2017 | 0.0083 | 1 | 0.6 | 0 | 0.00050 | 0 |
| MW-65 | FC-CCR-MW65- | 5/29/2017 | 0.010 | 1 | 0.6 | 0 | 0.00050 | 0 |
| MW-65 | FC-CCR-MW65- | 6/21/2017 | 0.0097 | 1 | 0.6 | 0 | 0.00050 | 0 |
| MW-65 | FC-CCR-MW65- | 7/21/2017 | 0.0080 | 1 | 0.6 | 0 | 0.0020 | 0 |
| MW-65 | FC-CCR-MW65- | 8/9/2017 | 0.0083 | 1 | 0.5 | 0 | 0.00050 | 0 |
| MW-65 | FC-CCR-MW65- | 8/16/2017 | NA | NA | 0.7 | 0 | NA | NA |
| MW-65 | FC-CCR-MW65- | 9/9/2017 | 0.0080 | 1 | 0.6 | 0 | 0.0020 | 0 |
| MW-65 | FC-CCR-MW65- | 10/13/2017 | 0.0093 | 1 | 0.6 | 0 | 0.00050 | 0 |
| MW-65 | FC-CCR-MW65- | 11/30/2017 | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW- | 6/3/2018 | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 11/2/2018 | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 4/1/2019 | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 5/7/2019 | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 12/3/2019 | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 6/19/2020 | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 11/5/2020 | NA | NA | NA | NA | NA | NA |
| MW-65 | FC-CCR-MW65- | 4/22/2021 | 0.0072 | 1 | 0.7 | 0 | 0.00059 | 0 |
| MW-65 | FC-CCR-MW65- | 11/15/2021 | 0.0098 | 1 | 0.6 | 0 | 0.001 | 0 |
| MW-65 | FC-CCR-MW65- | 5/20/2022 | 0.0066 | 1 | 1.1 | 1 | 0.001 | 0 |
| MW-65 | FC-CCR-MW65- | 11/13/2022 | 0.0089 | 1 | 0.6 | 0 | 0.0005 | 0 |
| MW-65 | FC-CCR-MW65- | 5/7/2023 | 0.007 | 1 | 0.6 | 0 | 0.005 | 0 |
| MW-65 | FC-CCR-MW65- | 6/28/2023 | 0.0073 | 1 | 0.7 | 1 | 0.0005 | 0 |
| MW-65 | FC-CCR-MW65- | 11/6/2023 | 0.0073 | 1 | 0.8 | 0 | 0.0005 | 0 |
| MW-65 | FC-CCR-MW65- | 5/22/2024 | 0.0075 | 1 | 0.8 | 0 | 0.005 | 0 |

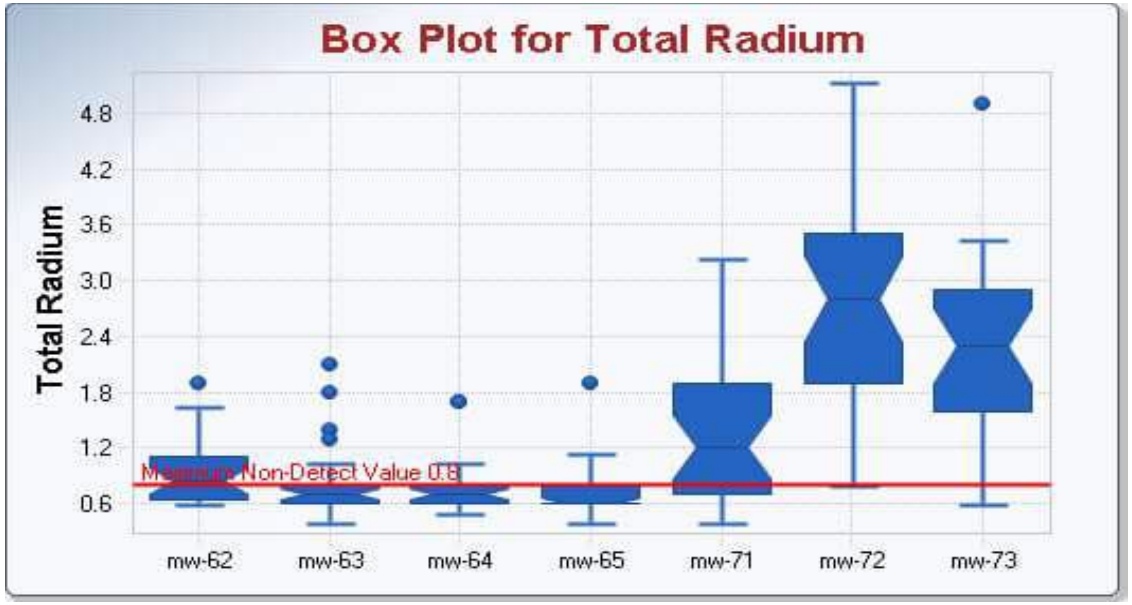
# CWTP Appendix IV Analytical Results - ProUCL

| StationName | QC_SampleID | NumDate | Thallium | D_Thallium |
|---|---|---|---|---|
| MW-64 | FC-CCR-MW64- | 11/13/2022 | 0.00013 | 1 |
| MW-64 | FC-CCR-MW64- | 5/7/2023 | 0.001 | 0 |
| MW-64 | FC-CCR-MW64- | 6/27/2023 | 0.00012 | 1 |
| MW-64 | FC-CCR-MW64- | 11/6/2023 | 0.00015 | 1 |
| MW-64 | FC-CCR-MW64- | 5/22/2024 | 0.001 | 0 |
| MW-65 | FC-CCR-MW65- | 11/5/2015 | 0.0010 | 0 |
| MW-65 | FC-CCR-MW- | 4/27/2016 | 0.00010 | 0 |
| MW-65 | FC-CCR-MW65- | 6/5/2016 | 0.00010 | 0 |
| MW-65 | FC-CCR-MW65- | 8/20/2016 | 0.00010 | 0 |
| MW-65 | FC-CCR-MW65- | 9/12/2016 | 0.00050 | 0 |
| MW-65 | FC-CCR-MW65- | 10/19/2016 | NA | NA |
| MW-65 | FC-CCR-MW65- | 2/1/2017 | 0.00010 | 0 |
| MW-65 | FC-CCR-MW65- | 4/16/2017 | 0.00040 | 0 |
| MW-65 | FC-CCR-MW65- | 5/1/2017 | 0.00010 | 0 |
| MW-65 | FC-CCR-MW65- | 5/29/2017 | 0.00010 | 0 |
| MW-65 | FC-CCR-MW65- | 6/21/2017 | 0.00010 | 0 |
| MW-65 | FC-CCR-MW65- | 7/21/2017 | 0.00040 | 0 |
| MW-65 | FC-CCR-MW65- | 8/9/2017 | 0.00010 | 0 |
| MW-65 | FC-CCR-MW65- | 8/16/2017 | NA | NA |
| MW-65 | FC-CCR-MW65- | 9/9/2017 | 0.00040 | 0 |
| MW-65 | FC-CCR-MW65- | 10/13/2017 | 0.00010 | 0 |
| MW-65 | FC-CCR-MW65- | 11/30/2017 | NA | NA |
| MW-65 | FC-CCR-MW- | 6/3/2018 | NA | NA |
| MW-65 | FC-CCR-MW65- | 11/2/2018 | NA | NA |
| MW-65 | FC-CCR-MW65- | 4/1/2019 | NA | NA |
| MW-65 | FC-CCR-MW65- | 5/7/2019 | NA | NA |
| MW-65 | FC-CCR-MW65- | 12/3/2019 | NA | NA |
| MW-65 | FC-CCR-MW65- | 6/19/2020 | NA | NA |
| MW-65 | FC-CCR-MW65- | 11/5/2020 | NA | NA |
| MW-65 | FC-CCR-MW65- | 4/22/2021 | 0.0001 | 0 |
| MW-65 | FC-CCR-MW65- | 11/15/2021 | 0.000072 | 1 |
| MW-65 | FC-CCR-MW65- | 5/20/2022 | 0.0002 | 0 |
| MW-65 | FC-CCR-MW65- | 11/13/2022 | 0.0001 | 0 |
| MW-65 | FC-CCR-MW65- | 5/7/2023 | 0.001 | 0 |
| MW-65 | FC-CCR-MW65- | 6/28/2023 | 0.0001 | 0 |
| MW-65 | FC-CCR-MW65- | 11/6/2023 | 0.0001 | 0 |
| MW-65 | FC-CCR-MW65- | 5/22/2024 | 0.001 | 0 |

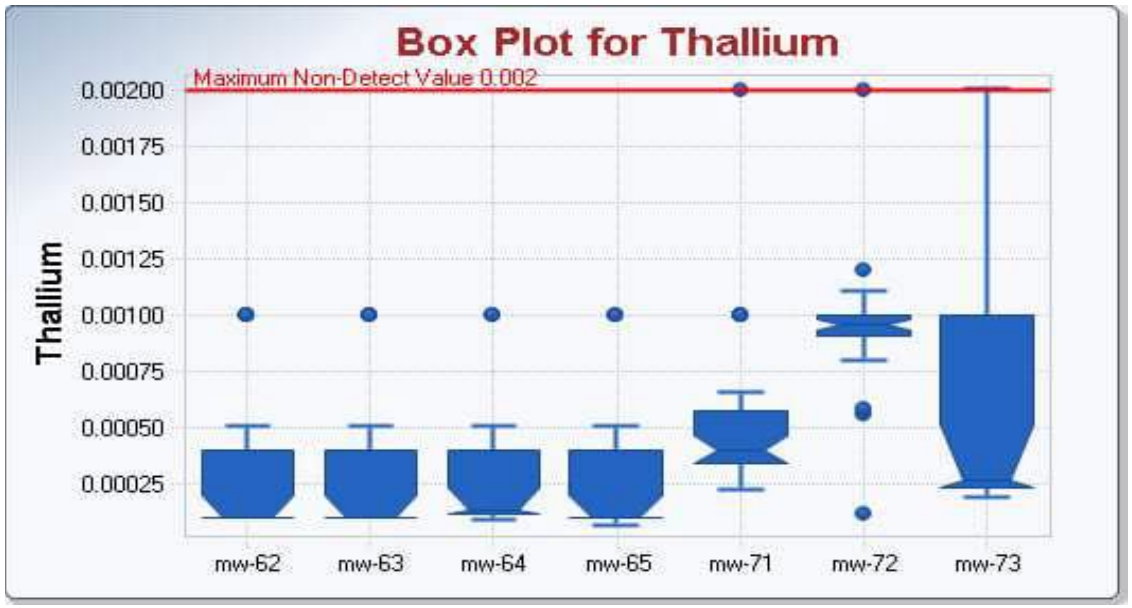
# APPENDIX B

## PROUCL EDA OUTPUT FILES

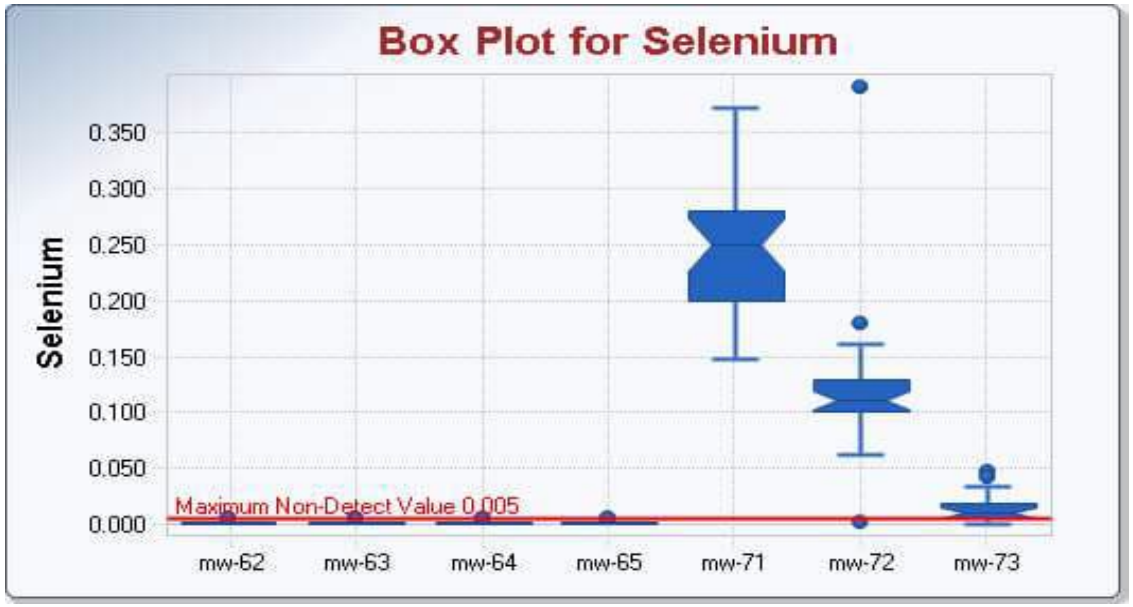
# Appendix B
# Box and Whisker Plots



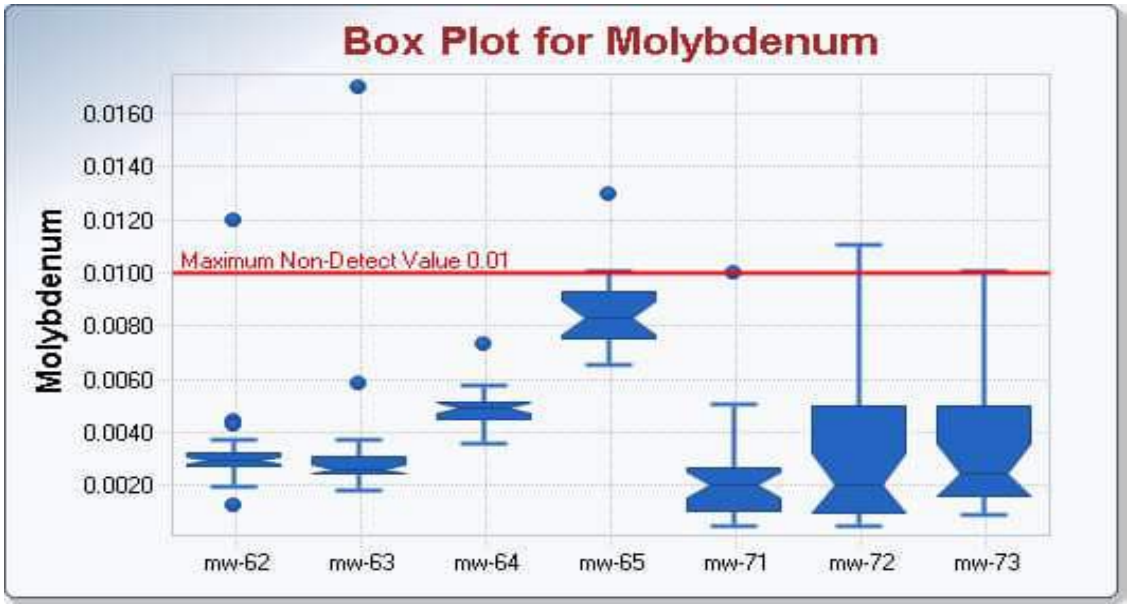
# Appendix B
# Box and Whisker Plots



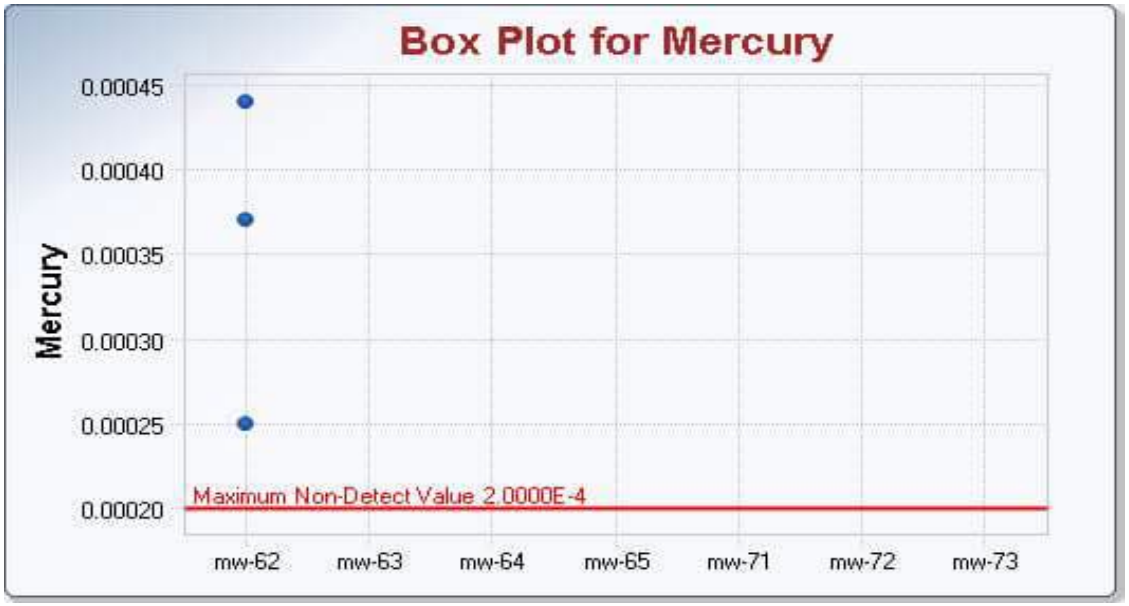
**Appendix B**
**Box and Whisker Plots**



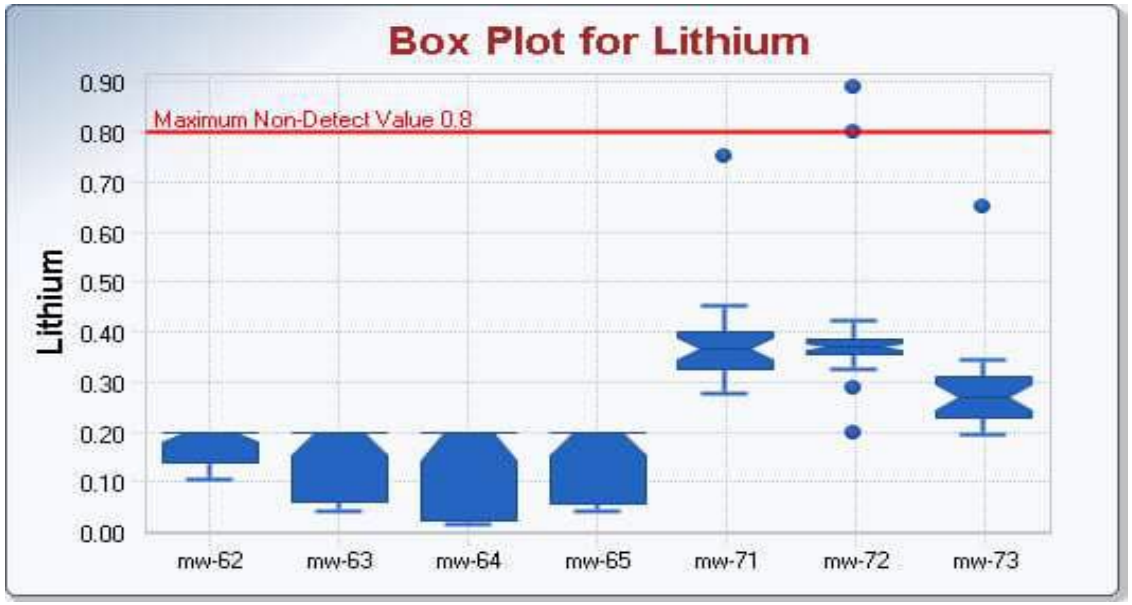
**Appendix B**
**Box and Whisker Plots**



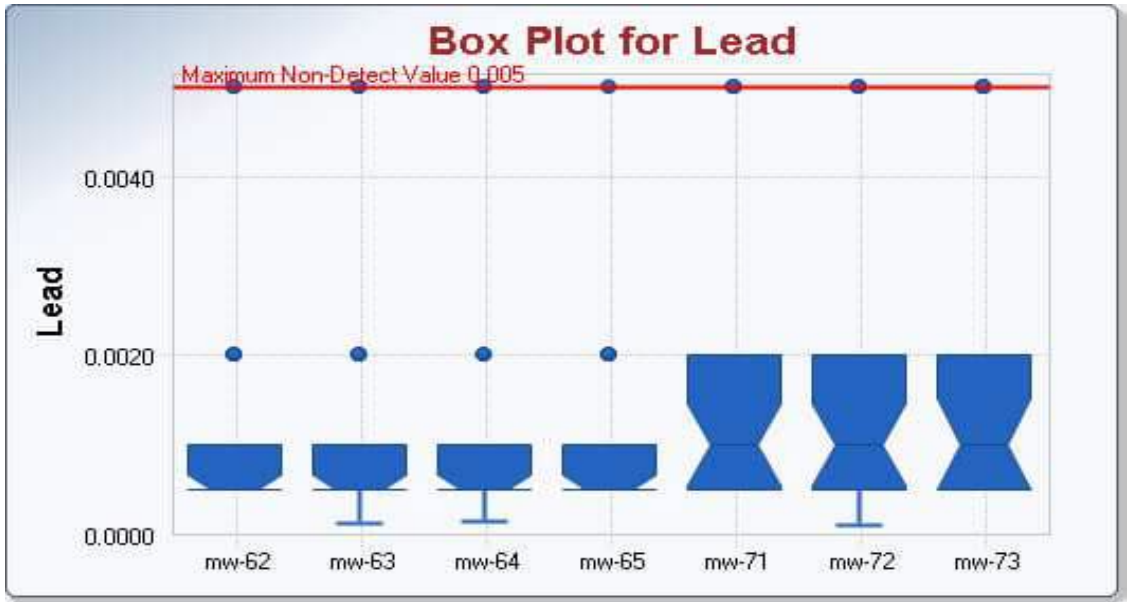
## Appendix B
## Box and Whisker Plots



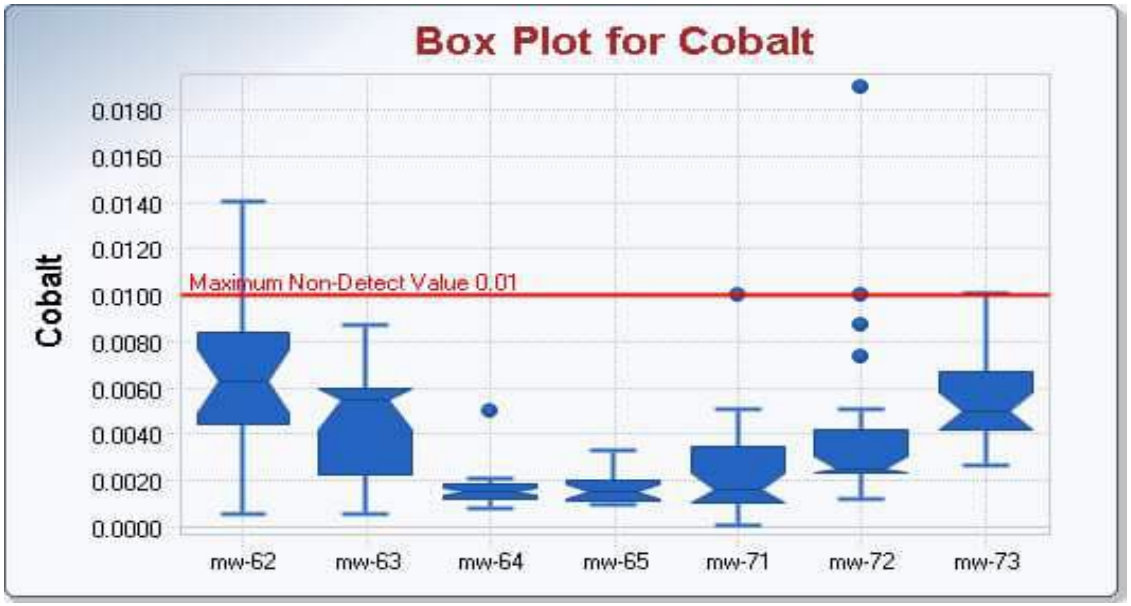
**Appendix B**
**Box and Whisker Plots**



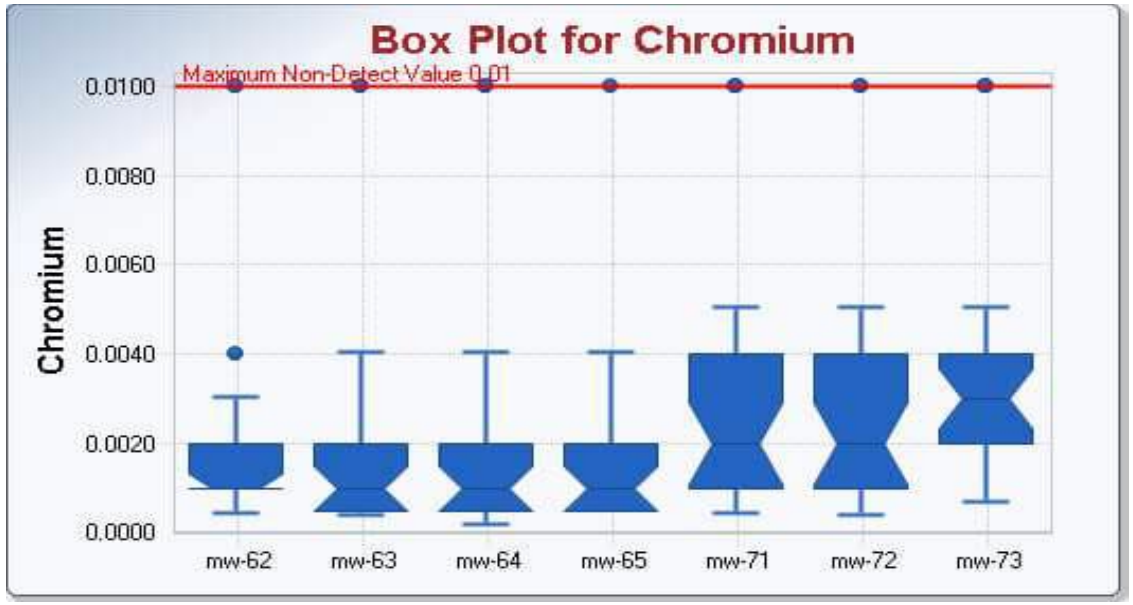
# Appendix B
# Box and Whisker Plots



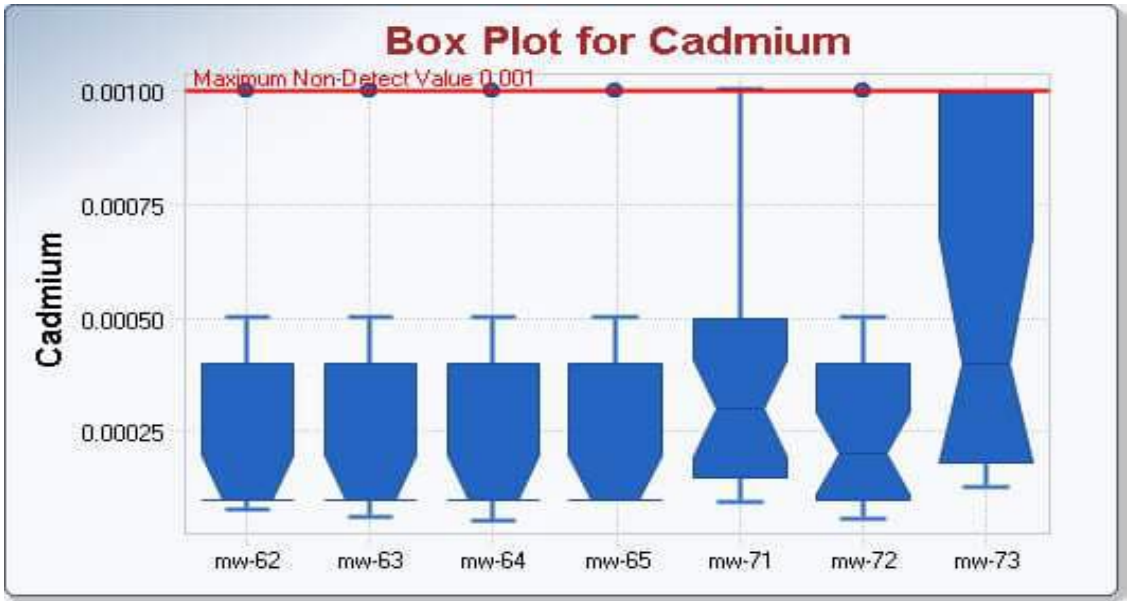
# Appendix B
# Box and Whisker Plots



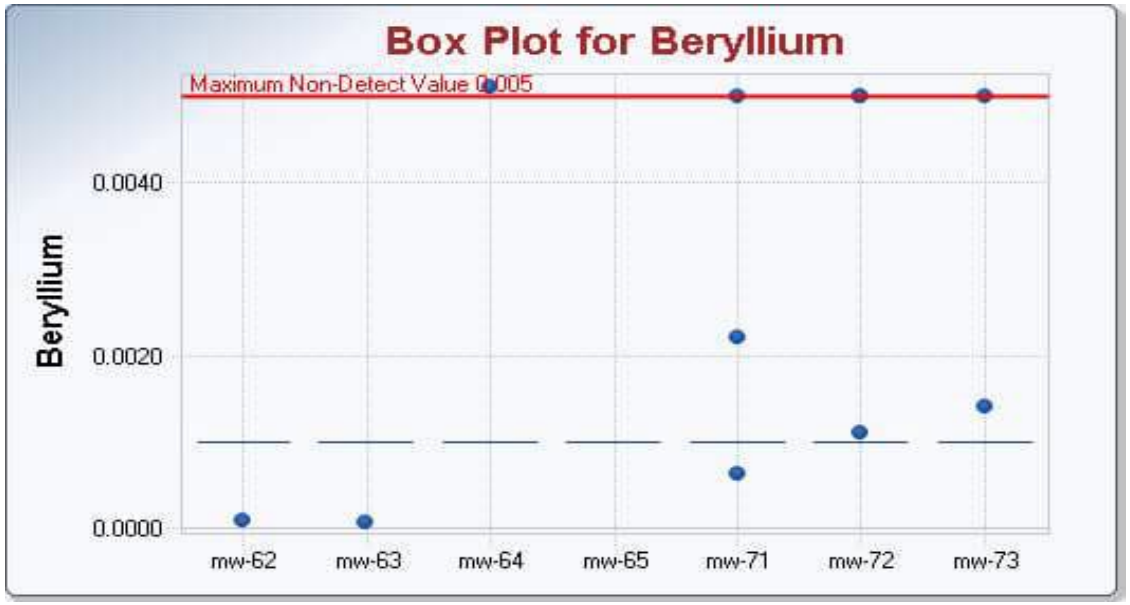
# Appendix B
# Box and Whisker Plots



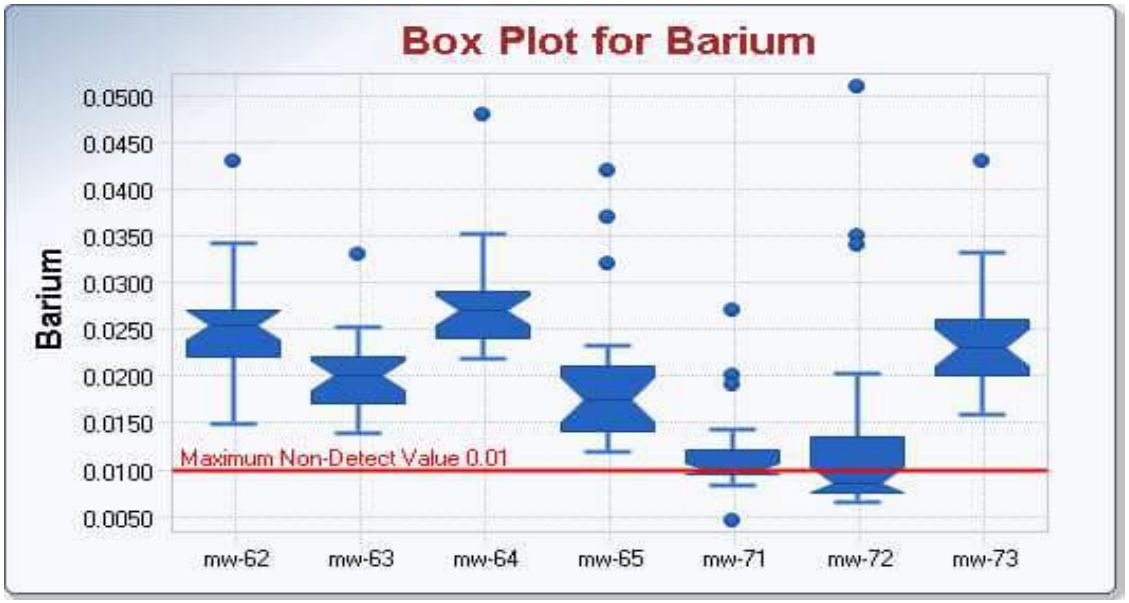
## Appendix B
## Box and Whisker Plots



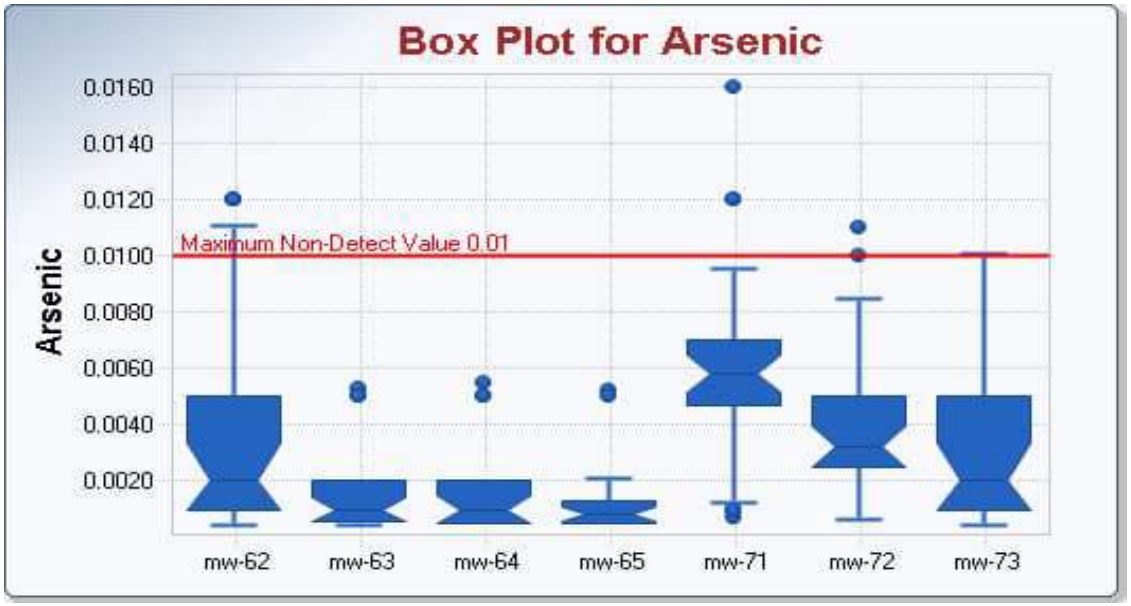
## Appendix B
## Box and Whisker Plots



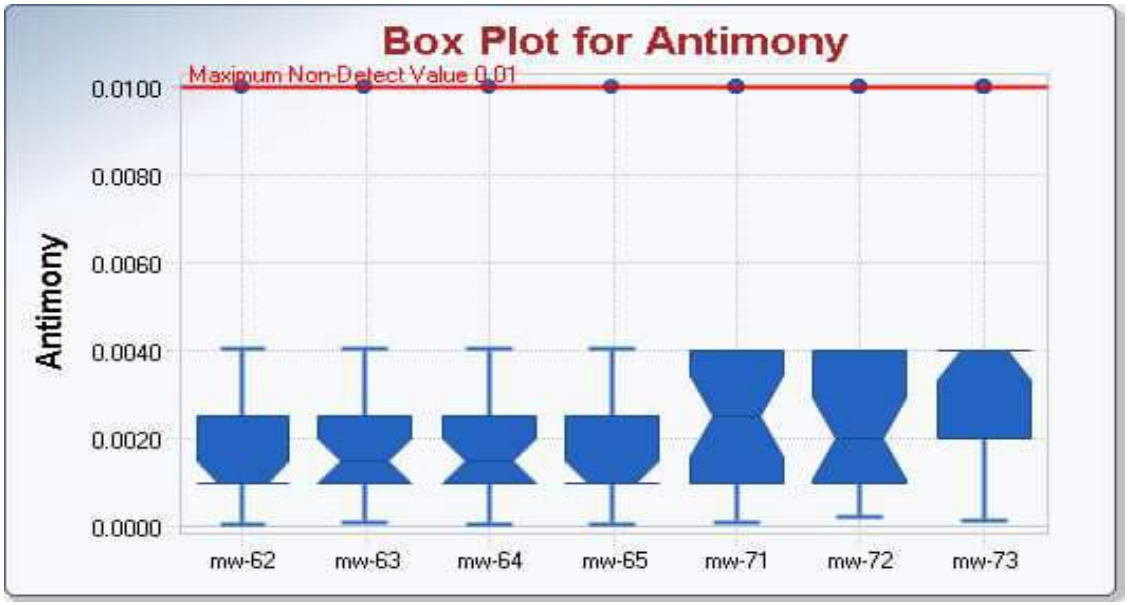
# Appendix B
# Box and Whisker Plots



# Appendix B
# Box and Whisker Plots



**Appendix B**
**Box and Whisker Plots**



# Appendix B
# Outlier Statistics

| | |
|---|---|
| | **Outlier Tests for Selected Uncensored Variables** |
| **User Selected Options** | |
| Date/Time of Computation | ProUCL 5.19/11/2024 2:27:45 PM |
| From File | CWTP_AppxIV_ProUCL_2024_05ProUCLUpload.xls |
| Full Precision | OFF |

**Dixon's Outlier Test for Antimony (mw-62)**

Number of Observations = 22
10% critical value: 0.382
5% critical value: 0.43
1% critical value: 0.514

**1. Observation Value 0.01 is a Potential Outlier (Upper Tail)?**

Test Statistic: 0.667

For 10% significance level, 0.01 is an outlier.
For 5% significance level, 0.01 is an outlier.
For 1% significance level, 0.01 is an outlier.

**2. Observation Value 0.00011 is a Potential Outlier (Lower Tail)?**

Test Statistic: 0.229

For 10% significance level, 0.00011 is not an outlier.
For 5% significance level, 0.00011 is not an outlier.
For 1% significance level, 0.00011 is not an outlier.

**Dixon's Outlier Test for Antimony (mw-63)**

Number of Observations = 22
10% critical value: 0.382
5% critical value: 0.43
1% critical value: 0.514

**1. Observation Value 0.01 is a Potential Outlier (Upper Tail)?**

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| Test Statistic: 0.667 |
| |
| For 10% significance level, 0.01 is an outlier. |
| For 5% significance level, 0.01 is an outlier. |
| For 1% significance level, 0.01 is an outlier. |
| |
| **2. Observation Value 0.00013 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.225 |
| |
| For 10% significance level, 0.00013 is not an outlier. |
| For 5% significance level, 0.00013 is not an outlier. |
| For 1% significance level, 0.00013 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Antimony (mw-64)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.01 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.667 |
| |
| For 10% significance level, 0.01 is an outlier. |
| For 5% significance level, 0.01 is an outlier. |
| For 1% significance level, 0.01 is an outlier. |
| |
| **2. Observation Value 0.0001 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.231 |
| |
| For 10% significance level, 0.0001 is not an outlier. |
| For 5% significance level, 0.0001 is not an outlier. |
| For 1% significance level, 0.0001 is not an outlier. |
| |
| |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| **Dixon's Outlier Test for Antimony (mw-65)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.01 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.667 |
| |
| For 10% significance level, 0.01 is an outlier. |
| For 5% significance level, 0.01 is an outlier. |
| For 1% significance level, 0.01 is an outlier. |
| |
| **2. Observation Value 0.0001 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.231 |
| |
| For 10% significance level, 0.0001 is not an outlier. |
| For 5% significance level, 0.0001 is not an outlier. |
| For 1% significance level, 0.0001 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Arsenic (mw-62)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.012 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.012 is not an outlier. |
| For 5% significance level, 0.012 is not an outlier. |
| For 1% significance level, 0.012 is not an outlier. |
| |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| **2. Observation Value 0.0005 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.013 |
| |
| For 10% significance level, 0.0005 is not an outlier. |
| For 5% significance level, 0.0005 is not an outlier. |
| For 1% significance level, 0.0005 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Arsenic (mw-63)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.0053 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.063 |
| |
| For 10% significance level, 0.0053 is not an outlier. |
| For 5% significance level, 0.0053 is not an outlier. |
| For 1% significance level, 0.0053 is not an outlier. |
| |
| **2. Observation Value 0.0005 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0005 is not an outlier. |
| For 5% significance level, 0.0005 is not an outlier. |
| For 1% significance level, 0.0005 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Arsenic (mw-64)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| |
| **1. Observation Value 0.0055 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.100 |
| |
| For 10% significance level, 0.0055 is not an outlier. |
| For 5% significance level, 0.0055 is not an outlier. |
| For 1% significance level, 0.0055 is not an outlier. |
| |
| **2. Observation Value 0.0005 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0005 is not an outlier. |
| For 5% significance level, 0.0005 is not an outlier. |
| For 1% significance level, 0.0005 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Arsenic (mw-65)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.0052 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.681 |
| |
| For 10% significance level, 0.0052 is an outlier. |
| For 5% significance level, 0.0052 is an outlier. |
| For 1% significance level, 0.0052 is an outlier. |
| |
| **2. Observation Value 0.0005 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0005 is not an outlier. |
| For 5% significance level, 0.0005 is not an outlier. |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| For 1% significance level, 0.0005 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Barium (mw-62)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.043 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.455 |
| |
| For 10% significance level, 0.043 is an outlier. |
| For 5% significance level, 0.043 is an outlier. |
| For 1% significance level, 0.043 is not an outlier. |
| |
| **2. Observation Value 0.015 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.333 |
| |
| For 10% significance level, 0.015 is not an outlier. |
| For 5% significance level, 0.015 is not an outlier. |
| For 1% significance level, 0.015 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Barium (mw-63)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.033 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.556 |
| |
| For 10% significance level, 0.033 is an outlier. |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| For 5% significance level, 0.033 is an outlier. |
| For 1% significance level, 0.033 is an outlier. |
| |
| **2. Observation Value 0.014 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.111 |
| |
| For 10% significance level, 0.014 is not an outlier. |
| For 5% significance level, 0.014 is not an outlier. |
| For 1% significance level, 0.014 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Barium (mw-64)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.048 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.600 |
| |
| For 10% significance level, 0.048 is an outlier. |
| For 5% significance level, 0.048 is an outlier. |
| For 1% significance level, 0.048 is an outlier. |
| |
| **2. Observation Value 0.022 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.091 |
| |
| For 10% significance level, 0.022 is not an outlier. |
| For 5% significance level, 0.022 is not an outlier. |
| For 1% significance level, 0.022 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Barium (mw-65)** |
| |
| Number of Observations = 22 |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.042 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.333 |
| |
| For 10% significance level, 0.042 is not an outlier. |
| For 5% significance level, 0.042 is not an outlier. |
| For 1% significance level, 0.042 is not an outlier. |
| |
| **2. Observation Value 0.012 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.012 is not an outlier. |
| For 5% significance level, 0.012 is not an outlier. |
| For 1% significance level, 0.012 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Beryllium (mw-62)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.001 is an outlier. |
| For 5% significance level, 0.001 is an outlier. |
| For 1% significance level, 0.001 is an outlier. |
| |
| **2. Observation Value 8.6E-05 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 1.000 |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| |
| For 10% significance level, 8.6E-05 is an outlier. |
| For 5% significance level, 8.6E-05 is an outlier. |
| For 1% significance level, 8.6E-05 is an outlier. |
| |
| |
| **Dixon's Outlier Test for Beryllium (mw-63)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.001 is an outlier. |
| For 5% significance level, 0.001 is an outlier. |
| For 1% significance level, 0.001 is an outlier. |
| |
| **2. Observation Value 7.3E-05 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 1.000 |
| |
| For 10% significance level, 7.3E-05 is an outlier. |
| For 5% significance level, 7.3E-05 is an outlier. |
| For 1% significance level, 7.3E-05 is an outlier. |
| |
| |
| **Dixon's Outlier Test for Beryllium (mw-64)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.0051 is a Potential Outlier (Upper Tail)?** |
| |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| Test Statistic: 1.000 |
| |
| For 10% significance level, 0.0051 is an outlier. |
| For 5% significance level, 0.0051 is an outlier. |
| For 1% significance level, 0.0051 is an outlier. |
| |
| **2. Observation Value 0.001 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.001 is an outlier. |
| For 5% significance level, 0.001 is an outlier. |
| For 1% significance level, 0.001 is an outlier. |
| |
| |
| **Dixon's Outlier Test for Beryllium (mw-65)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.001 is an outlier. |
| For 5% significance level, 0.001 is an outlier. |
| For 1% significance level, 0.001 is an outlier. |
| |
| **2. Observation Value 0.001 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.001 is an outlier. |
| For 5% significance level, 0.001 is an outlier. |
| For 1% significance level, 0.001 is an outlier. |
| |
| |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| **Dixon's Outlier Test for Cadmium (mw-62)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.001 is not an outlier. |
| For 5% significance level, 0.001 is not an outlier. |
| For 1% significance level, 0.001 is not an outlier. |
| |
| **2. Observation Value 8.4E-05 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.017 |
| |
| For 10% significance level, 8.4E-05 is not an outlier. |
| For 5% significance level, 8.4E-05 is not an outlier. |
| For 1% significance level, 8.4E-05 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Cadmium (mw-63)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.001 is not an outlier. |
| For 5% significance level, 0.001 is not an outlier. |
| For 1% significance level, 0.001 is not an outlier. |
| |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| **2. Observation Value 6.4E-05 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.038 |
| |
| For 10% significance level, 6.4E-05 is not an outlier. |
| For 5% significance level, 6.4E-05 is not an outlier. |
| For 1% significance level, 6.4E-05 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Cadmium (mw-64)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.001 is not an outlier. |
| For 5% significance level, 0.001 is not an outlier. |
| For 1% significance level, 0.001 is not an outlier. |
| |
| **2. Observation Value 5.8E-05 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.045 |
| |
| For 10% significance level, 5.8E-05 is not an outlier. |
| For 5% significance level, 5.8E-05 is not an outlier. |
| For 1% significance level, 5.8E-05 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Cadmium (mw-65)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.001 is not an outlier. |
| For 5% significance level, 0.001 is not an outlier. |
| For 1% significance level, 0.001 is not an outlier. |
| |
| **2. Observation Value 0.0001 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0001 is not an outlier. |
| For 5% significance level, 0.0001 is not an outlier. |
| For 1% significance level, 0.0001 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Chromium (mw-62)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.01 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.632 |
| |
| For 10% significance level, 0.01 is an outlier. |
| For 5% significance level, 0.01 is an outlier. |
| For 1% significance level, 0.01 is an outlier. |
| |
| **2. Observation Value 0.0005 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0005 is not an outlier. |
| For 5% significance level, 0.0005 is not an outlier. |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| For 1% significance level, 0.0005 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Chromium (mw-63)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.01 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.632 |
| |
| For 10% significance level, 0.01 is an outlier. |
| For 5% significance level, 0.01 is an outlier. |
| For 1% significance level, 0.01 is an outlier. |
| |
| **2. Observation Value 0.00043 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.020 |
| |
| For 10% significance level, 0.00043 is not an outlier. |
| For 5% significance level, 0.00043 is not an outlier. |
| For 1% significance level, 0.00043 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Chromium (mw-64)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.01 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.632 |
| |
| For 10% significance level, 0.01 is an outlier. |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| For 5% significance level, 0.01 is an outlier. |
| For 1% significance level, 0.01 is an outlier. |
| |
| **2. Observation Value 0.00023 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.072 |
| |
| For 10% significance level, 0.00023 is not an outlier. |
| For 5% significance level, 0.00023 is not an outlier. |
| For 1% significance level, 0.00023 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Chromium (mw-65)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.01 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.737 |
| |
| For 10% significance level, 0.01 is an outlier. |
| For 5% significance level, 0.01 is an outlier. |
| For 1% significance level, 0.01 is an outlier. |
| |
| **2. Observation Value 0.00049 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.004 |
| |
| For 10% significance level, 0.00049 is not an outlier. |
| For 5% significance level, 0.00049 is not an outlier. |
| For 1% significance level, 0.00049 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Cobalt (mw-62)** |
| |
| Number of Observations = 22 |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.014 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.270 |
| |
| For 10% significance level, 0.014 is not an outlier. |
| For 5% significance level, 0.014 is not an outlier. |
| For 1% significance level, 0.014 is not an outlier. |
| |
| **2. Observation Value 0.00065 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.217 |
| |
| For 10% significance level, 0.00065 is not an outlier. |
| For 5% significance level, 0.00065 is not an outlier. |
| For 1% significance level, 0.00065 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Cobalt (mw-63)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.0086 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.230 |
| |
| For 10% significance level, 0.0086 is not an outlier. |
| For 5% significance level, 0.0086 is not an outlier. |
| For 1% significance level, 0.0086 is not an outlier. |
| |
| **2. Observation Value 0.00062 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.092 |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| |
| For 10% significance level, 0.00062 is not an outlier. |
| For 5% significance level, 0.00062 is not an outlier. |
| For 1% significance level, 0.00062 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Cobalt (mw-64)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.769 |
| |
| For 10% significance level, 0.005 is an outlier. |
| For 5% significance level, 0.005 is an outlier. |
| For 1% significance level, 0.005 is an outlier. |
| |
| **2. Observation Value 0.00083 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.231 |
| |
| For 10% significance level, 0.00083 is not an outlier. |
| For 5% significance level, 0.00083 is not an outlier. |
| For 1% significance level, 0.00083 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Cobalt (mw-65)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.0032 is a Potential Outlier (Upper Tail)?** |
| |

# Appendix B
# Outlier Statistics

Number of Observations = 22

Test Statistic: 0.476

For 10% significance level, 0.0032 is an outlier.
For 5% significance level, 0.0032 is an outlier.
For 1% significance level, 0.0032 is not an outlier.

**2. Observation Value 0.001 is a Potential Outlier (Lower Tail)?**

Test Statistic: 0.083

For 10% significance level, 0.001 is not an outlier.
For 5% significance level, 0.001 is not an outlier.
For 1% significance level, 0.001 is not an outlier.

**Rosner's Outlier Test for Fluoride (mw-62)**

| | |
|---|---|
| **Mean** | **3.924** |
| **Standard Deviation** | **13.66** |
| **Number of data** | **33** |
| **Number of suspected outliers** | **1** |

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 3.924 | 13.45 | 80 | 30 | 5.655 | 2.95 | 3.29 |

For 5% Significance Level, there is 1 Potential Outlier
Potential outliers is: 80

For 1% Significance Level, there is 1 Potential Outlier
Potential outliers is: 80

**Rosner's Outlier Test for Fluoride (mw-63)**

| | |
|---|---|
| **Mean** | **2.096** |
| **Standard Deviation** | **1.137** |

# Appendix B
# Outlier Statistics

Number of Observations = 22

| | |
|---|---|
| **Number of data** | **32** |
| **Number of suspected outliers** | **1** |

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 2.096 | 1.119 | 8 | 29 | 5.275 | 2.94 | 3.27 |

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 8

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 8

**Rosner's Outlier Test for Fluoride (mw-64)**

| | |
|---|---|
| **Mean** | **1.434** |
| **Standard Deviation** | **0.112** |
| **Number of data** | **32** |
| **Number of suspected outliers** | **1** |

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 1.434 | 0.111 | 1 | 32 | 3.924 | 2.94 | 3.27 |

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 1

For 1% Significance Level, there is 1 Potential Outlier

Potential outliers is: 1

**Rosner's Outlier Test for Fluoride (mw-65)**

| | |
|---|---|
| **Mean** | **1.831** |
| **Standard Deviation** | **0.212** |
| **Number of data** | **32** |

# Appendix B
# Outlier Statistics

Number of Observations = 22

**Number of suspected outliers** 1

| # | Mean | sd | Potential outlier | Obs. Number | Test value | Critical value (5%) | Critical value (1%) |
|---|---|---|---|---|---|---|---|
| 1 | 1.831 | 0.208 | 1.3 | 32 | 2.55 | 2.94 | 3.27 |

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

**Dixon's Outlier Test for Lead (mw-62)**

Number of Observations = 22
10% critical value: 0.382
5% critical value: 0.43
1% critical value: 0.514

**1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?**

Test Statistic: 0.667

For 10% significance level, 0.005 is an outlier.
For 5% significance level, 0.005 is an outlier.
For 1% significance level, 0.005 is an outlier.

**2. Observation Value 0.0005 is a Potential Outlier (Lower Tail)?**

Test Statistic: 0.000

For 10% significance level, 0.0005 is not an outlier.
For 5% significance level, 0.0005 is not an outlier.
For 1% significance level, 0.0005 is not an outlier.

**Dixon's Outlier Test for Lead (mw-63)**

Number of Observations = 22
10% critical value: 0.382

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.667 |
| |
| For 10% significance level, 0.005 is an outlier. |
| For 5% significance level, 0.005 is an outlier. |
| For 1% significance level, 0.005 is an outlier. |
| |
| **2. Observation Value 0.00015 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.189 |
| |
| For 10% significance level, 0.00015 is not an outlier. |
| For 5% significance level, 0.00015 is not an outlier. |
| For 1% significance level, 0.00015 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Lead (mw-64)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.667 |
| |
| For 10% significance level, 0.005 is an outlier. |
| For 5% significance level, 0.005 is an outlier. |
| For 1% significance level, 0.005 is an outlier. |
| |
| **2. Observation Value 0.00016 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.185 |
| |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| For 10% significance level, 0.00016 is not an outlier. |
| For 5% significance level, 0.00016 is not an outlier. |
| For 1% significance level, 0.00016 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Lead (mw-65)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.667 |
| |
| For 10% significance level, 0.005 is an outlier. |
| For 5% significance level, 0.005 is an outlier. |
| For 1% significance level, 0.005 is an outlier. |
| |
| **2. Observation Value 0.0005 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0005 is not an outlier. |
| For 5% significance level, 0.0005 is not an outlier. |
| For 1% significance level, 0.0005 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Lithium (mw-62)** |
| |
| Number of Observations = 24 |
| 10% critical value: 0.367 |
| 5% critical value: 0.413 |
| 1% critical value: 0.497 |
| |
| **1. Observation Value 0.2 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.000 |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| |
| For 10% significance level, 0.2 is not an outlier. |
| For 5% significance level, 0.2 is not an outlier. |
| For 1% significance level, 0.2 is not an outlier. |
| |
| **2. Observation Value 0.11 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.222 |
| |
| For 10% significance level, 0.11 is not an outlier. |
| For 5% significance level, 0.11 is not an outlier. |
| For 1% significance level, 0.11 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Lithium (mw-63)** |
| |
| Number of Observations = 24 |
| 10% critical value: 0.367 |
| 5% critical value: 0.413 |
| 1% critical value: 0.497 |
| |
| **1. Observation Value 0.2 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.2 is not an outlier. |
| For 5% significance level, 0.2 is not an outlier. |
| For 1% significance level, 0.2 is not an outlier. |
| |
| **2. Observation Value 0.045 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.065 |
| |
| For 10% significance level, 0.045 is not an outlier. |
| For 5% significance level, 0.045 is not an outlier. |
| For 1% significance level, 0.045 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Lithium (mw-64)** |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| |
| Number of Observations = 24 |
| 10% critical value: 0.367 |
| 5% critical value: 0.413 |
| 1% critical value: 0.497 |
| |
| **1. Observation Value 0.2 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.2 is not an outlier. |
| For 5% significance level, 0.2 is not an outlier. |
| For 1% significance level, 0.2 is not an outlier. |
| |
| **2. Observation Value 0.019 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.006 |
| |
| For 10% significance level, 0.019 is not an outlier. |
| For 5% significance level, 0.019 is not an outlier. |
| For 1% significance level, 0.019 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Lithium (mw-65)** |
| |
| Number of Observations = 24 |
| 10% critical value: 0.367 |
| 5% critical value: 0.413 |
| 1% critical value: 0.497 |
| |
| **1. Observation Value 0.2 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.2 is not an outlier. |
| For 5% significance level, 0.2 is not an outlier. |
| For 1% significance level, 0.2 is not an outlier. |
| |
| **2. Observation Value 0.045 is a Potential Outlier (Lower Tail)?** |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| |
| Test Statistic: 0.032 |
| |
| For 10% significance level, 0.045 is not an outlier. |
| For 5% significance level, 0.045 is not an outlier. |
| For 1% significance level, 0.045 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Mercury (mw-62)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.00044 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.792 |
| |
| For 10% significance level, 0.00044 is an outlier. |
| For 5% significance level, 0.00044 is an outlier. |
| For 1% significance level, 0.00044 is an outlier. |
| |
| **2. Observation Value 0.0002 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0002 is not an outlier. |
| For 5% significance level, 0.0002 is not an outlier. |
| For 1% significance level, 0.0002 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Mercury (mw-63)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| **1. Observation Value 0.0002 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.0002 is an outlier. |
| For 5% significance level, 0.0002 is an outlier. |
| For 1% significance level, 0.0002 is an outlier. |
| |
| **2. Observation Value 0.0002 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.0002 is an outlier. |
| For 5% significance level, 0.0002 is an outlier. |
| For 1% significance level, 0.0002 is an outlier. |
| |
| |
| **Dixon's Outlier Test for Mercury (mw-64)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.0002 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.0002 is an outlier. |
| For 5% significance level, 0.0002 is an outlier. |
| For 1% significance level, 0.0002 is an outlier. |
| |
| **2. Observation Value 0.0002 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.0002 is an outlier. |
| For 5% significance level, 0.0002 is an outlier. |
| For 1% significance level, 0.0002 is an outlier. |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| |
| |
| **Dixon's Outlier Test for Mercury (mw-65)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.0002 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.0002 is an outlier. |
| For 5% significance level, 0.0002 is an outlier. |
| For 1% significance level, 0.0002 is an outlier. |
| |
| **2. Observation Value 0.0002 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: NaN |
| |
| For 10% significance level, 0.0002 is an outlier. |
| For 5% significance level, 0.0002 is an outlier. |
| For 1% significance level, 0.0002 is an outlier. |
| |
| |
| **Dixon's Outlier Test for Molybdenum (mw-62)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.012 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.794 |
| |
| For 10% significance level, 0.012 is an outlier. |
| For 5% significance level, 0.012 is an outlier. |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| For 1% significance level, 0.012 is an outlier. |
| |
| **2. Observation Value 0.0012 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.355 |
| |
| For 10% significance level, 0.0012 is not an outlier. |
| For 5% significance level, 0.0012 is not an outlier. |
| For 1% significance level, 0.0012 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Molybdenum (mw-63)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.017 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.905 |
| |
| For 10% significance level, 0.017 is an outlier. |
| For 5% significance level, 0.017 is an outlier. |
| For 1% significance level, 0.017 is an outlier. |
| |
| **2. Observation Value 0.0019 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.176 |
| |
| For 10% significance level, 0.0019 is not an outlier. |
| For 5% significance level, 0.0019 is not an outlier. |
| For 1% significance level, 0.0019 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Molybdenum (mw-64)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.0073 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.724 |
| |
| For 10% significance level, 0.0073 is an outlier. |
| For 5% significance level, 0.0073 is an outlier. |
| For 1% significance level, 0.0073 is an outlier. |
| |
| **2. Observation Value 0.0036 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.500 |
| |
| For 10% significance level, 0.0036 is an outlier. |
| For 5% significance level, 0.0036 is an outlier. |
| For 1% significance level, 0.0036 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Molybdenum (mw-65)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.013 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.552 |
| |
| For 10% significance level, 0.013 is an outlier. |
| For 5% significance level, 0.013 is an outlier. |
| For 1% significance level, 0.013 is an outlier. |
| |
| **2. Observation Value 0.0066 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.188 |
| |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| For 10% significance level, 0.0066 is not an outlier. |
| For 5% significance level, 0.0066 is not an outlier. |
| For 1% significance level, 0.0066 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Total Radium (mw-62)** |
| |
| Number of Observations = 24 |
| 10% critical value: 0.367 |
| 5% critical value: 0.413 |
| 1% critical value: 0.497 |
| |
| **1. Observation Value 1.9 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.231 |
| |
| For 10% significance level, 1.9 is not an outlier. |
| For 5% significance level, 1.9 is not an outlier. |
| For 1% significance level, 1.9 is not an outlier. |
| |
| **2. Observation Value 0.6 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.6 is not an outlier. |
| For 5% significance level, 0.6 is not an outlier. |
| For 1% significance level, 0.6 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Total Radium (mw-63)** |
| |
| Number of Observations = 24 |
| 10% critical value: 0.367 |
| 5% critical value: 0.413 |
| 1% critical value: 0.497 |
| |
| **1. Observation Value 2.1 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.467 |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| |
| For 10% significance level, 2.1 is an outlier. |
| For 5% significance level, 2.1 is an outlier. |
| For 1% significance level, 2.1 is not an outlier. |
| |
| **2. Observation Value 0.4 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.200 |
| |
| For 10% significance level, 0.4 is not an outlier. |
| For 5% significance level, 0.4 is not an outlier. |
| For 1% significance level, 0.4 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Total Radium (mw-64)** |
| |
| Number of Observations = 24 |
| 10% critical value: 0.367 |
| 5% critical value: 0.413 |
| 1% critical value: 0.497 |
| |
| **1. Observation Value 1.7 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.636 |
| |
| For 10% significance level, 1.7 is an outlier. |
| For 5% significance level, 1.7 is an outlier. |
| For 1% significance level, 1.7 is an outlier. |
| |
| **2. Observation Value 0.5 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.200 |
| |
| For 10% significance level, 0.5 is not an outlier. |
| For 5% significance level, 0.5 is not an outlier. |
| For 1% significance level, 0.5 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Total Radium (mw-65)** |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| |
| Number of Observations = 24 |
| 10% critical value: 0.367 |
| 5% critical value: 0.413 |
| 1% critical value: 0.497 |
| |
| **1. Observation Value 1.9 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.643 |
| |
| For 10% significance level, 1.9 is an outlier. |
| For 5% significance level, 1.9 is an outlier. |
| For 1% significance level, 1.9 is an outlier. |
| |
| **2. Observation Value 0.4 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.167 |
| |
| For 10% significance level, 0.4 is not an outlier. |
| For 5% significance level, 0.4 is not an outlier. |
| For 1% significance level, 0.4 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Selenium (mw-62)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.444 |
| |
| For 10% significance level, 0.005 is an outlier. |
| For 5% significance level, 0.005 is an outlier. |
| For 1% significance level, 0.005 is not an outlier. |
| |
| **2. Observation Value 0.0005 is a Potential Outlier (Lower Tail)?** |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0005 is not an outlier. |
| For 5% significance level, 0.0005 is not an outlier. |
| For 1% significance level, 0.0005 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Selenium (mw-63)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.444 |
| |
| For 10% significance level, 0.005 is an outlier. |
| For 5% significance level, 0.005 is an outlier. |
| For 1% significance level, 0.005 is not an outlier. |
| |
| **2. Observation Value 0.0005 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0005 is not an outlier. |
| For 5% significance level, 0.0005 is not an outlier. |
| For 1% significance level, 0.0005 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Selenium (mw-64)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| **1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.444 |
| |
| For 10% significance level, 0.005 is an outlier. |
| For 5% significance level, 0.005 is an outlier. |
| For 1% significance level, 0.005 is not an outlier. |
| |
| **2. Observation Value 0.00033 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.064 |
| |
| For 10% significance level, 0.00033 is not an outlier. |
| For 5% significance level, 0.00033 is not an outlier. |
| For 1% significance level, 0.00033 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Selenium (mw-65)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.005 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.444 |
| |
| For 10% significance level, 0.005 is an outlier. |
| For 5% significance level, 0.005 is an outlier. |
| For 1% significance level, 0.005 is not an outlier. |
| |
| **2. Observation Value 0.00034 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.060 |
| |
| For 10% significance level, 0.00034 is not an outlier. |
| For 5% significance level, 0.00034 is not an outlier. |
| For 1% significance level, 0.00034 is not an outlier. |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| |
| |
| **Dixon's Outlier Test for Thallium (mw-62)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.001 is not an outlier. |
| For 5% significance level, 0.001 is not an outlier. |
| For 1% significance level, 0.001 is not an outlier. |
| |
| **2. Observation Value 9.8E-05 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.002 |
| |
| For 10% significance level, 9.8E-05 is not an outlier. |
| For 5% significance level, 9.8E-05 is not an outlier. |
| For 1% significance level, 9.8E-05 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Thallium (mw-63)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.001 is not an outlier. |
| For 5% significance level, 0.001 is not an outlier. |

# Appendix B
# Outlier Statistics

| |
|---|
| Number of Observations = 22 |
| For 1% significance level, 0.001 is not an outlier. |
| |
| **2. Observation Value 0.0001 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0001 is not an outlier. |
| For 5% significance level, 0.0001 is not an outlier. |
| For 1% significance level, 0.0001 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Thallium (mw-64)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |
| 5% critical value: 0.43 |
| 1% critical value: 0.514 |
| |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** |
| |
| Test Statistic: 0.556 |
| |
| For 10% significance level, 0.001 is an outlier. |
| For 5% significance level, 0.001 is an outlier. |
| For 1% significance level, 0.001 is an outlier. |
| |
| **2. Observation Value 0.0001 is a Potential Outlier (Lower Tail)?** |
| |
| Test Statistic: 0.000 |
| |
| For 10% significance level, 0.0001 is not an outlier. |
| For 5% significance level, 0.0001 is not an outlier. |
| For 1% significance level, 0.0001 is not an outlier. |
| |
| |
| **Dixon's Outlier Test for Thallium (mw-65)** |
| |
| Number of Observations = 22 |
| 10% critical value: 0.382 |

# Appendix B
# Outlier Statistics

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Number of Observations = 22 | | | | | | | |
| 5% critical value: 0.43 | | | | | | | |
| 1% critical value: 0.514 | | | | | | | |
| | | | | | | | |
| **1. Observation Value 0.001 is a Potential Outlier (Upper Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.000 | | | | | | | |
| | | | | | | | |
| For 10% significance level, 0.001 is not an outlier. | | | | | | | |
| For 5% significance level, 0.001 is not an outlier. | | | | | | | |
| For 1% significance level, 0.001 is not an outlier. | | | | | | | |
| | | | | | | | |
| **2. Observation Value 7.2E-05 is a Potential Outlier (Lower Tail)?** | | | | | | | |
| | | | | | | | |
| Test Statistic: 0.030 | | | | | | | |
| | | | | | | | |
| For 10% significance level, 7.2E-05 is not an outlier. | | | | | | | |
| For 5% significance level, 7.2E-05 is not an outlier. | | | | | | | |

# Appendix B
# Summary Statistics

**General Statistics on Uncensored Data**

Date/Time of Computation ProUCL 5.19/10/2024 11:44:29 AM

**User Selected Options**

From File CWTP_AppxIV_ProUCL_2024_05ProUCLUpload.xls

Full Precision OFF

**From File: CWTP_AppxIV_ProUCL_2024_05ProUCLUpload.xls**

**General Statistics for Censored Data Set (with NDs) using Kaplan Meier Method**

| Variable | NumObs | # Missing | Num Ds | NumNDs | % NDs | Min ND | Max ND | KM Mean | KM Var | KM SD | KM CV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony (mw-62) | 22 | 11 | 2 | 20 | 90.91% | 0.001 | 0.01 | 1.1000E-4 | 0 | 0 | N/A |
| Antimony (mw-63) | 22 | 10 | 2 | 20 | 90.91% | 0.001 | 0.01 | 1.3000E-4 | 0 | 0 | N/A |
| Antimony (mw-64) | 22 | 10 | 0 | 22 | 100.00% | 1.0000E-4 | 0.01 | N/A | N/A | N/A | N/A |
| Antimony (mw-65) | 22 | 10 | 0 | 22 | 100.00% | 1.0000E-4 | 0.01 | N/A | N/A | N/A | N/A |
| Arsenic (mw-62) | 22 | 11 | 16 | 6 | 27.27% | 5.0000E-4 | 0.005 | 0.00364 | 2.0108E-5 | 0.00448 | 1.232 |
| Arsenic (mw-63) | 22 | 10 | 8 | 14 | 63.64% | 5.0000E-4 | 0.005 | 9.4318E-4 | 9.8301E-7 | 9.9147E-4 | 1.051 |
| Arsenic (mw-64) | 22 | 10 | 5 | 17 | 77.27% | 5.0000E-4 | 0.005 | 8.1348E-4 | 1.0731E-6 | 0.00104 | 1.273 |
| Arsenic (mw-65) | 22 | 10 | 5 | 17 | 77.27% | 5.0000E-4 | 0.005 | 8.1522E-4 | 9.6488E-7 | 9.8228E-4 | 1.205 |
| Barium (mw-62) | 22 | 11 | 22 | 0 | 0.00% | N/A | N/A | 0.0255 | 3.7307E-5 | 0.00611 | 0.24 |
| Barium (mw-63) | 22 | 10 | 22 | 0 | 0.00% | N/A | N/A | 0.0197 | 1.7541E-5 | 0.00419 | 0.212 |
| Barium (mw-64) | 22 | 10 | 22 | 0 | 0.00% | N/A | N/A | 0.0277 | 3.2208E-5 | 0.00568 | 0.205 |
| Barium (mw-65) | 22 | 10 | 22 | 0 | 0.00% | N/A | N/A | 0.0195 | 6.5022E-5 | 0.00806 | 0.413 |
| Beryllium (mw-62) | 22 | 11 | 1 | 21 | 95.45% | 0.001 | 0.001 | 8.6000E-5 | 0 | 0 | N/A |
| Beryllium (mw-63) | 22 | 10 | 1 | 21 | 95.45% | 0.001 | 0.001 | 7.3000E-5 | 0 | 0 | N/A |
| Beryllium (mw-64) | 22 | 10 | 1 | 21 | 95.45% | 0.001 | 0.001 | 0.00119 | 7.2936E-7 | 8.5403E-4 | 0.72 |
| Beryllium (mw-65) | 22 | 10 | 0 | 22 | 100.00% | 0.001 | 0.001 | N/A | N/A | N/A | N/A |
| Cadmium (mw-62) | 22 | 11 | 1 | 21 | 95.45% | 1.0000E-4 | 0.001 | 8.4000E-5 | 0 | 0 | N/A |
| Cadmium (mw-63) | 22 | 10 | 2 | 20 | 90.91% | 1.0000E-4 | 0.001 | 6.9077E-5 | 3.093E-10 | 1.7587E-5 | 0.255 |
| Cadmium (mw-64) | 22 | 10 | 1 | 21 | 95.45% | 1.0000E-4 | 0.001 | 5.8000E-5 | 0 | 0 | N/A |
| Cadmium (mw-65) | 22 | 10 | 0 | 22 | 100.00% | 1.0000E-4 | 0.001 | N/A | N/A | N/A | N/A |
| Chromium (mw-62) | 22 | 11 | 4 | 18 | 81.82% | 5.0000E-4 | 0.01 | 6.5577E-4 | 9.1140E-8 | 3.0189E-4 | 0.46 |
| Chromium (mw-63) | 22 | 10 | 2 | 20 | 90.91% | 5.0000E-4 | 0.01 | 4.8125E-4 | 1.8386E-8 | 1.3559E-4 | 0.282 |
| Chromium (mw-64) | 22 | 10 | 3 | 19 | 86.36% | 5.0000E-4 | 0.01 | 3.7750E-4 | 6.8294E-8 | 2.6133E-4 | 0.692 |
| Chromium (mw-65) | 22 | 10 | 2 | 20 | 90.91% | 5.0000E-4 | 0.01 | 5.6214E-4 | 6.7660E-8 | 2.6011E-4 | 0.463 |
| Cobalt (mw-62) | 22 | 11 | 22 | 0 | 0.00% | N/A | N/A | 0.00661 | 1.1107E-5 | 0.00333 | 0.504 |

# Appendix B
# Summary Statistics

**User Selected Options**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt (mw-63) | 22 | 10 | 21 | 1 | 4.55% | 0.001 | 0.001 | 0.00448 | 5.1274E-6 | 0.00226 | 0.505 |
| Cobalt (mw-64) | 22 | 10 | 18 | 4 | 18.18% | 0.002 | 0.005 | 0.00141 | 8.3442E-8 | 2.8886E-4 | 0.204 |
| Cobalt (mw-65) | 22 | 10 | 19 | 3 | 13.64% | 0.002 | 0.002 | 0.00154 | 3.4608E-7 | 5.8829E-4 | 0.381 |
| Fluoride (mw-62) | 33 | 0 | 32 | 1 | 3.03% | 80 | 80 | 1.547 | 0.129 | 0.36 | 0.233 |
| Fluoride (mw-63) | 32 | 0 | 31 | 1 | 3.13% | 8 | 8 | 1.906 | 0.132 | 0.364 | 0.191 |
| Fluoride (mw-64) | 32 | 0 | 32 | 0 | 0.00% | N/A | N/A | 1.434 | 0.0127 | 0.112 | 0.0784 |
| Fluoride (mw-65) | 32 | 0 | 31 | 1 | 3.13% | 2 | 2 | 1.822 | 0.044 | 0.21 | 0.115 |
| Lead (mw-62) | 22 | 11 | 2 | 20 | 90.91% | 5.0000E-4 | 0.005 | 5.0571E-4 | 4.245E-10 | 2.0603E-5 | 0.0407 |
| Lead (mw-63) | 22 | 10 | 1 | 21 | 95.45% | 5.0000E-4 | 0.005 | 1.5000E-4 | 0 | 0 | N/A |
| Lead (mw-64) | 22 | 10 | 1 | 21 | 95.45% | 5.0000E-4 | 0.005 | 1.6000E-4 | 0 | 0 | N/A |
| Lead (mw-65) | 22 | 10 | 0 | 22 | 100.00% | 5.0000E-4 | 0.005 | N/A | N/A | N/A | N/A |
| Lithium (mw-62) | 24 | 9 | 9 | 15 | 62.50% | 0.2 | 0.2 | 0.132 | 1.2840E-4 | 0.0113 | 0.0857 |
| Lithium (mw-63) | 24 | 8 | 9 | 15 | 62.50% | 0.2 | 0.2 | 0.0604 | 1.0980E-4 | 0.0105 | 0.173 |
| Lithium (mw-64) | 24 | 8 | 8 | 16 | 66.67% | 0.05 | 0.2 | 0.0245 | 6.6000E-5 | 0.00812 | 0.332 |
| Lithium (mw-65) | 24 | 8 | 8 | 16 | 66.67% | 0.05 | 0.2 | 0.0569 | 1.3988E-4 | 0.0118 | 0.208 |
| Mercury (mw-62) | 22 | 11 | 3 | 19 | 86.36% | 2.0000E-4 | 2.0000E-4 | 2.2091E-4 | 3.6083E-9 | 6.0069E-5 | 0.272 |
| Mercury (mw-63) | 22 | 10 | 0 | 22 | 100.00% | 2.0000E-4 | 2.0000E-4 | N/A | N/A | N/A | N/A |
| Mercury (mw-64) | 22 | 10 | 0 | 22 | 100.00% | 2.0000E-4 | 2.0000E-4 | N/A | N/A | N/A | N/A |
| Mercury (mw-65) | 22 | 10 | 0 | 22 | 100.00% | 2.0000E-4 | 2.0000E-4 | N/A | N/A | N/A | N/A |
| Molybdenum (mw-62) | 22 | 11 | 21 | 1 | 4.55% | 0.002 | 0.002 | 0.0033 | 4.1323E-6 | 0.00203 | 0.615 |
| Molybdenum (mw-63) | 22 | 10 | 22 | 0 | 0.00% | N/A | N/A | 0.00346 | 9.8006E-6 | 0.00313 | 0.905 |
| Molybdenum (mw-64) | 22 | 10 | 22 | 0 | 0.00% | N/A | N/A | 0.00492 | 4.7108E-7 | 6.8635E-4 | 0.14 |
| Molybdenum (mw-65) | 22 | 10 | 22 | 0 | 0.00% | N/A | N/A | 0.00849 | 1.8913E-6 | 0.00138 | 0.162 |
| Total Radium (mw-62) | 24 | 9 | 14 | 10 | 41.67% | 0.6 | 0.8 | 0.918 | 0.146 | 0.382 | 0.417 |
| Total Radium (mw-63) | 24 | 8 | 13 | 11 | 45.83% | 0.6 | 0.8 | 0.753 | 0.202 | 0.45 | 0.598 |
| Total Radium (mw-64) | 24 | 8 | 7 | 17 | 70.83% | 0.5 | 0.8 | 0.67 | 0.115 | 0.34 | 0.507 |
| Total Radium (mw-65) | 24 | 8 | 6 | 18 | 75.00% | 0.4 | 0.8 | 0.578 | 0.109 | 0.33 | 0.572 |
| Selenium (mw-62) | 22 | 11 | 6 | 16 | 72.73% | 5.0000E-4 | 0.005 | 6.7201E-4 | 1.2303E-7 | 3.5076E-4 | 0.522 |
| Selenium (mw-63) | 22 | 10 | 4 | 18 | 81.82% | 5.0000E-4 | 0.005 | 5.8564E-4 | 4.2519E-8 | 2.0620E-4 | 0.352 |
| Selenium (mw-64) | 22 | 10 | 1 | 21 | 95.45% | 5.0000E-4 | 0.005 | 3.3000E-4 | 0 | 0 | N/A |
| Selenium (mw-65) | 22 | 10 | 1 | 21 | 95.45% | 5.0000E-4 | 0.005 | 3.4000E-4 | 0 | 0 | N/A |
| Thallium (mw-62) | 22 | 11 | 1 | 21 | 95.45% | 1.0000E-4 | 0.001 | 9.8000E-5 | 0 | 0 | N/A |
| Thallium (mw-63) | 22 | 10 | 2 | 20 | 90.91% | 1.0000E-4 | 0.001 | 1.0429E-4 | 1.673E-10 | 1.2936E-5 | 0.124 |
| Thallium (mw-64) | 22 | 10 | 11 | 11 | 50.00% | 1.0000E-4 | 0.001 | 1.3623E-4 | 4.7710E-9 | 6.9072E-5 | 0.507 |
| Thallium (mw-65) | 22 | 10 | 1 | 21 | 95.45% | 1.0000E-4 | 0.001 | 7.2000E-5 | 0 | 0 | N/A |

# Appendix B
# Summary Statistics

**User Selected Options**

**General Statistics for Raw Data Sets using Detected Data Only**

| Variable | NumObs | # Missing | Minimum | Maximum | Mean | Median | Var | SD | MAD/0.675 | Skewness | CV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony (mw-62) | 2 | 11 | 1.1000E-4 | 1.1000E-4 | 1.1000E-4 | 1.1000E-4 | 0 | 0 | 0 | N/A | N/A |
| Antimony (mw-63) | 2 | 10 | 1.3000E-4 | 1.3000E-4 | 1.3000E-4 | 1.3000E-4 | 0 | 0 | 0 | N/A | N/A |
| Antimony (mw-64) | 0 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Antimony (mw-65) | 0 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Arsenic (mw-62) | 16 | 11 | 6.2000E-4 | 0.012 | 0.0047 | 0.00215 | 2.5033E-5 | 0.005 | 0.00215 | 0.832 | 1.065 |
| Arsenic (mw-63) | 8 | 10 | 5.9000E-4 | 0.0053 | 0.0015 | 0.0011 | 2.4239E-6 | 0.00156 | 3.5582E-4 | 2.663 | 1.035 |
| Arsenic (mw-64) | 5 | 10 | 5.6000E-4 | 0.0055 | 0.00175 | 9.7000E-4 | 4.4380E-6 | 0.00211 | 4.0030E-4 | 2.193 | 1.207 |
| Arsenic (mw-65) | 5 | 10 | 5.9000E-4 | 0.0052 | 0.00178 | 0.0011 | 3.7376E-6 | 0.00193 | 5.7821E-4 | 2.114 | 1.086 |
| Barium (mw-62) | 22 | 11 | 0.015 | 0.043 | 0.0255 | 0.0255 | 3.7307E-5 | 0.00611 | 0.00445 | 0.982 | 0.24 |
| Barium (mw-63) | 22 | 10 | 0.014 | 0.033 | 0.0197 | 0.02 | 1.7541E-5 | 0.00419 | 0.00371 | 1.426 | 0.212 |
| Barium (mw-64) | 22 | 10 | 0.022 | 0.048 | 0.0277 | 0.027 | 3.2208E-5 | 0.00568 | 0.00297 | 2.385 | 0.205 |
| Barium (mw-65) | 22 | 10 | 0.012 | 0.042 | 0.0195 | 0.0175 | 6.5022E-5 | 0.00806 | 0.00519 | 1.618 | 0.413 |
| Beryllium (mw-62) | 1 | 11 | 8.6000E-5 | 8.6000E-5 | 8.6000E-5 | 8.6000E-5 | N/A | N/A | 0 | N/A | N/A |
| Beryllium (mw-63) | 1 | 10 | 7.3000E-5 | 7.3000E-5 | 7.3000E-5 | 7.3000E-5 | N/A | N/A | 0 | N/A | N/A |
| Beryllium (mw-64) | 1 | 10 | 0.0051 | 0.0051 | 0.0051 | 0.0051 | N/A | N/A | 0 | N/A | N/A |
| Beryllium (mw-65) | 0 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Cadmium (mw-62) | 1 | 11 | 8.4000E-5 | 8.4000E-5 | 8.4000E-5 | 8.4000E-5 | N/A | N/A | 0 | N/A | N/A |
| Cadmium (mw-63) | 2 | 10 | 6.4000E-5 | 1.3000E-4 | 9.7000E-5 | 9.7000E-5 | 2.1780E-9 | 4.6669E-5 | 4.8925E-5 | N/A | 0.481 |
| Cadmium (mw-64) | 1 | 10 | 5.8000E-5 | 5.8000E-5 | 5.8000E-5 | 5.8000E-5 | N/A | N/A | 0 | N/A | N/A |
| Cadmium (mw-65) | 0 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Chromium (mw-62) | 4 | 11 | 5.1000E-4 | 0.0015 | 0.001 | 0.001 | 1.6336E-7 | 4.0418E-4 | 3.6323E-4 | 0.0371 | 0.403 |
| Chromium (mw-63) | 2 | 10 | 4.3000E-4 | 8.4000E-4 | 6.3500E-4 | 6.3500E-4 | 8.4050E-8 | 2.8991E-4 | 3.0393E-4 | N/A | 0.457 |
| Chromium (mw-64) | 3 | 10 | 2.3000E-4 | 9.3000E-4 | 6.2333E-4 | 7.1000E-4 | 1.2813E-7 | 3.5796E-4 | 3.2617E-4 | -1.026 | 0.574 |
| Chromium (mw-65) | 2 | 10 | 4.9000E-4 | 0.0015 | 9.9500E-4 | 9.9500E-4 | 5.1005E-7 | 7.1418E-4 | 7.4870E-4 | N/A | 0.718 |
| Cobalt (mw-62) | 22 | 11 | 6.5000E-4 | 0.014 | 0.00661 | 0.0063 | 1.1107E-5 | 0.00333 | 0.00297 | 0.311 | 0.504 |
| Cobalt (mw-63) | 21 | 10 | 6.2000E-4 | 0.0086 | 0.00467 | 0.0055 | 4.8582E-6 | 0.0022 | 0.00208 | -0.433 | 0.472 |
| Cobalt (mw-64) | 18 | 10 | 8.3000E-4 | 0.0018 | 0.00141 | 0.0015 | 8.8351E-8 | 2.9724E-4 | 4.4477E-4 | -0.274 | 0.21 |
| Cobalt (mw-65) | 19 | 10 | 0.001 | 0.0032 | 0.00158 | 0.0012 | 3.9953E-7 | 6.3209E-4 | 2.9652E-4 | 1.465 | 0.4 |
| Fluoride (mw-62) | 32 | 0 | 1.2 | 3.3 | 1.547 | 1.5 | 0.134 | 0.365 | 0.148 | 3.744 | 0.236 |
| Fluoride (mw-63) | 31 | 0 | 0.28 | 2.5 | 1.906 | 2 | 0.137 | 0.37 | 0.148 | -2.8 | 0.194 |
| Fluoride (mw-64) | 32 | 0 | 1 | 1.6 | 1.434 | 1.4 | 0.0127 | 0.112 | 0.148 | -1.759 | 0.0784 |

# Appendix B
# Summary Statistics

**User Selected Options**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride (mw-65) | 31 | 0 | 1.3 | 2.1 | 1.826 | 1.9 | 0.0453 | 0.213 | 0.148 | -0.915 | 0.117 |
| Lead (mw-62) | 2 | 11 | 5.0000E-4 | 5.8000E-4 | 5.4000E-4 | 5.4000E-4 | 3.2000E-9 | 5.6569E-5 | 5.9303E-5 | N/A | 0.105 |
| Lead (mw-63) | 1 | 10 | 1.5000E-4 | 1.5000E-4 | 1.5000E-4 | 1.5000E-4 | N/A | N/A | 0 | N/A | N/A |
| Lead (mw-64) | 1 | 10 | 1.6000E-4 | 1.6000E-4 | 1.6000E-4 | 1.6000E-4 | N/A | N/A | 0 | N/A | N/A |
| Lead (mw-65) | 0 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Lithium (mw-62) | 9 | 9 | 0.11 | 0.15 | 0.132 | 0.13 | 1.4444E-4 | 0.012 | 0.0148 | -0.537 | 0.0909 |
| Lithium (mw-63) | 9 | 8 | 0.045 | 0.085 | 0.0604 | 0.058 | 1.2353E-4 | 0.0111 | 0.00741 | 1.254 | 0.184 |
| Lithium (mw-64) | 8 | 8 | 0.019 | 0.045 | 0.0245 | 0.0215 | 7.5429E-5 | 0.00868 | 0.00297 | 2.368 | 0.354 |
| Lithium (mw-65) | 8 | 8 | 0.045 | 0.081 | 0.0584 | 0.0535 | 1.5713E-4 | 0.0125 | 0.00815 | 1.056 | 0.215 |
| Mercury (mw-62) | 3 | 11 | 2.5000E-4 | 4.4000E-4 | 3.5333E-4 | 3.7000E-4 | 9.2333E-9 | 9.6090E-5 | 1.0378E-4 | -0.757 | 0.272 |
| Mercury (mw-63) | 0 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Mercury (mw-64) | 0 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Mercury (mw-65) | 0 | 10 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Molybdenum (mw-62) | 21 | 11 | 0.0012 | 0.012 | 0.0034 | 0.003 | 4.3135E-6 | 0.00208 | 4.4477E-4 | 3.834 | 0.61 |
| Molybdenum (mw-63) | 22 | 10 | 0.0019 | 0.017 | 0.00346 | 0.0026 | 9.8006E-6 | 0.00313 | 5.9303E-4 | 4.227 | 0.905 |
| Molybdenum (mw-64) | 22 | 10 | 0.0036 | 0.0073 | 0.00492 | 0.0049 | 4.7108E-7 | 6.8635E-4 | 4.4477E-4 | 1.782 | 0.14 |
| Molybdenum (mw-65) | 22 | 10 | 0.0066 | 0.013 | 0.00849 | 0.0083 | 1.8913E-6 | 0.00138 | 0.00133 | 1.673 | 0.162 |
| Total Radium (mw-62) | 14 | 9 | 0.6 | 1.9 | 1.143 | 1.05 | 0.138 | 0.372 | 0.297 | 0.613 | 0.325 |
| Total Radium (mw-63) | 13 | 8 | 0.4 | 2.1 | 0.992 | 0.8 | 0.264 | 0.514 | 0.297 | 1.107 | 0.518 |
| Total Radium (mw-64) | 7 | 8 | 0.731 | 1.7 | 1.076 | 0.8 | 0.189 | 0.434 | 0.102 | 1.087 | 0.404 |
| Total Radium (mw-65) | 6 | 8 | 0.478 | 1.9 | 0.98 | 0.85 | 0.254 | 0.504 | 0.297 | 1.433 | 0.514 |
| Selenium (mw-62) | 6 | 11 | 5.4000E-4 | 0.002 | 9.5667E-4 | 8.5500E-4 | 2.9195E-7 | 5.4032E-4 | 2.8910E-4 | 1.884 | 0.565 |
| Selenium (mw-63) | 4 | 10 | 5.1000E-4 | 0.0013 | 8.1250E-4 | 7.2000E-4 | 1.1649E-7 | 3.4131E-4 | 1.8532E-4 | 1.437 | 0.42 |
| Selenium (mw-64) | 1 | 10 | 3.3000E-4 | 3.3000E-4 | 3.3000E-4 | 3.3000E-4 | N/A | N/A | 0 | N/A | N/A |
| Selenium (mw-65) | 1 | 10 | 3.4000E-4 | 3.4000E-4 | 3.4000E-4 | 3.4000E-4 | N/A | N/A | 0 | N/A | N/A |
| Thallium (mw-62) | 1 | 11 | 9.8000E-5 | 9.8000E-5 | 9.8000E-5 | 9.8000E-5 | N/A | N/A | 0 | N/A | N/A |
| Thallium (mw-63) | 2 | 10 | 1.1000E-4 | 1.5000E-4 | 1.3000E-4 | 1.3000E-4 | 8.000E-10 | 2.8284E-5 | 2.9652E-5 | N/A | 0.218 |
| Thallium (mw-64) | 11 | 10 | 1.1000E-4 | 4.1000E-4 | 1.5545E-4 | 1.2000E-4 | 7.8073E-9 | 8.8359E-5 | 1.4826E-5 | 2.858 | 0.568 |
| Thallium (mw-65) | 1 | 10 | 7.2000E-5 | 7.2000E-5 | 7.2000E-5 | 7.2000E-5 | N/A | N/A | 0 | N/A | N/A |

**Percentiles using all Detects (Ds) and Non-Detects (NDs)**

| Variable | NumObs | # Missing | 10%ile | 20%ile | 25%ile(Q1) | 50%ile(Q2) | 75%ile(Q3) | 80%ile | 90%ile | 95%ile | 99%ile |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony (mw-62) | 22 | 11 | 0.001 | 0.001 | 0.001 | 0.001 | 0.0025 | 0.0037 | 0.004 | 0.004 | 0.00874 |
| Antimony (mw-63) | 22 | 10 | 0.001 | 0.001 | 0.001 | 0.0015 | 0.0025 | 0.0037 | 0.004 | 0.004 | 0.00874 |

# Appendix B
# Summary Statistics

**User Selected Options**

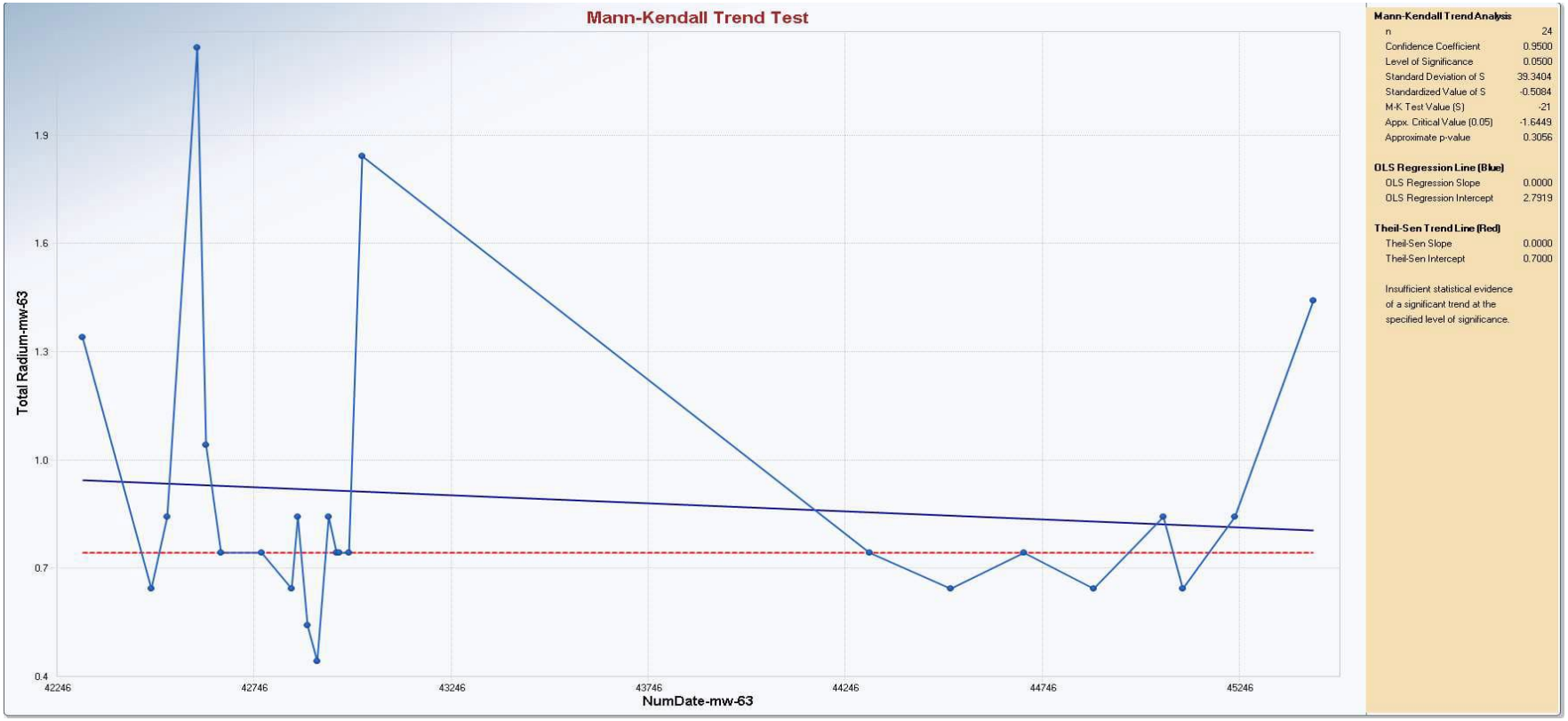
| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony (mw-64) | 22 | 10 | 0.001 | 0.001 | 0.001 | 0.0015 | 0.0025 | 0.0037 | 0.004 | 0.004 | 0.00874 |
| Antimony (mw-65) | 22 | 10 | 0.001 | 0.001 | 0.001 | 0.001 | 0.00238 | 0.0025 | 0.004 | 0.004 | 0.00874 |
| Arsenic (mw-62) | 22 | 11 | 6.5200E-4 | 7.8000E-4 | 9.8500E-4 | 0.002 | 0.00453 | 0.0098 | 0.012 | 0.012 | 0.012 |
| Arsenic (mw-63) | 22 | 10 | 5.0000E-4 | 5.1800E-4 | 6.0000E-4 | 0.001 | 0.00183 | 0.002 | 0.0047 | 0.005 | 0.00524 |
| Arsenic (mw-64) | 22 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 9.6500E-4 | 0.00175 | 0.002 | 0.0047 | 0.005 | 0.0054 |
| Arsenic (mw-65) | 22 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 8.5000E-4 | 0.00125 | 0.00186 | 0.002 | 0.00485 | 0.00516 |
| Barium (mw-62) | 22 | 11 | 0.021 | 0.0212 | 0.022 | 0.0255 | 0.027 | 0.0278 | 0.0328 | 0.034 | 0.0411 |
| Barium (mw-63) | 22 | 10 | 0.0151 | 0.0162 | 0.017 | 0.02 | 0.022 | 0.022 | 0.0229 | 0.0249 | 0.0313 |
| Barium (mw-64) | 22 | 10 | 0.0231 | 0.024 | 0.0243 | 0.027 | 0.0285 | 0.029 | 0.033 | 0.0349 | 0.0453 |
| Barium (mw-65) | 22 | 10 | 0.0121 | 0.0132 | 0.014 | 0.0175 | 0.021 | 0.0218 | 0.0311 | 0.0368 | 0.041 |
| Beryllium (mw-62) | 22 | 11 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 |
| Beryllium (mw-63) | 22 | 10 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 |
| Beryllium (mw-64) | 22 | 10 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.00424 |
| Beryllium (mw-65) | 22 | 10 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 |
| Cadmium (mw-62) | 22 | 11 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 4.0000E-4 | 4.0000E-4 | 9.5000E-4 | 0.001 | 0.001 |
| Cadmium (mw-63) | 22 | 10 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 4.0000E-4 | 4.8000E-4 | 0.001 | 0.001 | 0.001 |
| Cadmium (mw-64) | 22 | 10 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 4.0000E-4 | 4.8000E-4 | 0.001 | 0.001 | 0.001 |
| Cadmium (mw-65) | 22 | 10 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 4.0000E-4 | 4.0000E-4 | 9.5000E-4 | 0.001 | 0.001 |
| Chromium (mw-62) | 22 | 11 | 5.0100E-4 | 0.001 | 0.001 | 0.001 | 0.002 | 0.0024 | 0.0039 | 0.0097 | 0.01 |
| Chromium (mw-63) | 22 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 0.001 | 0.002 | 0.0024 | 0.0039 | 0.0097 | 0.01 |
| Chromium (mw-64) | 22 | 10 | 5.0000E-4 | 5.0000E-4 | 5.5250E-4 | 0.001 | 0.002 | 0.0024 | 0.0039 | 0.0097 | 0.01 |
| Chromium (mw-65) | 22 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 0.001 | 0.002 | 0.002 | 0.00295 | 0.00395 | 0.00874 |
| Cobalt (mw-62) | 22 | 11 | 0.00294 | 0.00376 | 0.0045 | 0.0063 | 0.00813 | 0.00968 | 0.011 | 0.011 | 0.0134 |
| Cobalt (mw-63) | 22 | 10 | 0.00123 | 0.00196 | 0.0023 | 0.00545 | 0.006 | 0.00624 | 0.00685 | 0.0069 | 0.00824 |
| Cobalt (mw-64) | 22 | 10 | 0.0011 | 0.0012 | 0.0012 | 0.00155 | 0.00178 | 0.0018 | 0.002 | 0.002 | 0.00437 |
| Cobalt (mw-65) | 22 | 10 | 0.0011 | 0.0011 | 0.00113 | 0.0015 | 0.002 | 0.002 | 0.00218 | 0.00287 | 0.00314 |
| Fluoride (mw-62) | 33 | 0 | 1.22 | 1.4 | 1.4 | 1.5 | 1.6 | 1.6 | 1.8 | 2.52 | 55.46 |
| Fluoride (mw-63) | 32 | 0 | 1.61 | 1.8 | 1.8 | 2 | 2.1 | 2.1 | 2.2 | 2.445 | 6.295 |
| Fluoride (mw-64) | 32 | 0 | 1.31 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 |
| Fluoride (mw-65) | 32 | 0 | 1.5 | 1.7 | 1.7 | 1.9 | 2 | 2 | 2 | 2.045 | 2.1 |
| Lead (mw-62) | 22 | 11 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 0.001 | 0.0018 | 0.002 | 0.00485 | 0.005 |
| Lead (mw-63) | 22 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 0.001 | 0.0018 | 0.002 | 0.00485 | 0.005 |
| Lead (mw-64) | 22 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 0.001 | 0.001 | 0.002 | 0.00485 | 0.005 |
| Lead (mw-65) | 22 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 0.001 | 0.001 | 0.002 | 0.002 | 0.00437 |
| Lithium (mw-62) | 24 | 9 | 0.13 | 0.136 | 0.14 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |

# Appendix B
# Summary Statistics

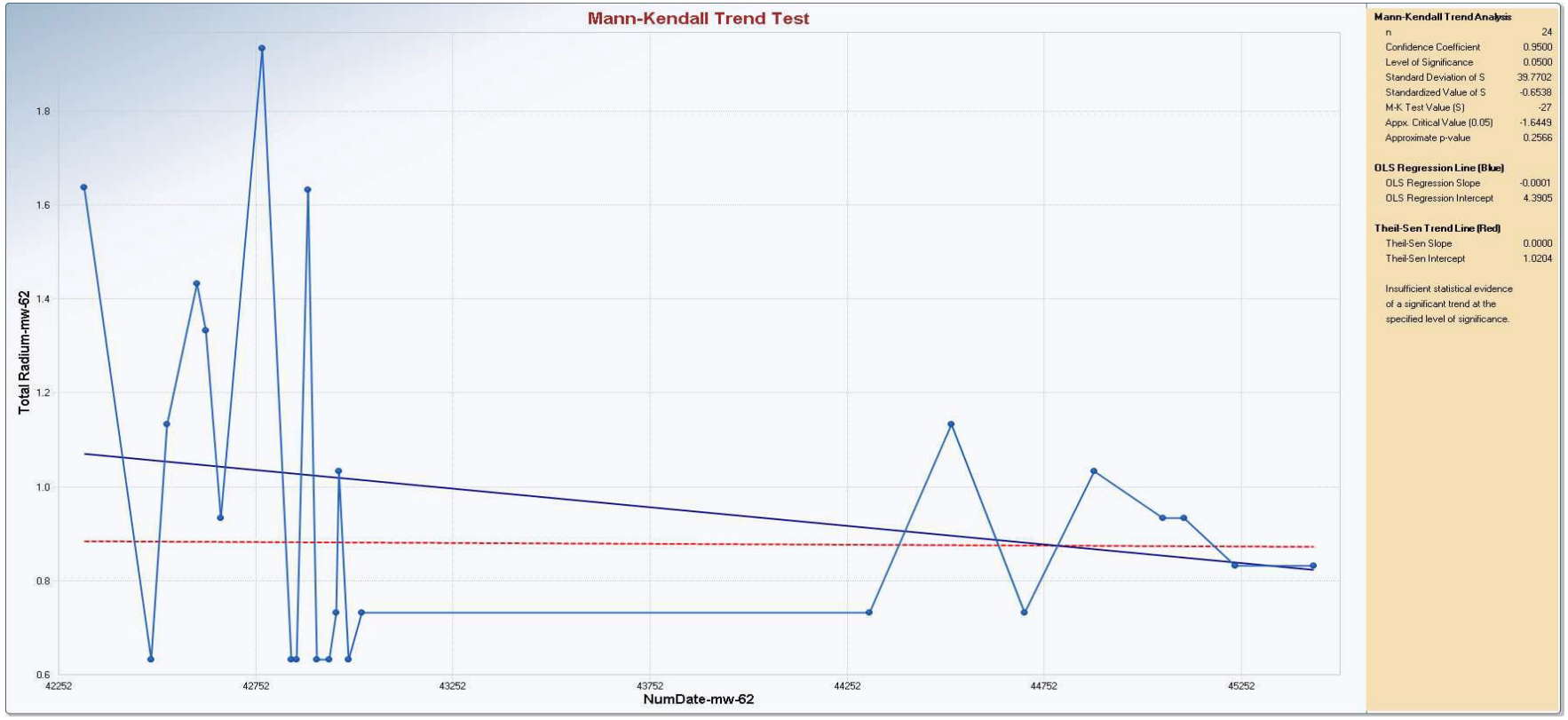
**User Selected Options**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium (mw-63) | 24 | 8 | 0.0556 | 0.0598 | 0.0633 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Lithium (mw-64) | 24 | 8 | 0.0203 | 0.0226 | 0.026 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Lithium (mw-65) | 24 | 8 | 0.05 | 0.0536 | 0.0593 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Mercury (mw-62) | 22 | 11 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.4500E-4 | 3.6400E-4 | 4.2530E-4 |
| Mercury (mw-63) | 22 | 10 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 |
| Mercury (mw-64) | 22 | 10 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 |
| Mercury (mw-65) | 22 | 10 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 |
| Molybdenum (mw-62) | 22 | 11 | 0.00232 | 0.00254 | 0.0027 | 0.00295 | 0.00318 | 0.00336 | 0.00423 | 0.0044 | 0.0104 |
| Molybdenum (mw-63) | 22 | 10 | 0.0022 | 0.00232 | 0.0024 | 0.0026 | 0.00308 | 0.00326 | 0.00359 | 0.00569 | 0.0146 |
| Molybdenum (mw-64) | 22 | 10 | 0.00441 | 0.0045 | 0.00453 | 0.0049 | 0.0051 | 0.00518 | 0.0052 | 0.00568 | 0.00696 |
| Molybdenum (mw-65) | 22 | 10 | 0.00721 | 0.00734 | 0.00758 | 0.0083 | 0.0092 | 0.0093 | 0.00979 | 0.00999 | 0.0124 |
| Total Radium (mw-62) | 24 | 9 | 0.6 | 0.6 | 0.675 | 0.85 | 1.1 | 1.18 | 1.54 | 1.604 | 1.832 |
| Total Radium (mw-63) | 24 | 8 | 0.6 | 0.6 | 0.6 | 0.7 | 0.8 | 0.88 | 1.369 | 1.74 | 2.031 |
| Total Radium (mw-64) | 24 | 8 | 0.6 | 0.6 | 0.6 | 0.7 | 0.8 | 0.8 | 0.94 | 1.595 | 1.7 |
| Total Radium (mw-65) | 24 | 8 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 | 0.94 | 1.085 | 1.716 |
| Selenium (mw-62) | 22 | 11 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 8.6500E-4 | 0.002 | 0.002 | 0.0029 | 0.0049 | 0.005 |
| Selenium (mw-63) | 22 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 5.9500E-4 | 0.002 | 0.002 | 0.0029 | 0.0049 | 0.005 |
| Selenium (mw-64) | 22 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 0.002 | 0.002 | 0.0029 | 0.0049 | 0.005 |
| Selenium (mw-65) | 22 | 10 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 5.0000E-4 | 0.00175 | 0.002 | 0.0029 | 0.0049 | 0.005 |
| Thallium (mw-62) | 22 | 11 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 4.0000E-4 | 4.8000E-4 | 0.001 | 0.001 | 0.001 |
| Thallium (mw-63) | 22 | 10 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 4.0000E-4 | 4.0000E-4 | 9.5000E-4 | 0.001 | 0.001 |
| Thallium (mw-64) | 22 | 10 | 1.0000E-4 | 1.1000E-4 | 1.1000E-4 | 1.3000E-4 | 4.0000E-4 | 4.0000E-4 | 4.9100E-4 | 9.7500E-4 | 0.001 |
| Thallium (mw-65) | 22 | 10 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 1.0000E-4 | 4.0000E-4 | 4.0000E-4 | 9.5000E-4 | 0.001 | 0.001 |

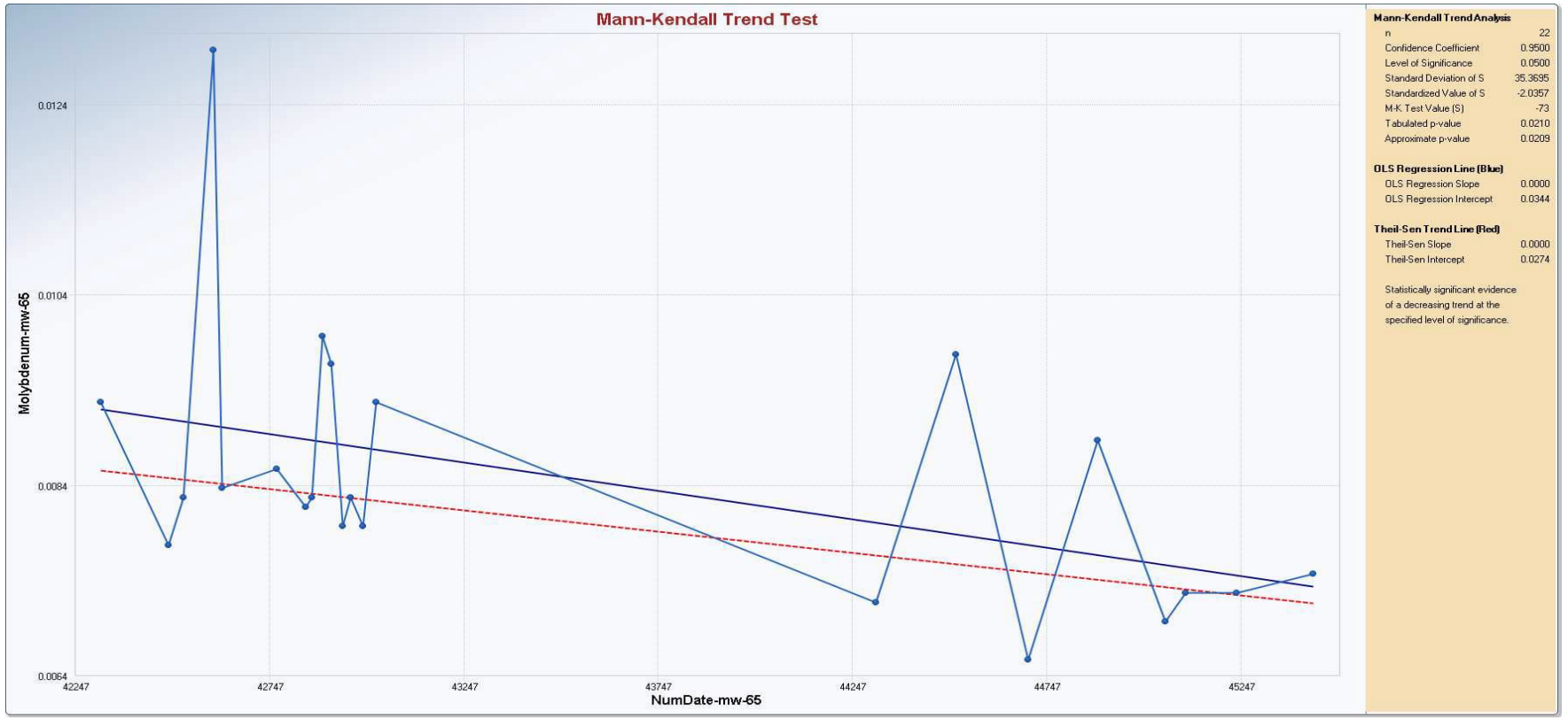
# Appendix B
# Mann-Kendall Trend Test



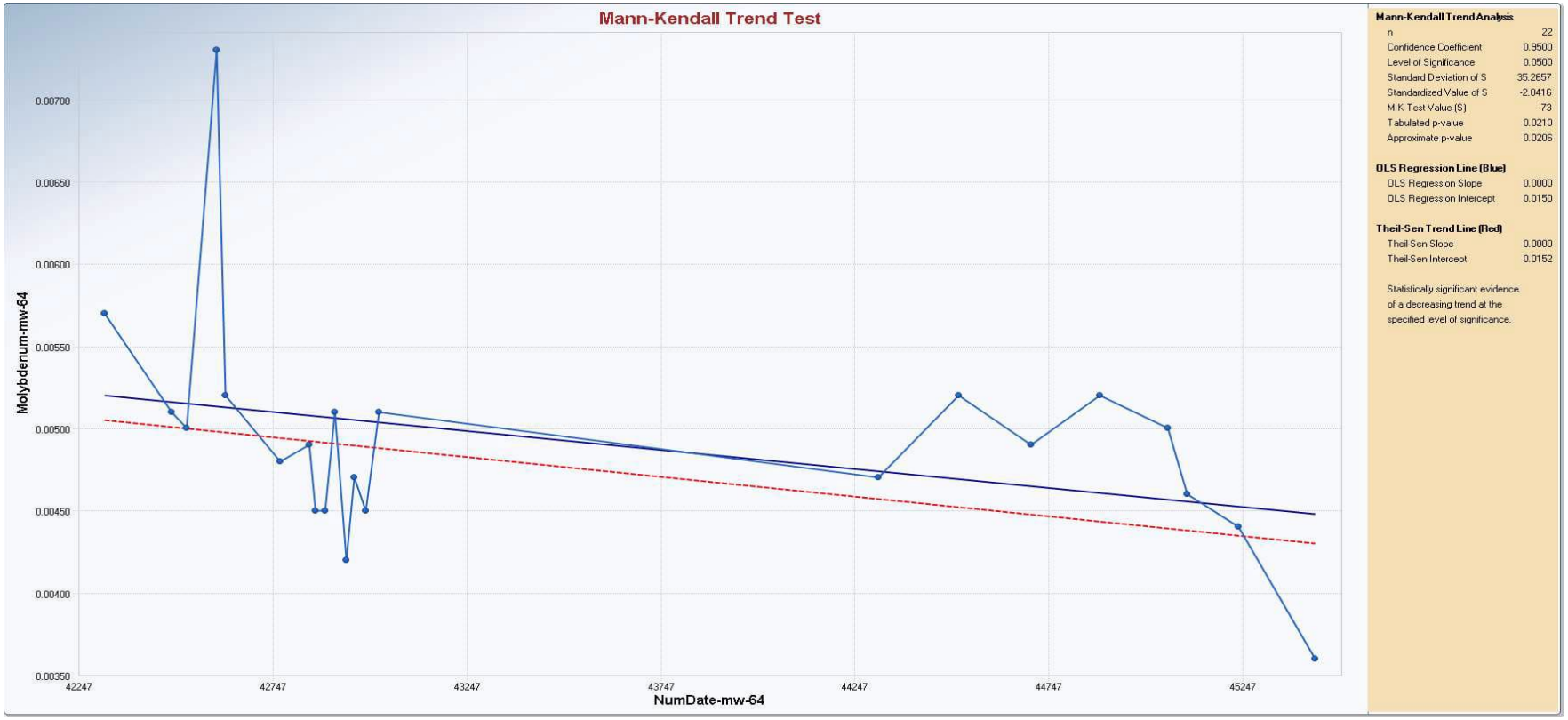
# Appendix B
# Mann-Kendall Trend Test



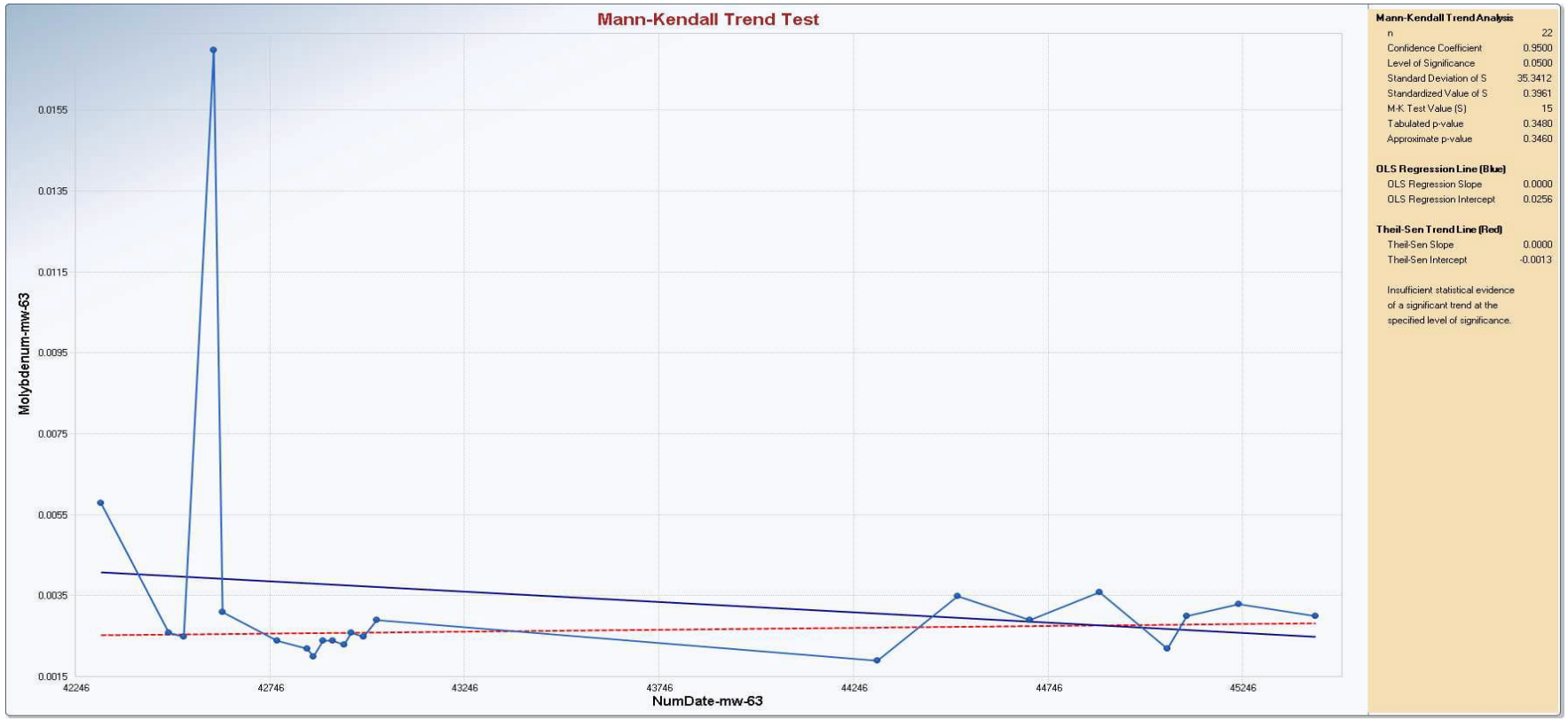
# Appendix B
# Mann-Kendall Trend Test



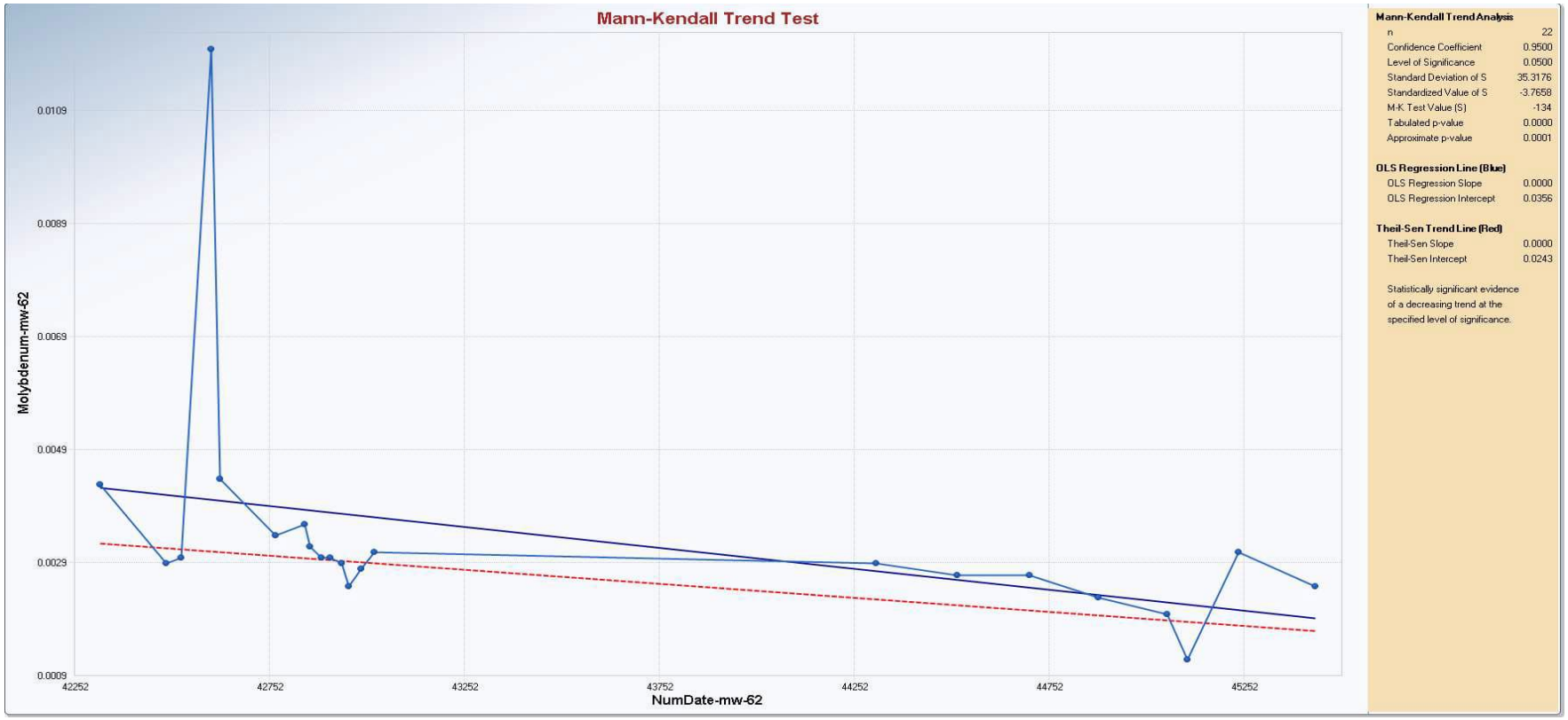
# Appendix B
# Mann-Kendall Trend Test



# Appendix B
# Mann-Kendall Trend Test



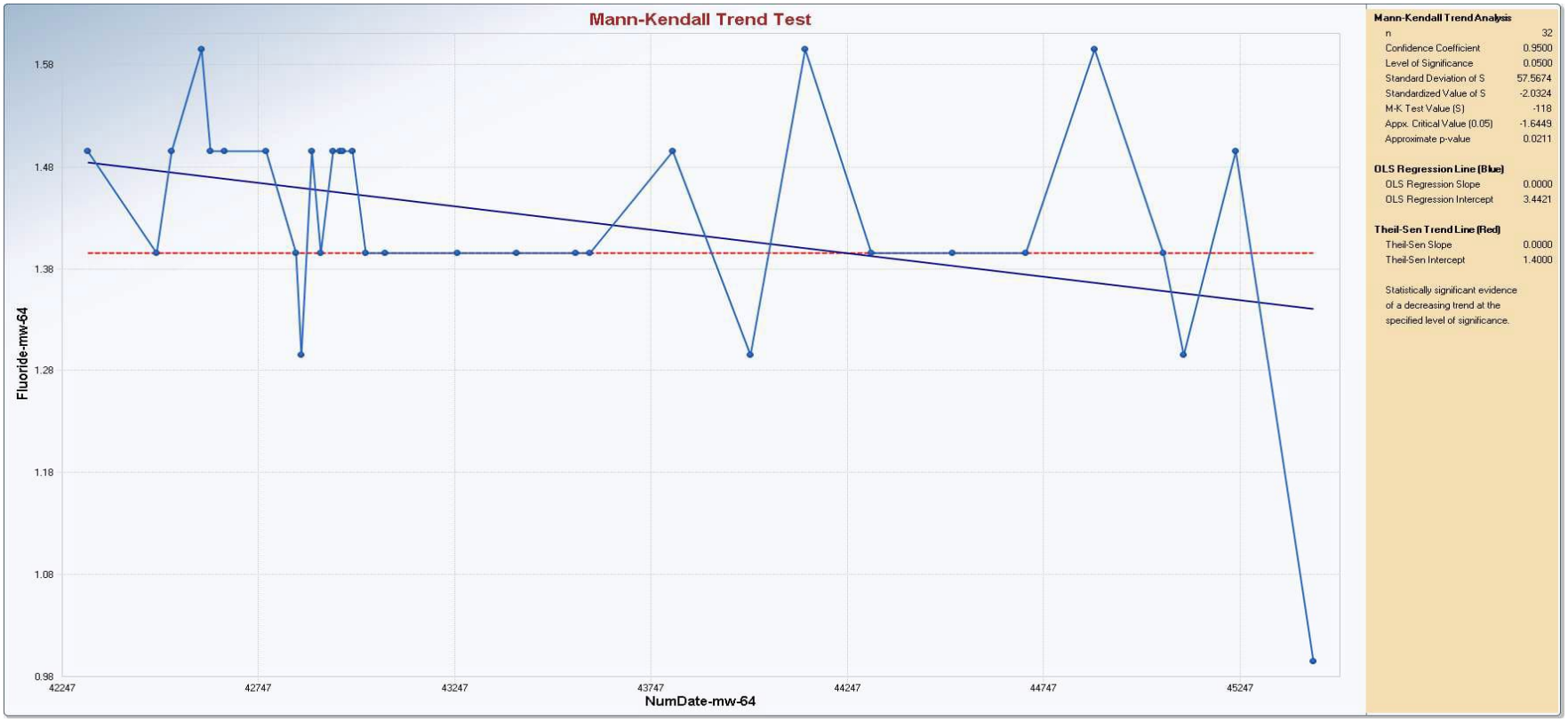
# Appendix B
# Mann-Kendall Trend Test



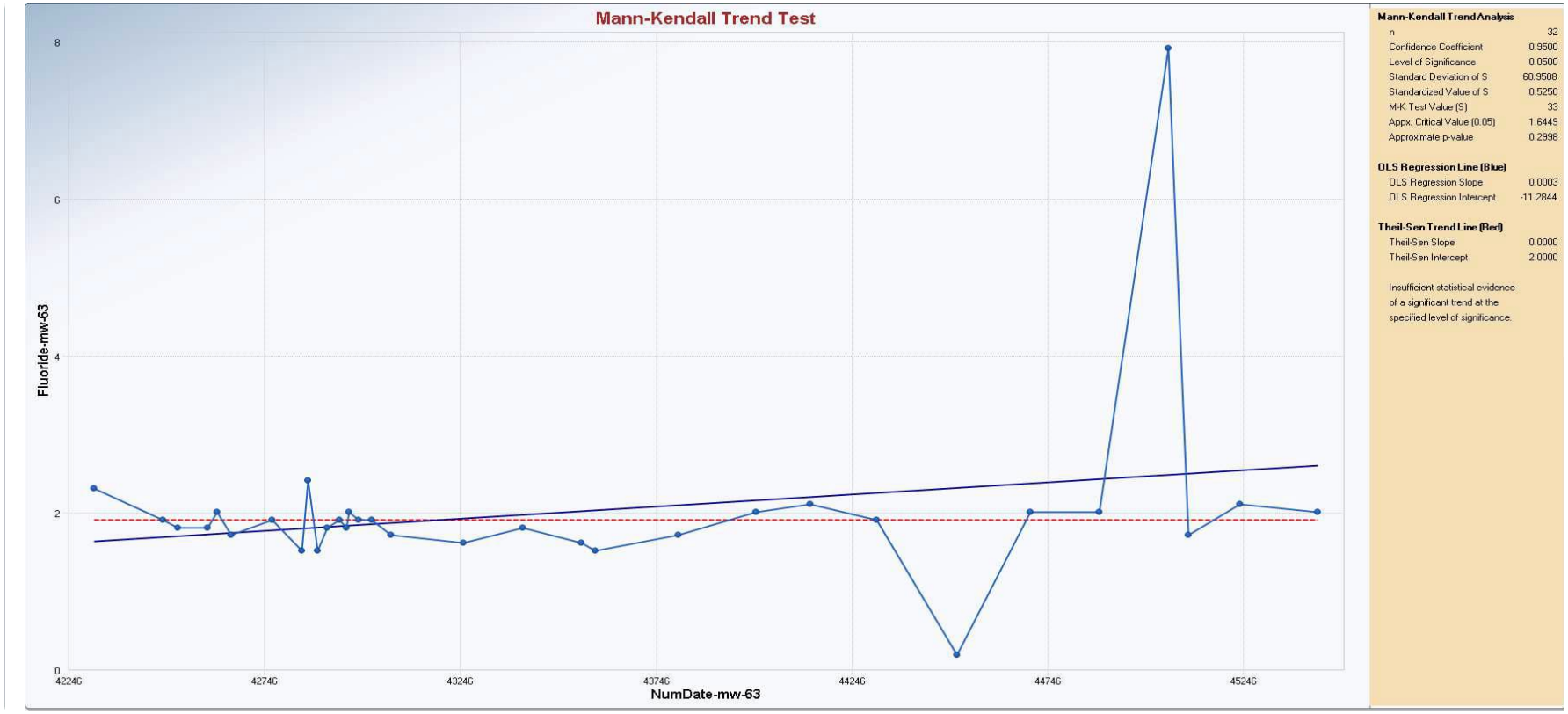
# Appendix B
# Mann-Kendall Trend Test



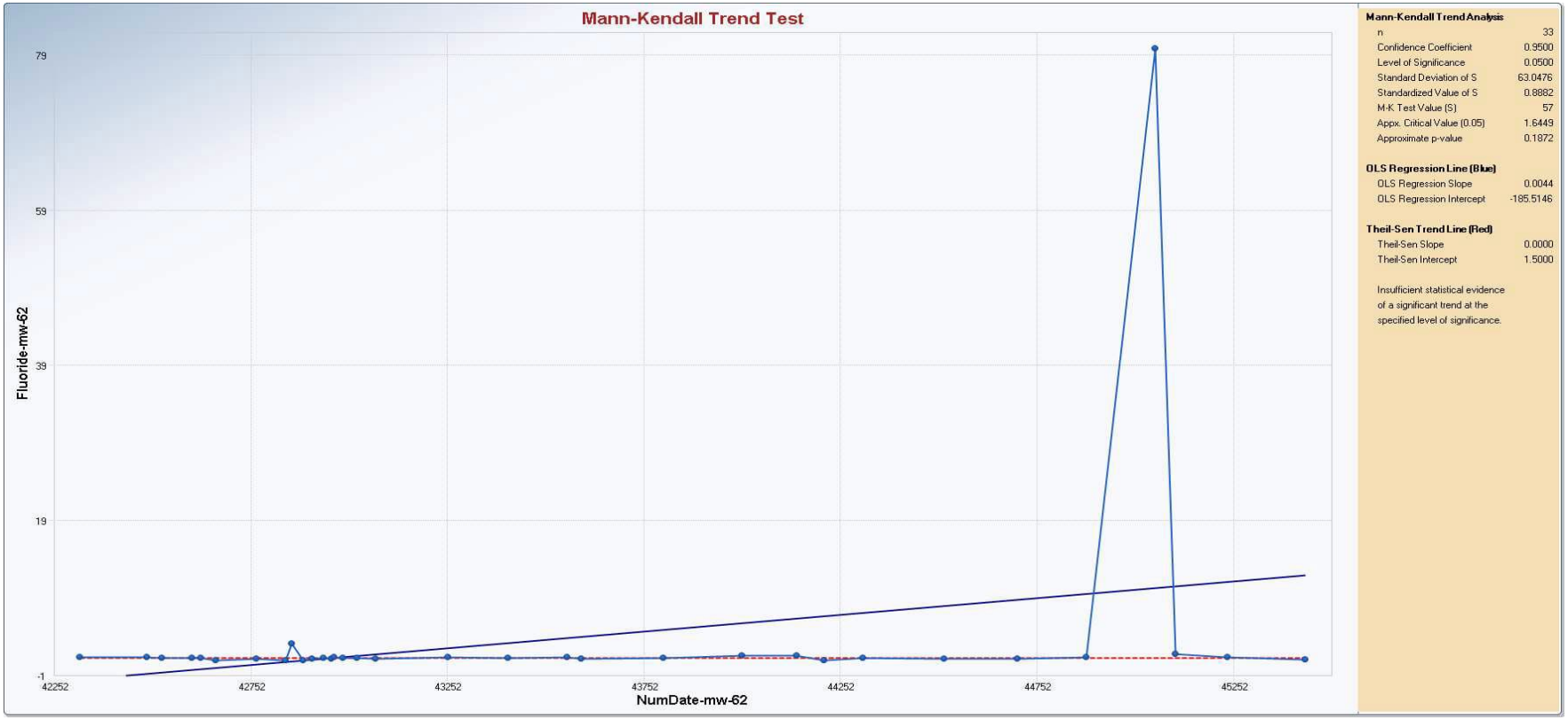
# Appendix B
# Mann-Kendall Trend Test



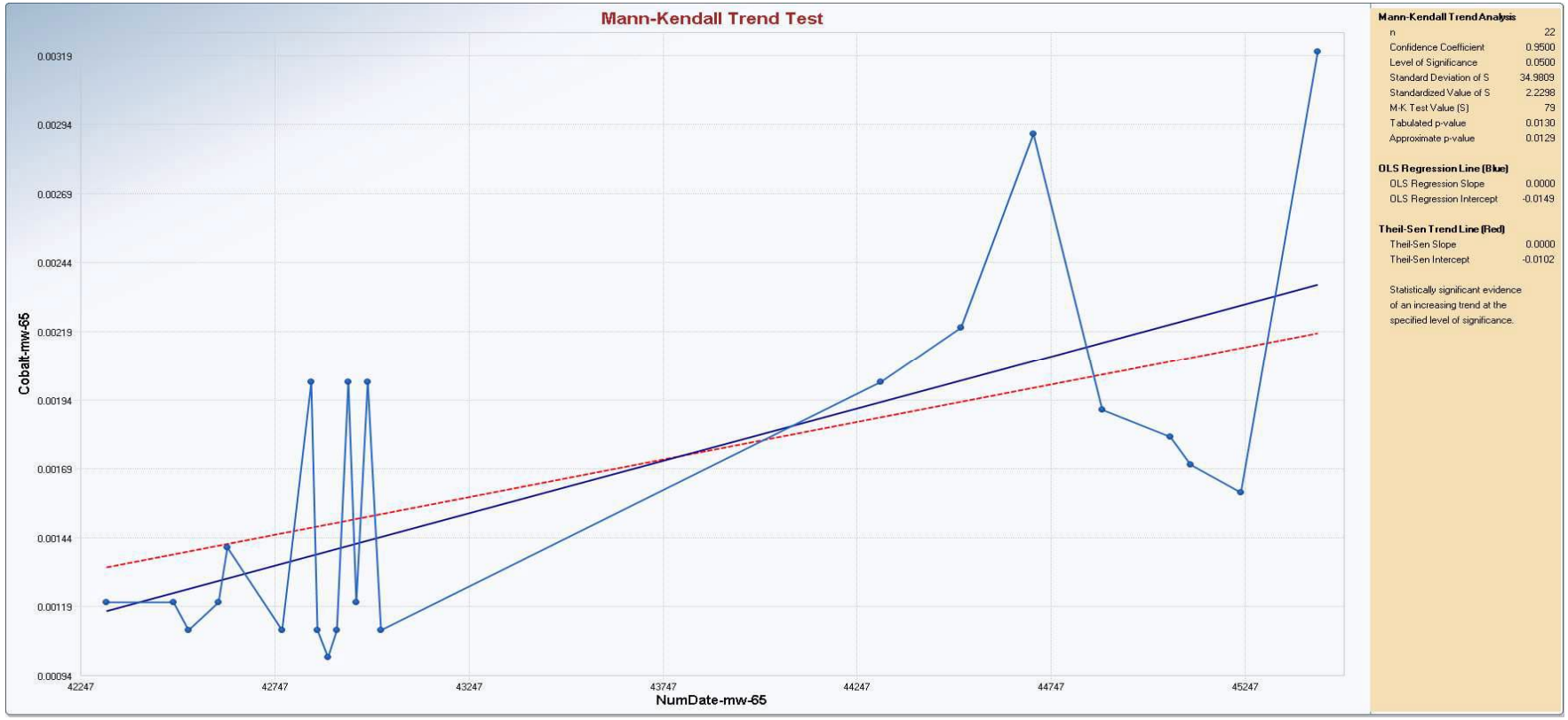
# Appendix B
# Mann-Kendall Trend Test



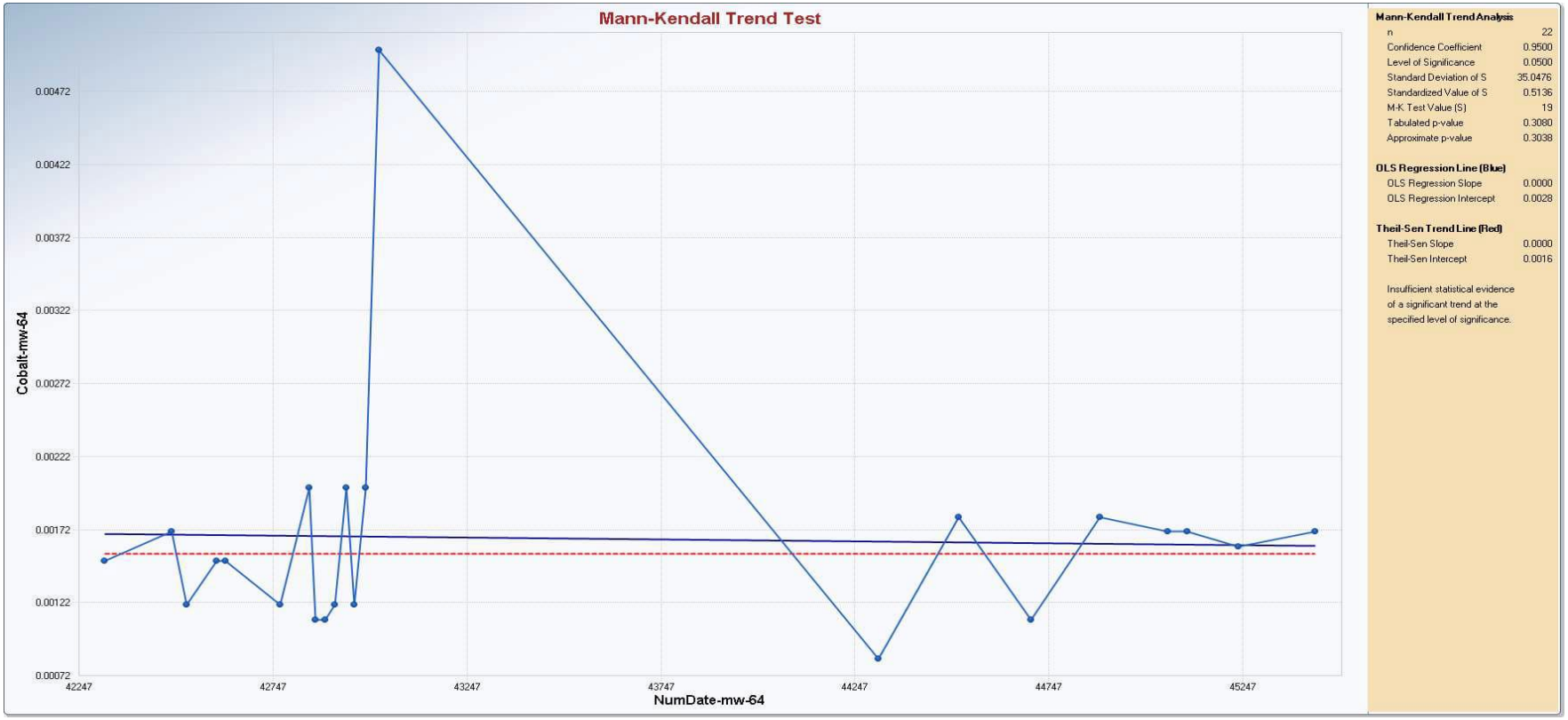
# Appendix B
# Mann-Kendall Trend Test



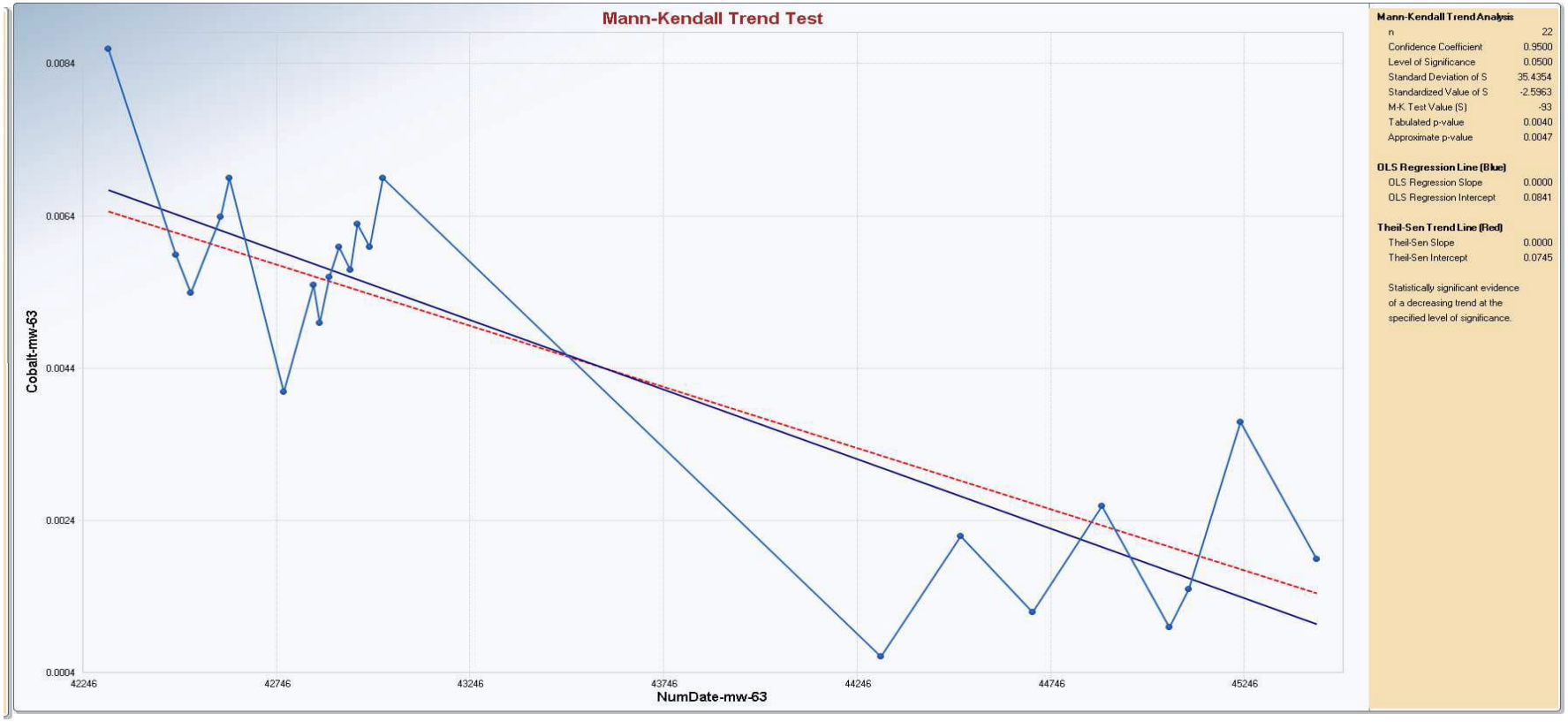
# Appendix B
# Mann-Kendall Trend Test



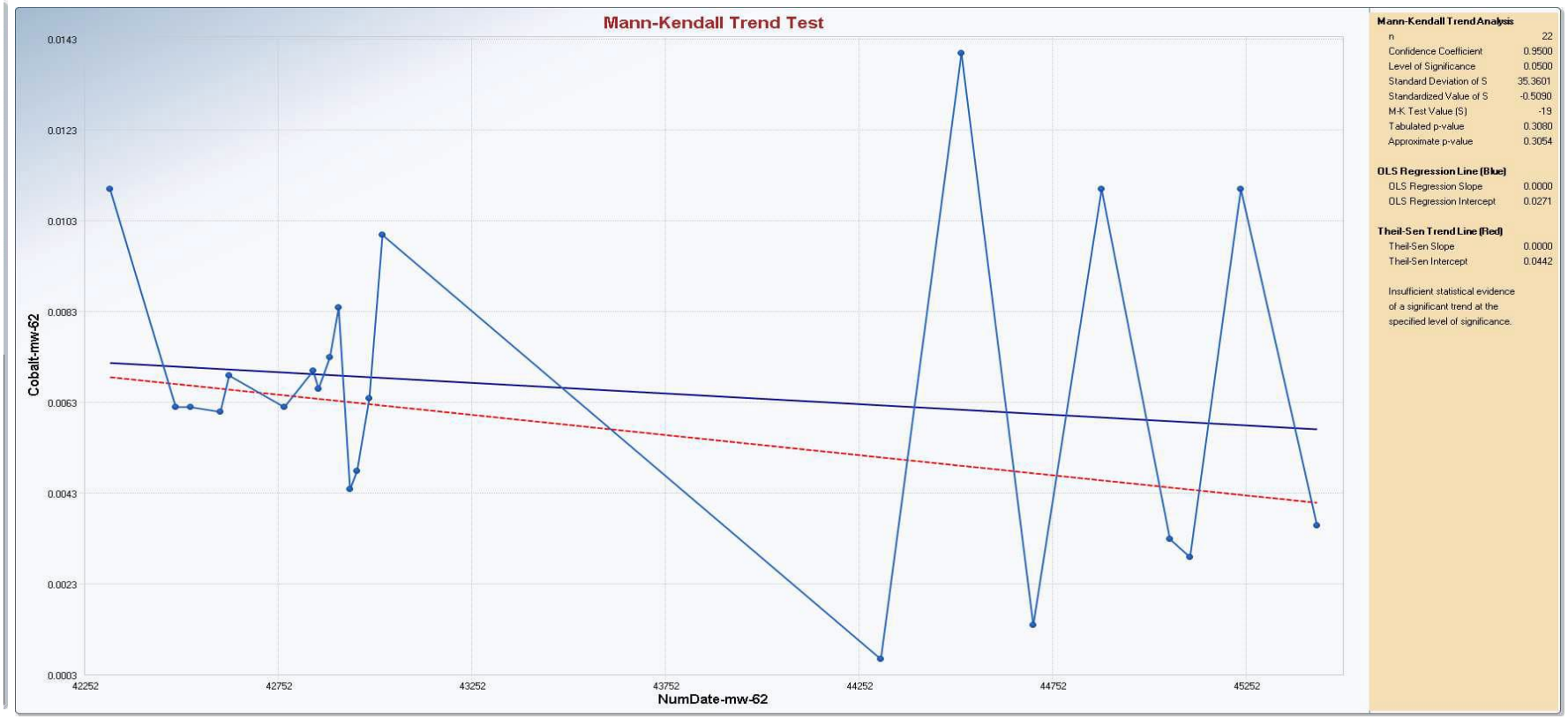
# Appendix B
# Mann-Kendall Trend Test



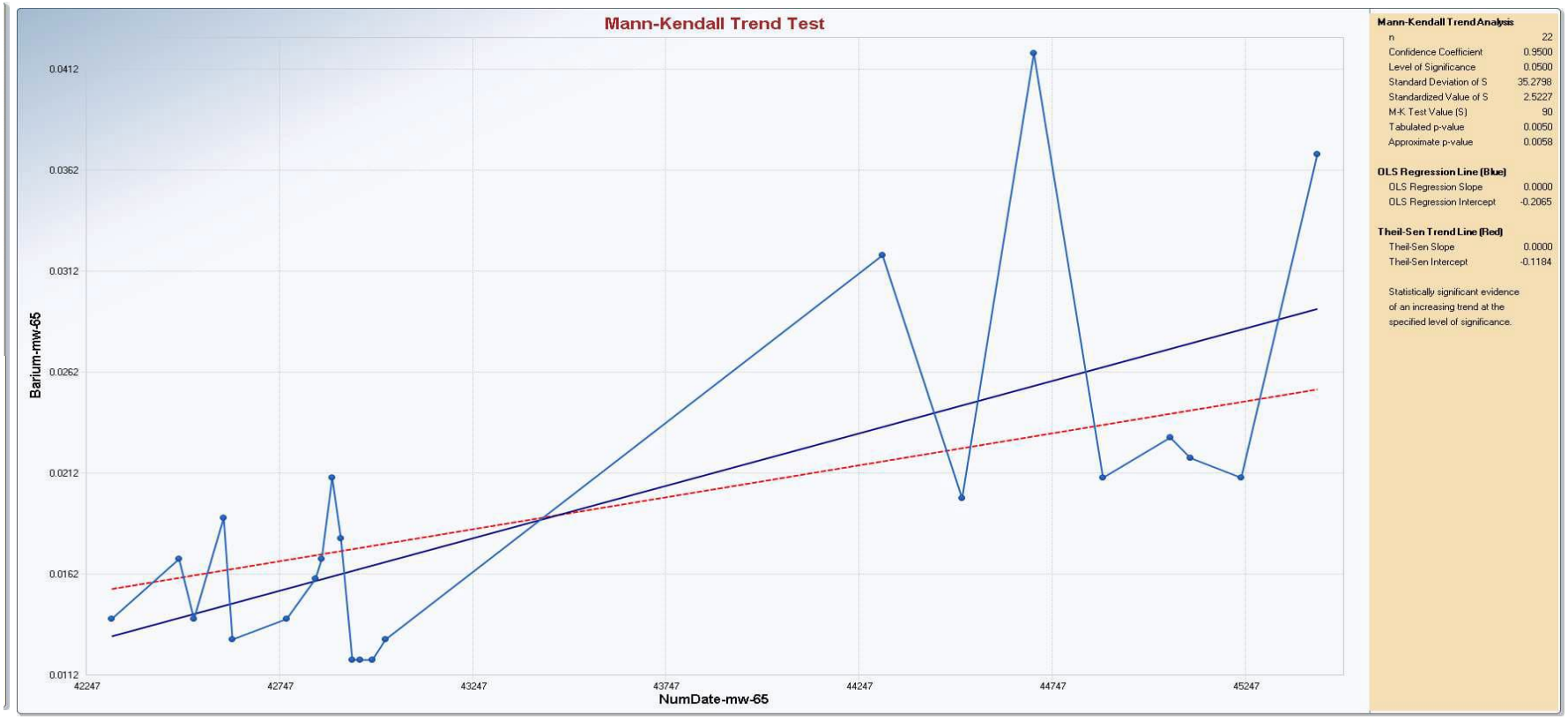
# Appendix B
# Mann-Kendall Trend Test



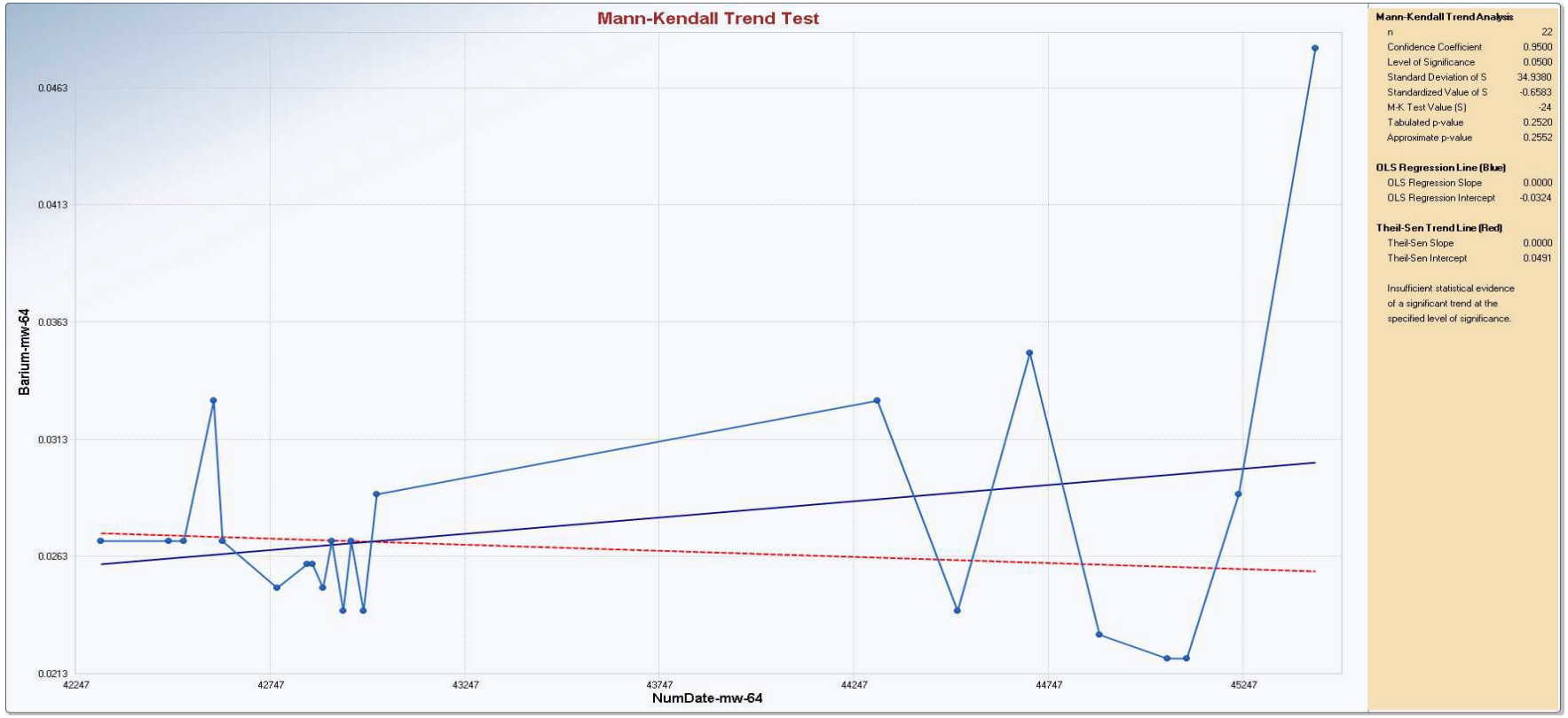
# Appendix B
# Mann-Kendall Trend Test



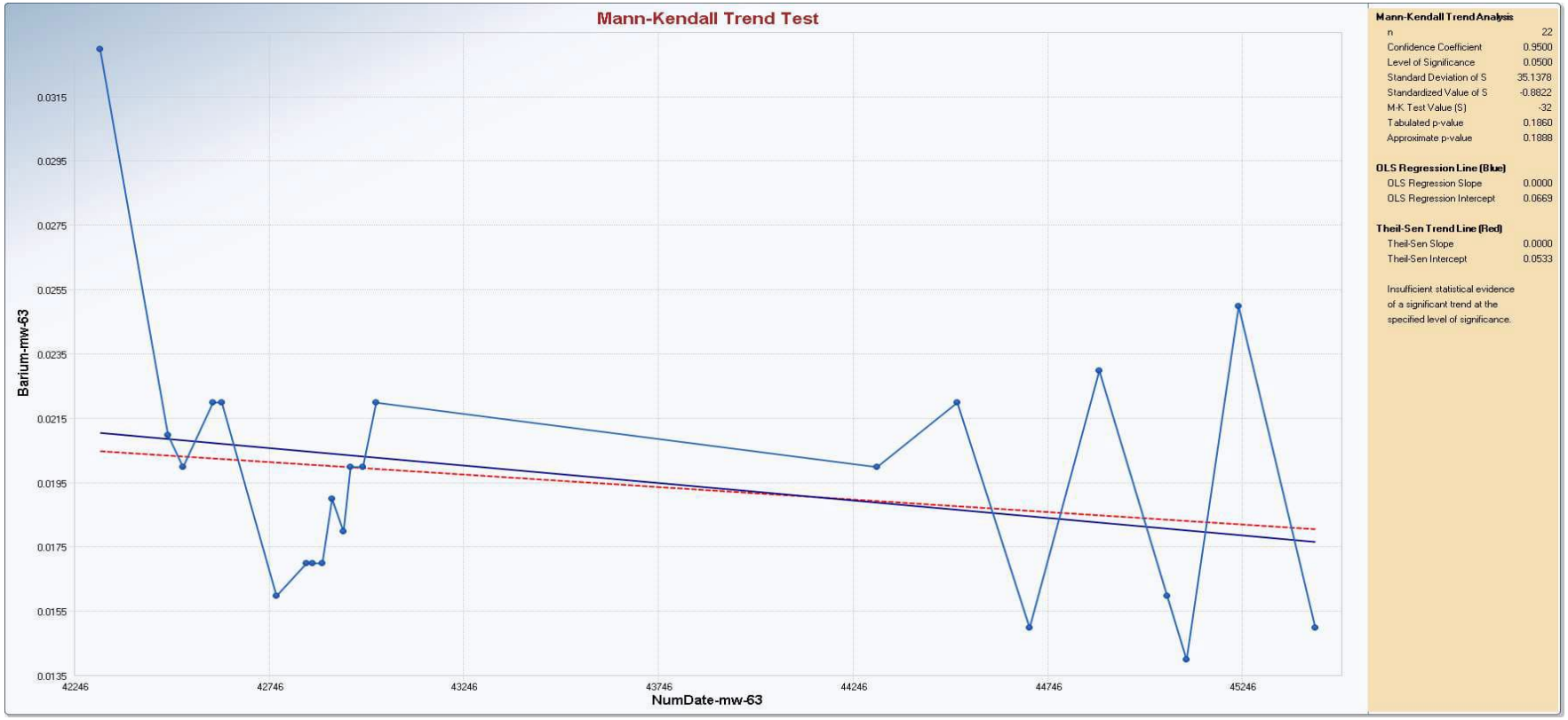
# Appendix B
# Mann-Kendall Trend Test



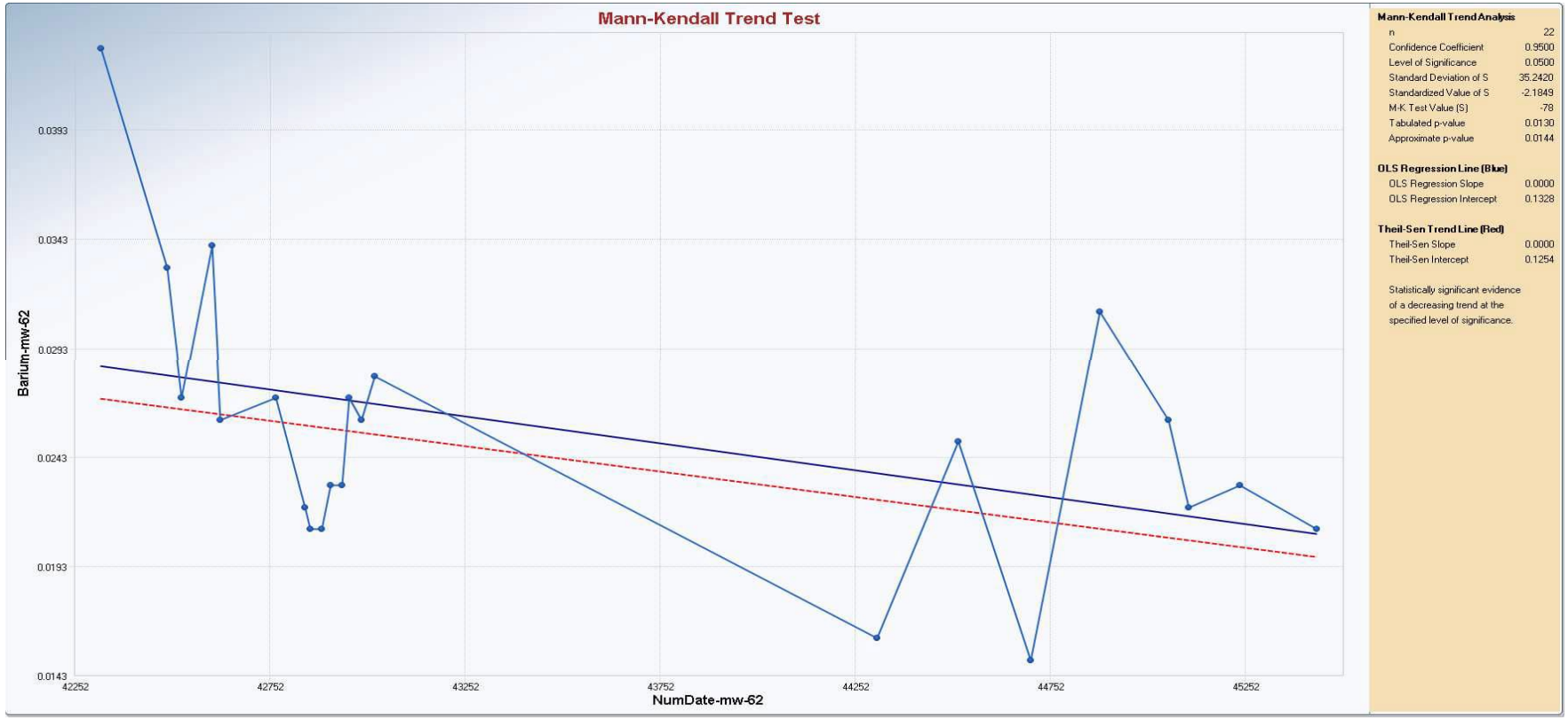
# Appendix B
# Mann-Kendall Trend Test



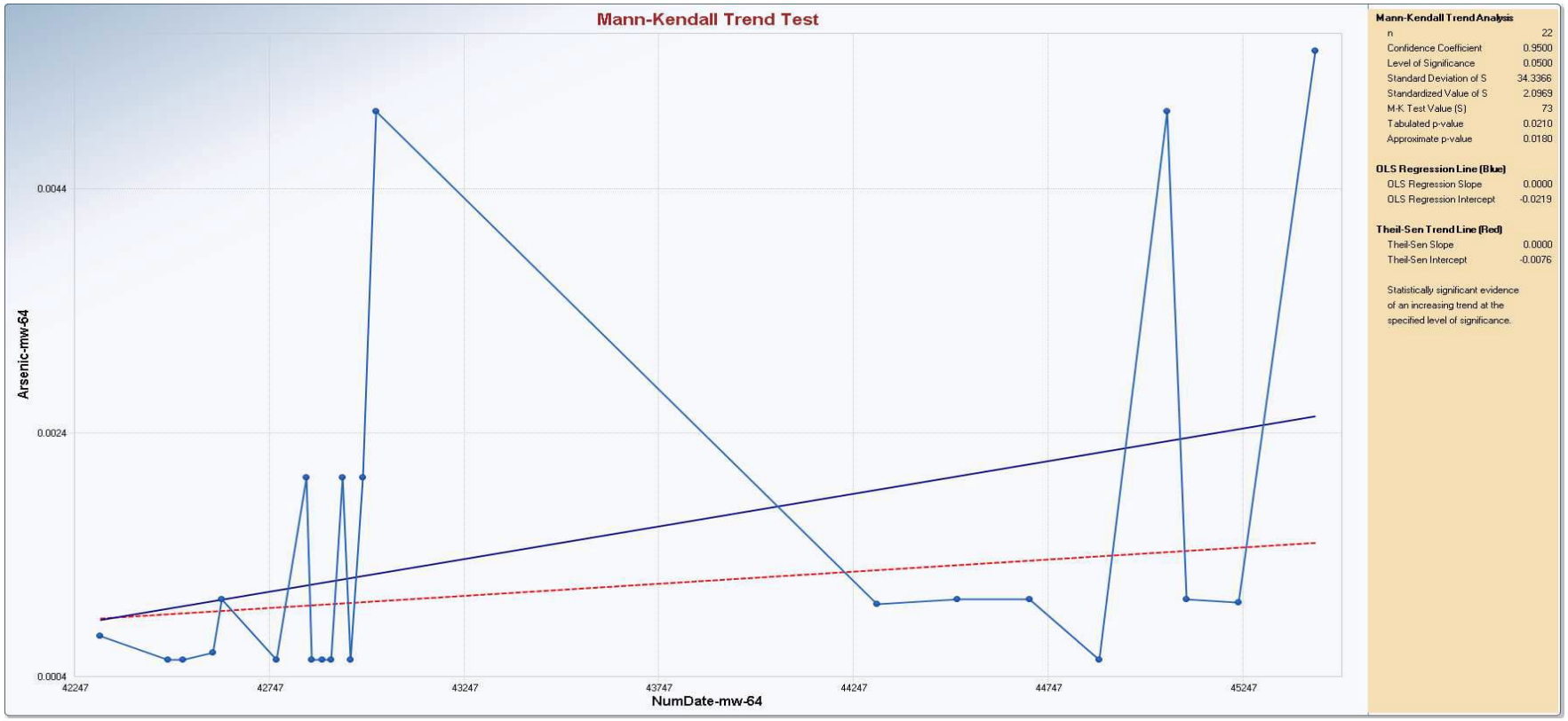
# Appendix B
# Mann-Kendall Trend Test



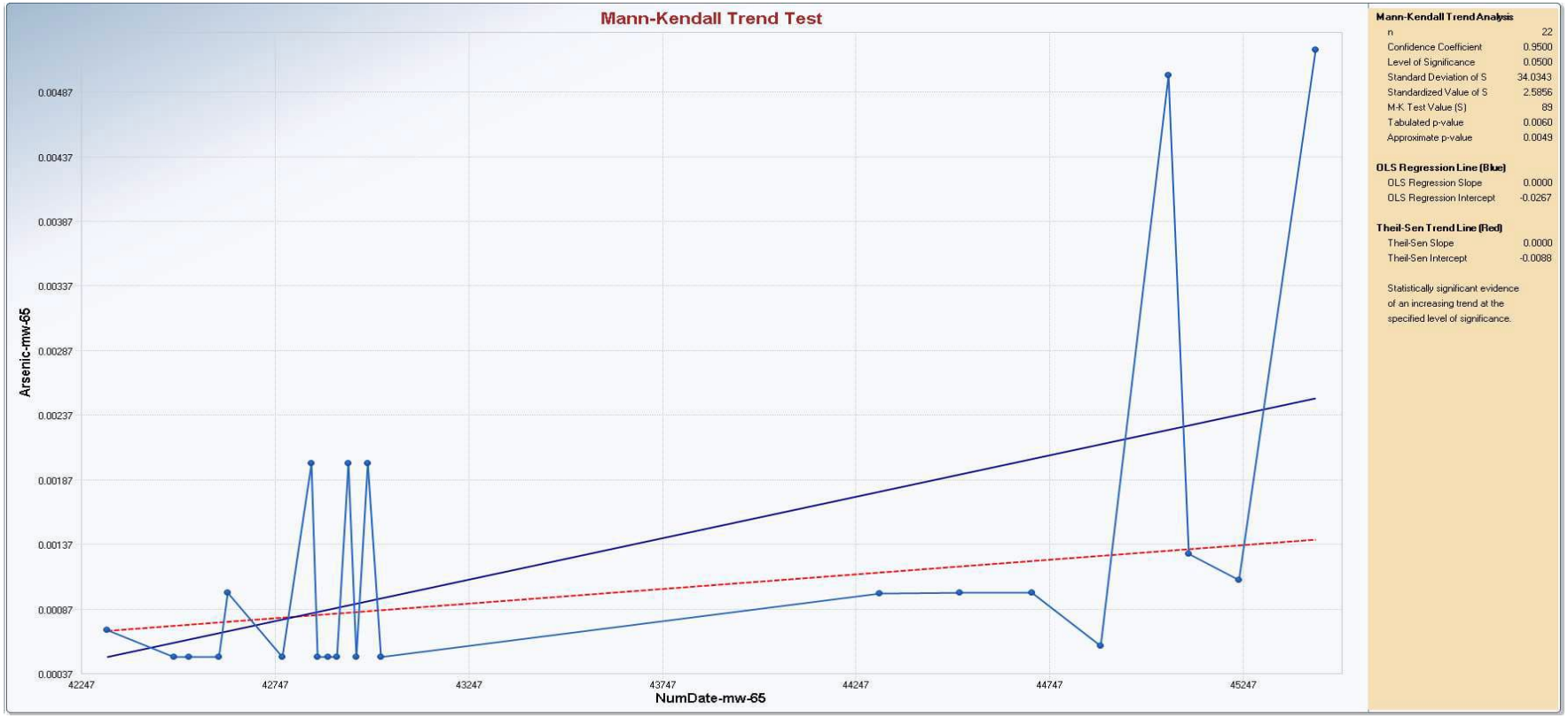
# Appendix B
# Mann-Kendall Trend Test



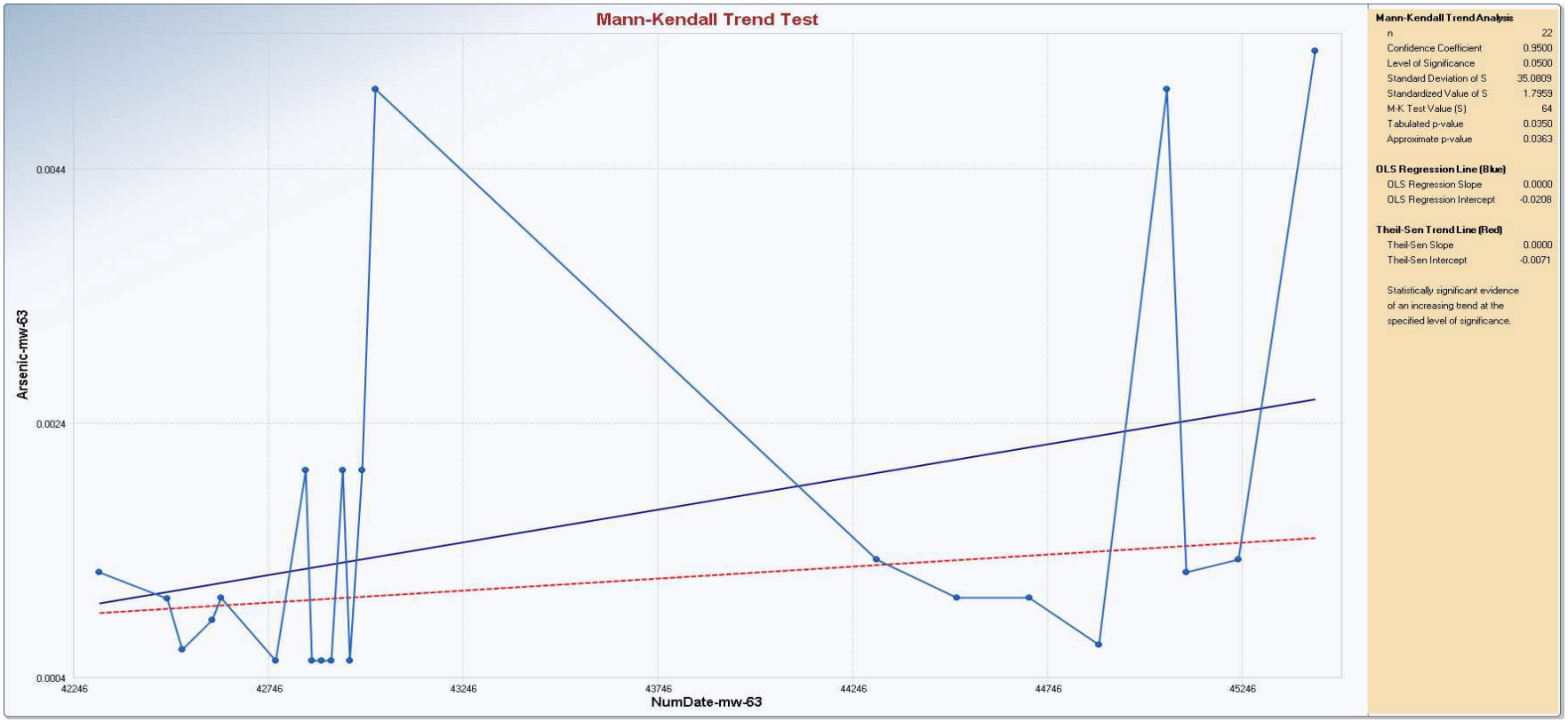
# Appendix B
# Mann-Kendall Trend Test



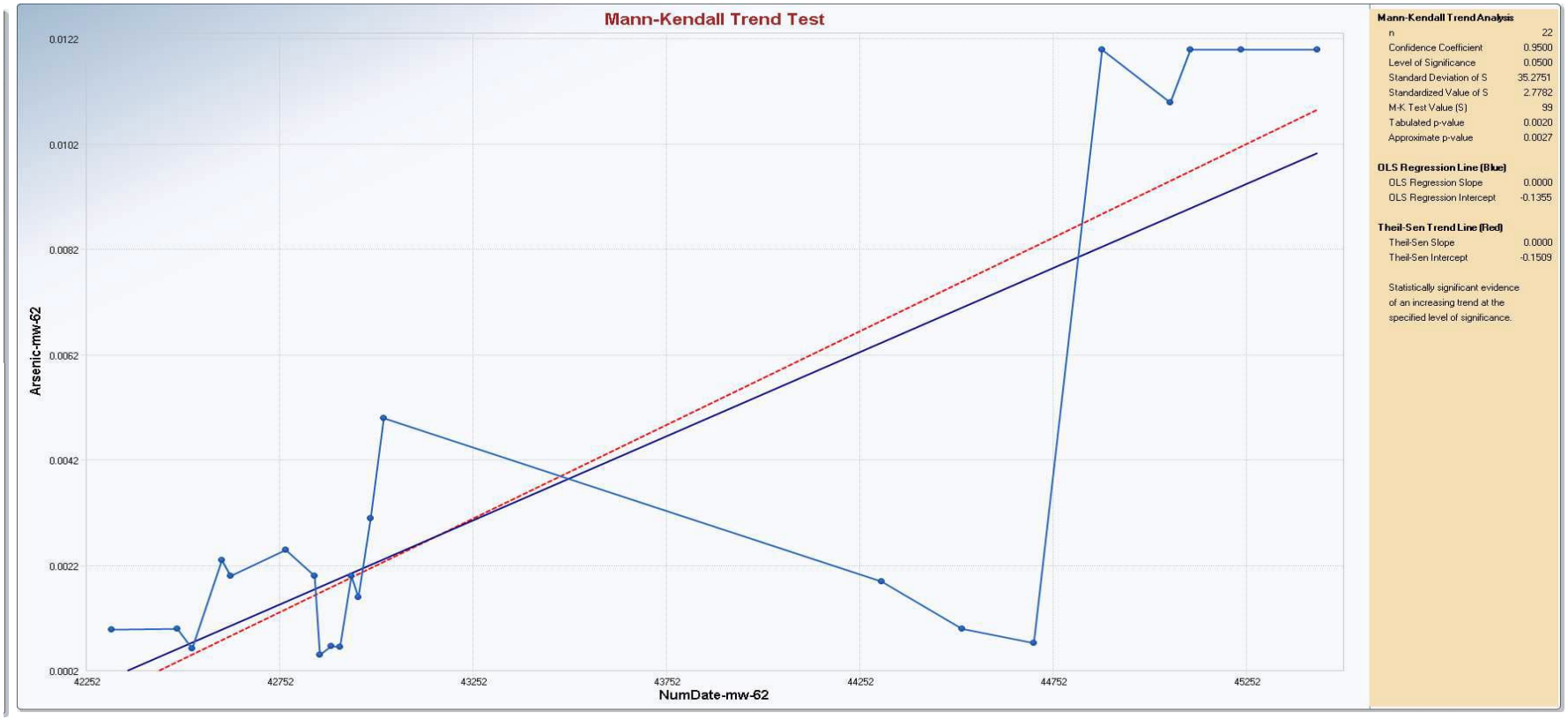
# Appendix B
# Mann-Kendall Trend Test



# Appendix B
# Mann-Kendall Trend Test



# Appendix B
# Mann-Kendall Trend Test



# Appendix B
# Time Series Statistics

| | Mann-Kendall Trend Test Analysis |
|---|---|
| User Selected Options | |
| Date/Time of Computation | ProUCL 5.19/10/2024 12:20:40 PM |
| From File | CWTP_AppxIV_ProUCL_2024_05ProUCLUpload.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |
| Level of Significance | 0.05 |

| **Arsenic-mw-62** | |
|---|---|
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 33 |
| Number of Missing Events | 11 |
| Number or Reported Events Used | 22 |
| Number Values Reported (n) | 33 |
| Number Values Missing | 11 |
| Number Values Used | 22 |
| Minimum | 5.0000E-4 |
| Maximum | 0.012 |
| Mean | 0.00398 |
| Geometric Mean | 0.00223 |
| Median | 0.002 |
| Standard Deviation | 0.00446 |
| Coefficient of Variation | 1.121 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 99 |
| Tabulated p-value | 0.002 |
| Standard Deviation of S | 35.28 |
| Standardized Value of S | 2.778 |
| Approximate p-value | 0.00273 |
| | |
| **Statistically significant evidence of an increasing trend at the specified level of significance.** | |
| **Arsenic-mw-63** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 22 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| Number Values Reported (n) | 32 |
| Number Values Missing | 10 |
| Number Values Used | 22 |
| Minimum | 5.0000E-4 |
| Maximum | 0.0053 |
| Mean | 0.00158 |
| Geometric Mean | 0.00116 |
| Median | 0.001 |
| Standard Deviation | 0.00151 |
| Coefficient of Variation | 0.954 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 64 |
| Tabulated p-value | 0.035 |
| Standard Deviation of S | 35.08 |
| Standardized Value of S | 1.796 |
| Approximate p-value | 0.0363 |
| | |
| **Statistically significant evidence of an increasing trend at the specified level of significance.** | |
| **Arsenic-mw-64** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 22 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 10 |
| Number Values Used | 22 |
| Minimum | 5.0000E-4 |
| Maximum | 0.0055 |
| Mean | 0.00149 |
| Geometric Mean | 0.00102 |
| Median | 9.6500E-4 |
| Standard Deviation | 0.00158 |
| Coefficient of Variation | 1.062 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 73 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| Tabulated p-value | 0.021 |
| Standard Deviation of S | 34.34 |
| Standardized Value of S | 2.097 |
| Approximate p-value | 0.018 |
| | |
| **Statistically significant evidence of an increasing** | |
| **trend at the specified level of significance.** | |
| **Arsenic-mw-65** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 22 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 10 |
| Number Values Used | 22 |
| Minimum | 5.0000E-4 |
| Maximum | 0.0052 |
| Mean | 0.00129 |
| Geometric Mean | 9.3735E-4 |
| Median | 8.5000E-4 |
| Standard Deviation | 0.00133 |
| Coefficient of Variation | 1.034 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 89 |
| Tabulated p-value | 0.006 |
| Standard Deviation of S | 34.03 |
| Standardized Value of S | 2.586 |
| Approximate p-value | 0.00486 |
| | |
| **Statistically significant evidence of an increasing** | |
| **trend at the specified level of significance.** | |

| | |
|---|---|
| | **Mann-Kendall Trend Test Analysis** |
| User Selected Options | |
| Date/Time of Computation | ProUCL 5.19/10/2024 12:27:21 PM |
| From File | CWTP_AppxIV_ProUCL_2024_05ProUCLUpload.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| Level of Significance | 0.05 |
| | |
| **Barium-mw-62** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 33 |
| Number of Missing Events | 11 |
| Number or Reported Events Used | 22 |
| Number Values Reported (n) | 33 |
| Number Values Missing | 11 |
| Number Values Used | 22 |
| Minimum | 0.015 |
| Maximum | 0.043 |
| Mean | 0.0255 |
| Geometric Mean | 0.0248 |
| Median | 0.0255 |
| Standard Deviation | 0.00611 |
| Coefficient of Variation | 0.24 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -78 |
| Tabulated p-value | 0.013 |
| Standard Deviation of S | 35.24 |
| Standardized Value of S | -2.185 |
| Approximate p-value | 0.0144 |
| | |
| **Statistically significant evidence of a decreasing trend at the specified level of significance.** | |
| **Barium-mw-63** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 22 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 10 |
| Number Values Used | 22 |
| Minimum | 0.014 |
| Maximum | 0.033 |

# Appendix B
## Time Series Statistics

| | |
|---|---|
| Mean | 0.0197 |
| Geometric Mean | 0.0193 |
| Median | 0.02 |
| Standard Deviation | 0.00419 |
| Coefficient of Variation | 0.212 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -32 |
| Tabulated p-value | 0.186 |
| Standard Deviation of S | 35.14 |
| Standardized Value of S | -0.882 |
| Approximate p-value | 0.189 |
| | |
| **Insufficient evidence to identify a significant** | |
| **trend at the specified level of significance.** | |
| **Barium-mw-64** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 22 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 10 |
| Number Values Used | 22 |
| Minimum | 0.022 |
| Maximum | 0.048 |
| Mean | 0.0277 |
| Geometric Mean | 0.0273 |
| Median | 0.027 |
| Standard Deviation | 0.00568 |
| Coefficient of Variation | 0.205 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -24 |
| Tabulated p-value | 0.252 |
| Standard Deviation of S | 34.94 |
| Standardized Value of S | -0.658 |
| Approximate p-value | 0.255 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| **Insufficient evidence to identify a significant trend at the specified level of significance.** | |
| **Barium-mw-65** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 22 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 10 |
| Number Values Used | 22 |
| Minimum | 0.012 |
| Maximum | 0.042 |
| Mean | 0.0195 |
| Geometric Mean | 0.0183 |
| Median | 0.0175 |
| Standard Deviation | 0.00806 |
| Coefficient of Variation | 0.413 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 90 |
| Tabulated p-value | 0.005 |
| Standard Deviation of S | 35.28 |
| Standardized Value of S | 2.523 |
| Approximate p-value | 0.00582 |
| | |
| **Statistically significant evidence of an increasing trend at the specified level of significance.** | |
| | **Mann-Kendall Trend Test Analysis** |
| User Selected Options | |
| Date/Time of Computation | ProUCL 5.19/10/2024 12:50:41 PM |
| From File | CWTP_AppxIV_ProUCL_2024_05ProUCLUpload.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |
| Level of Significance | 0.05 |
| | |
| **Cobalt-mw-62** | |
| | |
| **General Statistics** | |

# Appendix B
## Time Series Statistics

| | |
|---|---|
| Number of Events Reported (m) | 33 |
| Number of Missing Events | 11 |
| Number or Reported Events Used | 22 |
| Number Values Reported (n) | 33 |
| Number Values Missing | 11 |
| Number Values Used | 22 |
| Minimum | 6.5000E-4 |
| Maximum | 0.014 |
| Mean | 0.00661 |
| Geometric Mean | 0.00554 |
| Median | 0.0063 |
| Standard Deviation | 0.00333 |
| Coefficient of Variation | 0.504 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -19 |
| Tabulated p-value | 0.308 |
| Standard Deviation of S | 35.36 |
| Standardized Value of S | -0.509 |
| Approximate p-value | 0.305 |
| | |
| **Insufficient evidence to identify a significant** | |
| **trend at the specified level of significance.** | |
| **Cobalt-mw-63** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 22 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 10 |
| Number Values Used | 22 |
| Minimum | 6.2000E-4 |
| Maximum | 0.0086 |
| Mean | 0.0045 |
| Geometric Mean | 0.00369 |
| Median | 0.00545 |
| Standard Deviation | 0.00229 |
| Coefficient of Variation | 0.509 |

# Appendix B
## Time Series Statistics

| | |
|---|---|
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -93 |
| Tabulated p-value | 0.004 |
| Standard Deviation of S | 35.44 |
| Standardized Value of S | -2.596 |
| Approximate p-value | 0.00471 |
| | |
| Statistically significant evidence of a decreasing trend at the specified level of significance. | |
| **Cobalt-mw-64** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 22 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 10 |
| Number Values Used | 22 |
| Minimum | 8.3000E-4 |
| Maximum | 0.005 |
| Mean | 0.00166 |
| Geometric Mean | 0.00154 |
| Median | 0.00155 |
| Standard Deviation | 8.1953E-4 |
| Coefficient of Variation | 0.495 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 19 |
| Tabulated p-value | 0.308 |
| Standard Deviation of S | 35.05 |
| Standardized Value of S | 0.514 |
| Approximate p-value | 0.304 |
| | |
| Insufficient evidence to identify a significant trend at the specified level of significance. | |
| **Cobalt-mw-65** | |
| | |
| **General Statistics** | |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 22 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 10 |
| Number Values Used | 22 |
| Minimum | 0.001 |
| Maximum | 0.0032 |
| Mean | 0.00164 |
| Geometric Mean | 0.00154 |
| Median | 0.0015 |
| Standard Deviation | 6.0360E-4 |
| Coefficient of Variation | 0.369 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 79 |
| Tabulated p-value | 0.013 |
| Standard Deviation of S | 34.98 |
| Standardized Value of S | 2.23 |
| Approximate p-value | 0.0129 |
| | |
| **Statistically significant evidence of an increasing trend at the specified level of significance.** | |
| **Mann-Kendall Trend Test Analysis** | |
| User Selected Options | |
| Date/Time of Computation | ProUCL 5.19/10/2024 1:17:48 PM |
| From File | CWTP_AppxIV_ProUCL_2024_05ProUCLUpload.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |
| Level of Significance | 0.05 |
| | |
| **Fluoride-mw-62** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 33 |
| Number of Missing Events | 0 |
| Number or Reported Events Used | 33 |
| Number Values Reported (n) | 33 |
| Minimum | 1.2 |

# Appendix B
## Time Series Statistics

| | |
|---|---|
| Maximum | 80 |
| Mean | 3.924 |
| Geometric Mean | 1.711 |
| Median | 1.5 |
| Standard Deviation | 13.66 |
| Coefficient of Variation | 3.481 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 57 |
| Critical Value (0.05) | 1.645 |
| Standard Deviation of S | 63.05 |
| Standardized Value of S | 0.888 |
| Approximate p-value | 0.187 |
| | |
| **Insufficient evidence to identify a significant trend at the specified level of significance.** | |
| **Fluoride-mw-63** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 0 |
| Number or Reported Events Used | 32 |
| Number Values Reported (n) | 32 |
| Minimum | 0.28 |
| Maximum | 8 |
| Mean | 2.096 |
| Geometric Mean | 1.917 |
| Median | 2 |
| Standard Deviation | 1.137 |
| Coefficient of Variation | 0.542 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 33 |
| Critical Value (0.05) | 1.645 |
| Standard Deviation of S | 60.95 |
| Standardized Value of S | 0.525 |
| Approximate p-value | 0.3 |
| | |
| **Insufficient evidence to identify a significant** | |

# Appendix B
## Time Series Statistics

| | |
|---|---|
| trend at the specified level of significance. | |
| **Fluoride-mw-64** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 0 |
| Number or Reported Events Used | 32 |
| Number Values Reported (n) | 32 |
| Minimum | 1 |
| Maximum | 1.6 |
| Mean | 1.434 |
| Geometric Mean | 1.43 |
| Median | 1.4 |
| Standard Deviation | 0.112 |
| Coefficient of Variation | 0.0784 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -118 |
| Critical Value (0.05) | -1.645 |
| Standard Deviation of S | 57.57 |
| Standardized Value of S | -2.032 |
| Approximate p-value | 0.0211 |
| | |
| Statistically significant evidence of a decreasing | |
| trend at the specified level of significance. | |
| **Fluoride-mw-65** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 0 |
| Number or Reported Events Used | 32 |
| Number Values Reported (n) | 32 |
| Minimum | 1.3 |
| Maximum | 2.1 |
| Mean | 1.831 |
| Geometric Mean | 1.818 |
| Median | 1.9 |
| Standard Deviation | 0.212 |
| Coefficient of Variation | 0.116 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -202 |
| Critical Value (0.05) | -1.645 |
| Standard Deviation of S | 59.97 |
| Standardized Value of S | -3.352 |
| Approximate p-value | 4.0135E-4 |
| | |
| Statistically significant evidence of a decreasing trend at the specified level of significance. | |

| | |
|---|---|
| | Mann-Kendall Trend Test Analysis |
| User Selected Options | |
| Date/Time of Computation | ProUCL 5.19/10/2024 1:34:42 PM |
| From File | CWTP_AppxIV_ProUCL_2024_05ProUCLUpload.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |
| Level of Significance | 0.05 |

**Molybdenum-mw-62**

| **General Statistics** | |
|---|---|
| Number of Events Reported (m) | 33 |
| Number of Missing Events | 11 |
| Number or Reported Events Used | 22 |
| Number Values Reported (n) | 33 |
| Number Values Missing | 11 |
| Number Values Used | 22 |
| Minimum | 0.0012 |
| Maximum | 0.012 |
| Mean | 0.00334 |
| Geometric Mean | 0.00303 |
| Median | 0.00295 |
| Standard Deviation | 0.00205 |
| Coefficient of Variation | 0.613 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -134 |
| Tabulated p-value | 0 |
| Standard Deviation of S | 35.32 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| Standardized Value of S | -3.766 |
| Approximate p-value | 8.2999E-5 |
| | |
| **Statistically significant evidence of a decreasing trend at the specified level of significance.** | |
| **Molybdenum-mw-63** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 22 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 10 |
| Number Values Used | 22 |
| Minimum | 0.0019 |
| Maximum | 0.017 |
| Mean | 0.00346 |
| Geometric Mean | 0.00296 |
| Median | 0.0026 |
| Standard Deviation | 0.00313 |
| Coefficient of Variation | 0.905 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 15 |
| Tabulated p-value | 0.348 |
| Standard Deviation of S | 35.34 |
| Standardized Value of S | 0.396 |
| Approximate p-value | 0.346 |
| | |
| **Insufficient evidence to identify a significant trend at the specified level of significance.** | |
| **Molybdenum-mw-64** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 22 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 10 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| Number Values Used | 22 |
| Minimum | 0.0036 |
| Maximum | 0.0073 |
| Mean | 0.00492 |
| Geometric Mean | 0.00488 |
| Median | 0.0049 |
| Standard Deviation | 6.8635E-4 |
| Coefficient of Variation | 0.14 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -73 |
| Tabulated p-value | 0.021 |
| Standard Deviation of S | 35.27 |
| Standardized Value of S | -2.042 |
| Approximate p-value | 0.0206 |
| | |
| **Statistically significant evidence of a decreasing trend at the specified level of significance.** | |
| **Molybdenum-mw-65** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 10 |
| Number or Reported Events Used | 22 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 10 |
| Number Values Used | 22 |
| Minimum | 0.0066 |
| Maximum | 0.013 |
| Mean | 0.00849 |
| Geometric Mean | 0.0084 |
| Median | 0.0083 |
| Standard Deviation | 0.00138 |
| Coefficient of Variation | 0.162 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -73 |
| Tabulated p-value | 0.021 |
| Standard Deviation of S | 35.37 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| Standardized Value of S | -2.036 |
| Approximate p-value | 0.0209 |
| | |
| **Statistically significant evidence of a decreasing trend at the specified level of significance.** | |
| | **Mann-Kendall Trend Test Analysis** |
| User Selected Options | |
| Date/Time of Computation | ProUCL 5.19/10/2024 1:44:46 PM |
| From File | CWTP_AppxIV_ProUCL_2024_05ProUCLUpload.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |
| Level of Significance | 0.05 |
| | |
| **Total Radium-mw-62** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 33 |
| Number of Missing Events | 9 |
| Number or Reported Events Used | 24 |
| Number Values Reported (n) | 33 |
| Number Values Missing | 9 |
| Number Values Used | 24 |
| Minimum | 0.6 |
| Maximum | 1.9 |
| Mean | 0.946 |
| Geometric Mean | 0.887 |
| Median | 0.85 |
| Standard Deviation | 0.371 |
| Coefficient of Variation | 0.392 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -27 |
| Critical Value (0.05) | -1.645 |
| Standard Deviation of S | 39.77 |
| Standardized Value of S | -0.654 |
| Approximate p-value | 0.257 |
| | |
| **Insufficient evidence to identify a significant trend at the specified level of significance.** | |

# Appendix B
## Time Series Statistics

| | |
|---|---|
| **Total Radium-mw-63** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 8 |
| Number or Reported Events Used | 24 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 8 |
| Number Values Used | 24 |
| Minimum | 0.4 |
| Maximum | 2.1 |
| Mean | 0.85 |
| Geometric Mean | 0.784 |
| Median | 0.7 |
| Standard Deviation | 0.406 |
| Coefficient of Variation | 0.478 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | -21 |
| Critical Value (0.05) | -1.645 |
| Standard Deviation of S | 39.34 |
| Standardized Value of S | -0.508 |
| Approximate p-value | 0.306 |
| | |
| **Insufficient evidence to identify a significant trend at the specified level of significance.** | |
| **Total Radium-mw-64** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 8 |
| Number or Reported Events Used | 24 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 8 |
| Number Values Used | 24 |
| Minimum | 0.5 |
| Maximum | 1.7 |
| Mean | 0.78 |
| Geometric Mean | 0.742 |

# Appendix B
# Time Series Statistics

| | |
|---|---|
| Median | 0.7 |
| Standard Deviation | 0.303 |
| Coefficient of Variation | 0.389 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 14 |
| Critical Value (0.05) | 1.645 |
| Standard Deviation of S | 38.91 |
| Standardized Value of S | 0.334 |
| Approximate p-value | 0.369 |
| | |
| **Insufficient evidence to identify a significant** | |
| **trend at the specified level of significance.** | |
| **Total Radium-mw-65** | |
| | |
| **General Statistics** | |
| Number of Events Reported (m) | 32 |
| Number of Missing Events | 8 |
| Number or Reported Events Used | 24 |
| Number Values Reported (n) | 32 |
| Number Values Missing | 8 |
| Number Values Used | 24 |
| Minimum | 0.4 |
| Maximum | 1.9 |
| Mean | 0.72 |
| Geometric Mean | 0.681 |
| Median | 0.6 |
| Standard Deviation | 0.297 |
| Coefficient of Variation | 0.413 |
| | |
| **Mann-Kendall Test** | |
| M-K Test Value (S) | 39 |
| Critical Value (0.05) | 1.645 |
| Standard Deviation of S | 38.92 |
| Standardized Value of S | 0.976 |
| Approximate p-value | 0.164 |
| | |
| **Insufficient evidence to identify a significant** | |
| **trend at the specified level of significance.** | |

# Appendix B
# Goodness of Fit Statistics

| | Goodness-of-Fit Test Statistics for Data Sets with Non-Detects |
|---|---|
| **User Selected Options** | |
| Date/Time of Computation | ProUCL 5.19/10/2024 1:48:29 PM |
| From File | CWTP_AppxIV_ProUCL_2024_05ProUCLUpload.xls |
| Full Precision | OFF |
| Confidence Coefficient | 0.95 |

**Antimony (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 33 | 11 | 22 | 2 | 20 | 90.91% |

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Antimony (mw-62) was not processed!

**Antimony (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 2 | 20 | 90.91% |

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Antimony (mw-63) was not processed!

**Antimony (mw-64)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 0 | 22 | 100.00% |

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

# Appendix B
# Goodness of Fit Statistics

The data set for variable Antimony (mw-64) was not processed!

**Antimony (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 0 | 22 | 100.00% |

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Antimony (mw-65) was not processed!

**Arsenic (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 33 | 11 | 22 | 16 | 6 | 27.27% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 6 | 5.0000E-4 | 0.005 | 0.00207 | 0.00195 | 0.00156 |
| Statistics (Non-Detects Only) | 16 | 6.2000E-4 | 0.012 | 0.0047 | 0.00215 | 0.005 |
| Statistics (All: NDs treated as DL value) | 22 | 5.0000E-4 | 0.012 | 0.00398 | 0.002 | 0.00446 |
| Statistics (All: NDs treated as DL/2 value) | 22 | 2.5000E-4 | 0.012 | 0.0037 | 0.0013 | 0.00456 |
| Statistics (Normal ROS Imputed Data) | 22 | -0.00616 | 0.012 | 0.00319 | 0.00159 | 0.00512 |
| Statistics (Gamma ROS Imputed Data) | 22 | 6.2000E-4 | 0.012 | 0.00614 | 0.00655 | 0.00487 |
| Statistics (Lognormal ROS Imputed Data) | 22 | 1.4970E-4 | 0.012 | 0.00361 | 0.00112 | 0.00461 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 0.93 | 0.798 | 0.00505 | -5.987 | 1.185 | -0.198 |
| Statistics (NDs = DL) | 1 | 0.894 | 0.00398 | -6.104 | 1.088 | -0.178 |
| Statistics (NDs = DL/2) | 0.85 | 0.764 | 0.00435 | -6.293 | 1.187 | -0.189 |
| Statistics (Gamma ROS Estimates) | 1.103 | 0.983 | 0.00557 | -5.61 | 1.183 | -0.211 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.379 | 1.251 | -0.196 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | |
|---|---|---|---|---|---|
| **Normal GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | |
| Correlation Coefficient R | 0.852 | 0.841 | 0.819 | 0.896 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.703 | 0.887 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL) | 0.693 | 0.911 | Data Not Normal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.659 | 0.911 | Data Not Normal | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.801 | 0.911 | Data Not Normal | | |
| Lilliefors (Detects Only) | 0.313 | 0.213 | Data Not Normal | | |
| Lilliefors (NDs = DL) | 0.312 | 0.184 | Data Not Normal | | |
| Lilliefors (NDs = DL/2) | 0.331 | 0.184 | Data Not Normal | | |
| Lilliefors (Normal ROS Estimates) | 0.281 | 0.184 | Data Not Normal | | |
| **Gamma GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | |
| Correlation Coefficient R | 0.863 | 0.901 | 0.889 | 0.811 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Anderson-Darling (Detects Only) | 1.293 | 0.766 | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.212 | 0.222 | Detected Data appear Approximate Gamma Distribution | | |
| Anderson-Darling (NDs = DL) | 1.464 | 0.771 | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.215 | 0.191 | Data Not Gamma Distributed | | |
| Anderson-Darling (NDs = DL/2) | 1.717 | 0.778 | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.227 | 0.192 | Data Not Gamma Distributed | | |
| Anderson-Darling (Gamma ROS Estimates) | 1.855 | 0.768 | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.307 | 0.19 | Data Not Gamma Distributed | | |
| **Lognormal GOF Test Results** | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | |
| Correlation Coefficient R | 0.935 | 0.953 | 0.952 | 0.95 | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | |
| Shapiro-Wilk (Detects Only) | 0.846 | 0.887 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL) | 0.891 | 0.911 | Data Not Lognormal | | |
| Shapiro-Wilk (NDs = DL/2) | 0.894 | 0.911 | Data Not Lognormal | | |

# Appendix B
## Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.896 | 0.911 | Data Not Lognormal | | | | | |
| Lilliefors (Detects Only) | 0.206 | 0.213 | Data Appear Lognormal | | | | | |
| Lilliefors (NDs = DL) | 0.156 | 0.184 | Data Appear Lognormal | | | | | |
| Lilliefors (NDs = DL/2) | 0.198 | 0.184 | Data Not Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.175 | 0.184 | Data Appear Lognormal | | | | | |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Arsenic (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 8 | 14 | 63.64% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 14 | 5.0000E-4 | 0.005 | 0.00163 | 0.001 | 0.00154 |
| Statistics (Non-Detects Only) | 8 | 5.9000E-4 | 0.0053 | 0.0015 | 0.0011 | 0.00156 |
| Statistics (All: NDs treated as DL value) | 22 | 5.0000E-4 | 0.0053 | 0.00158 | 0.001 | 0.00151 |
| Statistics (All: NDs treated as DL/2 value) | 22 | 2.5000E-4 | 0.0053 | 0.00107 | 7.3500E-4 | 0.00114 |
| Statistics (Normal ROS Imputed Data) | 22 | -0.0027 | 0.0053 | 8.3434E-5 | 1.5185E-4 | 0.00164 |
| Statistics (Gamma ROS Imputed Data) | 22 | 5.9000E-4 | 0.01 | 0.00691 | 0.01 | 0.00428 |
| Statistics (Lognormal ROS Imputed Data) | 22 | 1.3974E-4 | 0.0053 | 8.1739E-4 | 5.5465E-4 | 0.00106 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1.996 | 1.331 | 7.5325E-4 | -6.771 | 0.686 | -0.101 |
| Statistics (NDs = DL) | 1.739 | 1.532 | 9.1064E-4 | -6.763 | 0.758 | -0.112 |
| Statistics (NDs = DL/2) | 1.538 | 1.359 | 6.9236E-4 | -7.204 | 0.829 | -0.115 |
| Statistics (Gamma ROS Estimates) | 1.339 | 1.186 | 0.00516 | -5.393 | 1.137 | -0.211 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.483 | 0.795 | -0.106 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.743 | 0.827 | 0.803 | 0.934 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.581 | 0.818 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.681 | 0.911 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.664 | 0.911 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.892 | 0.911 | Data Not Normal |

# Appendix B
# Goodness of Fit Statistics

| | | | | |
|---|---|---|---|---|
| Lilliefors (Detects Only) | 0.427 | 0.283 | Data Not Normal | |
| Lilliefors (NDs = DL) | 0.302 | 0.184 | Data Not Normal | |
| Lilliefors (NDs = DL/2) | 0.282 | 0.184 | Data Not Normal | |
| Lilliefors (Normal ROS Estimates) | 0.184 | 0.184 | Data Appear Normal | |
| | | | | |
| **Gamma GOF Test Results** | | | | |
| | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
| Correlation Coefficient R | 0.877 | 0.928 | 0.936 | 0.649 |
| | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | |
| Anderson-Darling (Detects Only) | 1.002 | 0.724 | | |
| Kolmogorov-Smirnov (Detects Only) | 0.359 | 0.297 | Data Not Gamma Distributed | |
| Anderson-Darling (NDs = DL) | 1.386 | 0.757 | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.224 | 0.188 | Data Not Gamma Distributed | |
| Anderson-Darling (NDs = DL/2) | 0.784 | 0.758 | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.164 | 0.188 | Detected Data appear Approximate Gamma Distribution | |
| Anderson-Darling (Gamma ROS Estimates) | 3.731 | 0.763 | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.406 | 0.189 | Data Not Gamma Distributed | |
| | | | | |
| **Lognormal GOF Test Results** | | | | |
| | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
| Correlation Coefficient R | 0.889 | 0.946 | 0.968 | 0.972 |
| | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | |
| Shapiro-Wilk (Detects Only) | 0.811 | 0.818 | Data Not Lognormal | |
| Shapiro-Wilk (NDs = DL) | 0.88 | 0.911 | Data Not Lognormal | |
| Shapiro-Wilk (NDs = DL/2) | 0.932 | 0.911 | Data Appear Lognormal | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.956 | 0.911 | Data Appear Lognormal | |
| Lilliefors (Detects Only) | 0.303 | 0.283 | Data Not Lognormal | |
| Lilliefors (NDs = DL) | 0.166 | 0.184 | Data Appear Lognormal | |
| Lilliefors (NDs = DL/2) | 0.133 | 0.184 | Data Appear Lognormal | |
| Lilliefors (Lognormal ROS Estimates) | 0.101 | 0.184 | Data Appear Lognormal | |
| | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | |
| | | | | |
| **Arsenic (mw-64)** | | | | |

# Appendix B
# Goodness of Fit Statistics

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 5 | 17 | 77.27% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 17 | 5.0000E-4 | 0.005 | 0.00141 | 9.6000E-4 | 0.00146 |
| Statistics (Non-Detects Only) | 5 | 5.6000E-4 | 0.0055 | 0.00175 | 9.7000E-4 | 0.00211 |
| Statistics (All: NDs treated as DL value) | 22 | 5.0000E-4 | 0.0055 | 0.00149 | 9.6500E-4 | 0.00158 |
| Statistics (All: NDs treated as DL/2 value) | 22 | 2.5000E-4 | 0.0055 | 9.4136E-4 | 5.0000E-4 | 0.0012 |
| Statistics (Normal ROS Imputed Data) | 22 | -0.00639 | 0.0055 | -0.00176 | -0.00215 | 0.00262 |
| Statistics (Gamma ROS Imputed Data) | 22 | 5.6000E-4 | 0.01 | 0.00812 | 0.01 | 0.00366 |
| Statistics (Lognormal ROS Imputed Data) | 22 | 2.6703E-5 | 0.0055 | 5.3959E-4 | 1.9042E-4 | 0.00114 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1.363 | 0.678 | 0.00128 | -6.76 | 0.903 | -0.134 |
| Statistics (NDs = DL) | 1.476 | 1.305 | 0.00101 | -6.887 | 0.811 | -0.118 |
| Statistics (NDs = DL/2) | 1.24 | 1.101 | 7.5935E-4 | -7.423 | 0.888 | -0.12 |
| Statistics (Gamma ROS Estimates) | 1.923 | 1.691 | 0.00423 | -5.095 | 1.005 | -0.197 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -8.386 | 1.203 | -0.143 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.784 | 0.805 | 0.76 | 0.973 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.634 | 0.762 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.645 | 0.911 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.597 | 0.911 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.957 | 0.911 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.438 | 0.343 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.348 | 0.184 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.344 | 0.184 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.1 | 0.184 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.937 | 0.926 | 0.926 | 0.555 |

# Appendix B
# Goodness of Fit Statistics

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.814 | 0.688 | |
| Kolmogorov-Smirnov (Detects Only) | 0.416 | 0.362 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 2.07 | 0.759 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.293 | 0.189 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 1.507 | 0.765 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.22 | 0.19 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 5.378 | 0.757 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.477 | 0.188 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.879 | 0.908 | 0.933 | 0.981 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.789 | 0.762 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.811 | 0.911 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.864 | 0.911 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.971 | 0.911 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.365 | 0.343 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.237 | 0.184 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.2 | 0.184 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.0934 | 0.184 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Arsenic (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 5 | 17 | 77.27% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 17 | 5.0000E-4 | 0.005 | 0.00115 | 5.0000E-4 | 0.00114 |
| Statistics (Non-Detects Only) | 5 | 5.9000E-4 | 0.0052 | 0.00178 | 0.0011 | 0.00193 |
| Statistics (All: NDs treated as DL value) | 22 | 5.0000E-4 | 0.0052 | 0.00129 | 8.5000E-4 | 0.00133 |
| Statistics (All: NDs treated as DL/2 value) | 22 | 2.5000E-4 | 0.0052 | 8.4750E-4 | 5.0000E-4 | 0.00111 |
| Statistics (Normal ROS Imputed Data) | 22 | -0.00707 | 0.0052 | -0.00208 | -0.00237 | 0.00278 |
| Statistics (Gamma ROS Imputed Data) | 22 | 5.9000E-4 | 0.01 | 0.00813 | 0.01 | 0.00363 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (Lognormal ROS Imputed Data) | 22 | 1.8282E-5 | 0.0052 | 5.2494E-4 | 1.7278E-4 | 0.0011 | | |
| | | | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV | | |
| Statistics (Non-Detects Only) | 1.577 | 0.764 | 0.00113 | -6.681 | 0.856 | -0.128 | | |
| Statistics (NDs = DL) | 1.712 | 1.509 | 7.5388E-4 | -6.972 | 0.739 | -0.106 | | |
| Statistics (NDs = DL/2) | 1.291 | 1.145 | 6.5644E-4 | -7.508 | 0.855 | -0.114 | | |
| Statistics (Gamma ROS Estimates) | 2.039 | 1.791 | 0.00399 | -5.077 | 0.965 | -0.19 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -8.525 | 1.322 | -0.155 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.819 | 0.786 | 0.738 | 0.98 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.688 | 0.762 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.623 | 0.911 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.566 | 0.911 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.968 | 0.911 | Data Appear Normal | | | | | |
| Lilliefors (Detects Only) | 0.398 | 0.343 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL) | 0.284 | 0.184 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.295 | 0.184 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.126 | 0.184 | Data Appear Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | 0.952 | 0.919 | 0.91 | 0.564 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | 0.601 | 0.686 | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.34 | 0.361 | Detected Data Appear Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL) | 1.905 | 0.758 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.212 | 0.188 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 1.578 | 0.764 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.208 | 0.189 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 5.257 | 0.756 | | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.477 | 0.188 | Data Not Gamma Distributed | | | | | |

# Appendix B
# Goodness of Fit Statistics

| Lognormal GOF Test Results | | | | |
|---|---|---|---|---|
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
| Correlation Coefficient R | 0.925 | 0.907 | 0.924 | 0.986 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.864 | 0.762 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.814 | 0.911 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.849 | 0.911 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.978 | 0.911 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.284 | 0.343 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.212 | 0.184 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.23 | 0.184 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.127 | 0.184 | Data Appear Lognormal |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Barium (mw-62)**

| Raw Statistics | |
|---|---|
| Number of Valid Observations | 22 |
| Number of Missing Observations | 11 |
| Number of Distinct Observations | 13 |
| Minimum | 0.015 |
| Maximum | 0.043 |
| Mean of Raw Data | 0.0255 |
| Standard Deviation of Raw Data | 0.00611 |
| Khat | 19.2 |
| Theta hat | 0.00133 |
| Kstar | 16.61 |
| Theta star | 0.00153 |
| Mean of Log Transformed Data | -3.697 |
| Standard Deviation of Log Transformed Data | 0.234 |

| Normal GOF Test Results | |
|---|---|
| Correlation Coefficient R | 0.956 |
| Shapiro Wilk Test Statistic | 0.926 |
| Shapiro Wilk Critical (0.05) Value | 0.911 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Approximate Shapiro Wilk P Value | 0.101 |
| Lilliefors Test Statistic | 0.173 |
| Lilliefors Critical (0.05) Value | 0.184 |
| Data appear Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.972 |
| A-D Test Statistic | 0.428 |
| A-D Critical (0.05) Value | 0.741 |
| K-S Test Statistic | 0.141 |
| K-S Critical(0.05) Value | 0.185 |
| Data appear Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.975 |
| Shapiro Wilk Test Statistic | 0.96 |
| Shapiro Wilk Critical (0.05) Value | 0.911 |
| Approximate Shapiro Wilk P Value | 0.483 |
| Lilliefors Test Statistic | 0.148 |
| Lilliefors Critical (0.05) Value | 0.184 |
| Data appear Lognormal at (0.05) Significance Level | |
| | |
| **Barium (mw-63)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 22 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 12 |
| Minimum | 0.014 |
| Maximum | 0.033 |
| Mean of Raw Data | 0.0197 |
| Standard Deviation of Raw Data | 0.00419 |
| Khat | 25.94 |
| Theta hat | 7.6046E-4 |
| Kstar | 22.43 |
| Theta star | 8.7935E-4 |
| Mean of Log Transformed Data | -3.945 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Standard Deviation of Log Transformed Data | 0.198 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.935 |
| Shapiro Wilk Test Statistic | 0.887 |
| Shapiro Wilk Critical (0.05) Value | 0.911 |
| Approximate Shapiro Wilk P Value | 0.0149 |
| Lilliefors Test Statistic | 0.157 |
| Lilliefors Critical (0.05) Value | 0.184 |
| Data appear Approximate Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.955 |
| A-D Test Statistic | 0.415 |
| A-D Critical (0.05) Value | 0.741 |
| K-S Test Statistic | 0.128 |
| K-S Critical(0.05) Value | 0.185 |
| Data appear Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.971 |
| Shapiro Wilk Test Statistic | 0.95 |
| Shapiro Wilk Critical (0.05) Value | 0.911 |
| Approximate Shapiro Wilk P Value | 0.313 |
| Lilliefors Test Statistic | 0.121 |
| Lilliefors Critical (0.05) Value | 0.184 |
| Data appear Lognormal at (0.05) Significance Level | |
| | |
| **Barium (mw-64)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 22 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 10 |
| Minimum | 0.022 |
| Maximum | 0.048 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Mean of Raw Data | 0.0277 |
| Standard Deviation of Raw Data | 0.00568 |
| Khat | 30.87 |
| Theta hat | 8.9830E-4 |
| Kstar | 26.69 |
| Theta star | 0.00104 |
| Mean of Log Transformed Data | -3.602 |
| Standard Deviation of Log Transformed Data | 0.176 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.86 |
| Shapiro Wilk Test Statistic | 0.757 |
| Shapiro Wilk Critical (0.05) Value | 0.911 |
| Approximate Shapiro Wilk P Value | 5.3669E-5 |
| Lilliefors Test Statistic | 0.278 |
| Lilliefors Critical (0.05) Value | 0.184 |
| Data not Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.893 |
| A-D Test Statistic | 1.188 |
| A-D Critical (0.05) Value | 0.741 |
| K-S Test Statistic | 0.262 |
| K-S Critical(0.05) Value | 0.185 |
| Data not Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.916 |
| Shapiro Wilk Test Statistic | 0.851 |
| Shapiro Wilk Critical (0.05) Value | 0.911 |
| Approximate Shapiro Wilk P Value | 0.00272 |
| Lilliefors Test Statistic | 0.251 |
| Lilliefors Critical (0.05) Value | 0.184 |
| Data not Lognormal at (0.05) Significance Level | |
| | |
| Non-parametric GOF Test Results | |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Data do not follow a discernible distribution at (0.05) Level of Significance | |
| **Barium (mw-65)** | |
| **Raw Statistics** | |
| Number of Valid Observations | 22 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 14 |
| Minimum | 0.012 |
| Maximum | 0.042 |
| Mean of Raw Data | 0.0195 |
| Standard Deviation of Raw Data | 0.00806 |
| Khat | 7.725 |
| Theta hat | 0.00253 |
| Kstar | 6.702 |
| Theta star | 0.00292 |
| Mean of Log Transformed Data | -4.001 |
| Standard Deviation of Log Transformed Data | 0.356 |
| **Normal GOF Test Results** | |
| Correlation Coefficient R | 0.9 |
| Shapiro Wilk Test Statistic | 0.811 |
| Shapiro Wilk Critical (0.05) Value | 0.911 |
| Approximate Shapiro Wilk P Value | 4.7307E-4 |
| Lilliefors Test Statistic | 0.201 |
| Lilliefors Critical (0.05) Value | 0.184 |
| Data not Normal at (0.05) Significance Level | |
| **Gamma GOF Test Results** | |
| Correlation Coefficient R | 0.951 |
| A-D Test Statistic | 0.833 |
| A-D Critical (0.05) Value | 0.745 |
| K-S Test Statistic | 0.147 |
| K-S Critical(0.05) Value | 0.186 |
| Data follow Appr. Gamma Distribution at (0.05) Significance Level | |

# Appendix B
# Goodness of Fit Statistics

**Lognormal GOF Test Results**

| | |
|---|---|
| Correlation Coefficient R | 0.958 |
| Shapiro Wilk Test Statistic | 0.91 |
| Shapiro Wilk Critical (0.05) Value | 0.911 |
| Approximate Shapiro Wilk P Value | 0.0438 |
| Lilliefors Test Statistic | 0.137 |
| Lilliefors Critical (0.05) Value | 0.184 |

Data appear Approximate_Lognormal at (0.05) Significance Level

**Beryllium (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 33 | 11 | 22 | 1 | 21 | 95.45% |

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Beryllium (mw-62) was not processed!

**Beryllium (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 1 | 21 | 95.45% |

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Beryllium (mw-63) was not processed!

**Beryllium (mw-64)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 1 | 21 | 95.45% |

# Appendix B
# Goodness of Fit Statistics

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Beryllium (mw-64) was not processed!

**Beryllium (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 0 | 22 | 100.00% |

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Beryllium (mw-65) was not processed!

**Cadmium (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 33 | 11 | 22 | 1 | 21 | 95.45% |

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Cadmium (mw-62) was not processed!

**Cadmium (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 2 | 20 | 90.91% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 20 | 1.0000E-4 | 0.001 | 3.5000E-4 | 1.0000E-4 | 3.5762E-4 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 2 | 6.4000E-5 | 1.3000E-4 | 9.7000E-5 | 9.7000E-5 | 4.6669E-5 | | |
| Statistics (All: NDs treated as DL value) | 22 | 6.4000E-5 | 0.001 | 3.2700E-4 | 1.0000E-4 | 3.4837E-4 | | |
| Statistics (All: NDs treated as DL/2 value) | 22 | 5.0000E-5 | 5.0000E-4 | 1.6791E-4 | 5.7000E-5 | 1.7193E-4 | | |
| Statistics (Normal ROS Imputed Data) | 22 | 1.6960E-5 | 1.3000E-4 | 6.7812E-5 | 6.7416E-5 | 2.6166E-5 | | |
| Statistics (Gamma ROS Imputed Data) | 22 | N/A | N/A | N/A | N/A | N/A | | |
| Statistics (Lognormal ROS Imputed Data) | 22 | 3.8621E-5 | 1.3000E-4 | 6.9298E-5 | 6.6391E-5 | 2.0575E-5 | | |
| | | | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV | | |
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A | | |
| Statistics (NDs = DL) | 1.179 | 1.048 | 2.7743E-4 | -8.506 | 0.961 | -0.113 | | |
| Statistics (NDs = DL/2) | 1.266 | 1.124 | 1.3265E-4 | -9.136 | 0.928 | -0.102 | | |
| Statistics (Gamma ROS Estimates) | N/A | N/A | N/A | N/A | N/A | N/A | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -9.616 | 0.281 | -0.0292 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 1 | 0.833 | 0.839 | 0.991 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.682 | 0.911 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.69 | 0.911 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.987 | 0.911 | Data Appear Normal | | | | | |
| Lilliefors (Detects Only) | N/A | N/A | | | | | | |
| Lilliefors (NDs = DL) | 0.305 | 0.184 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.273 | 0.184 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.0969 | 0.184 | Data Appear Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | N/A | 0.916 | 0.92 | 0.359 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | N/A | N/A | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | | | | | | |
| Anderson-Darling (NDs = DL) | 2.481 | 0.766 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.317 | 0.19 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 2.321 | 0.764 | | | | | | |

# Appendix B
## Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Kolmogorov-Smirnov (NDs = DL/2) | 0.293 | 0.19 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | N/A | 0.741 | | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | N/A | 0.185 | | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | | |
| Correlation Coefficient R | 1 | 0.89 | 0.886 | N/A | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.779 | 0.911 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.765 | 0.911 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.987 | 0.911 | Data Appear Lognormal | | | | | |
| Lilliefors (Detects Only) | N/A | N/A | | | | | | |
| Lilliefors (NDs = DL) | 0.313 | 0.184 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL/2) | 0.296 | 0.184 | Data Not Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.0969 | 0.184 | Data Appear Lognormal | | | | | |
| | | | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | | | |
| | | | | | | | | |
| **Cadmium (mw-64)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 32 | 10 | 22 | 1 | 21 | 95.45% | | |
| | | | | | | | | |
| **Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!** | | | | | | | | |
| **It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).** | | | | | | | | |
| | | | | | | | | |
| **The data set for variable Cadmium (mw-64) was not processed!** | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Cadmium (mw-65)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 32 | 10 | 22 | 0 | 22 | 100.00% | | |
| | | | | | | | | |
| **Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!** | | | | | | | | |
| **Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!** | | | | | | | | |

# Appendix B
# Goodness of Fit Statistics

The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Cadmium (mw-65) was not processed!

**Chromium (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 33 | 11 | 22 | 4 | 18 | 81.82% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 18 | 5.0000E-4 | 0.01 | 0.0025 | 0.0015 | 0.00289 |
| Statistics (Non-Detects Only) | 4 | 5.1000E-4 | 0.0015 | 0.001 | 0.001 | 4.0418E-4 |
| Statistics (All: NDs treated as DL value) | 22 | 5.0000E-4 | 0.01 | 0.00223 | 0.001 | 0.00267 |
| Statistics (All: NDs treated as DL/2 value) | 22 | 2.5000E-4 | 0.005 | 0.00121 | 0.001 | 0.00131 |
| Statistics (Normal ROS Imputed Data) | 22 | -8.825E-4 | 0.0015 | 1.4937E-4 | 1.3742E-4 | 5.9951E-4 |
| Statistics (Gamma ROS Imputed Data) | 22 | 5.1000E-4 | 0.01 | 0.00836 | 0.01 | 0.00356 |
| Statistics (Lognormal ROS Imputed Data) | 22 | 1.1663E-4 | 0.0015 | 4.5378E-4 | 3.5974E-4 | 3.4028E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 7.36 | 2.007 | 1.3620E-4 | -6.975 | 0.447 | -0.0641 |
| Statistics (NDs = DL) | 1.339 | 1.187 | 0.00166 | -6.524 | 0.854 | -0.131 |
| Statistics (NDs = DL/2) | 1.495 | 1.321 | 8.0607E-4 | -7.092 | 0.828 | -0.117 |
| Statistics (Gamma ROS Estimates) | 2.134 | 1.874 | 0.00392 | -5.036 | 0.951 | -0.189 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.917 | 0.662 | -0.0836 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.962 | 0.772 | 0.792 | 0.991 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.944 | 0.748 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.602 | 0.911 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.633 | 0.911 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.981 | 0.911 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.252 | 0.375 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.307 | 0.184 | Data Not Normal |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Lilliefors (NDs = DL/2) | 0.289 | 0.184 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.0989 | 0.184 | Data Appear Normal | | | |
| | | | | | | |
| **Gamma GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
| Correlation Coefficient R | 0.951 | 0.914 | 0.916 | 0.522 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | 0.353 | 0.658 | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.296 | 0.395 | Detected Data Appear Gamma Distributed | | | |
| Anderson-Darling (NDs = DL) | 1.52 | 0.763 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.241 | 0.189 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 1.225 | 0.759 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.204 | 0.189 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | 5.956 | 0.755 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.508 | 0.188 | Data Not Gamma Distributed | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 0.947 | 0.947 | 0.958 | 0.991 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.916 | 0.748 | Data Appear Lognormal | | | |
| Shapiro-Wilk (NDs = DL) | 0.89 | 0.911 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.912 | 0.911 | Data Appear Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.978 | 0.911 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | 0.31 | 0.375 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL) | 0.219 | 0.184 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.177 | 0.184 | Data Appear Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.1 | 0.184 | Data Appear Lognormal | | | |
| | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | |
| | | | | | | |
| **Chromium (mw-63)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 32 | 10 | 22 | 2 | 20 | 90.91% |

# Appendix B
# Goodness of Fit Statistics

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 20 | 5.0000E-4 | 0.01 | 0.00228 | 0.001 | 0.00281 |
| Statistics (Non-Detects Only) | 2 | 4.3000E-4 | 8.4000E-4 | 6.3500E-4 | 6.3500E-4 | 2.8991E-4 |
| Statistics (All: NDs treated as DL value) | 22 | 4.3000E-4 | 0.01 | 0.00213 | 0.001 | 0.00272 |
| Statistics (All: NDs treated as DL/2 value) | 22 | 2.5000E-4 | 0.005 | 0.00109 | 5.0000E-4 | 0.00135 |
| Statistics (Normal ROS Imputed Data) | 22 | 1.8929E-4 | 8.4000E-4 | 4.7063E-4 | 4.6813E-4 | 1.5843E-4 |
| Statistics (Gamma ROS Imputed Data) | 22 | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Imputed Data) | 22 | 2.9022E-4 | 8.4000E-4 | 4.7481E-4 | 4.5763E-4 | 1.2942E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (NDs = DL) | 1.139 | 1.014 | 0.00187 | -6.653 | 0.943 | -0.142 |
| Statistics (NDs = DL/2) | 1.219 | 1.083 | 8.9584E-4 | -7.283 | 0.912 | -0.125 |
| Statistics (Gamma ROS Estimates) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.685 | 0.259 | -0.0337 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 1 | 0.777 | 0.78 | 0.99 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (NDs = DL) | 0.61 | 0.911 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.613 | 0.911 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.981 | 0.911 | Data Appear Normal |
| Lilliefors (Detects Only) | N/A | N/A | |
| Lilliefors (NDs = DL) | 0.291 | 0.184 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.3 | 0.184 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.143 | 0.184 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | N/A | 0.926 | 0.923 | 0.418 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | N/A | N/A | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Anderson-Darling (NDs = DL) | 1.425 | 0.767 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.241 | 0.19 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 1.321 | 0.765 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.217 | 0.19 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | N/A | 0.741 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | N/A | 0.185 | | | | |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 1 | 0.946 | 0.949 | N/A |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (NDs = DL) | 0.886 | 0.911 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.89 | 0.911 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.981 | 0.911 | Data Appear Lognormal |
| Lilliefors (Detects Only) | N/A | N/A | |
| Lilliefors (NDs = DL) | 0.197 | 0.184 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.182 | 0.184 | Data Appear Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.143 | 0.184 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Chromium (mw-64)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 3 | 19 | 86.36% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 19 | 5.0000E-4 | 0.01 | 0.00237 | 0.001 | 0.00286 |
| Statistics (Non-Detects Only) | 3 | 2.3000E-4 | 9.3000E-4 | 6.2333E-4 | 7.1000E-4 | 3.5796E-4 |
| Statistics (All: NDs treated as DL value) | 22 | 2.3000E-4 | 0.01 | 0.00213 | 0.001 | 0.00272 |
| Statistics (All: NDs treated as DL/2 value) | 22 | 2.3000E-4 | 0.005 | 0.00111 | 6.0500E-4 | 0.00134 |
| Statistics (Normal ROS Imputed Data) | 22 | -1.120E-4 | 9.3000E-4 | 3.5464E-4 | 3.5085E-4 | 2.6481E-4 |
| Statistics (Gamma ROS Imputed Data) | 22 | 2.3000E-4 | 0.01 | 0.00872 | 0.01 | 0.0033 |
| Statistics (Lognormal ROS Imputed Data) | 22 | 1.1616E-4 | 9.3000E-4 | 3.5421E-4 | 3.0325E-4 | 2.0933E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (NDs = DL) | 1.118 | 0.996 | 0.0019 | -6.661 | 0.972 | -0.146 | | |
| Statistics (NDs = DL/2) | 1.241 | 1.102 | 8.9259E-4 | -7.26 | 0.911 | -0.126 | | |
| Statistics (Gamma ROS Estimates) | 2.053 | 1.804 | 0.00425 | -5.005 | 1.055 | -0.211 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -8.093 | 0.549 | -0.0678 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.978 | 0.782 | 0.784 | 0.99 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.956 | 0.767 | Data Appear Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.618 | 0.911 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.62 | 0.911 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.978 | 0.911 | Data Appear Normal | | | | | |
| Lilliefors (Detects Only) | 0.262 | 0.425 | Data Appear Normal | | | | | |
| Lilliefors (NDs = DL) | 0.292 | 0.184 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.305 | 0.184 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.142 | 0.184 | Data Appear Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | N/A | 0.927 | 0.923 | 0.457 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | N/A | N/A | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | | | | | | |
| Anderson-Darling (NDs = DL) | 1.196 | 0.768 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.238 | 0.19 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 1.201 | 0.765 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.196 | 0.19 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 6.685 | 0.756 | | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.531 | 0.188 | Data Not Gamma Distributed | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | | |
| Correlation Coefficient R | 0.943 | 0.968 | 0.956 | 0.99 | | | | |

# Appendix B
# Goodness of Fit Statistics

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.888 | 0.767 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.935 | 0.911 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.903 | 0.911 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.975 | 0.911 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.317 | 0.425 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.191 | 0.184 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.146 | 0.184 | Data Appear Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.142 | 0.184 | Data Appear Lognormal |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Chromium (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 2 | 20 | 90.91% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 20 | 5.0000E-4 | 0.01 | 0.00183 | 0.001 | 0.00215 |
| Statistics (Non-Detects Only) | 2 | 4.9000E-4 | 0.0015 | 9.9500E-4 | 9.9500E-4 | 7.1418E-4 |
| Statistics (All: NDs treated as DL value) | 22 | 4.9000E-4 | 0.01 | 0.00175 | 0.001 | 0.00207 |
| Statistics (All: NDs treated as DL/2 value) | 22 | 2.5000E-4 | 0.005 | 9.2000E-4 | 5.0000E-4 | 0.00104 |
| Statistics (Normal ROS Imputed Data) | 22 | -5.668E-5 | 0.0015 | 5.4669E-4 | 5.3784E-4 | 3.6708E-4 |
| Statistics (Gamma ROS Imputed Data) | 22 | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Imputed Data) | 22 | 2.6742E-4 | 0.0015 | 5.6784E-4 | 5.1667E-4 | 2.6874E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (NDs = DL) | 1.47 | 1.3 | 0.00119 | -6.726 | 0.817 | -0.121 |
| Statistics (NDs = DL/2) | 1.517 | 1.34 | 6.0650E-4 | -7.356 | 0.815 | -0.111 |
| Statistics (Gamma ROS Estimates) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.558 | 0.407 | -0.0538 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 1 | 0.756 | 0.773 | 0.973 |

# Appendix B
# Goodness of Fit Statistics

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (NDs = DL) | 0.595 | 0.911 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.62 | 0.911 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.953 | 0.911 | Data Appear Normal |
| Lilliefors (Detects Only) | N/A | N/A | |
| Lilliefors (NDs = DL) | 0.271 | 0.184 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.259 | 0.184 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.147 | 0.184 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | N/A | 0.908 | 0.916 | 0.432 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | N/A | N/A | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | |
| Anderson-Darling (NDs = DL) | 1.149 | 0.759 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.221 | 0.189 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 1.08 | 0.759 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.245 | 0.189 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | N/A | 0.741 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | N/A | 0.185 | |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 1 | 0.946 | 0.951 | N/A |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (NDs = DL) | 0.891 | 0.911 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.9 | 0.911 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.953 | 0.911 | Data Appear Lognormal |
| Lilliefors (Detects Only) | N/A | N/A | |
| Lilliefors (NDs = DL) | 0.179 | 0.184 | Data Appear Lognormal |
| Lilliefors (NDs = DL/2) | 0.209 | 0.184 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.147 | 0.184 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| **Cobalt (mw-62)** | |
| **Raw Statistics** | |
| Number of Valid Observations | 22 |
| Number of Missing Observations | 11 |
| Number of Distinct Observations | 18 |
| Minimum | 6.5000E-4 |
| Maximum | 0.014 |
| Mean of Raw Data | 0.00661 |
| Standard Deviation of Raw Data | 0.00333 |
| Khat | 2.985 |
| Theta hat | 0.00221 |
| Kstar | 2.608 |
| Theta star | 0.00253 |
| Mean of Log Transformed Data | -5.196 |
| Standard Deviation of Log Transformed Data | 0.707 |
| **Normal GOF Test Results** | |
| Correlation Coefficient R | 0.983 |
| Shapiro Wilk Test Statistic | 0.966 |
| Shapiro Wilk Critical (0.05) Value | 0.911 |
| Approximate Shapiro Wilk P Value | 0.618 |
| Lilliefors Test Statistic | 0.145 |
| Lilliefors Critical (0.05) Value | 0.184 |
| **Data appear Normal at (0.05) Significance Level** | |
| **Gamma GOF Test Results** | |
| Correlation Coefficient R | 0.97 |
| A-D Test Statistic | 0.587 |
| A-D Critical (0.05) Value | 0.75 |
| K-S Test Statistic | 0.205 |
| K-S Critical(0.05) Value | 0.187 |
| **Data follow Appr. Gamma Distribution at (0.05) Significance Level** | |
| **Lognormal GOF Test Results** | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Correlation Coefficient R | 0.921 | | | | | | | |
| Shapiro Wilk Test Statistic | 0.858 | | | | | | | |
| Shapiro Wilk Critical (0.05) Value | 0.911 | | | | | | | |
| Approximate Shapiro Wilk P Value | 0.00377 | | | | | | | |
| Lilliefors Test Statistic | 0.236 | | | | | | | |
| Lilliefors Critical (0.05) Value | 0.184 | | | | | | | |
| Data not Lognormal at (0.05) Significance Level | | | | | | | | |
| | | | | | | | | |
| **Cobalt (mw-63)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 32 | 10 | 22 | 21 | 1 | 4.55% | | |
| | | | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD | | |
| Statistics (Non-Detects Only) | 1 | 0.001 | 0.001 | 0.001 | 0.001 | N/A | | |
| Statistics (Non-Detects Only) | 21 | 6.2000E-4 | 0.0086 | 0.00467 | 0.0055 | 0.0022 | | |
| Statistics (All: NDs treated as DL value) | 22 | 6.2000E-4 | 0.0086 | 0.0045 | 0.00545 | 0.00229 | | |
| Statistics (All: NDs treated as DL/2 value) | 22 | 5.0000E-4 | 0.0086 | 0.00448 | 0.00545 | 0.00233 | | |
| Statistics (Normal ROS Imputed Data) | 22 | 3.2962E-4 | 0.0086 | 0.00447 | 0.00545 | 0.00234 | | |
| Statistics (Gamma ROS Imputed Data) | 22 | 6.2000E-4 | 0.01 | 0.00491 | 0.00555 | 0.00243 | | |
| Statistics (Lognormal ROS Imputed Data) | 22 | 6.2000E-4 | 0.0086 | 0.0045 | 0.00545 | 0.00228 | | |
| | | | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV | | |
| Statistics (Non-Detects Only) | 3.069 | 2.663 | 0.00152 | -5.539 | 0.691 | -0.125 | | |
| Statistics (NDs = DL) | 2.686 | 2.35 | 0.00168 | -5.601 | 0.735 | -0.131 | | |
| Statistics (NDs = DL/2) | 2.386 | 2.091 | 0.00188 | -5.632 | 0.805 | -0.143 | | |
| Statistics (Gamma ROS Estimates) | 2.936 | 2.566 | 0.00167 | -5.496 | 0.703 | -0.128 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -5.597 | 0.728 | -0.13 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.966 | 0.964 | 0.965 | 0.966 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.927 | 0.908 | Data Appear Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.921 | 0.911 | Data Appear Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.922 | 0.911 | Data Appear Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.925 | 0.911 | Data Appear Normal | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | |
|---|---|---|---|---|
| Lilliefors (Detects Only) | 0.202 | 0.188 | Data Not Normal | |
| Lilliefors (NDs = DL) | 0.198 | 0.184 | Data Not Normal | |
| Lilliefors (NDs = DL/2) | 0.199 | 0.184 | Data Not Normal | |
| Lilliefors (Normal ROS Estimates) | 0.2 | 0.184 | Data Not Normal | |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.908 | 0.906 | 0.898 | 0.941 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 1.246 | 0.749 | |
| Kolmogorov-Smirnov (Detects Only) | 0.245 | 0.191 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 1.27 | 0.752 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.24 | 0.187 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 1.322 | 0.754 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.242 | 0.187 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 1.042 | 0.75 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.231 | 0.187 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.911 | 0.92 | 0.908 | 0.921 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.832 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.844 | 0.911 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.821 | 0.911 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.845 | 0.911 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.255 | 0.188 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.251 | 0.184 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.252 | 0.184 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.25 | 0.184 | Data Not Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Cobalt (mw-64)**

# Appendix B
# Goodness of Fit Statistics

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 18 | 4 | 18.18% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 4 | 0.002 | 0.005 | 0.00275 | 0.002 | 0.0015 |
| Statistics (Non-Detects Only) | 18 | 8.3000E-4 | 0.0018 | 0.00141 | 0.0015 | 2.9724E-4 |
| Statistics (All: NDs treated as DL value) | 22 | 8.3000E-4 | 0.005 | 0.00166 | 0.00155 | 8.1953E-4 |
| Statistics (All: NDs treated as DL/2 value) | 22 | 8.3000E-4 | 0.0025 | 0.00141 | 0.00135 | 3.9000E-4 |
| Statistics (Normal ROS Imputed Data) | 22 | 8.3000E-4 | 0.0018 | 0.00141 | 0.00146 | 2.7575E-4 |
| Statistics (Gamma ROS Imputed Data) | 22 | 8.3000E-4 | 0.01 | 0.00297 | 0.00155 | 0.0034 |
| Statistics (Lognormal ROS Imputed Data) | 22 | 8.3000E-4 | 0.0018 | 0.00141 | 0.00144 | 2.7645E-4 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 22.3 | 18.62 | 6.3363E-5 | -6.585 | 0.223 | -0.0339 |
| Statistics (NDs = DL) | 7.066 | 6.133 | 2.3436E-4 | -6.476 | 0.355 | -0.0549 |
| Statistics (NDs = DL/2) | 14.54 | 12.58 | 9.6716E-5 | -6.602 | 0.268 | -0.0406 |
| Statistics (Gamma ROS Estimates) | 1.371 | 1.214 | 0.00217 | -6.225 | 0.807 | -0.13 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.585 | 0.207 | -0.0315 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.956 | 0.763 | 0.949 | 0.967 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.902 | 0.897 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.611 | 0.911 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.909 | 0.911 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.927 | 0.911 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.207 | 0.202 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.292 | 0.184 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.201 | 0.184 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.189 | 0.184 | Data Not Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.941 | 0.827 | 0.966 | 0.854 |

# Appendix B
# Goodness of Fit Statistics

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.834 | 0.739 | |
| Kolmogorov-Smirnov (Detects Only) | 0.196 | 0.203 | Detected Data appear Approximate Gamma Distribution |
| Anderson-Darling (NDs = DL) | 1.248 | 0.745 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.215 | 0.186 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 0.622 | 0.742 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.191 | 0.185 | Detected Data appear Approximate Gamma Distribution |
| Anderson-Darling (Gamma ROS Estimates) | 3.845 | 0.762 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.415 | 0.189 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.948 | 0.913 | 0.972 | 0.959 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.892 | 0.897 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.857 | 0.911 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.948 | 0.911 | Data Appear Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.916 | 0.911 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.2 | 0.202 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.186 | 0.184 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.178 | 0.184 | Data Appear Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.16 | 0.184 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Cobalt (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 19 | 3 | 13.64% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 3 | 0.002 | 0.002 | 0.002 | 0.002 | 0 |
| Statistics (Non-Detects Only) | 19 | 0.001 | 0.0032 | 0.00158 | 0.0012 | 6.3209E-4 |
| Statistics (All: NDs treated as DL value) | 22 | 0.001 | 0.0032 | 0.00164 | 0.0015 | 6.0360E-4 |
| Statistics (All: NDs treated as DL/2 value) | 22 | 0.001 | 0.0032 | 0.0015 | 0.0012 | 6.1952E-4 |
| Statistics (Normal ROS Imputed Data) | 22 | 0.001 | 0.0032 | 0.00155 | 0.0013 | 5.9824E-4 |
| Statistics (Gamma ROS Imputed Data) | 22 | 0.001 | 0.01 | 0.00273 | 0.0015 | 0.00302 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Statistics (Lognormal ROS Imputed Data) | 22 | 0.001 | 0.0032 | 0.00155 | 0.00127 | 5.9637E-4 |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 8.104 | 6.859 | 1.9484E-4 | -6.514 | 0.349 | -0.0536 |
| Statistics (NDs = DL) | 8.804 | 7.634 | 1.8586E-4 | -6.473 | 0.34 | -0.0525 |
| Statistics (NDs = DL/2) | 7.811 | 6.777 | 1.9203E-4 | -6.568 | 0.352 | -0.0535 |
| Statistics (Gamma ROS Estimates) | 1.578 | 1.393 | 0.00173 | -6.254 | 0.744 | -0.119 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -6.529 | 0.331 | -0.0507 |
| **Normal GOF Test Results** | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.897 | 0.924 | 0.883 | 0.898 | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.804 | 0.901 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.852 | 0.911 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.778 | 0.911 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.807 | 0.911 | Data Not Normal | | | |
| Lilliefors (Detects Only) | 0.252 | 0.197 | Data Not Normal | | | |
| Lilliefors (NDs = DL) | 0.22 | 0.184 | Data Not Normal | | | |
| Lilliefors (NDs = DL/2) | 0.277 | 0.184 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.222 | 0.184 | Data Not Normal | | | |
| **Gamma GOF Test Results** | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
| Correlation Coefficient R | 0.949 | 0.961 | 0.941 | 0.88 | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | 1.123 | 0.742 | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.261 | 0.199 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL) | 0.974 | 0.744 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.231 | 0.185 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 1.434 | 0.745 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.275 | 0.186 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | 2.887 | 0.758 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.268 | 0.188 | Data Not Gamma Distributed | | | |

# Appendix B
# Goodness of Fit Statistics

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.936 | 0.952 | 0.927 | 0.937 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.868 | 0.901 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.898 | 0.911 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.85 | 0.911 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.872 | 0.911 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.254 | 0.197 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.226 | 0.184 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.264 | 0.184 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.224 | 0.184 | Data Not Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Fluoride (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 33 | 0 | 33 | 32 | 1 | 3.03% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1 | 80 | 80 | 80 | 80 | N/A |
| Statistics (Non-Detects Only) | 32 | 1.2 | 3.3 | 1.547 | 1.5 | 0.365 |
| Statistics (All: NDs treated as DL value) | 33 | 1.2 | 80 | 3.924 | 1.5 | 13.66 |
| Statistics (All: NDs treated as DL/2 value) | 33 | 1.2 | 40 | 2.712 | 1.5 | 6.703 |
| Statistics (Normal ROS Imputed Data) | 33 | 1.2 | 3.3 | 1.547 | 1.5 | 0.36 |
| Statistics (Gamma ROS Imputed Data) | 33 | 1.2 | 3.3 | 1.546 | 1.5 | 0.36 |
| Statistics (Lognormal ROS Imputed Data) | 33 | 1.2 | 3.3 | 1.546 | 1.5 | 0.36 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 26.36 | 23.91 | 0.0587 | 0.417 | 0.184 | 0.441 |
| Statistics (NDs = DL) | 0.725 | 0.679 | 5.415 | 0.537 | 0.714 | 1.328 |
| Statistics (NDs = DL/2) | 1.177 | 1.09 | 2.304 | 0.516 | 0.598 | 1.158 |
| Statistics (Gamma ROS Estimates) | 27.18 | 24.73 | 0.0569 | 0.417 | 0.181 | 0.434 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | 0.417 | 0.181 | 0.434 |

**Normal GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.76 | 0.401 | 0.418 | 0.758 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.613 | 0.93 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.193 | 0.931 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.208 | 0.931 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.611 | 0.931 | Data Not Normal |
| Lilliefors (Detects Only) | 0.317 | 0.154 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.495 | 0.152 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.482 | 0.152 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.32 | 0.152 | Data Not Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.799 | 0.65 | 0.623 | 0.795 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 2.385 | 0.745 | |
| Kolmogorov-Smirnov (Detects Only) | 0.28 | 0.155 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 10.63 | 0.79 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.481 | 0.16 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 9.515 | 0.772 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.448 | 0.157 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 2.486 | 0.745 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.283 | 0.153 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.86 | 0.566 | 0.598 | 0.857 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.768 | 0.93 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.358 | 0.931 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.396 | 0.931 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.764 | 0.931 | Data Not Lognormal |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Lilliefors (Detects Only) | 0.262 | 0.154 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL) | 0.386 | 0.152 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL/2) | 0.379 | 0.152 | Data Not Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.264 | 0.152 | Data Not Lognormal | | | | | |
| | | | | | | | | |
| Note: Substitution methods such as DL or DL/2 are not recommended. | | | | | | | | |
| | | | | | | | | |
| **Fluoride (mw-63)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 32 | 0 | 32 | 31 | 1 | 3.13% | | |
| | | | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD | | |
| Statistics (Non-Detects Only) | 1 | 8 | 8 | 8 | 8 | N/A | | |
| Statistics (Non-Detects Only) | 31 | 0.28 | 2.5 | 1.906 | 2 | 0.37 | | |
| Statistics (All: NDs treated as DL value) | 32 | 0.28 | 8 | 2.096 | 2 | 1.137 | | |
| Statistics (All: NDs treated as DL/2 value) | 32 | 0.28 | 4 | 1.971 | 2 | 0.519 | | |
| Statistics (Normal ROS Imputed Data) | 32 | 0.28 | 2.5 | 1.906 | 1.953 | 0.364 | | |
| Statistics (Gamma ROS Imputed Data) | 32 | 0.28 | 2.5 | 1.905 | 1.95 | 0.364 | | |
| Statistics (Lognormal ROS Imputed Data) | 32 | 0.28 | 2.5 | 1.903 | 1.95 | 0.364 | | |
| | | | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV | | |
| Statistics (Non-Detects Only) | 12.52 | 11.33 | 0.152 | 0.604 | 0.365 | 0.604 | | |
| Statistics (NDs = DL) | 5.741 | 5.224 | 0.365 | 0.651 | 0.444 | 0.682 | | |
| Statistics (NDs = DL/2) | 10.21 | 9.271 | 0.193 | 0.629 | 0.385 | 0.612 | | |
| Statistics (Gamma ROS Estimates) | 12.92 | 11.73 | 0.147 | 0.605 | 0.359 | 0.593 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | 0.604 | 0.359 | 0.594 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.841 | 0.617 | 0.824 | 0.839 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.746 | 0.929 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.43 | 0.93 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.735 | 0.93 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.743 | 0.93 | Data Not Normal | | | | | |
| Lilliefors (Detects Only) | 0.194 | 0.156 | Data Not Normal | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | |
|---|---|---|---|---|
| Lilliefors (NDs = DL) | 0.37 | 0.154 | Data Not Normal | |
| Lilliefors (NDs = DL/2) | 0.246 | 0.154 | Data Not Normal | |
| Lilliefors (Normal ROS Estimates) | 0.198 | 0.154 | Data Not Normal | |
| | | | | |
| **Gamma GOF Test Results** | | | | |
| | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
| Correlation Coefficient R | 0.805 | 0.686 | 0.836 | 0.804 |
| | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | |
| Anderson-Darling (Detects Only) | 4.073 | 0.746 | | |
| Kolmogorov-Smirnov (Detects Only) | 0.274 | 0.158 | Data Not Gamma Distributed | |
| Anderson-Darling (NDs = DL) | 5.078 | 0.748 | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.305 | 0.156 | Data Not Gamma Distributed | |
| Anderson-Darling (NDs = DL/2) | 3.813 | 0.747 | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.264 | 0.155 | Data Not Gamma Distributed | |
| Anderson-Darling (Gamma ROS Estimates) | 4.208 | 0.746 | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.272 | 0.155 | Data Not Gamma Distributed | |
| | | | | |
| **Lognormal GOF Test Results** | | | | |
| | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
| Correlation Coefficient R | 0.643 | 0.716 | 0.702 | 0.641 |
| | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | |
| Shapiro-Wilk (Detects Only) | 0.454 | 0.929 | Data Not Lognormal | |
| Shapiro-Wilk (NDs = DL) | 0.575 | 0.93 | Data Not Lognormal | |
| Shapiro-Wilk (NDs = DL/2) | 0.547 | 0.93 | Data Not Lognormal | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.452 | 0.93 | Data Not Lognormal | |
| Lilliefors (Detects Only) | 0.324 | 0.156 | Data Not Lognormal | |
| Lilliefors (NDs = DL) | 0.311 | 0.154 | Data Not Lognormal | |
| Lilliefors (NDs = DL/2) | 0.309 | 0.154 | Data Not Lognormal | |
| Lilliefors (Lognormal ROS Estimates) | 0.323 | 0.154 | Data Not Lognormal | |
| | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | |
| | | | | |
| **Fluoride (mw-64)** | | | | |
| | | | | |
| **Raw Statistics** | | | | |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| Number of Valid Observations | 32 |
| Number of Distinct Observations | 5 |
| Minimum | 1 |
| Maximum | 1.6 |
| Mean of Raw Data | 1.434 |
| Standard Deviation of Raw Data | 0.112 |
| Khat | 150.4 |
| Theta hat | 0.00954 |
| Kstar | 136.3 |
| Theta star | 0.0105 |
| Mean of Log Transformed Data | 0.357 |
| Standard Deviation of Log Transformed Data | 0.0854 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.884 |
| Shapiro Wilk Test Statistic | 0.805 |
| Shapiro Wilk Critical (0.05) Value | 0.93 |
| Approximate Shapiro Wilk P Value | 2.0596E-5 |
| Lilliefors Test Statistic | 0.255 |
| Lilliefors Critical (0.05) Value | 0.154 |
| Data not Normal at (0.05) Significance Level | |
| | |
| **Gamma GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.878 |
| A-D Test Statistic | 2.199 |
| A-D Critical (0.05) Value | 0.745 |
| K-S Test Statistic | 0.269 |
| K-S Critical(0.05) Value | 0.155 |
| Data not Gamma Distributed at (0.05) Significance Level | |
| | |
| **Lognormal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.851 |
| Shapiro Wilk Test Statistic | 0.752 |
| Shapiro Wilk Critical (0.05) Value | 0.93 |
| Approximate Shapiro Wilk P Value | 1.2572E-6 |
| Lilliefors Test Statistic | 0.278 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Lilliefors Critical (0.05) Value | 0.154 | | | | | |
| Data not Lognormal at (0.05) Significance Level | | | | | | |
| | | | | | | |
| Non-parametric GOF Test Results | | | | | | |
| | | | | | | |
| Data do not follow a discernible distribution at (0.05) Level of Significance | | | | | | |
| | | | | | | |
| **Fluoride (mw-65)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 32 | 0 | 32 | 31 | 1 | 3.13% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 1 | 2 | 2 | 2 | 2 | N/A |
| Statistics (Non-Detects Only) | 31 | 1.3 | 2.1 | 1.826 | 1.9 | 0.213 |
| Statistics (All: NDs treated as DL value) | 32 | 1.3 | 2.1 | 1.831 | 1.9 | 0.212 |
| Statistics (All: NDs treated as DL/2 value) | 32 | 1 | 2.1 | 1.8 | 1.9 | 0.255 |
| Statistics (Normal ROS Imputed Data) | 32 | 1.3 | 2.1 | 1.822 | 1.9 | 0.21 |
| Statistics (Gamma ROS Imputed Data) | 32 | 1.3 | 2.1 | 1.822 | 1.9 | 0.21 |
| Statistics (Lognormal ROS Imputed Data) | 32 | 1.3 | 2.1 | 1.822 | 1.9 | 0.211 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 69.98 | 63.23 | 0.0261 | 0.595 | 0.124 | 0.209 |
| Statistics (NDs = DL) | 70.92 | 64.29 | 0.0258 | 0.598 | 0.124 | 0.207 |
| Statistics (NDs = DL/2) | 43.58 | 39.52 | 0.0413 | 0.576 | 0.161 | 0.28 |
| Statistics (Gamma ROS Estimates) | 71.62 | 64.92 | 0.0254 | 0.593 | 0.123 | 0.207 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | 0.593 | 0.123 | 0.207 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.945 | 0.939 | 0.926 | 0.95 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.884 | 0.929 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.875 | 0.93 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.861 | 0.93 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.894 | 0.93 | Data Not Normal | | | |
| Lilliefors (Detects Only) | 0.185 | 0.156 | Data Not Normal | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Lilliefors (NDs = DL) | 0.194 | 0.154 | Data Not Normal | | | | |
| Lilliefors (NDs = DL/2) | 0.188 | 0.154 | Data Not Normal | | | | |
| Lilliefors (Normal ROS Estimates) | 0.176 | 0.154 | Data Not Normal | | | | |
| | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | |
| | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | |
| Correlation Coefficient R | 0.928 | 0.923 | 0.902 | 0.935 | | | |
| | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | |
| Anderson-Darling (Detects Only) | 1.542 | 0.745 | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.195 | 0.157 | Data Not Gamma Distributed | | | | |
| Anderson-Darling (NDs = DL) | 1.726 | 0.745 | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.2 | 0.155 | Data Not Gamma Distributed | | | | |
| Anderson-Darling (NDs = DL/2) | 1.806 | 0.745 | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.208 | 0.155 | Data Not Gamma Distributed | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 1.422 | 0.745 | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.185 | 0.155 | Data Not Gamma Distributed | | | | |
| | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | |
| | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | |
| Correlation Coefficient R | 0.931 | 0.925 | 0.892 | 0.937 | | | |
| | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | |
| Shapiro-Wilk (Detects Only) | 0.862 | 0.929 | Data Not Lognormal | | | | |
| Shapiro-Wilk (NDs = DL) | 0.852 | 0.93 | Data Not Lognormal | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.807 | 0.93 | Data Not Lognormal | | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.872 | 0.93 | Data Not Lognormal | | | | |
| Lilliefors (Detects Only) | 0.196 | 0.156 | Data Not Lognormal | | | | |
| Lilliefors (NDs = DL) | 0.201 | 0.154 | Data Not Lognormal | | | | |
| Lilliefors (NDs = DL/2) | 0.216 | 0.154 | Data Not Lognormal | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.186 | 0.154 | Data Not Lognormal | | | | |
| | | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | | |
| | | | | | | | |
| **Lead (mw-62)** | | | | | | | |
| | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Raw Statistics | 33 | 11 | 22 | 2 | 20 | 90.91% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 20 | 5.0000E-4 | 0.005 | 0.00125 | 5.0000E-4 | 0.00139 |
| Statistics (Non-Detects Only) | 2 | 5.0000E-4 | 5.8000E-4 | 5.4000E-4 | 5.4000E-4 | 5.6569E-5 |
| Statistics (All: NDs treated as DL value) | 22 | 5.0000E-4 | 0.005 | 0.00119 | 5.0000E-4 | 0.00134 |
| Statistics (All: NDs treated as DL/2 value) | 22 | 2.5000E-4 | 0.0025 | 6.1727E-4 | 2.5000E-4 | 6.6203E-4 |
| Statistics (Normal ROS Imputed Data) | 22 | -1.271E-4 | 5.8000E-4 | 2.1041E-4 | 2.0844E-4 | 1.7418E-4 |
| Statistics (Gamma ROS Imputed Data) | 22 | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Imputed Data) | 22 | 1.5620E-4 | 5.8000E-4 | 3.0731E-4 | 2.9111E-4 | 1.0313E-4 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (NDs = DL) | 1.52 | 1.343 | 7.7981E-4 | -7.101 | 0.767 | -0.108 |
| Statistics (NDs = DL/2) | 1.612 | 1.422 | 3.8295E-4 | -7.731 | 0.757 | -0.0979 |
| Statistics (Gamma ROS Estimates) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -8.138 | 0.323 | -0.0397 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 1 | 0.752 | 0.772 | 0.995 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (NDs = DL) | 0.57 | 0.911 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.6 | 0.911 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.989 | 0.911 | Data Appear Normal | | | |
| Lilliefors (Detects Only) | N/A | N/A | | | | |
| Lilliefors (NDs = DL) | 0.328 | 0.184 | Data Not Normal | | | |
| Lilliefors (NDs = DL/2) | 0.298 | 0.184 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.0766 | 0.184 | Data Appear Normal | | | |
| | | | | | | |
| **Gamma GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
| Correlation Coefficient R | N/A | 0.904 | 0.913 | 0.413 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | N/A | N/A | | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | | | | | | |
| Anderson-Darling (NDs = DL) | 3.226 | 0.759 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.331 | 0.189 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 2.534 | 0.758 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.309 | 0.188 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | N/A | 0.741 | | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | N/A | 0.185 | | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | | |
| Correlation Coefficient R | 1 | 0.838 | 0.873 | N/A | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.696 | 0.911 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.753 | 0.911 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.989 | 0.911 | Data Appear Lognormal | | | | | |
| Lilliefors (Detects Only) | N/A | N/A | | | | | | |
| Lilliefors (NDs = DL) | 0.334 | 0.184 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL/2) | 0.317 | 0.184 | Data Not Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.0766 | 0.184 | Data Appear Lognormal | | | | | |
| | | | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | | | |
| | | | | | | | | |
| **Lead (mw-63)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |
| Raw Statistics | 32 | 10 | 22 | 1 | 21 | 95.45% | | |
| | | | | | | | | |
| **Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!** | | | | | | | | |
| **It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).** | | | | | | | | |
| | | | | | | | | |
| **The data set for variable Lead (mw-63) was not processed!** | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| **Lead (mw-64)** | | | | | | | | |
| | | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 1 | 21 | 95.45% | |

**Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!**
**It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).**

**The data set for variable Lead (mw-64) was not processed!**

**Lead (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 0 | 22 | 100.00% |

**Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!**
**Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!**
**The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).**

**The data set for variable Lead (mw-65) was not processed!**

**Lithium (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 33 | 9 | 24 | 9 | 15 | 62.50% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 15 | 0.2 | 0.2 | 0.2 | 0.2 | 2.873E-17 |
| Statistics (Non-Detects Only) | 9 | 0.11 | 0.15 | 0.132 | 0.13 | 0.012 |
| Statistics (All: NDs treated as DL value) | 24 | 0.11 | 0.2 | 0.175 | 0.2 | 0.0343 |
| Statistics (All: NDs treated as DL/2 value) | 24 | 0.1 | 0.15 | 0.112 | 0.1 | 0.0174 |
| Statistics (Normal ROS Imputed Data) | 24 | 0.11 | 0.154 | 0.132 | 0.131 | 0.0119 |
| Statistics (Gamma ROS Imputed Data) | 24 | 0.11 | 0.154 | 0.132 | 0.131 | 0.0119 |
| Statistics (Lognormal ROS Imputed Data) | 24 | 0.11 | 0.156 | 0.132 | 0.131 | 0.0121 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 131.7 | 87.86 | 0.001 | -2.027 | 0.0933 | -0.0461 |
| Statistics (NDs = DL) | 24.32 | 21.31 | 0.00718 | -1.766 | 0.214 | -0.121 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (NDs = DL/2) | 46.65 | 40.85 | 0.0024 | -2.199 | 0.147 | -0.0668 | | |
| Statistics (Gamma ROS Estimates) | 127.7 | 111.8 | 0.00104 | -2.027 | 0.0908 | -0.0448 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -2.027 | 0.092 | -0.0454 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.965 | 0.843 | 0.845 | 0.992 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.94 | 0.829 | Data Appear Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.696 | 0.916 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.702 | 0.916 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.976 | 0.916 | Data Appear Normal | | | | | |
| Lilliefors (Detects Only) | 0.204 | 0.274 | Data Appear Normal | | | | | |
| Lilliefors (NDs = DL) | 0.396 | 0.177 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.381 | 0.177 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.0938 | 0.177 | Data Appear Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | 0.961 | 0.809 | 0.866 | 0.992 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | 0.401 | 0.72 | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.212 | 0.279 | Detected Data Appear Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL) | 3.553 | 0.742 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.399 | 0.178 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 3.489 | 0.742 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.388 | 0.177 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 0.207 | 0.742 | | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.098 | 0.177 | Data Appear Gamma Distributed | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | | |
| Correlation Coefficient R | 0.958 | 0.849 | 0.844 | 0.993 | | | | |

# Appendix B
# Goodness of Fit Statistics

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.928 | 0.829 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.709 | 0.916 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.7 | 0.916 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.978 | 0.916 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.222 | 0.274 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.393 | 0.177 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.384 | 0.177 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.0933 | 0.177 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Lithium (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 8 | 24 | 9 | 15 | 62.50% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 15 | 0.2 | 0.2 | 0.2 | 0.2 | 2.873E-17 |
| Statistics (Non-Detects Only) | 9 | 0.045 | 0.085 | 0.0604 | 0.058 | 0.0111 |
| Statistics (All: NDs treated as DL value) | 24 | 0.045 | 0.2 | 0.148 | 0.2 | 0.0693 |
| Statistics (All: NDs treated as DL/2 value) | 24 | 0.045 | 0.1 | 0.0852 | 0.1 | 0.0206 |
| Statistics (Normal ROS Imputed Data) | 24 | 0.0411 | 0.085 | 0.0604 | 0.0595 | 0.0108 |
| Statistics (Gamma ROS Imputed Data) | 24 | 0.0421 | 0.085 | 0.0605 | 0.059 | 0.0109 |
| Statistics (Lognormal ROS Imputed Data) | 24 | 0.0436 | 0.085 | 0.0605 | 0.0588 | 0.0106 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 35.97 | 24.06 | 0.00168 | -2.82 | 0.175 | -0.0619 |
| Statistics (NDs = DL) | 3.478 | 3.071 | 0.0425 | -2.063 | 0.607 | -0.294 |
| Statistics (NDs = DL/2) | 15.1 | 13.24 | 0.00564 | -2.497 | 0.276 | -0.11 |
| Statistics (Gamma ROS Estimates) | 33.13 | 29.01 | 0.00183 | -2.82 | 0.178 | -0.063 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -2.82 | 0.172 | -0.0611 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.939 | 0.82 | 0.842 | 0.992 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|

# Appendix B
# Goodness of Fit Statistics

| | | | | |
|---|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.906 | 0.829 | Data Appear Normal | |
| Shapiro-Wilk (NDs = DL) | 0.653 | 0.916 | Data Not Normal | |
| Shapiro-Wilk (NDs = DL/2) | 0.695 | 0.916 | Data Not Normal | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.984 | 0.916 | Data Appear Normal | |
| Lilliefors (Detects Only) | 0.197 | 0.274 | Data Appear Normal | |
| Lilliefors (NDs = DL) | 0.4 | 0.177 | Data Not Normal | |
| Lilliefors (NDs = DL/2) | 0.389 | 0.177 | Data Not Normal | |
| Lilliefors (Normal ROS Estimates) | 0.0752 | 0.177 | Data Appear Normal | |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.956 | 0.734 | 0.796 | 0.995 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.324 | 0.721 | |
| Kolmogorov-Smirnov (Detects Only) | 0.166 | 0.279 | Detected Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL) | 3.99 | 0.75 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.405 | 0.179 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 3.535 | 0.743 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.391 | 0.178 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 0.116 | 0.742 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.071 | 0.177 | Data Appear Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.964 | 0.835 | 0.846 | 0.995 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.952 | 0.829 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.68 | 0.916 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.706 | 0.916 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.985 | 0.916 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.169 | 0.274 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.398 | 0.177 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.384 | 0.177 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.0688 | 0.177 | Data Appear Lognormal |

# Appendix B
# Goodness of Fit Statistics

Note: Substitution methods such as DL or DL/2 are not recommended.

**Lithium (mw-64)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 8 | 24 | 8 | 16 | 66.67% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 16 | 0.05 | 0.2 | 0.191 | 0.2 | 0.0375 |
| Statistics (Non-Detects Only) | 8 | 0.019 | 0.045 | 0.0245 | 0.0215 | 0.00868 |
| Statistics (All: NDs treated as DL value) | 24 | 0.019 | 0.2 | 0.135 | 0.2 | 0.0857 |
| Statistics (All: NDs treated as DL/2 value) | 24 | 0.019 | 0.1 | 0.0717 | 0.1 | 0.0376 |
| Statistics (Normal ROS Imputed Data) | 24 | 0.0113 | 0.045 | 0.0245 | 0.0231 | 0.00755 |
| Statistics (Gamma ROS Imputed Data) | 24 | 0.0122 | 0.045 | 0.0246 | 0.0228 | 0.00777 |
| Statistics (Lognormal ROS Imputed Data) | 24 | 0.0147 | 0.045 | 0.0243 | 0.0227 | 0.00694 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 12.24 | 7.734 | 0.002 | -3.75 | 0.287 | -0.0764 |
| Statistics (NDs = DL) | 1.459 | 1.305 | 0.0927 | -2.381 | 1.04 | -0.437 |
| Statistics (NDs = DL/2) | 2.56 | 2.268 | 0.028 | -2.843 | 0.73 | -0.257 |
| Statistics (Gamma ROS Estimates) | 11.31 | 9.924 | 0.00217 | -3.752 | 0.304 | -0.0809 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -3.75 | 0.26 | -0.0693 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.807 | 0.814 | 0.819 | 0.972 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.673 | 0.818 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.642 | 0.916 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.65 | 0.916 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.953 | 0.916 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.319 | 0.283 | Data Not Normal |
| Lilliefors (NDs = DL) | 0.4 | 0.177 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.399 | 0.177 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.125 | 0.177 | Data Appear Normal |

**Gamma GOF Test Results**

# Appendix B
# Goodness of Fit Statistics

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.869 | 0.67 | 0.715 | 0.988 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.96 | 0.715 | |
| Kolmogorov-Smirnov (Detects Only) | 0.299 | 0.294 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 4.008 | 0.762 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.406 | 0.181 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 3.991 | 0.753 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.404 | 0.18 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 0.267 | 0.744 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.115 | 0.178 | Data Appear Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.862 | 0.831 | 0.83 | 0.983 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.757 | 0.818 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.672 | 0.916 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.67 | 0.916 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.97 | 0.916 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.28 | 0.283 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.396 | 0.177 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.395 | 0.177 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.125 | 0.177 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

**Lithium (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 8 | 24 | 8 | 16 | 66.67% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 16 | 0.05 | 0.2 | 0.191 | 0.2 | 0.0375 |
| Statistics (Non-Detects Only) | 8 | 0.045 | 0.081 | 0.0584 | 0.0535 | 0.0125 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Statistics (All: NDs treated as DL value) | 24 | 0.045 | 0.2 | 0.147 | 0.2 | 0.0709 |
| Statistics (All: NDs treated as DL/2 value) | 24 | 0.025 | 0.1 | 0.083 | 0.1 | 0.0244 |
| Statistics (Normal ROS Imputed Data) | 24 | 0.034 | 0.081 | 0.0563 | 0.054 | 0.0126 |
| Statistics (Gamma ROS Imputed Data) | 24 | 0.0354 | 0.081 | 0.0564 | 0.0537 | 0.0127 |
| Statistics (Lognormal ROS Imputed Data) | 24 | 0.0383 | 0.081 | 0.0565 | 0.0537 | 0.012 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 26.95 | 16.93 | 0.00217 | -2.86 | 0.203 | -0.0709 |
| Statistics (NDs = DL) | 3.216 | 2.842 | 0.0456 | -2.084 | 0.636 | -0.305 |
| Statistics (NDs = DL/2) | 8.923 | 7.835 | 0.0093 | -2.546 | 0.377 | -0.148 |
| Statistics (Gamma ROS Estimates) | 20.8 | 18.22 | 0.00271 | -2.9 | 0.225 | -0.0777 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -2.894 | 0.208 | -0.0719 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.938 | 0.819 | 0.849 | 0.992 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.876 | 0.818 | Data Appear Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.652 | 0.916 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.713 | 0.916 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.975 | 0.916 | Data Appear Normal | | | |
| Lilliefors (Detects Only) | 0.261 | 0.283 | Data Appear Normal | | | |
| Lilliefors (NDs = DL) | 0.4 | 0.177 | Data Not Normal | | | |
| Lilliefors (NDs = DL/2) | 0.382 | 0.177 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.112 | 0.177 | Data Appear Normal | | | |
| | | | | | | |
| **Gamma GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
| Correlation Coefficient R | 0.958 | 0.73 | 0.78 | 0.991 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | 0.474 | 0.716 | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.256 | 0.294 | Detected Data Appear Gamma Distributed | | | |
| Anderson-Darling (NDs = DL) | 3.972 | 0.751 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.404 | 0.179 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 3.198 | 0.745 | | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Kolmogorov-Smirnov (NDs = DL/2) | 0.378 | 0.178 | Data Not Gamma Distributed | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 0.174 | 0.742 | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.0897 | 0.178 | Data Appear Gamma Distributed | | | | |
| | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | |
| | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | |
| Correlation Coefficient R | 0.956 | 0.833 | 0.835 | 0.992 | | | |
| | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | |
| Shapiro-Wilk (Detects Only) | 0.909 | 0.818 | Data Appear Lognormal | | | | |
| Shapiro-Wilk (NDs = DL) | 0.675 | 0.916 | Data Not Lognormal | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.7 | 0.916 | Data Not Lognormal | | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.973 | 0.916 | Data Appear Lognormal | | | | |
| Lilliefors (Detects Only) | 0.24 | 0.283 | Data Appear Lognormal | | | | |
| Lilliefors (NDs = DL) | 0.397 | 0.177 | Data Not Lognormal | | | | |
| Lilliefors (NDs = DL/2) | 0.366 | 0.177 | Data Not Lognormal | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.0884 | 0.177 | Data Appear Lognormal | | | | |
| | | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | | |
| | | | | | | | |
| **Mercury (mw-62)** | | | | | | | |
| | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | |
| Raw Statistics | 33 | 11 | 22 | 3 | 19 | 86.36% | |
| | | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD | |
| Statistics (Non-Detects Only) | 19 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 2.0000E-4 | 5.570E-20 | |
| Statistics (Non-Detects Only) | 3 | 2.5000E-4 | 4.4000E-4 | 3.5333E-4 | 3.7000E-4 | 9.6090E-5 | |
| Statistics (All: NDs treated as DL value) | 22 | 2.0000E-4 | 4.4000E-4 | 2.2091E-4 | 2.0000E-4 | 6.1482E-5 | |
| Statistics (All: NDs treated as DL/2 value) | 22 | 1.0000E-4 | 4.4000E-4 | 1.3455E-4 | 1.0000E-4 | 9.3794E-5 | |
| Statistics (Normal ROS Imputed Data) | 22 | -7.215E-4 | 4.4000E-4 | -1.498E-4 | -1.558E-4 | 3.0697E-4 | |
| Statistics (Gamma ROS Imputed Data) | 22 | 2.5000E-4 | 0.01 | 0.00868 | 0.01 | 0.00339 | |
| Statistics (Lognormal ROS Imputed Data) | 22 | 1.4441E-5 | 4.4000E-4 | 1.1484E-4 | 7.6712E-5 | 1.1160E-4 | |
| | | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV | |
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A | |
| Statistics (NDs = DL) | 19.78 | 17.11 | 1.1167E-5 | -8.443 | 0.21 | -0.0249 | |
| Statistics (NDs = DL/2) | 4.057 | 3.534 | 3.3161E-5 | -9.042 | 0.443 | -0.049 | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (Gamma ROS Estimates) | 1.718 | 1.514 | 0.00506 | -5.065 | 1.187 | -0.234 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -9.459 | 0.906 | -0.0957 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.989 | 0.613 | 0.641 | 0.998 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.977 | 0.767 | Data Appear Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.393 | 0.911 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.424 | 0.911 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.991 | 0.911 | Data Appear Normal | | | | | |
| Lilliefors (Detects Only) | 0.236 | 0.425 | Data Appear Normal | | | | | |
| Lilliefors (NDs = DL) | 0.497 | 0.184 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.507 | 0.184 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.0457 | 0.184 | Data Appear Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | N/A | 0.677 | 0.765 | 0.438 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | N/A | N/A | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | | | | | | |
| Anderson-Darling (NDs = DL) | 6.367 | 0.74 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.504 | 0.185 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 6.409 | 0.747 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.519 | 0.186 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 6.901 | 0.758 | | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.535 | 0.188 | Data Not Gamma Distributed | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | | |
| Correlation Coefficient R | 0.976 | 0.624 | 0.647 | 0.998 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.952 | 0.767 | Data Appear Lognormal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.405 | 0.911 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.428 | 0.911 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.991 | 0.911 | Data Appear Lognormal | | | | | |
| Lilliefors (Detects Only) | 0.266 | 0.425 | Data Appear Lognormal | | | | | |
| Lilliefors (NDs = DL) | 0.501 | 0.184 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL/2) | 0.512 | 0.184 | Data Not Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.0481 | 0.184 | Data Appear Lognormal | | | | | |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Mercury (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 0 | 22 | 100.00% |

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Mercury (mw-63) was not processed!

**Mercury (mw-64)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 0 | 22 | 100.00% |

Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!
Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!
The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Mercury (mw-64) was not processed!

**Mercury (mw-65)**

# Appendix B
# Goodness of Fit Statistics

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 0 | 22 | 100.00% |

**Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!**
**Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!**
**The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).**

**The data set for variable Mercury (mw-65) was not processed!**

**Molybdenum (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 33 | 11 | 22 | 21 | 1 | 4.55% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 1 | 0.002 | 0.002 | 0.002 | 0.002 | N/A |
| Statistics (Non-Detects Only) | 21 | 0.0012 | 0.012 | 0.0034 | 0.003 | 0.00208 |
| Statistics (All: NDs treated as DL value) | 22 | 0.0012 | 0.012 | 0.00334 | 0.00295 | 0.00205 |
| Statistics (All: NDs treated as DL/2 value) | 22 | 0.001 | 0.012 | 0.0033 | 0.00295 | 0.00209 |
| Statistics (Normal ROS Imputed Data) | 22 | 5.0401E-4 | 0.012 | 0.00327 | 0.00295 | 0.00212 |
| Statistics (Gamma ROS Imputed Data) | 22 | 0.0012 | 0.012 | 0.0037 | 0.003 | 0.00247 |
| Statistics (Lognormal ROS Imputed Data) | 22 | 0.0012 | 0.012 | 0.00332 | 0.00295 | 0.00207 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 5.362 | 4.628 | 6.3501E-4 | -5.779 | 0.403 | -0.0697 |
| Statistics (NDs = DL) | 5.314 | 4.62 | 6.2864E-4 | -5.799 | 0.404 | -0.0696 |
| Statistics (NDs = DL/2) | 4.514 | 3.929 | 7.3002E-4 | -5.83 | 0.461 | -0.079 |
| Statistics (Gamma ROS Estimates) | 4.091 | 3.563 | 9.0563E-4 | -5.725 | 0.466 | -0.0814 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -5.811 | 0.42 | -0.0724 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.69 | 0.698 | 0.721 | 0.733 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.509 | 0.908 | Data Not Normal |

# Appendix B
# Goodness of Fit Statistics

| | | | | |
|---|---|---|---|---|
| Shapiro-Wilk (NDs = DL) | 0.521 | 0.911 | Data Not Normal | |
| Shapiro-Wilk (NDs = DL/2) | 0.553 | 0.911 | Data Not Normal | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.573 | 0.911 | Data Not Normal | |
| Lilliefors (Detects Only) | 0.32 | 0.188 | Data Not Normal | |
| Lilliefors (NDs = DL) | 0.313 | 0.184 | Data Not Normal | |
| Lilliefors (NDs = DL/2) | 0.306 | 0.184 | Data Not Normal | |
| Lilliefors (Normal ROS Estimates) | 0.302 | 0.184 | Data Not Normal | |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.775 | 0.781 | 0.8 | 0.843 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 2.352 | 0.745 | |
| Kolmogorov-Smirnov (Detects Only) | 0.261 | 0.19 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 2.169 | 0.746 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.254 | 0.186 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 2.065 | 0.747 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.235 | 0.186 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 2.652 | 0.747 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.276 | 0.186 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.853 | 0.872 | 0.881 | 0.883 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.766 | 0.908 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.797 | 0.911 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.807 | 0.911 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.812 | 0.911 | Data Not Lognormal |
| Lilliefors (Detects Only) | 0.228 | 0.188 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.22 | 0.184 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.227 | 0.184 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.21 | 0.184 | Data Not Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| **Molybdenum (mw-63)** | |
| **Raw Statistics** | |
| Number of Valid Observations | 22 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 15 |
| Minimum | 0.0019 |
| Maximum | 0.017 |
| Mean of Raw Data | 0.00346 |
| Standard Deviation of Raw Data | 0.00313 |
| Khat | 3.383 |
| Theta hat | 0.00102 |
| Kstar | 2.952 |
| Theta star | 0.00117 |
| Mean of Log Transformed Data | -5.822 |
| Standard Deviation of Log Transformed Data | 0.458 |
| **Normal GOF Test Results** | |
| Correlation Coefficient R | 0.619 |
| Shapiro Wilk Test Statistic | 0.412 |
| Shapiro Wilk Critical (0.05) Value | 0.911 |
| Approximate Shapiro Wilk P Value | 1.1761E-9 |
| Lilliefors Test Statistic | 0.391 |
| Lilliefors Critical (0.05) Value | 0.184 |
| **Data not Normal at (0.05) Significance Level** | |
| **Gamma GOF Test Results** | |
| Correlation Coefficient R | 0.746 |
| A-D Test Statistic | 3.143 |
| A-D Critical (0.05) Value | 0.748 |
| K-S Test Statistic | 0.308 |
| K-S Critical(0.05) Value | 0.186 |
| **Data not Gamma Distributed at (0.05) Significance Level** | |
| **Lognormal GOF Test Results** | |

# Appendix B
## Goodness of Fit Statistics

| | |
|---|---|
| Correlation Coefficient R | 0.809 |
| Shapiro Wilk Test Statistic | 0.678 |
| Shapiro Wilk Critical (0.05) Value | 0.911 |
| Approximate Shapiro Wilk P Value | 3.0051E-6 |
| Lilliefors Test Statistic | 0.244 |
| Lilliefors Critical (0.05) Value | 0.184 |
| Data not Lognormal at (0.05) Significance Level | |
| | |
| Non-parametric GOF Test Results | |
| | |
| Data do not follow a discernible distribution at (0.05) Level of Significance | |
| | |
| **Molybdenum (mw-64)** | |
| | |
| **Raw Statistics** | |
| Number of Valid Observations | 22 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 13 |
| Minimum | 0.0036 |
| Maximum | 0.0073 |
| Mean of Raw Data | 0.00492 |
| Standard Deviation of Raw Data | 6.8635E-4 |
| Khat | 59.43 |
| Theta hat | 8.2760E-5 |
| Kstar | 51.35 |
| Theta star | 9.5771E-5 |
| Mean of Log Transformed Data | -5.323 |
| Standard Deviation of Log Transformed Data | 0.13 |
| | |
| **Normal GOF Test Results** | |
| | |
| Correlation Coefficient R | 0.891 |
| Shapiro Wilk Test Statistic | 0.824 |
| Shapiro Wilk Critical (0.05) Value | 0.911 |
| Approximate Shapiro Wilk P Value | 8.2281E-4 |
| Lilliefors Test Statistic | 0.25 |
| Lilliefors Critical (0.05) Value | 0.184 |
| Data not Normal at (0.05) Significance Level | |
| | |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| **Gamma GOF Test Results** | |
| Correlation Coefficient R | 0.906 |
| A-D Test Statistic | 0.933 |
| A-D Critical (0.05) Value | 0.742 |
| K-S Test Statistic | 0.226 |
| K-S Critical(0.05) Value | 0.185 |
| Data not Gamma Distributed at (0.05) Significance Level | |
| **Lognormal GOF Test Results** | |
| Correlation Coefficient R | 0.925 |
| Shapiro Wilk Test Statistic | 0.885 |
| Shapiro Wilk Critical (0.05) Value | 0.911 |
| Approximate Shapiro Wilk P Value | 0.0134 |
| Lilliefors Test Statistic | 0.221 |
| Lilliefors Critical (0.05) Value | 0.184 |
| Data not Lognormal at (0.05) Significance Level | |
| Non-parametric GOF Test Results | |
| Data do not follow a discernible distribution at (0.05) Level of Significance | |
| **Molybdenum (mw-65)** | |
| **Raw Statistics** | |
| Number of Valid Observations | 22 |
| Number of Missing Observations | 10 |
| Number of Distinct Observations | 17 |
| Minimum | 0.0066 |
| Maximum | 0.013 |
| Mean of Raw Data | 0.00849 |
| Standard Deviation of Raw Data | 0.00138 |
| Khat | 44.85 |
| Theta hat | 1.8932E-4 |
| Kstar | 38.76 |
| Theta star | 2.1904E-4 |
| Mean of Log Transformed Data | -4.78 |
| Standard Deviation of Log Transformed Data | 0.149 |

# Appendix B
# Goodness of Fit Statistics

| | |
|---|---|
| **Normal GOF Test Results** | |
| Correlation Coefficient R | 0.925 |
| Shapiro Wilk Test Statistic | 0.872 |
| Shapiro Wilk Critical (0.05) Value | 0.911 |
| Approximate Shapiro Wilk P Value | 0.00712 |
| Lilliefors Test Statistic | 0.163 |
| Lilliefors Critical (0.05) Value | 0.184 |
| Data appear Approximate Normal at (0.05) Significance Level | |
| **Gamma GOF Test Results** | |
| Correlation Coefficient R | 0.944 |
| A-D Test Statistic | 0.47 |
| A-D Critical (0.05) Value | 0.742 |
| K-S Test Statistic | 0.145 |
| K-S Critical(0.05) Value | 0.185 |
| Data appear Gamma Distributed at (0.05) Significance Level | |
| **Lognormal GOF Test Results** | |
| Correlation Coefficient R | 0.961 |
| Shapiro Wilk Test Statistic | 0.935 |
| Shapiro Wilk Critical (0.05) Value | 0.911 |
| Approximate Shapiro Wilk P Value | 0.159 |
| Lilliefors Test Statistic | 0.135 |
| Lilliefors Critical (0.05) Value | 0.184 |
| Data appear Lognormal at (0.05) Significance Level | |

**Total Radium (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 33 | 9 | 24 | 14 | 10 | 41.67% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 10 | 0.6 | 0.8 | 0.67 | 0.65 | 0.0823 |
| Statistics (Non-Detects Only) | 14 | 0.6 | 1.9 | 1.143 | 1.05 | 0.372 |
| Statistics (All: NDs treated as DL value) | 24 | 0.6 | 1.9 | 0.946 | 0.85 | 0.371 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Statistics (All: NDs treated as DL/2 value) | 24 | 0.3 | 1.9 | 0.806 | 0.8 | 0.494 |
| Statistics (Normal ROS Imputed Data) | 24 | -0.235 | 1.9 | 0.75 | 0.8 | 0.571 |
| Statistics (Gamma ROS Imputed Data) | 24 | 0.0459 | 1.9 | 0.807 | 0.8 | 0.504 |
| Statistics (Lognormal ROS Imputed Data) | 24 | 0.329 | 1.9 | 0.871 | 0.8 | 0.436 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 10.42 | 8.231 | 0.11 | 0.085 | 0.325 | 3.827 |
| Statistics (NDs = DL) | 7.914 | 6.953 | 0.12 | -0.12 | 0.356 | -2.969 |
| Statistics (NDs = DL/2) | 2.737 | 2.423 | 0.295 | -0.409 | 0.649 | -1.589 |
| Statistics (Gamma ROS Estimates) | 2.039 | 1.812 | 0.396 | -0.479 | 0.862 | -1.8 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -0.256 | 0.496 | -1.937 |
| | | | | | | |
| **Normal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | |
| Correlation Coefficient R | 0.974 | 0.927 | 0.947 | 0.992 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.946 | 0.874 | Data Appear Normal | | | |
| Shapiro-Wilk (NDs = DL) | 0.852 | 0.916 | Data Not Normal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.883 | 0.916 | Data Not Normal | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.976 | 0.916 | Data Appear Normal | | | |
| Lilliefors (Detects Only) | 0.189 | 0.226 | Data Appear Normal | | | |
| Lilliefors (NDs = DL) | 0.175 | 0.177 | Data Appear Normal | | | |
| Lilliefors (NDs = DL/2) | 0.211 | 0.177 | Data Not Normal | | | |
| Lilliefors (Normal ROS Estimates) | 0.104 | 0.177 | Data Appear Normal | | | |
| | | | | | | |
| **Gamma GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | |
| Correlation Coefficient R | 0.987 | 0.968 | 0.973 | 0.977 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | 0.273 | 0.735 | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.151 | 0.229 | Detected Data Appear Gamma Distributed | | | |
| Anderson-Darling (NDs = DL) | 0.882 | 0.745 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.17 | 0.178 | Detected Data appear Approximate Gamma Distribution | | | |
| Anderson-Darling (NDs = DL/2) | 1.021 | 0.752 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.212 | 0.179 | Data Not Gamma Distributed | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Anderson-Darling (Gamma ROS Estimates) | 0.265 | 0.755 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.152 | 0.18 | Data Appear Gamma Distributed | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 0.987 | 0.958 | 0.949 | 0.987 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.971 | 0.874 | Data Appear Lognormal | | | |
| Shapiro-Wilk (NDs = DL) | 0.904 | 0.916 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.88 | 0.916 | Data Not Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.963 | 0.916 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | 0.136 | 0.226 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL) | 0.163 | 0.177 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.199 | 0.177 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.143 | 0.177 | Data Appear Lognormal | | | |
| | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | |
| | | | | | | |
| **Total Radium (mw-63)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 32 | 8 | 24 | 13 | 11 | 45.83% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 11 | 0.6 | 0.8 | 0.682 | 0.7 | 0.0751 |
| Statistics (Non-Detects Only) | 13 | 0.4 | 2.1 | 0.992 | 0.8 | 0.514 |
| Statistics (All: NDs treated as DL value) | 24 | 0.4 | 2.1 | 0.85 | 0.7 | 0.406 |
| Statistics (All: NDs treated as DL/2 value) | 24 | 0.3 | 2.1 | 0.694 | 0.45 | 0.498 |
| Statistics (Normal ROS Imputed Data) | 24 | -0.162 | 2.1 | 0.652 | 0.575 | 0.557 |
| Statistics (Gamma ROS Imputed Data) | 24 | 0.01 | 2.1 | 0.668 | 0.533 | 0.532 |
| Statistics (Lognormal ROS Imputed Data) | 24 | 0.271 | 2.1 | 0.733 | 0.578 | 0.475 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 4.571 | 3.567 | 0.217 | -0.121 | 0.489 | -4.035 |
| Statistics (NDs = DL) | 6.328 | 5.565 | 0.134 | -0.244 | 0.385 | -1.581 |
| Statistics (NDs = DL/2) | 2.711 | 2.4 | 0.256 | -0.561 | 0.607 | -1.082 |
| Statistics (Gamma ROS Estimates) | 1.196 | 1.074 | 0.558 | -0.877 | 1.314 | -1.497 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -0.47 | 0.554 | -1.177 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.94 | 0.851 | 0.882 | 0.961 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.882 | 0.866 | Data Appear Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.735 | 0.916 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.776 | 0.916 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.925 | 0.916 | Data Appear Normal | | | | | |
| Lilliefors (Detects Only) | 0.261 | 0.234 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL) | 0.341 | 0.177 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.222 | 0.177 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.187 | 0.177 | Data Not Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | 0.981 | 0.918 | 0.968 | 0.99 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | 0.39 | 0.736 | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.228 | 0.238 | Detected Data Appear Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL) | 1.801 | 0.746 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.298 | 0.178 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 1.273 | 0.752 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.232 | 0.179 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 0.53 | 0.768 | | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.13 | 0.182 | Data Appear Gamma Distributed | | | | | |
| | | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | | |
| Correlation Coefficient R | 0.985 | 0.93 | 0.946 | 0.98 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.964 | 0.866 | Data Appear Lognormal | | | | | |

# Appendix B
## Goodness of Fit Statistics

| | | | |
|---|---|---|---|
| Shapiro-Wilk (NDs = DL) | 0.872 | 0.916 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.882 | 0.916 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.953 | 0.916 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.198 | 0.234 | Data Appear Lognormal |
| Lilliefors (NDs = DL) | 0.27 | 0.177 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.22 | 0.177 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.119 | 0.177 | Data Appear Lognormal |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Total Radium (mw-64)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 8 | 24 | 7 | 17 | 70.83% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 17 | 0.5 | 0.8 | 0.659 | 0.6 | 0.087 |
| Statistics (Non-Detects Only) | 7 | 0.731 | 1.7 | 1.076 | 0.8 | 0.434 |
| Statistics (All: NDs treated as DL value) | 24 | 0.5 | 1.7 | 0.78 | 0.7 | 0.303 |
| Statistics (All: NDs treated as DL/2 value) | 24 | 0.25 | 1.7 | 0.547 | 0.35 | 0.413 |
| Statistics (Normal ROS Imputed Data) | 24 | -1.346 | 1.7 | 0.0315 | -0.075 | 0.826 |
| Statistics (Gamma ROS Imputed Data) | 24 | 0.01 | 1.7 | 0.368 | 0.0582 | 0.523 |
| Statistics (Lognormal ROS Imputed Data) | 24 | 0.125 | 1.7 | 0.531 | 0.375 | 0.432 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 8.24 | 4.804 | 0.131 | 0.0112 | 0.367 | 32.77 |
| Statistics (NDs = DL) | 10.12 | 8.884 | 0.0771 | -0.298 | 0.297 | -0.997 |
| Statistics (NDs = DL/2) | 2.844 | 2.516 | 0.192 | -0.789 | 0.568 | -0.72 |
| Statistics (Gamma ROS Estimates) | 0.417 | 0.393 | 0.882 | -2.567 | 2.079 | -0.81 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -0.889 | 0.711 | -0.799 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.862 | 0.786 | 0.812 | 0.985 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.723 | 0.803 | Data Not Normal |
| Shapiro-Wilk (NDs = DL) | 0.629 | 0.916 | Data Not Normal |

# Appendix B
# Goodness of Fit Statistics

| | | | | |
|---|---|---|---|---|
| Shapiro-Wilk (NDs = DL/2) | 0.661 | 0.916 | Data Not Normal | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.963 | 0.916 | Data Appear Normal | |
| Lilliefors (Detects Only) | 0.309 | 0.304 | Data Not Normal | |
| Lilliefors (NDs = DL) | 0.349 | 0.177 | Data Not Normal | |
| Lilliefors (NDs = DL/2) | 0.347 | 0.177 | Data Not Normal | |
| Lilliefors (Normal ROS Estimates) | 0.098 | 0.177 | Data Appear Normal | |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.896 | 0.846 | 0.916 | 0.954 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.948 | 0.709 | |
| Kolmogorov-Smirnov (Detects Only) | 0.327 | 0.312 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL) | 2.375 | 0.744 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.302 | 0.178 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 2.576 | 0.752 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.326 | 0.179 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 1.812 | 0.825 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.285 | 0.19 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.885 | 0.871 | 0.889 | 0.986 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.762 | 0.803 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.768 | 0.916 | Data Not Lognormal |
| Shapiro-Wilk (NDs = DL/2) | 0.784 | 0.916 | Data Not Lognormal |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.964 | 0.916 | Data Appear Lognormal |
| Lilliefors (Detects Only) | 0.31 | 0.304 | Data Not Lognormal |
| Lilliefors (NDs = DL) | 0.275 | 0.177 | Data Not Lognormal |
| Lilliefors (NDs = DL/2) | 0.297 | 0.177 | Data Not Lognormal |
| Lilliefors (Lognormal ROS Estimates) | 0.0982 | 0.177 | Data Appear Lognormal |

**Note: Substitution methods such as DL or DL/2 are not recommended.**

# Appendix B
# Goodness of Fit Statistics

**Total Radium (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 8 | 24 | 6 | 18 | 75.00% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 18 | 0.4 | 0.8 | 0.633 | 0.6 | 0.114 |
| Statistics (Non-Detects Only) | 6 | 0.478 | 1.9 | 0.98 | 0.85 | 0.504 |
| Statistics (All: NDs treated as DL value) | 24 | 0.4 | 1.9 | 0.72 | 0.6 | 0.297 |
| Statistics (All: NDs treated as DL/2 value) | 24 | 0.2 | 1.9 | 0.482 | 0.325 | 0.379 |
| Statistics (Normal ROS Imputed Data) | 24 | -0.992 | 1.9 | 0.133 | 0.136 | 0.663 |
| Statistics (Gamma ROS Imputed Data) | 24 | 0.01 | 1.9 | 0.341 | 0.18 | 0.466 |
| Statistics (Lognormal ROS Imputed Data) | 24 | 0.118 | 1.9 | 0.474 | 0.374 | 0.396 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 5.24 | 2.731 | 0.187 | -0.119 | 0.476 | -4.005 |
| Statistics (NDs = DL) | 9.165 | 8.047 | 0.0786 | -0.384 | 0.315 | -0.82 |
| Statistics (NDs = DL/2) | 3.012 | 2.663 | 0.16 | -0.904 | 0.538 | -0.595 |
| Statistics (Gamma ROS Estimates) | 0.476 | 0.444 | 0.716 | -2.421 | 1.987 | -0.821 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -0.986 | 0.673 | -0.683 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.927 | 0.809 | 0.781 | 0.981 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.873 | 0.788 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.681 | 0.916 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.629 | 0.916 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.967 | 0.916 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.239 | 0.325 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.269 | 0.177 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.336 | 0.177 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.0934 | 0.177 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Correlation Coefficient R | 0.974 | 0.871 | 0.9 | 0.992 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Anderson-Darling (Detects Only) | 0.298 | 0.698 | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.219 | 0.333 | Detected Data Appear Gamma Distributed | | | |
| Anderson-Darling (NDs = DL) | 1.45 | 0.745 | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.207 | 0.178 | Data Not Gamma Distributed | | | |
| Anderson-Darling (NDs = DL/2) | 2.34 | 0.751 | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.297 | 0.179 | Data Not Gamma Distributed | | | |
| Anderson-Darling (Gamma ROS Estimates) | 1.36 | 0.812 | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.269 | 0.189 | Data Not Gamma Distributed | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 0.977 | 0.921 | 0.903 | 0.986 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.963 | 0.788 | Data Appear Lognormal | | | |
| Shapiro-Wilk (NDs = DL) | 0.869 | 0.916 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.823 | 0.916 | Data Not Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.973 | 0.916 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | 0.191 | 0.325 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL) | 0.198 | 0.177 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.259 | 0.177 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.0931 | 0.177 | Data Appear Lognormal | | | |
| | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | |
| | | | | | | |
| **Selenium (mw-62)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 33 | 11 | 22 | 6 | 16 | 72.73% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 16 | 5.0000E-4 | 0.005 | 0.00164 | 9.0000E-4 | 0.00153 |
| Statistics (Non-Detects Only) | 6 | 5.4000E-4 | 0.002 | 9.5667E-4 | 8.5500E-4 | 5.4032E-4 |
| Statistics (All: NDs treated as DL value) | 22 | 5.0000E-4 | 0.005 | 0.00146 | 8.6500E-4 | 0.00136 |
| Statistics (All: NDs treated as DL/2 value) | 22 | 2.5000E-4 | 0.0025 | 8.5864E-4 | 6.6500E-4 | 7.0132E-4 |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (Normal ROS Imputed Data) | 22 | -0.00109 | 0.002 | 1.7616E-4 | 1.1956E-4 | 6.8364E-4 | | |
| Statistics (Gamma ROS Imputed Data) | 22 | 5.4000E-4 | 0.01 | 0.00753 | 0.01 | 0.00413 | | |
| Statistics (Lognormal ROS Imputed Data) | 22 | 1.3163E-4 | 0.002 | 5.1524E-4 | 3.9909E-4 | 4.0231E-4 | | |
| | | | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV | | |
| Statistics (Non-Detects Only) | 4.863 | 2.543 | 1.9673E-4 | -7.058 | 0.48 | -0.068 | | |
| Statistics (NDs = DL) | 1.684 | 1.484 | 8.6493E-4 | -6.857 | 0.785 | -0.115 | | |
| Statistics (NDs = DL/2) | 1.809 | 1.593 | 4.7468E-4 | -7.361 | 0.798 | -0.108 | | |
| Statistics (Gamma ROS Estimates) | 1.44 | 1.274 | 0.00523 | -5.274 | 1.143 | -0.217 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -7.775 | 0.624 | -0.0803 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.87 | 0.848 | 0.902 | 0.98 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.772 | 0.788 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.717 | 0.911 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.805 | 0.911 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.97 | 0.911 | Data Appear Normal | | | | | |
| Lilliefors (Detects Only) | 0.346 | 0.325 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL) | 0.268 | 0.184 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.238 | 0.184 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.102 | 0.184 | Data Appear Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | 0.937 | 0.952 | 0.969 | 0.58 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | 0.497 | 0.698 | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.288 | 0.333 | Detected Data Appear Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL) | 1.546 | 0.758 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.213 | 0.188 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL/2) | 0.884 | 0.757 | | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.185 | 0.188 | Detected Data appear Approximate Gamma Distribution | | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 4.715 | 0.76 | | | | | | |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | |
|---|---|---|---|---|---|---|
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.463 | 0.189 | Data Not Gamma Distributed | | | |
| | | | | | | |
| **Lognormal GOF Test Results** | | | | | | |
| | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | |
| Correlation Coefficient R | 0.936 | 0.926 | 0.953 | 0.988 | | |
| | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | |
| Shapiro-Wilk (Detects Only) | 0.881 | 0.788 | Data Appear Lognormal | | | |
| Shapiro-Wilk (NDs = DL) | 0.843 | 0.911 | Data Not Lognormal | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.889 | 0.911 | Data Not Lognormal | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.982 | 0.911 | Data Appear Lognormal | | | |
| Lilliefors (Detects Only) | 0.26 | 0.325 | Data Appear Lognormal | | | |
| Lilliefors (NDs = DL) | 0.205 | 0.184 | Data Not Lognormal | | | |
| Lilliefors (NDs = DL/2) | 0.197 | 0.184 | Data Not Lognormal | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.102 | 0.184 | Data Appear Lognormal | | | |
| | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | |
| | | | | | | |
| **Selenium (mw-63)** | | | | | | |
| | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
| Raw Statistics | 32 | 10 | 22 | 4 | 18 | 81.82% |
| | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD |
| Statistics (Non-Detects Only) | 18 | 5.0000E-4 | 0.005 | 0.0015 | 5.0000E-4 | 0.0015 |
| Statistics (Non-Detects Only) | 4 | 5.1000E-4 | 0.0013 | 8.1250E-4 | 7.2000E-4 | 3.4131E-4 |
| Statistics (All: NDs treated as DL value) | 22 | 5.0000E-4 | 0.005 | 0.00138 | 5.9500E-4 | 0.00138 |
| Statistics (All: NDs treated as DL/2 value) | 22 | 2.5000E-4 | 0.0025 | 7.6136E-4 | 5.0500E-4 | 6.8530E-4 |
| Statistics (Normal ROS Imputed Data) | 22 | -0.00111 | 0.0013 | -1.517E-5 | -5.505E-5 | 5.6848E-4 |
| Statistics (Gamma ROS Imputed Data) | 22 | 5.1000E-4 | 0.01 | 0.00833 | 0.01 | 0.00363 |
| Statistics (Lognormal ROS Imputed Data) | 22 | 8.5481E-5 | 0.0013 | 3.6677E-4 | 2.8411E-4 | 2.7463E-4 |
| | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
| Statistics (Non-Detects Only) | 8.478 | 2.286 | 9.5831E-5 | -7.176 | 0.391 | -0.0545 |
| Statistics (NDs = DL) | 1.535 | 1.356 | 8.9602E-4 | -6.949 | 0.811 | -0.117 |
| Statistics (NDs = DL/2) | 1.635 | 1.442 | 4.6564E-4 | -7.516 | 0.821 | -0.109 |
| Statistics (Gamma ROS Estimates) | 1.907 | 1.677 | 0.00437 | -5.073 | 1.025 | -0.202 |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -8.121 | 0.65 | -0.08 |

# Appendix B
# Goodness of Fit Statistics

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.935 | 0.827 | 0.871 | 0.994 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.886 | 0.748 | Data Appear Normal |
| Shapiro-Wilk (NDs = DL) | 0.682 | 0.911 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.755 | 0.911 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.991 | 0.911 | Data Appear Normal |
| Lilliefors (Detects Only) | 0.311 | 0.375 | Data Appear Normal |
| Lilliefors (NDs = DL) | 0.263 | 0.184 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.228 | 0.184 | Data Not Normal |
| Lilliefors (Normal ROS Estimates) | 0.0729 | 0.184 | Data Appear Normal |

**Gamma GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.976 | 0.947 | 0.964 | 0.51 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Anderson-Darling (Detects Only) | 0.323 | 0.658 | |
| Kolmogorov-Smirnov (Detects Only) | 0.281 | 0.395 | Detected Data Appear Gamma Distributed |
| Anderson-Darling (NDs = DL) | 2.168 | 0.759 | |
| Kolmogorov-Smirnov (NDs = DL) | 0.279 | 0.188 | Data Not Gamma Distributed |
| Anderson-Darling (NDs = DL/2) | 1.491 | 0.758 | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.276 | 0.188 | Data Not Gamma Distributed |
| Anderson-Darling (Gamma ROS Estimates) | 6.03 | 0.757 | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.51 | 0.188 | Data Not Gamma Distributed |

**Lognormal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Log ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 0.97 | 0.893 | 0.921 | 0.995 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (Detects Only) | 0.953 | 0.748 | Data Appear Lognormal |
| Shapiro-Wilk (NDs = DL) | 0.783 | 0.911 | Data Not Lognormal |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shapiro-Wilk (NDs = DL/2) | 0.831 | 0.911 | Data Not Lognormal | | | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.992 | 0.911 | Data Appear Lognormal | | | | | |
| Lilliefors (Detects Only) | 0.257 | 0.375 | Data Appear Lognormal | | | | | |
| Lilliefors (NDs = DL) | 0.282 | 0.184 | Data Not Lognormal | | | | | |
| Lilliefors (NDs = DL/2) | 0.283 | 0.184 | Data Not Lognormal | | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.0729 | 0.184 | Data Appear Lognormal | | | | | |

Note: Substitution methods such as DL or DL/2 are not recommended.

**Selenium (mw-64)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 1 | 21 | 95.45% |

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Selenium (mw-64) was not processed!

**Selenium (mw-65)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 1 | 21 | 95.45% |

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Selenium (mw-65) was not processed!

**Thallium (mw-62)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 33 | 11 | 22 | 1 | 21 | 95.45% |

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!

# Appendix B
# Goodness of Fit Statistics

It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Thallium (mw-62) was not processed!

**Thallium (mw-63)**

| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs |
|---|---|---|---|---|---|---|
| Raw Statistics | 32 | 10 | 22 | 2 | 20 | 90.91% |

| | Number | Minimum | Maximum | Mean | Median | SD |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 20 | 1.0000E-4 | 0.001 | 3.0500E-4 | 1.0000E-4 | 3.2683E-4 |
| Statistics (Non-Detects Only) | 2 | 1.1000E-4 | 1.5000E-4 | 1.3000E-4 | 1.3000E-4 | 2.8284E-5 |
| Statistics (All: NDs treated as DL value) | 22 | 1.0000E-4 | 0.001 | 2.8909E-4 | 1.0000E-4 | 3.1517E-4 |
| Statistics (All: NDs treated as DL/2 value) | 22 | 5.0000E-5 | 5.0000E-4 | 1.5045E-4 | 5.0000E-5 | 1.5570E-4 |
| Statistics (Normal ROS Imputed Data) | 22 | -2.036E-4 | 1.5000E-4 | -3.479E-5 | -3.578E-5 | 8.5822E-5 |
| Statistics (Gamma ROS Imputed Data) | 22 | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Imputed Data) | 22 | 9.6712E-6 | 1.5000E-4 | 4.4454E-5 | 3.5521E-5 | 3.3123E-5 |

| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV |
|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (NDs = DL) | 1.301 | 1.154 | 2.2217E-4 | -8.58 | 0.878 | -0.102 |
| Statistics (NDs = DL/2) | 1.368 | 1.211 | 1.1001E-4 | -9.21 | 0.873 | -0.0947 |
| Statistics (Gamma ROS Estimates) | N/A | N/A | N/A | N/A | N/A | N/A |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -10.24 | 0.665 | -0.065 |

**Normal GOF Test Results**

| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS |
|---|---|---|---|---|
| Correlation Coefficient R | 1 | 0.805 | 0.827 | 0.992 |

| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) |
|---|---|---|---|
| Shapiro-Wilk (NDs = DL) | 0.641 | 0.911 | Data Not Normal |
| Shapiro-Wilk (NDs = DL/2) | 0.676 | 0.911 | Data Not Normal |
| Shapiro-Wilk (Normal ROS Estimates) | 0.985 | 0.911 | Data Appear Normal |
| Lilliefors (Detects Only) | N/A | N/A | |
| Lilliefors (NDs = DL) | 0.307 | 0.184 | Data Not Normal |
| Lilliefors (NDs = DL/2) | 0.286 | 0.184 | Data Not Normal |

# Appendix B
# Goodness of Fit Statistics

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Lilliefors (Normal ROS Estimates) | 0.105 | 0.184 | Data Appear Normal | | | | |
| | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | |
| | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | |
| Correlation Coefficient R | N/A | 0.924 | 0.934 | 0.368 | | | |
| | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | |
| Anderson-Darling (Detects Only) | N/A | N/A | | | | | |
| Kolmogorov-Smirnov (Detects Only) | N/A | N/A | | | | | |
| Anderson-Darling (NDs = DL) | 2.931 | 0.763 | | | | | |
| Kolmogorov-Smirnov (NDs = DL) | 0.329 | 0.189 | Data Not Gamma Distributed | | | | |
| Anderson-Darling (NDs = DL/2) | 2.344 | 0.762 | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.329 | 0.189 | Data Not Gamma Distributed | | | | |
| Anderson-Darling (Gamma ROS Estimates) | N/A | 0.741 | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | N/A | 0.185 | | | | | |
| | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | |
| | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | |
| Correlation Coefficient R | 1 | 0.857 | 0.883 | N/A | | | |
| | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | |
| Shapiro-Wilk (NDs = DL) | 0.72 | 0.911 | Data Not Lognormal | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.763 | 0.911 | Data Not Lognormal | | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.985 | 0.911 | Data Appear Lognormal | | | | |
| Lilliefors (Detects Only) | N/A | N/A | | | | | |
| Lilliefors (NDs = DL) | 0.32 | 0.184 | Data Not Lognormal | | | | |
| Lilliefors (NDs = DL/2) | 0.332 | 0.184 | Data Not Lognormal | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.105 | 0.184 | Data Appear Lognormal | | | | |
| | | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | | |
| | | | | | | | |
| **Thallium (mw-64)** | | | | | | | |
| | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | |
| Raw Statistics | 32 | 10 | 22 | 11 | 11 | 50.00% | |
| | | | | | | | |
| | Number | Minimum | Maximum | Mean | Median | SD | |

# Appendix B
## Goodness of Fit Statistics

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Statistics (Non-Detects Only) | 11 | 1.0000E-4 | 0.001 | 3.9091E-4 | 4.0000E-4 | 3.3602E-4 | | |
| Statistics (Non-Detects Only) | 11 | 1.1000E-4 | 4.1000E-4 | 1.5545E-4 | 1.2000E-4 | 8.8359E-5 | | |
| Statistics (All: NDs treated as DL value) | 22 | 1.0000E-4 | 0.001 | 2.7318E-4 | 1.3000E-4 | 2.6834E-4 | | |
| Statistics (All: NDs treated as DL/2 value) | 22 | 5.0000E-5 | 5.0000E-4 | 1.7545E-4 | 1.2500E-4 | 1.3258E-4 | | |
| Statistics (Normal ROS Imputed Data) | 22 | -5.782E-5 | 4.1000E-4 | 1.0779E-4 | 1.1000E-4 | 9.1719E-5 | | |
| Statistics (Gamma ROS Imputed Data) | 22 | 1.1000E-4 | 0.01 | 0.00508 | 0.00521 | 0.00504 | | |
| Statistics (Lognormal ROS Imputed Data) | 22 | 5.0905E-5 | 4.1000E-4 | 1.2495E-4 | 1.1112E-4 | 7.1773E-5 | | |
| | | | | | | | | |
| | K hat | K Star | Theta hat | Log Mean | Log Stdv | Log CV | | |
| Statistics (Non-Detects Only) | 5.741 | 4.236 | 2.7079E-5 | -8.859 | 0.393 | -0.0443 | | |
| Statistics (NDs = DL) | 1.68 | 1.482 | 1.6257E-4 | -8.532 | 0.762 | -0.0894 | | |
| Statistics (NDs = DL/2) | 2.327 | 2.04 | 7.5392E-5 | -8.878 | 0.685 | -0.0772 | | |
| Statistics (Gamma ROS Estimates) | 0.446 | 0.416 | 0.0114 | -6.732 | 2.194 | -0.326 | | |
| Statistics (Lognormal ROS Estimates) | -- | -- | -- | -9.088 | 0.427 | -0.047 | | |
| | | | | | | | | |
| **Normal GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Normal ROS | | | | |
| Correlation Coefficient R | 0.731 | 0.817 | 0.882 | 0.912 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Shapiro-Wilk (Detects Only) | 0.56 | 0.85 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL) | 0.669 | 0.911 | Data Not Normal | | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.775 | 0.911 | Data Not Normal | | | | | |
| Shapiro-Wilk (Normal ROS Estimates) | 0.856 | 0.911 | Data Not Normal | | | | | |
| Lilliefors (Detects Only) | 0.343 | 0.251 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL) | 0.289 | 0.184 | Data Not Normal | | | | | |
| Lilliefors (NDs = DL/2) | 0.245 | 0.184 | Data Not Normal | | | | | |
| Lilliefors (Normal ROS Estimates) | 0.184 | 0.184 | Data Not Normal | | | | | |
| | | | | | | | | |
| **Gamma GOF Test Results** | | | | | | | | |
| | | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Gamma ROS | | | | |
| Correlation Coefficient R | 0.828 | 0.937 | 0.954 | 0.628 | | | | |
| | | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | | |
| Anderson-Darling (Detects Only) | 1.683 | 0.731 | | | | | | |
| Kolmogorov-Smirnov (Detects Only) | 0.335 | 0.256 | Data Not Gamma Distributed | | | | | |
| Anderson-Darling (NDs = DL) | 2.026 | 0.758 | | | | | | |

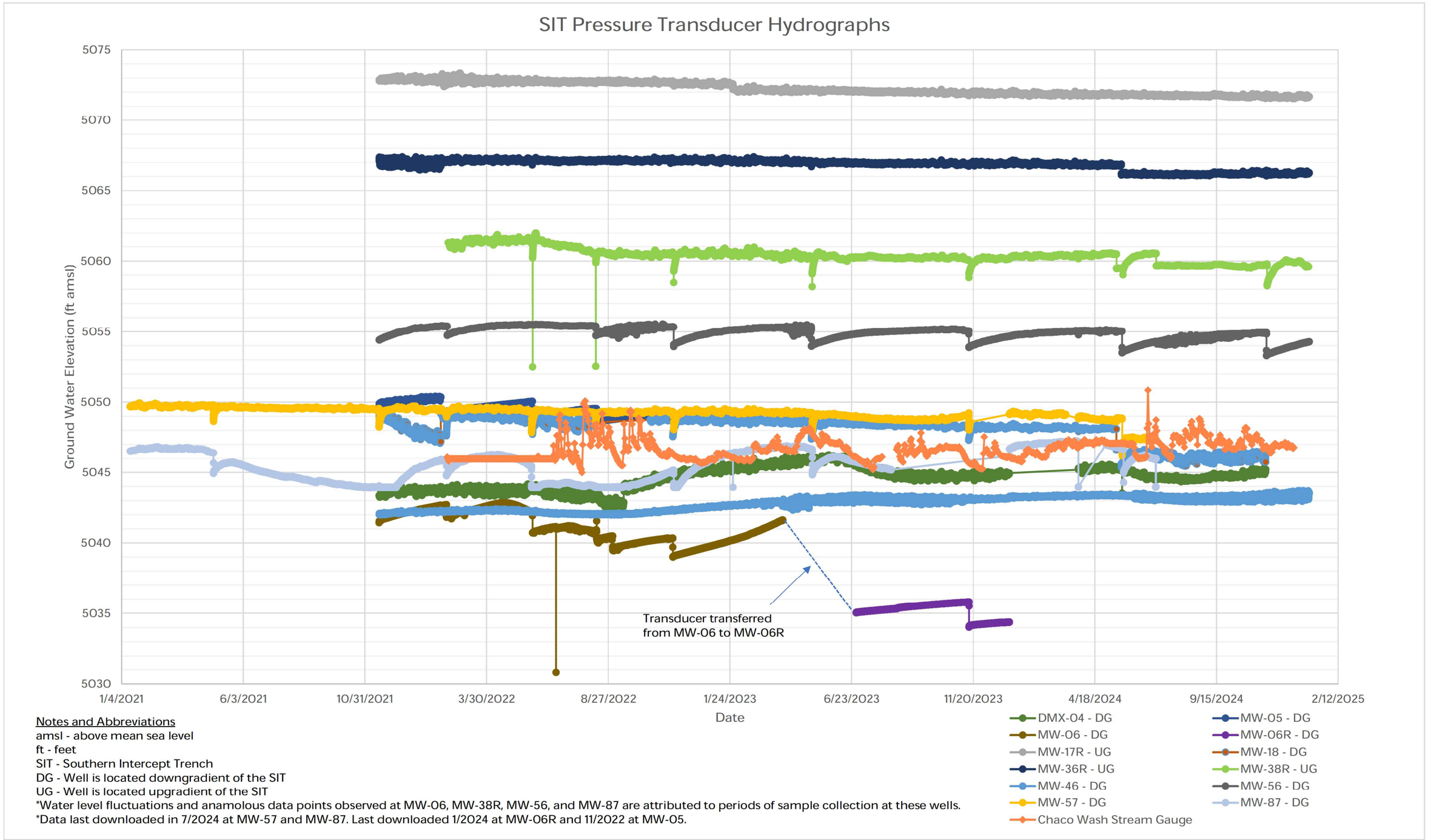
# Appendix B
# Goodness of Fit Statistics

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Kolmogorov-Smirnov (NDs = DL) | 0.266 | 0.188 | Data Not Gamma Distributed | | | | |
| Anderson-Darling (NDs = DL/2) | 0.832 | 0.754 | | | | | |
| Kolmogorov-Smirnov (NDs = DL/2) | 0.174 | 0.187 | Detected Data appear Approximate Gamma Distribution | | | | |
| Anderson-Darling (Gamma ROS Estimates) | 3.469 | 0.816 | | | | | |
| Kolmogorov-Smirnov (Gamma ROS Est.) | 0.339 | 0.197 | Data Not Gamma Distributed | | | | |
| | | | | | | | |
| **Lognormal GOF Test Results** | | | | | | | |
| | | | | | | | |
| | No NDs | NDs = DL | NDs = DL/2 | Log ROS | | | |
| Correlation Coefficient R | 0.812 | 0.907 | 0.966 | 0.943 | | | |
| | | | | | | | |
| | Test value | Crit. (0.05) | Conclusion with Alpha(0.05) | | | | |
| Shapiro-Wilk (Detects Only) | 0.678 | 0.85 | Data Not Lognormal | | | | |
| Shapiro-Wilk (NDs = DL) | 0.811 | 0.911 | Data Not Lognormal | | | | |
| Shapiro-Wilk (NDs = DL/2) | 0.922 | 0.911 | Data Appear Lognormal | | | | |
| Shapiro-Wilk (Lognormal ROS Estimates) | 0.909 | 0.911 | Data Not Lognormal | | | | |
| Lilliefors (Detects Only) | 0.317 | 0.251 | Data Not Lognormal | | | | |
| Lilliefors (NDs = DL) | 0.253 | 0.184 | Data Not Lognormal | | | | |
| Lilliefors (NDs = DL/2) | 0.137 | 0.184 | Data Appear Lognormal | | | | |
| Lilliefors (Lognormal ROS Estimates) | 0.162 | 0.184 | Data Appear Lognormal | | | | |
| | | | | | | | |
| **Note: Substitution methods such as DL or DL/2 are not recommended.** | | | | | | | |
| | | | | | | | |
| **Thallium (mw-65)** | | | | | | | |
| | | | | | | | |
| | Num Obs | Num Miss | Num Valid | Detects | NDs | % NDs | |
| Raw Statistics | 32 | 10 | 22 | 1 | 21 | 95.45% | |
| | | | | | | | |
| **Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!** | | | | | | | |
| **It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).** | | | | | | | |
| | | | | | | | |
| **The data set for variable Thallium (mw-65) was not processed!** | | | | | | | |

# APPENDIX

# L

## HYDROGRAPH FOR WELLS LOCATED DOWNGRADIENT OF THE SIT




Notes and Abbreviations
amsl - above mean sea level
ft - feet
SIT - Southern Intercept Trench
DG - Well is located downgradient of the SIT
UG - Well is located upgradient of the SIT
*Water level fluctuations and anamolous data points observed at MW-06, MW-38R, MW-56, and MW-87 are attributed to periods of sample collection at these wells.
*Data last downloaded in 7/2024 at MW-57 and MW-87. Last downloaded 1/2024 at MW-06R and 11/2022 at MW-05.

# APPENDIX

# M

## SEMI-ANNUAL REPORT DOCUMENTING PROGRESS ON REMEDY SELECTION MULTIUNIT 1 AND THE UPPER RETENTION SUMP

July 15, 2024

Arizona Public Service Company
400 N. 5th Street
Phoenix, Arizona 85004

**Subject: Semiannual Report Documenting Progress In Remedy Selection**
**Multiunit 1 And Upper Retention Sump**
**Four Corners Power Plant - Fruitland, New Mexico**

In accordance with 40 Code of Federal Regulations (CFR) Section (§) 257.97(a) of the Coal Combustion Residuals (CCR) Rule, this Semiannual Remedy Selection Progress Report (Semiannual Report) has been prepared on behalf of Arizona Public Service Company (APS) to document progress in selection of remedies for CCR units which have been identified as potentially impacting groundwater at the APS Four Corners Power Plant, located in Fruitland, New Mexico (the Site). Applicable Site CCR units include Multiunit 1 (comprised of the Lined Ash Impoundment [LAI] and the Lined Decant Water Pond [LDWP]) and the Upper Retention Sump (URS). Semiannual progress reporting to support remedy selection began on July 15, 2019. The most recent update was provided in the *Annual Groundwater Monitoring and Corrective Action Report (GMCAR) for 2023*, dated January 31, 2024. This Semiannual Report serves as the eleventh update on remedy selection progress at the site and documents activities completed to date in 2024.

## SUMMARY OF ACTIVITIES COMPLETED IN 2024

Activities completed by APS in the first half of 2024 in support of remedy selection for Multiunit 1 and the URS include the following:

- *Continued Assessment Monitoring at Multiunit 1 and the URS* – While corrective action evaluation progresses, assessment monitoring (including analysis of collected samples for Appendix III and Appendix IV constituents) has continued on a semi-annual basis at the Multiunit 1 and the URS per 40 CFR §257.95(b) and (d)(1).
- *URS-05, URS-06, URS-07, and URS-08 Well Completion Report* – A report documenting field activities, borehole advancement, and the well installation of two extraction wells and two monitoring wells at the URS that will be incorporated into the remedy was completed and will be included in the 2024 GMCAR.
- *Interim Response Measures at the URS* – Startup of groundwater extraction from CM-01 and CM-02 began in February 2022 and APS continued to operate the seepage extraction system throughout the first half of 2024. The extracted groundwater is discharged into a plant sump for reuse in plant operations. A performance evaluation and annual contaminant mass removal estimates from the seepage collection system will be included in the 2024 GMCAR. Additionally, the performance evaluation is expected to be included in the remedy selection report.

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- *Interim Response Measures at Multiunit 1* – APS operated the Northern and Southern Intercept Trench throughout the first half of 2024 to intercept and collect seepage from Multiunit 1 and closed surface impoundments. The extracted groundwater is reused in plant operations. Annual contaminant mass removal estimates from the seepage collection system will be calculated and included in the 2024 GMCAR.
- *LAI and LDWP Closure Activities* – Cover system design continued during the first half of 2024. A pilot-test field program to evaluate the extent and removal of drainable pore water in the LAI has also been ongoing since mid-2023. Multiple wells have been installed through the ash, above the base of the liner, with testing performed.
- *Remedy Selection Report for the Multiunit 1 and the URS.* Preparation of a remedy selection report continued through the beginning of 2024 to document how the selected remedy will meet the requirements of 40 CFR §257.97(b).

## FUTURE PLANNED ACTIVITIES

APS plans to perform the following activities in support of remedy selection during the second half of 2024 (and in upcoming years, as noted):

- *Continued Operation of the Extraction System at URS*. The extraction well system at URS will continue to serve as part of interim response measures until remedial activities begin. The seepage collection system will also likely be a part of final selected remedy.
- *Continued Operation of the Seepage Collection Systems Downgradient of Multiunit 1*. The seepage intercept system downgradient of Multiunit 1 will continue to serve as part of interim response measures until remedial activities begin. The seepage collection system will also likely be a part of final selected remedy.
- *Preparation of Remedy Selection Report* – APS will select remedies for Multiunit 1 and the URS that meet the requirements of 40 CFR §257.97(b) and document the selection process in a remedy selection report prepared for each unit per 40 CFR §257.97(a).
- *Initiation of Remedial Activities* – Per 40 CFR §257.91(f), remedial activities at Multiunit 1 and the URS will begin within 90 days of selecting a remedy for each unit.

Respectfully submitted,

**WSP USA Environment & Infrastructure Inc.**



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WSP ref.: US0023513.6155