Annual Groundwater Monitoring and Corrective Action Report for 2021

Coal Combustion Residuals Rule Groundwater Monitoring System Compliance

Four Corners Power Plant
Fruitland, New Mexico
Project No. 14-2021-2005

Prepared for:

Arizona Public Service Company
400 North 5th Street, Phoenix, AZ 85004

January 31, 2022

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January 31, 2022

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List of Acronyms and Abbreviations

§	Section
ACM	Assessment of Corrective Measures
AECOM	AECOM Technical Services, Inc.
Annual Report	Annual Groundwater Monitoring and Corrective Action Report
Amec Foster Wheeler	Amec Foster Wheeler, Environment & Infrastructure, Inc.
amsl	above mean sea level
APS	Arizona Public Service
ASD	Alternative Source Demonstration
BTV(s)	background threshold value(s)
CCR	coal combustion residuals
CCR units	CCR landfills and surface impoundments
CFR	Code of Federal Regulations
COC	constituent of concern
CSM	Conceptual Site Model
CWTP	Combined Waste Treatment Pond
DFADA	Dry Fly Ash Disposal Area
FCPP	Four Corners Power Plant
ft	foot, feet
gpd	gallons per day
GWPS(s)	groundwater protection standard(s)
LAI	Lined Ash Impoundment
LDWP	Lined Decant Water Pond
mg/L	milligrams per liter
Multiunit 1	CCR multiunit comprised of the LAI and LDWP
NIT	Northern Intercept Trench
NPDES	National Pollutant Discharge Elimination System
Radiation Safety	Radiation Safety Engineering, Inc.
RWP	Return Water Pond
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)
TestAmerica	Eurofins TestAmerica Laboratories, Inc.
URS	Upper Retention Sump
URT	Upper Retention Tank
USEPA	United States Environmental Protection Agency
Wood	Wood Environment & Infrastructure Solutions, Inc.

GROUNDWATER MONITORING AND CORRECTIVE ACTION PROGRAM OVERVIEW				
Facility Name:	Arizona Public Service Company Four Corners Power Plant		Annual Report Date:	1/31/2022
Location:	Fruitland, New Mexico		Reporting Period:	1/1/2021-12/31/2021
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)	Detection Monitoring	Detection Monitoring	NA	-
Dry Fly Ash Disposal Area (DFADA)	Detection Monitoring	Detection Monitoring	NA	-
Return Water Pond (RWP)	Detection Monitoring	Detection Monitoring	NA	-
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*, pH*	MW-63*, MW-65*	None	None
Dry Fly Ash Disposal Area (DFADA)	None	None	None	None
Return Water Pond (RWP)	None	None	None	None
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	N/A	N/A	N/A
Upper Retention Sump (URS)	2/13/2019; 6/14/2019	N/A	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., CCR Monitoring Wells)
* Removed as constituent of concern based on a successful Alternative Source Demonstration

1.0 Introduction

This Annual Groundwater Monitoring and Corrective Action Report for 2021 (Annual Report) was prepared on behalf of Arizona Public Service Company (APS) by Wood Environment & Infrastructure Solutions, Inc. (Wood) 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 2021 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 2021 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 2022. APS additionally considers this report to meet the semiannual reporting requirements of 40 CFR §257.97(a) for selecting and designing remedies pursuant to the CCR Rule during the last half of 2021.

The remainder of this section (Section 1.0) provides a summary description of the power generating facility, the CCR units present at the facility, and the facility's environmental setting which forms the basis for assessment of underlying groundwater conditions. Section 2.0 presents key groundwater monitoring and corrective action activities performed during the reporting period. Sections 3.0 and 4.0 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 5.0. Section 6.0 presents report references.

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, 2016).

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 four single CCR units and one CCR multiunit (referred to as Multiunit 1) which are located in the main plant area and to the west of the plant within the FCPP lease boundary (also known as the disposal area) (Figure 1-2). Table 1-1 summarizes the location, function, operation, size/construction, and history of each 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 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 this 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 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 FCPP. The typical water surface elevation of the lake is 5,330 ft amsl. Morgan Dam 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 Upper Retention Sump [URS], the Combined Waste Treatment Pond [CWTP], and the Return Water Pond [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., the Lined Ash Impoundment [LAI], Lined Decant Water Pond [LDWP] and the Dry Fly Ash Disposal Area [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. This 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 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 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 beneath the plant area.

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 (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 (i.e., the URS, the CWTP, and the RWP) reside within this area. While the Pictured Cliffs Sandstone is unsaturated beneath the RWP, this hydrostratigraphic unit is the uppermost water bearing unit underlying the URS and CWTP and would become saturated under the RWP if a leak from this unit occurred. 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 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, historical unlined ponds, and Chaco Wash. Groundwater flow 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 and is a regionally extensive confining unit that forms the base of the uppermost aquifers in the plant and disposal areas.

1.2 CCR Groundwater Monitoring System

Multiple monitoring wells are in place at FCPP to monitor groundwater conditions beneath the five Site CCR units and support ongoing assessment of impacts from potential leakage. 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). These reports certify the CCR groundwater monitoring system as compliant with 40 CFR §257.91(a) through (e). 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.

1.2.1 Monitoring System Description

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, exhibit similar groundwater chemistry, illustrate similar statistical merits, and be supported by the CSM. The grouping and adequacy of background wells identified for FCPP to assess background water quality are assumed adequate until proven otherwise.

Per the *CCR Monitoring Well Network Report and Certification* and the *Groundwater Monitoring Network Certification Report for the Return Water Pond*, the following monitoring wells are designated as "background monitoring wells" for the respective geologic and hydrostratigraphic conditions underlying the FCPP (AECOM, 2017) (Wood, 2020a):

- 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; Figure 1-2).
- Background Wells for the Weathered Lewis Shale/Alluvium: Seven wells upgradient and sidegradient of Multiunit 1 and the DFADA, including MW-12R1, MW-49A, MW-51, MW-50A, MW-43, MW-55R, and MW-74, are designated to assess background groundwater quality for the Weathered Lewis Shale/Alluvium. Many of these wells are routinely either dry or have a limited saturated thickness which precludes sampling; the wells are included in the program in case conditions change in the future (Table 1-2; Figure 1-2).

Due to the natural heterogeneity of the geologic and hydrostratigraphic conditions underlying the FCPP, background constituent concentrations are expected to be spatially heterogeneous across the Site. The Site is also expected to exhibit temporal heterogeneity due to local climatic regimes, potential leakage from Morgan Lake, and potential operational activity at the Site. The adequacy of designated background monitoring wells will be assessed on an ongoing basis using groundwater elevation data, boron data, a working understanding of the spatial heterogeneity of geochemistry underlying the FCPP, and the statistical merits of the constituents of concern. Historical groundwater chemistry data may be consulted during this evaluation, but data preceding December 2011 will not be considered due to noted "matrix interference issues associated with saline waters" in samples analyzed prior to this date (APS, 2013).

Downgradient CCR Monitoring Well Networks. A total of 27 CCR compliance wells are in place at the Site to monitor groundwater conditions downgradient of each CCR unit (Table 1-2; Figure 1-2). Sixteen of these monitoring wells are installed in the Pictured Cliffs Sandstone. The remaining eleven other wells are completed in the Weathered Lewis Shale/Alluvium. The grouping of monitoring wells, spatial density, and coverage of the monitoring well network are assumed representative and adequate until proven otherwise. These wells are identified by respective CCR unit, as described below:

- URS Downgradient Wells (Pictured Cliffs Sandstone): The groundwater flow direction underlying the URS has historically been radially outward from the CCR unit. On this basis, nine wells, MW-66, MW-67, MW-68, MW-69, MW-70, MW-83, MW-84, MW-85 and MW-86 were installed around the perimeter and downgradient of the URS. 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 monitoring wells, including 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* 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.
- RWP Downgradient Wells (Pictured Cliffs Sandstone): Three CCR compliance 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. This 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): Seven downgradient 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, MW-76, and MW-87. Two wells, MW-40R and MW-76, have previously been routinely either dry or have a limited saturated thickness. In April 2021, both MW-40R and MW-76 had sufficient water levels which allowed for sampling. By the subsequent monitoring event in November 2021 water levels had dropped in MW-40R and MW-76 and both were unable to be sampled again. Monitoring data collected during both events are discussed further in Sections 3.2 and 4.2. 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 existing wells are identified downgradient of the DFADA: MW-13, MW-44, MW-10, 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 downgradient DFADA wells are known to be dry; this groundwater monitoring system was designed to detect releases since the next underlying aquifer (in the Cliff House Sandstone) is separated from the CCR unit by several hundred ft of Lewis Shale.

Supplementary Site Monitoring Wells. There are many groundwater monitoring wells at the Site that are not part of the CCR groundwater monitoring system but may provide useful information to the program. Table 1-2 and Figure 1-2 identify these wells.

1.2.2 Implemented Changes to Monitoring System

Most of the wells that comprise the Site CCR groundwater monitoring system were installed prior to or during 2017 (Table 1-2). No changes to the monitoring system were implemented during the 2021 reporting period.

2.0 Summary of Key Actions Completed

A summary of key actions conducted at the Site during 2021 to address CCR Rule requirements is as follows:

- *Documentation of Groundwater Monitoring Activities Conducted in 2020* - 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 2020 (Wood, 2021) was prepared, placed in the facility's operating record, and posted to the APS 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 CWTP, DFADA, and RWP* – 40 CFR §257.94(b) requires the continuation of detection monitoring at a semiannual 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 semiannual basis from the CWTP, DFADA, and RWP in 2021.
- *Completion of Statistical Analyses for Collected Appendix III Constituents at the CWTP* – 40 CFR §257.93(h) requires routine statistical analysis of Appendix III constituent data from CCR units in the detection monitoring program. During the reporting period, two statistical analyses were performed using updated Appendix III constituent data collected from CWTP monitoring wells. The statistical analyses are summarized in Section 3.3.
- *Preparation of an ASD for Appendix III constituents at the CWTP* – 40 CFR §257.94(e)(2) allows owners to evaluate whether a source other than the subject CCR unit resulted in declaring an SSI over background threshold values (BTVs) during a statistical analysis conducted pursuant to the CCR Rule. In response to BTV exceedances declared at wells downgradient of the CWTP during the reporting period an ASD was completed, which is summarized in Section 3.1.3.
- *Characterization of the Nature and Extent of Potential Releases Indicated at the URS and Multiunit 1* – 40 CFR §257.95(g)(1) requires characterization of the nature and extent of releases from CCR units where one or more Appendix IV constituents exceed groundwater protection standards (GWPSs) at statistically significant levels (SSLs). Section 4.2 summarizes activities completed during the reporting period to meet this requirement.
- *Preparation of a Semiannual Progress Report on Remedy Selection for Multiunit 1 and the URS* - 40 CFR §257.97(a) requires the preparation of semiannual reports which document the progress of remedy selection for CCR units that have impacted groundwater. The fifth semiannual report was prepared to fulfill this requirement in July 2021 of the reporting period (Section 4.5). Activities supporting remedy selection conducted during the second semiannual reporting period of 2021 are summarized in Section 4.3.
- *Pre-Design Activities Conducted to Progress Remedy Selection* – During the reporting period several site investigations necessary for the selection and design of remedies for Multiunit 1 and the URS were performed. The remedy selection pre-design studies are summarized in Section 4.3.
- *Preparation for a Public Meeting to Discuss the Assessment of Corrective Measures for Multiunit 1 and the URS* – 40 CFR §257.96(e) requires the conduct of a public meeting prior to the selection of remedies for CCR units that have impacted groundwater. APS planned to hold a public meeting with interested and affected parties during the reporting period to discuss the results of the Assessment of Corrective Measures (ACM) for Multiunit 1 and the URS. However, the ongoing COVID-19 pandemic prevented the conduct of a public meeting during the 2021 reporting period as summarized in Section 4.3.2.
- *Continuation of Closure Activities at the CWTP* – During the reporting period, APS conducted activities supporting closure of the CWTP including development of a detailed design for mechanical excavation of CCR from the pond and procurement of a qualified dredging contractor. CWTP closure activities are discussed in Section 4.6.2.

- *Initiation of Closure Activities at Multiunit 1* – APS initiated closure activities at the LAI and LDWP during the reporting period in accordance with 40 CFR §257.101(a)(1). Multiunit 1 closure activities are discussed in Section 4.6.3.
- *Completion of Site 4 at the DFADA* – APS completed construction of Site 4 at the DFADA and began using the site for disposal during the reporting period (Table 1-1). Figure 1-2 shows the extended footprint of the DFADA unit with the addition of Site 4.

3.0 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 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.

The first phase of groundwater monitoring is the detection monitoring phase. This phase focuses on a set of constituents (listed in Appendix III of the CCR Rule) that are the more mobile constituents associated with CCR and therefore represent indicators of possible impacts from CCR in groundwater. If statistically SSIs over Appendix III constituent BTVs are detected in the downgradient waste boundary wells and cannot be demonstrated to be associated with a source other than the CCR unit, then groundwater monitoring moves into the second phase, assessment monitoring. Table 3-1 summarizes 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 occur at lower concentrations in groundwater than the Appendix III constituents. Concentrations of Appendix IV constituents in downgradient wells are compared to GWPSs. The GWPSs, established for Appendix IV constituents only, are the higher of either the federal Safe Drinking Water Act Maximum Contaminant Level, alternative risk-based GWPSs established in the CCR Rule, or the background concentration for each constituent. Table 3-1 summarizes GWPSs for Site CCR units.

If exceedances of the GWPSs are determined to be occurring in the downgradient boundary wells at SSLs and no alternative sources for the exceedances can be demonstrated, then both additional groundwater characterization and assessment of corrective actions are initiated. Following assessment of corrective measures, a remedy (or set of remedial activities) is selected and implemented as the groundwater corrective action program for the CCR unit. According to the CCR Rule, groundwater corrective action will continue until compliance with the GWPSs has been attained in all impacted wells and sustained for a period of three consecutive years.

3.1 Program Status

Based on available Appendix III concentrations and statistical analyses completed as of the end of the 2021 reporting period, the CWTP, DFADA and RWP are currently the only units in the detection groundwater monitoring program. During the 2021 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

One problem was encountered during the reporting period other than those related to the ongoing COVID-19 Pandemic (Section 2.0).

- As noted in the 2021 Data Validation Report (Appendix E) and Section 3.2.4 below, a considerable amount of the groundwater sampling data assessed during the reporting period required qualifiers. The data were validated, however, it has been recommended to evaluate other laboratories and consider a laboratory transition plan in 2022 (Section 5.0).

3.1.2 Groundwater Monitoring Program Transitions

No CCR unit monitoring program transitions occurred as of the end of the 2021 reporting period.

3.1.3 Alternative Source Demonstrations

A statistical analysis performed during the reporting period declared SSIs over the field pH and boron BTVs at CWTP monitoring wells MW-63 and MW-65, respectively, on October 13, 2021 (Section 3.3.1). The exceedances were declared from data collected at the wells through July 2021. In accordance with 40 CFR §257.94(e)(2), an ASD was conducted during the reporting period to evaluate the pH and boron BTV exceedances (Appendix A). The ASD concluded that the exceedances were not indicative of a release from the CWTP based on the following lines of evidence:

- A reversed groundwater gradient of flow toward the CWTP at surrounding monitoring wells (rather than the typical radial hydraulic gradient away from the CWTP) due to lowered water level in the CWTP for operational maintenance;
- Lower concentrations of boron in surface water samples collected from the CWTP water as compared to groundwater samples collected from surrounding monitoring wells;
- The comparable water chemistry composition of CWTP surface water and groundwater samples collected recently to those collected at the same locations for past CWTP ASDs (Wood, 2020b; Wood, 2021), which outline the spatially heterogenous aquifer properties of the area;
- The variable boron concentration, previous decreasing statistical trend, and influence of the previously calculated interwell BTV at MW-65;
- The variable pH noted at MW-63 and recent relative increases in pH at nearby CWTP wells (MW-63 and MW-74) that may be attributable to regional changes in groundwater or to the recent operational changes described above.

Based on these lines of evidence (further detailed in Appendix A) it has been recommended that detection monitoring continue at the CWTP. The ASD also recommends to include: 1) the collection of CWTP surface water samples during semiannual monitoring events and additional quality control procedures for measuring and recording field parameters of surface water samples; and 2) an evaluation of updating the interwell BTV and a preliminary intrawell statistical analysis for boron at MW-65.

3.2 Monitoring Data Collected

During 2021, CCR groundwater monitoring was conducted at FCPP in accordance with the Site Sampling and Analysis Plan (SAP) presented as an appendix to the *Annual Groundwater Monitoring and Corrective Action Report for 2017* (Amec Foster Wheeler, 2018). 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. Since there have been several adjustments to the groundwater monitoring program, the SAP will be reviewed and updated as needed (Section 5.0), especially as part of remedy selections for the URS and Multiunit 1.

The following sections summarize groundwater monitoring activities conducted in 2021. 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 semiannual 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 semiannual 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 semiannual basis in 2021. Also in 2021, the addition of monitoring for Appendix IV constituents was initiated at the CWTP in advance of unit closure (see Section 4.6.2).

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 (insignificant amounts of condensate are known to accumulate in wells). During the April and November monitoring events, these wells were found to be dry or have less than 4 inches of water present, which is consistent with previous readings and indicates that releases from the DFADA and RWP did not occur in 2021. Notably however, MW-11, a supplementary well located more than 2,000 ft downgradient of the DFADA (completed in the Lewis Shale) has indicated the presence of water since water level monitoring at this well began in 2020. During November of the 2021 reporting period MW-11 was able to be sampled for the first time. The results of MW-11 sampling are discussed further in Section 4.2.

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

- Seepage intercept system samples from sumps.
- Groundwater samples collected downgradient of the seepage intercept system.
- Surface water samples from the CWTP, Morgan Lake, and the cooling water canal adjacent to the CWTP.

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

3.2.1 Water Level Monitoring

Appendix B presents hydrographs depicting groundwater elevations measured at downgradient monitoring 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 B, hydrographs are based on water level measurements collected semiannually during the groundwater monitoring events; therefore, the significant trends discussed below are recognized to be limited.

- Downgradient Wells for Multiunit 1 (MW-40R, MW-61, MW-75, MW-76 and MW-08): As presented in Appendix B, water level data collected at MW-61 and MW-71 continued to decline during the reporting period. However, water levels measured at MW-08 and nearby well MW-76 have been more variable over the last three years. During semiannual sample events from May 2019 to November 2020, MW-08 water levels showed an increase of over 11 ft. The water level at MW-76 increased approximately 3.5 ft

between April and November 2019, then declined by approximately the same amount during 2020. To further investigate these water level changes at MW-08 and MW-76, pressure transducers were installed at the wells in July 2020 to monitor water level changes until January 2021. The hydrographs for water level data collected from the transducers in MW-08 and MW-76 from July 2020 to January 2021 are presented in Appendix C. Data from the transducers show the water level in MW-08 rose from July to November 2020 (with the exception of a drop during semiannual sampling on November 6, 2020), while MW-76 remained fairly stable. From November 2020 to January 2021 both MW-08 and MW-76 indicated a 3 ft rise over approximately a two-week period with a subsequent steady drop until transducer removal. It is possible that the variable water levels in these wells are associated with pump malfunctions at Ash Pond 3 Pumphouse (located near the southwestern corner of the LAI) that intermittently occurred in 2019 and 2020. Both MW-08 and MW-76 are located near a clearwell associated with the pumphouse that transfers leachate collected from seepage intercept systems in the disposal area to the Return Water Pond for reuse at the plant. The pumps have since been repaired. During the 2021 reporting period, and after the transducers were removed, water levels at MW-08 and MW-76 appeared to be relatively stable (Appendix B). MW-40R, located more than 1,600 ft north and cross-gradient of MW-08 and MW-76 on the northwestern corner of the LDWP, has been relatively stable, with a slight decreasing trend over the reporting period (from April to November 2021). Historically MW-76 and MW-40R have had low water levels and/or recovered poorly during sampling and the monitoring wells could not be adequately purged such that a groundwater sample could be collected per the Site SAP. MW-40R (installed September 2015) had not been sampled since February 2017 and MW-76 had not been sampled since its installment in 2017. During the April 2021 sample event both MW-40R and MW-76 were able to be successfully sampled but water levels had not recovered enough to be sample again during the subsequent November 2021 sample event. Sample results from all wells sampled during 2021 are discussed further in Sections 3.2 and 4.2.

- Downgradient URS monitoring wells (MW-66, MW-67, MW-68, MW-70, MW-84, MW-85, and MW86): The steadily decreasing water levels at the wells surrounding the URS suggest that decommissioning of the URS (which occurred from June to December 2018) has reduced groundwater elevations in this area. Notably however, the water level at MW-86 increased approximately 0.6 ft from April to November 2021. This is likely not associated with the URS but could be associated with other potential recharge sources such as the CWTP, which is discussed below.
- Downgradient CWTP monitoring wells (MW-62, MW-63, MW-64, and MW-65): Water levels have historically remained relatively stable with a slight upward trend at CWTP wells since early 2018. However, between the end of 2020 and the April 2021 semiannual sampling event, water levels consistently dropped 1 to 1.5 ft across all downgradient CWTP wells. During this time period, APS lowered the operating water level in the CWTP approximately 4 ft to perform maintenance on pond pumps with the lowest water level noted in March of 2021. As of the end of the 2021 reporting period, the CWTP water level had been raised to within 2 ft of where it was around October 2020 when it when it was first lowered for operations maintenance. Water level data taken during the November 2021 event indicate monitoring well water levels were trending back up but had not yet rebounded to the levels observed in November of 2020. The correlations between CWTP operations, CWTP well water levels, and associated BTV exceedances noted during this time period are further detailed in Section 3.1.3.
- MW-74 (background well for Multiunit 1 and the DFADA): Seasonal variations in groundwater elevations continue to be apparent at this well (located downstream of Morgan Lake Dam), with the highest elevations occurring in early spring around 5202 ft amsl and lowest elevations occurring in late summer to late fall around 5199 ft amsl. Notably, the 2020 spring peak in water level elevation was relatively subdued at just below 5200.5 ft amsl. Water level fluctuations at MW-74 (just south of 'No Name Wash')

may be influenced by plant operations since the water level in the lake fluctuates based on plant requirements and discharges from Morgan Lake to 'No Name Wash'. Typical seasonal patterns appear to have continued during the 2021 reporting period.

- MW-11 (supplementary well): Water levels appear to be stable around 5080 ft amsl since water level data collection began in 2020.

Figures 3-1 and 3-2 present potentiometric surface maps that are representative of groundwater elevations prior to groundwater sampling in April and November 2021, respectively. The estimated direction and gradient of groundwater flow derived from collected groundwater elevation data are noted in the figures. As indicated, groundwater appears to flow towards Morgan Lake in the plant area and towards Chaco Wash in the disposal area.

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 this 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 United States Environmental Protection Agency (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. Table 3-3 summarizes the results of these calculations.

For the Pictured Cliffs Sandstone underlying the URS and CWTP, the magnitude of the hydraulic gradient was relatively consistent during the reporting period. The magnitude ranged from 0.0006 to 0.0007 ft per ft, which are comparable to historical values. However, the direction of groundwater flow was more varied but generally north-northwest towards Morgan Lake (318 to 353 degrees from north). The more northerly hydraulic gradient direction (353 degrees from north) was calculated from April 2021 data, the time during which the CWTP water level was lowered for maintenance on the pumps in the pond (Section 3.2.1). Corresponding groundwater flow rates ranged from 0.01 to 0.02 ft per day for November and April 2021 respectively. 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.

For the Lewis Shale underlying Multiunit 1, both the hydraulic gradient and flow direction were relatively stable. The magnitude of the hydraulic gradient was 0.03 ft per ft during each monitoring round and the direction of groundwater flow was southwest towards Chaco Wash (256 to 258 degrees from north). The corresponding groundwater flow rate for April and November was 0.0002 ft per day, which is comparable to historical flow rates.

3.2.3 Sample Collection

Groundwater samples were collected, labeled, preserved, and shipped in accordance with the SAP. 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). In accordance with 40 CFR §257.93(i), 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 were submitted to Eurofins TestAmerica Laboratories, Inc. (TestAmerica) and Radiation Safety Engineering, Inc. (Radiation Safety) located in Phoenix, Arizona for analysis. TestAmerica

evaluated samples for all constituents other than radium. Radiation Safety performed radium analyses. Both TestAmerica and Radiation Safety are Arizona Department of Health Services-licensed laboratories (AZ0728 and AZ0462, respectively). Appendix D presents the associated Laboratory Reports of Analysis organized by CCR unit.

Table 3-2 identifies the analytes evaluated during each monitoring event. Analytes varied based on the monitoring program (i.e., detection vs. assessment monitoring) and the need for supplementary information useful in evaluating groundwater quality across the Site. 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 E presents the *2021 Data Validation Report* which documents these reviews. Notably, there was a 'NJ' qualifier and 'MI' reason code added to the fluoride result of monitoring well MW-71 from the April 2021 semiannual sample analysis for an estimated concentration due to unknown lab interferent. A 'R' qualifier and 'EXC' reason code were added to the initial selenium results of supplementary wells MW-15, MW-56, and MW-57 from November 2021 semiannual sample analyses. These were rejected due to suspected erroneous results and the samples were reanalyzed for selenium. Selenium results of the reanalysis were consistent with historical selenium results from MW-15, MW-56, and MW-57 and subsequently used in reporting. In general, there was a considerable increase in the number of data validation qualifiers (particularly 'J' qualifiers) added to results from TestAmerica during the reporting period. There was an increase in the number of groundwater samples collected in 2021, but the increase in the number of data validation qualifiers was not proportional. All data qualifiers and reason codes are included in the 2021 Data Validation Report (Appendix E).

3.2.5 Sample Results

Appendix F presents the groundwater sampling results for 2021 along with historical groundwater quality data for the Site. The groundwater quality data are discussed further in Section 4.2. The sampling coverage and frequency of the groundwater monitoring system is assumed representative and adequate of spatial and temporal heterogeneity until proven otherwise.

3.3 Statistical Analysis of Monitoring Data

Statistical analysis of Appendix III constituent data were conducted during the reporting period to evaluate whether collected monitoring data indicate Site CCR units have adversely impacted underlying groundwater. These analyses were conducted pursuant to the Statistical Data Analysis Work Plan (SDAWP) developed for the Site which was updated in 2020 to include statistical evaluation procedures for the RWP monitoring network and statistical considerations for unsaturated zones (Wood, 2020c).

3.3.1 Evaluation of Appendix III Constituent Data

Three CCR units remained in detection monitoring as of the end of 2021: the CWTP, 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 unsaturated conditions, and thus no statistical analyses were performed using data collected from these units.

On April 12, 2021, a statistical analysis of detection monitoring data collected at the CWTP through November 2020 was documented (Appendix G). The analysis incorporates updated BTVs, which are presented in Table 3-1. The statistical analysis declared an initial exceedance for boron at MW-62, and fluoride at MW-64 and MW-65 and recommended evaluating the exceedance using the 1 of 3 resampling

strategy in place for this constituent. The statistical analysis also declared the initial fluoride exceedances at MW-62 declared in June and November of 2020 to be statistically insignificant.

On October 13, 2021, a statistical analysis of detection monitoring data collected at the CWTP through the first half of 2021 was documented (Appendix H). The statistical analysis declared the initial exceedances of boron at MW-62 and fluoride at MW-64 and MW-65 from the April 2021 CWTP statistical analysis to be statistically insignificant. However, SSI declarations were made for field pH and boron at MW-63 and MW-65 respectively. The SSI declarations were based on data collected in April and July 2021. An ASD was prepared to evaluate the field pH and boron exceedances at the CWTP (Section 3.1.3).

3.3.2 Evaluation of Appendix IV Constituent Data

No statistical evaluations of Appendix IV constituent data were conducted during the reporting period.

Although Multiunit 1 is currently in the corrective action program, an updated statistical evaluation is recommended in 2022 to evaluate whether additional constituents of concern (COCs) should be identified based on the consistent GWPS exceedances of non-COC Appendix IV constituents at several wells:

- Selenium has been noted to exceed the GWPS at background well MW-74 and supplementary well MW-56 fairly consistently since 2019 and 2014, respectively.
- The sample collected from compliance well MW-40R during April of 2021 also showed a lithium GWPS exceedance, although this well was unable to be sampled previously or again in November 2021.

The updated statistical evaluation will also support future unit closure (Section 5.0). At the URS, no additional constituents (Section 4.2) routinely exceed their respective GWPSs.

4.0 Corrective Action Program

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 Report (Wood, 2019a).

A summary of corrective action program activities 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, 2020d). 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 4-5).

Findings from these characterization activities are summarized as follows and further discussed in Section 4.3.

- 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 potential past CCR conveyance corridor to former ash ponds and therefore 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). Molybdenum was also detected at a concentration slightly above the GWPS at one supplementary well (MW-24) downgradient of the Southern Intercept Trench (SIT) during the April 2021 sample event, but not during the November 2021 sample event.

  The extent of cobalt concentrations that exceed the GWPS generally extend up to the SIT (Figures 4-3 and 4-4). Historically, monitoring wells MW-40R and MW-76 (both directly downgradient of the LDWP) have not had enough water to be sampled or recovered too slowly during pumping to be adequately sampled. During the April 2021 event, both wells were able to be sampled and water quality results (included in Appendix F) helped to further delineate the inferred extent and concentration contours of the cobalt plume (Figure 4-3). MW-40R and MW-76 were unable to be sampled again in November 2021. Cobalt was also detected at concentrations above the GWPS at one well downgradient of the SIT (MW-18) during both reporting period sampling events (April and November 2021). Exceedances of cobalt have also been historically noted at two other wells downgradient of the SIT, DMX-03 and MW-87. However, no cobalt GWPS exceedances were detected at either DMX-03 or MW-87 during the 2021 reporting period.

  Exceedances downgradient of the SIT (particularly those consistent at MW-18 since monitoring for Appendix IV constituents began in 2018) potentially indicate that impacted groundwater has migrated beyond the SIT at select locations. MW-18, MW-24 and DMX-03 are located near surface water drainages, and infiltration of ephemeral surface water into the subsurface may increase weathering and permeability of the Weathered Lewis Shale along drainage channels, thereby creating preferential flow paths for impacted groundwater. Site investigations to evaluate the observed GWPS exceedances are discussed in Sections 4.3 and 4.4.

  Although not a COC, lithium was present above the established GWPS in samples from MW-05, MW-06, and MW-18 throughout 2021, in the sample from MW-40R of April 2021, and in the sample from MW-87 of November of 2021. Notably, all these wells are downgradient of the SIT, with the exception of MW-40R. Further investigation of groundwater quality downgradient of the SIT is discussed in Sections 4.3 and 4.4.

- URS: Fluoride is present at concentrations above the GWPS in groundwater downgradient of the URS. The extent of concentrations that exceed the GWPS is limited to the footprint of the former unit and roughly 200 ft downgradient of the former unit (Figure 4-5).
- Supplementary Well MW-11: During the November 2021 semiannual sampling event, a groundwater sample was collected for the first time from a supplementary well located downgradient of the DFADA

(MW-11). As a supplementary well, MW-11 is not part of the certified CCR compliance network for either the DFADA or Multiunit 1; MW-11 was added to the monitoring program in 2020 to better understand the impacts of seepage intercept system operations. Collection of a sample from MW-11 for water quality analysis has prompted an assessment of what background thresholds are appropriate to compare sample results to. Since MW-11 is completed in the Lewis Shale, the BTVs identified for Multiunit 1 (which are based on data collected from MW-49A and MW-74) in Table 3-1 are the most applicable. All Appendix III constituent concentrations from MW-11 were less than the Multiunit 1 BTVs except for sulfate and total dissolved solids (TDS) which were notably very high at 140,000 and 79,000 milligrams per liter (mg/L), respectively (Appendix F). Cobalt and molybdenum were also analyzed in the MW-11 sample. The concentration of cobalt was 0.022 mg/L, which exceeds the established Multiunit 1 GWPS of 0.01 mg/L. Monitoring of MW-11 will continue in the following reporting period and comparisons to water quality of other nearby Multiunit 1 supplementary monitoring wells is warranted.

In response to GWPS exceedances at Multiunit 1 and the URS and pursuant to 40 CFR §257.96(a), an 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).

4.2.1 Corrective Measures Pre-Design Studies

Evaluations and pre-design studies completed during the 2021 reporting period are described below.

- *Continued Additional Monitoring at the 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 has helped 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 further discussed in Section 4.2 alongside updated plume maps.
- *Investigation of Groundwater Quality and Conditions at Multiunit 1* – To further evaluate the historical exceedances of cobalt and molybdenum at Multiunit 1 wells and especially wells downgradient of the intercept trench systems, the groundwater monitoring program was expanded to include additional supplementary wells and additional analytes. Initial evaluation of data collected up through the end of 2021 around the trench systems indicate:
  - The concentrations of cobalt and molybdenum at wells downgradient of the SIT (except for wells MW-18 and MW-24) were below the GWPS in 2021. The concentration of cobalt at MW-18 (0.012 mg/L) in both the April and November sampling events was just above the GWPS. The concentration of molybdenum at MW-24 (0.15 mg/L) was greater than the GWPS in the April 2021 sampling event.
  - The major ion chemistry at several wells downgradient from the SIT (MW-05, MW-06, MW-18, MW-24 and MW-87) is quite different from the chemistry at upgradient wells, with a much expanded chloride, sodium, and sulfate signature. The differences suggests that the observed exceedances may be attributed to the effects of evapoconcentration.

  To further evaluate groundwater geochemistry upgradient and downgradient of the SIT, as it relates to potential exceedances and the effectiveness of the SIT, sixteen select wells will be sampled on a quarterly basis in 2022. The sixteen wells selected for increased quarterly monitoring are identified in Table 1-2. Analytes for the quarterly sampling include select Appendix III and IV constituents and

additional water quality constituents including potassium, magnesium, sodium, iron, and alkalinity as calcium carbonate. The first of the sampling events was conducted as part of the November 2021 semiannual sampling event and the second quarterly event will take place before the end of March 2022. Continuing quarterly sampling at the SIT in 2023 will be evaluated at the end of 2022.

Also during the November 2021 semiannual sampling event, eleven transducers were installed in wells upgradient and downgradient of SIT to record and evaluate water level changes in the area at greater frequency than twice a year. The transducers were set to record every 30 minutes on a linear time scale. Wells currently equipped with transducers to monitor water levels are identified in Table 1-2. The data from the transducers will be downloaded on a quarterly basis in 2022 along with the additional quarterly water quality sampling. Evaluating the water levels in each monitoring well in comparison to the geochemistry over time and possible correlations may help to better understand if evapoconcentration is a factor in wells with minimal water and minimal recharge.

- *Assessment of Appendix IV Exceedances at MW*-87 – In addition to the supplementary sampling around the SIT, samples from several wells surrounding MW-87 were collected to further evaluate the historical exceedances of cobalt and molybdenum at this location. Evaluation of these samples collected up through the end of 2021 indicate that the concentrations of both cobalt and molybdenum are currently below the GWPS at Well MW-87. The concentration of molybdenum has been consistently below the GWPS since November 2019 when water levels at this location began to stabilize. The concentration of cobalt at MW-87 was at or above the GWPS of 0.01 mg/L during both sampling events in 2020 and below the GWPS during both sampling events in 2021.

  During the 2020 reporting period it was outlined that infiltration of Chaco Wash surface water could potentially impact groundwater quality in wells adjacent to the wash, particularly at MW-87 (Wood, 2021). To further evaluate this possible hydraulic connection, a flow monitoring station was installed within Chaco Wash just west of DMX-04 inside the APS lease area boundaries. The monitoring station will not only provide comparisons between stream stage and flow rates and water levels in nearby wells (especially those now equipped with transducers), but also insight into seasonal flow patterns to inform ideal timeframes for potentially collecting surface samples from Chaco Wash.

  As noted above, the major ion chemistry at MW-87 is dissimilar to that of wells upgradient of the SIT and the differences suggest that the variability in cobalt and molybdenum concentrations may be partially due to the effects of evapoconcentration. A more detailed evaluation of the quarterly data that will be collected in the following year is to be included in a technical memorandum anticipated to be completed in 2022. Additional monitoring and evaluation for 2022 are discussed in Section 5.0.

4.2.2 Public Meeting

Per 40 CFR §257.96(e), APS will conduct a public meeting with interested and affected parties to present the results of the ACM for the URS and Multiunit 1 at least 30 days prior to selecting remedies for each CCR unit. While there is a preference for an in-person public meeting to promote participation, the COVID-19 pandemic has prevented conducting an in-person public meeting in 2020 and 2021. In the interest of progressing remedy implementation, APS has decided to proceed with a virtual public meeting in 2022.

4.2.3 Remedy Selection Reports for the URS and Multiunit 1

Upon completion of the public meeting presenting the ACM results and soliciting input on corrective measures assessment, APS will select remedies for the URS and Multiunit 1 that meet the requirements of 40 CFR §257.97(b). Pursuant to 40 CFR §257.97(a) and §257.91(f), a remedy selection report for the URS and Multiunit 1 will be prepared and remedial activities at the URS and Multiunit 1 will begin within 90 days of remedy selection.

4.3 Interim Response Measures

Until a public meeting can be held and while additional pre-design studies supporting remedy selection are being progressed, APS has implemented several response measures at Multiunit 1 and the URS to limit groundwater impacts in the interim. 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 2022 are summarized below.

- *Operation of the Northern and Southern Intercept Trench* – APS currently operates a 7,600-ft long seepage intercept trench system that was installed in two interconnected sections (the Northern Intercept Trench [NIT] and the 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 2019b). The NIT was constructed and placed into service in 2011 and the SIT was constructed and placed into service in 2013. In 2021 2.7 million gallons were pumped from the NIT for a daily average of 7,563 gallons per day (gpd) and 13 million gallons were pumped from the SIT for a daily average of 35,135 gpd.
- *Improvements to the Northern Intercept Trench* – Startup and commissioning of the improvements to the groundwater containment near the NIT were completed in 2021. This project included converting wells MW-82S and EW-17 to extraction wells and connecting them to the existing seepage collection system. A technical memo documenting the installation of EW-17 was completed in 2021 and is included in Appendix I.
- *Startup of Extraction Wells at the URS* – To evaluate groundwater containment downgradient of the URS, a system was plumbed and constructed to extract and convey captured water from CM-01 and CM-02 to the Site's process water system. Recommended pumping rates were outlined in the *Well Completion Report of Pre-Design Wells at the URS*, included as an Appendix in the 2020 GMCAR (Wood, 2021). The construction of this project was ongoing at the time this Annual Report was prepared.

4.4 Semiannual Progress Report on Remedy Selection for Multiunit 1 and the URS

40 CFR §257.97(a) requires the preparation of semiannual reports which document the progress of remedy selection for CCR units that have potentially impacted groundwater until the remedy is selected. Accordingly, the fifth semiannual report was prepared during the reporting period on July 15, 2021 which describes the progress of remedy selection for Multiunit 1 and the URS. This semiannual report is included as Appendix J.

This Annual Groundwater Monitoring and Corrective Action Report for 2021 fulfills the requirements of 40 CFR §257.97(a) for a subsequent semiannual progress report by providing updates on remedy selection for Multiunit 1 and the URS (Section 4.3). Future planned activities related to remedy selection for Multiunit 1 and the URS are documented in Section 5.0.

4.5 CCR Unit Closure Activities

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

4.5.1 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). This 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 Upper Retention Tank [URT]) was constructed to serve the function of the URS and was placed in service on December 10, 2018. In accordance with 40 CFR §257.102(c), closure of the URS will not be complete until concentrations of fluoride in groundwater downgradient of the unit decline to less than the GWPS for this constituent. An update of the SDAWP will be conducted in 2022 to specifically address unit closure statistical evaluation.

4.5.2 CWTP Closure

APS provided notice of its intent to close the CWTP during the previous reporting period 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. 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 prior to discharge to Morgan Lake through a NPDES permitted outfall).

The CWTP will be closed in accordance with its closure plan (AECOM, 2016) which includes closure by removal of CCR solids through mechanical excavation and hydraulic dredging. During the reporting period, detailed design of the dredging program was completed and procurement of a dredging contractor began. Groundwater monitoring will continue through the closure process.

4.5.3 Multiunit 1 Closure

During the reporting period, APS provided notice of its intent to close the LAI/LDWP (Appendix K) on April 10, 2021, pursuant to 40 CFR §257.101(a)(1). Discharges to the LAI (which overflows into the LDWP) were suspended at that time and have since been blended with fly 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 construction in order to safely construct the final cover system. Geotechnical testing of the deposits in the LAI was conducted in 2021 to support detailed design of cover placement.

5.0 Key Activities for the Upcoming Year

During 2022, 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 2022* – Per 40 CFR §257.90(e), an annual report must be prepared no later than January 31 of the year following the calendar year documented in the report.
- *Update of the SDAWP* – The Site SDAWP will be updated to include statistical analyses to support unit closure as needed. Statistical analyses will also be identified to address any notable GWPS exceedances that are not currently COCs for Multiunit 1 and the URS in the future.
- *Update of the SAP* – As the SAP for the Site was last updated in 2018, it will be updated again in 2022. Additionally, the SAP will need to be updated as part of remedy selection for the URS and Multiunit 1.
- *Continued Detection Monitoring at the CWTP, 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 semiannual 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 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 semiannual basis per 40 CFR §257.95(b) and (d)(1).
- *Laboratory Transition* – A plan to consider transitioning to other laboratories for groundwater quality evaluations will be prepared in 2022. This plan may also be implemented during 2022.
- *Initiation of the CWTP Dredging Program* – APS will procure a contractor to begin dredging of the CWTP in support of its closure plan which includes closure by removal of CCR through mechanical excavation and hydraulic dredging. Groundwater monitoring will continue through the closure process.
- *Operation of Extraction Wells at the URS* – To study the effectiveness of an extraction well network as a potential corrective measure for the URS, a groundwater evaluation of the area around the URS and recently connected CM-01 and CM-02 extraction wells will be conducted. The objective of extraction well operation is to capture impacted groundwater before the final remedy for the URS is selected, designed, and implemented.
- *Continued Evaluation of Groundwater Quality near MW-87* – Evaluation of the supplemental water quality data collected from select wells near MW-87 (or potentially Chaco Wash) will continue as necessary to assess potential causes of the cobalt and molybdenum exceedances at MW-87.
- *Investigation of Groundwater Quality Downgradient of the SIT* – Evaluation of the water quality data obtained from Multiunit 1 and supplementary wells in the area will continue to assess cobalt, molybdenum, and other notable exceedances in the area and especially downgradient of the intercept trench systems.
- *Public Meeting* – Per 40 CFR §257.96(e), APS will conduct a public meeting with interested and affected parties to present the results of the ACM for Multiunit 1 and the URS at least 30 days prior to selecting remedies for each CCR unit.
- *Remedy Selection* – APS will select remedies for Multiunit 1 and the URS that meet the requirements of 40 CFR §257.97(b). Additionally, a remedy selection report will be 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.

Since the CCR Rule is implemented in phases based on analysis of data collected during the groundwater monitoring program, the foregoing list is subject to change and only includes reasonably probable activities that will occur in 2022; this list is not comprehensive.

6.0 References

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Wood, 2020c. Statistical Data Analysis Work Plan. Coal Combustion Residuals Rule Groundwater Monitoring System Compliance. Four Corners Power Plant, Fruitland, New Mexico. Report dated June 10, 2020.

Wood, 2020d. Hydrogeologic Investigation of Multiunit 1 and the Upper Retention Sump. Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Four Corners Power Plant, Fruitland, New Mexico. Prepared on behalf of APS. January 31, 2020.

Wood, 2021. Annual Groundwater Monitoring and Corrective Action Report for 2020. Coal Combustion Residual Rule Groundwater Monitoring System Compliance, Four Corners Power Plant, Fruitland, New Mexico. Prepared on behalf of APS. January 31, 2021.

Tables

Table 1-1
Description of Coal Combustion Residual Units

CCR Unit	Location	Function	Operation	Size/Construction	History
Upper Retention Sump (URS)	*Plant Area* NW1/4 of Section 36, T29N, R16W	*Single CCR unit* . Impoundment. Surge pond for FGD system.	FGD system discharge is discharged into the sump via 10 plus controlled/monitored lines. Pond contents are recirculated back into the FGD process via a pump chamber located on the south end of the pond. Solids are periodically removed from the sump.	- 1.07 acres in areal extent - Soil-cement liner on bottom and inside slopes	Placed in service around 1983. 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 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)	*East of Plant, Adjacent to Morgan Lake* SE1/4 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 is from hydrobins which separate transport water from bottom ash generated in plant Units 4 and 5. Seven earthen basins in the western edge of the CWTP promote 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. 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.
Lined Ash Impoundment (LAI)	*Disposal Area* E1/2 of Section 34, T29N, R16W	*Part of a CCR multiunit with the LDWP* that receives fly ash, flue gas desulfurization (FGD) waste and associated residuals as a slurry from the plant.	Waste is discharged into the pond in the northeast portion of the pond. Decanted flow discharges via a vertical drop inlet structure and through a toe drain into the LDWP.	- 126.8 acres in areal extent (high water line) - 60 mil HDPE liner - 5,364 acre-ft design capacity - 5,275.2 ft AMSL maximum working level	Constructed on top of closed Ash Ponds 4 and 5 and placed in service in 2004. 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)	*Disposal Area* E1/2 of Section 34, T29N, R16W	*Part of a CCR multiunit with the LAI* that receives decanted water from the LAI. Impoundment.	Decanted water is discharged into the pond from the LAI via gravity; the water is pumped from the LDWP back to the plant for reuse in operations.	- 45 acres in areal extent - Two 60 mil HDPE liners separated by a leak detection layer - 435 acre-ft design capacity - 5,213.2 ft AMSL maximum working level	Constructed on top of closed Ash Pond 3 and placed in service in 2004. Notice of intent to close provided on April 10, 2021.
Dry Fly Ash Disposal Area (DFADA)	*Disposal Area* SE1/4 of Section 34, T29N, R16W	*Single CCR unit* . Landfill. Disposal of dry fly ash, bottom ash, FGD (blended with dry fly ash), 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 - 8,028 acre-ft design capacity - DFADA 1: compacted clay overlain by 60 mil HDPE liner and drainage layer - DFADA 2, 3 and 4: geosynthetic clay liner overlain by 60 mil HDPE liner and drainage layer - 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)	*Plant Area* NW1/4 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 - 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 - 38.6 acre-ft design capacity - 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 System Summary

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	DFADA	Background	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	DFADA	Background	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	DFADA	Downgradient	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	DFADA	Downgradient	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	DFADA	Downgradient	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	DFADA	Downgradient	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	DFADA	Supplementary	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-43	Multiunit 1	Background	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	Multiunit 1	Background	Lewis Shale	5/18/2013	68	5,288.62[b]	5,285.29[b]	50	65	15	5,231.38	5,216.38	5,213.38
MW-50A	Multiunit 1	Background	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	Multiunit 1	Background	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	Multiunit 1	Background	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	Multiunit 1	Downgradient	Lewis Shale	3/11/1987[a]	60	5,149.32	5,148.29	15	35	20	5,133.59	5,113.59	5,088.29
MW-08	Multiunit 1	Downgradient	Lewis Shale	3/11/1987[a]	74	5,122.56	5,120.85	28	48	20	5,093.15	5,073.15	5,046.85
MW-40R	Multiunit 1	Downgradient	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	Multiunit 1	Downgradient	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	Multiunit 1	Downgradient	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	Multiunit 1	Downgradient	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, 2]	Multiunit 1	Downgradient	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[1]	Multiunit 1	Supplementary	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, 2]	Multiunit 1	Supplementary	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-06[1]	Multiunit 1	Supplementary	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, 2]	Multiunit 1	Supplementary	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[1, 2]	Multiunit 1	Supplementary	Lewis Shale	3/12/1987	49	5082.71	5,080.19	29	49	20	5,051.39	5,031.39	5,031.39
MW-15[1]	Multiunit 1	Supplementary	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-16[1]	Multiunit 1	Supplementary	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-17R[1, 2]	Multiunit 1	Supplementary	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, 2]	Multiunit 1	Supplementary	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[1]	Multiunit 1	Supplementary	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[1]	Multiunit 1	Supplementary	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-34	Multiunit 1	Supplementary	Lewis Shale	6/9/2010	49	5078.33	5,077.34	24	49	25	5,053.34	5,028.34	5,028.34
MW-36R[1, 2]	Multiunit 1	Supplementary	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]	Multiunit 1	Supplementary	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	Multiunit 1	Supplementary	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[2]	Multiunit 1	Supplementary	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	Multiunit 1	Supplementary	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	Multiunit 1	Supplementary	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, 2]	Multiunit 1	Supplementary	Lewis Shale	12/4/2013	37	5,091.49	5,089.14	26	36	10	5,063.14	5,053.14	5,052.64
MW-57[1, 2]	Multiunit 1	Supplementary	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	Multiunit 1	Supplementary	Lewis Shale	9/16/2015	25	5144.10	5141.50	14	24	10	5,127.16	5,117.16	5,116.50
EW-14[2]	Multiunit 1	Supplementary	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	Multiunit 1	Supplementary	Lewis Shale	10/26/2010	50	5077.73	5,076.82	19	49	30	5,057.82	5,027.82	5,027.20
EW-16	Multiunit 1	Supplementary	Lewis Shale	10/06/2020	50	5086.16	5,084.17	20	40	20	5,064.17	5,044.17	5,034.17
EW-17	Multiunit 1	Extraction	Lewis Shale	10/08/2020	50	5097.55	5,095.73	20	40	20	5,075.73	5,055.73	5,045.73
MW-62	CWTP	Downgradient	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	CWTP	Downgradient	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	CWTP	Downgradient	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	CWTP	Downgradient	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

Table 1-2
CCR Groundwater Monitoring System Summary

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-66	URS	Downgradient	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	URS	Downgradient	Pictured Cliffs Sandstone	9/11/2015	31	5,352.76[(b)]	5,353.80[(b)]	20	30	10	5,334.42	5,324.42	5,323.02
MW-68	URS	Downgradient	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	URS	Downgradient	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	URS	Downgradient	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	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	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	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	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	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	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	URS	CM Predesign	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	URS	CM Predesign	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
MW-71	URS/CWTP	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	URS/CWTP	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	URS/CWTP	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	RWP	Downgradient	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	RWP	Downgradient	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	RWP	Downgradient	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	Other Disposal Areas	Supplementary	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	Other Disposal Areas	Supplementary	Lewis Shale	12/3/2013	39	5,101.81	5,099.39	14	39	20	5,085.89	5,060.89	5,060.89
IP-02	Other Disposal Areas	Supplementary	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	Other Disposal Areas	Supplementary	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	Other Disposal Areas	Supplementary	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	Other Disposal Areas	Supplementary	Lewis Shale	December 2013	41	5,094.43	5,091.88	21	41	20	5,071.38	5,051.38	5,050.88
MW-01	Other Disposal Areas	Supplementary	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	Other Disposal Areas	Supplementary	Lewis Shale	3/13/1987	44	5,126.73	5,125.52	14	44	30	5,111.27	5,081.27	5,081.27
MW-19	Other Disposal Areas	Supplementary	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	Other Disposal Areas	Supplementary	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	Other Disposal Areas	Supplementary	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	Other Disposal Areas	Supplementary	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	Other Disposal Areas	Supplementary	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	Other Disposal Areas	Supplementary	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	Other Disposal Areas	Supplementary	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	Other Disposal Areas	Supplementary	Lewis Shale	11/8/2018	80	5094.94	5092.35	24	44	20	5,068.35	5,048.35	5,012.35
MW-78S	Other Disposal Areas	Supplementary	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	Other Disposal Areas	Supplementary	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	Other Disposal Areas	Supplementary	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	Other Disposal Areas	Supplementary	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	Other Disposal Areas	Supplementary	Lewis Shale	11/27/2018	65	5,093.37	5,091.02	17	37	20	5,074.02	5,054.02	5,026.02

Notes and Abbreviations:

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

Vertical datum is NAVD 88

[1] - Quarterly monitored well

[2] - Water level monitored via transdcuer

[(a)] - Estimated

[(b)] - New surveyed elevation after wellhead modifications

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

RWP - Return Water Pond

URS - Upper Retention Sump

Table 3-1
BTVs and GWPSs for Site CCR Units

		CWTP		URS				Multiunit 1			
	Constituent	BTV [mg/L]	Reference	BTV [mg/L]	Reference	GWPS [mg/L]	Reference	BTV [mg/L]	Reference	GWPS [mg/L]	Reference
Appendix III Constituents	Boron	2.0 (MW-62,MW-63) 0.70 (MW-64,MW-65)	*5* *7*	1.9	*1*	N/A		1.3	*1*	N/A	
	Calcium	551 (MW-62,MW-63) 500 (MW-64,MW-65)	*7* *7*	540	*1*			740	*1*		
	Chloride	634	*7*	710	*1*			5,700	*1*		
	Fluoride	1.6 (MW-62) 2.3 (MW-63) 1.5 (MW-64) 2.0 (MW-65)	*5*	>RL	*1*			0.8	*1*		
	pH[1]	6.48 - 6.93 (MW-62,MW-63) 7.25 - 7.68 (MW-64) 6.96 - 8.27 (MW-65)	*7* *5* *5*	<LPL or >UPL	*1*			7.4	*1*		
	Sulfate	13,000	*1*	13,000	*1*			5,100	*1*		
	TDS	20,000	*1*	20,000	*1*			15,000	*1*		
Appendix IV Constituents	Antimony	N/A		0.01	*4*	0.01	*4*	0.01	*3*	0.01	*3*
	Arsenic			0.013	*4*	0.013	*4*	0.0086	*3*	0.01	*3*
	Barium			0.05	*4*	2	*4*	0.04	*3*	2	*3*
	Beryllium			0.001	*4*	0.004	*4*	0.001	*3*	0.004	*3*
	Cadmium			0.001	*4*	0.005	*4*	0.002	*3*	0.005	*3*
	Chromium			0.01	*4*	0.1	*4*	0.02	*3*	0.1	*3*
	Cobalt			0.016	*4*	0.016	*4*	0.01	*3*	0.01	*3*
	Fluoride			4	*4*	4	*4*	5	*3*	5	*3*
	Lead			0.005	*4*	0.015	*4*	0.01	*3*	0.015	*3*
	Lithium			0.8	*4*	0.8	*4*	1.8	*3*	1.8	*3*
	Mercury			0.0002	*4*	0.002	*4*	0.0002	*3*	0.002	*3*
	Molybdenum			0.011	*4*	0.1	*4*	0.12	*3*	0.1	*3*
	Selenium			0.45	*4*	0.45	*4*	0.092	*3*	0.092	*3*
	Thallium			0.0014	*4*	0.002	*4*	0.017	*3*	0.017	*3*
	Combined Radium[2]			5.4	*4*	5.4	*4*	4.4	*3*	5	*3*

Notes:

[1]Units are standard units

[2]Units are picocuries per liter

Abbreviations:

BTV - Background Threshold Value
CWTP - Combined Waste Treatment Pond
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:

1 - *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.

2 - *CCR Groundwater Detection Monitoring Evaluation of June 2018 Data Collected from the CWTP.* Arizona Public Service Four Corners Power Plant - Fruitland, New Mexico. Wood Technical Memorandum dated October 15, 2018.

3 - *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.

4 - *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.

5 - *CCR Groundwater Detection Monitoring Evaluation of May 2019 Data Collected from the CWTP.* Arizona Public Service Four Corners Power Plant - Fruitland, New Mexico. Wood Technical Memorandum dated October 15, 2019.

6 - *CCR Groundwater Detection Monitoring Statistical Analysis and Results for the CWTP Appendix III Constituent Data Collected Through June 2020.* Arizona Public Service Four Corners Power Plant - Fruitland, New Mexico. Wood Technical Memorandum dated October 13, 2020.

7 - *CCR Groundwater Detection Monitoring Statistical Analysis and Results for the CWTP Appendix III Constituent Data Collected Through November 2020.* Arizona Public Service Four Corners Power Plant - Fruitland, New Mexico. Wood Technical Memorandum dated April 12, 2021.

Table 3-2
CCR Groundwater Monitoring Event Summary for 2021

CCR UNIT	Well ID	Monitoring System Well Type	2021 Sample Date(s) (Monitoring Program)						Number of Field Original Samples Collected in 2021[(b)]
			January 14 2021 (Detection Resampling)	April 22, 2021 (Detection)	April 21-27, 2021 (Assessment)	July 8, 2021 (Detection Resampling)	November 15, 2021 (Detection)	November 11-18, 2021 (Assessment)	
CWTP	MW-62	CCR	X	X	---	---	X	---	3
	MW-63	CCR	---	X	---	X	X	---	3
	MW-64	CCR	---	X	---	---	X	---	2
	MW-65	CCR	---	X	---	X	X	---	3
DFADA	MW-10	CCR	---	NS	---	---	NS	---	0
	MW-11	Supplementary	---	---	---	---	X	---	1
	MW-12R1	CCR	---	NS	---	---	NS	---	0
	MW-13	CCR	---	NS	---	---	NS	---	0
	MW-44	CCR	---	NS	---	---	NS	---	0
	MW-48	CCR	---	NS	---	---	NS	---	0
	MW-55R	CCR	---	NS	---	---	NS	---	0
Multiunit 1	MW-01	Supplementary	---	---	X	---	---	X	2
	MW-03	Supplementary	---	---	X	---	---	X	2
	MW-05	Supplementary	---	---	X	---	---	X	2
	MW-06	Supplementary	---	---	X	---	---	X	2
	MW-07	CCR	---	---	X	---	---	X	2
	MW-08	CCR	---	---	X	---	---	X	2
	MW-15	Supplementary	---	---	X	---	---	X	2
	MW-16	Supplementary	---	---	X	---	---	X	2
	MW-17R	Supplementary	---	---	X	---	---	X	2
	MW-18	Supplementary	---	---	X	---	---	X	2
	MW-19	Supplementary	---	---	X	---	---	X	2
	MW-21	Supplementary	---	---	X	---	---	X	2
	MW-23R	Supplementary	---	---	X	---	---	X	2
	MW-24	Supplementary	---	---	X	---	---	X	2
	MW-30	Supplementary	---	---	X	---	---	X	2
	MW-32	Supplementary	---	---	NS	---	---	NS	0
	MW-36R	Supplementary	---	---	X	---	---	X	2
	MW-38R	Supplementary	---	---	X	---	---	X	2
	MW-40R	CCR	---	---	X	---	---	NS	1
	MW-43	CCR	---	---	NS	---	---	NS	0
	MW-49A	CCR	---	---	X	---	---	X	2
	MW-50A	CCR	---	---	NS	---	---	NS	0
	MW-51	CCR	---	---	NS	---	---	NS	0
	MW-52	Supplementary	---	---	X	---	---	X	2
	MW-56	Supplementary	---	---	X	---	---	X	2
	MW-57	Supplementary	---	---	X	---	---	X	2
	MW-60	Supplementary	---	---	X	---	---	X	2
	MW-61	CCR	---	---	X	---	---	X	2
	MW-74	CCR	---	---	X	---	---	NS	1
	MW-75	CCR	---	---	X	---	---	X	2
	MW-76	CCR	---	---	X	---	---	NS	1
	MW-77S	Supplementary	---	---	X	---	---	X	2
	MW-78S	Supplementary	---	---	X	---	---	X	2
	MW-79S	Supplementary	---	---	X	---	---	X	2
	MW-80S	Supplementary	---	---	NS	---	---	NS	0
	MW-81	Supplementary	---	---	X	---	---	X	2
	MW-82S	Supplementary	---	---	---	---	---	X	1
	MW-87	CCR	---	---	X	---	---	X	2
	DMX-01	Supplementary	---	---	X	---	---	X	2
	DMX-03	Supplementary	---	---	X	---	---	X	2
	DMX-04	Supplementary	---	---	X	---	---	X	2
	DMX-06	Supplementary	---	---	X	---	---	X	2
	SUMP-1	Seepage	---	---	X	---	---	X	2
	SUMP-2	Seepage	---	---	X	---	---	X	2
	SUMP-3	Seepage	---	---	X	---	---	X	2
	SUMP-7	Seepage	---	---	X	---	---	X	2
	SUMP-8	Seepage	---	---	X	---	---	X	2
	SUMP-9	Seepage	---	---	X	---	---	X	2
	SUMP-10	Seepage	---	---	X	---	---	X	2
	SUMP-11	Seepage	---	---	X	---	---	X	2
	SUMP-12	Seepage	---	---	X	---	---	X	2
	SUMP-13	Seepage	---	---	X	---	---	X	2
	SUMP-14	Seepage	---	---	X	---	---	X	2
	SUMP-15	Seepage	---	---	X	---	---	X	2
	SUMP-16	Seepage	---	---	X	---	---	X	2
	SUMP-17	Seepage	---	---	X	---	---	X	2
	SUMP-18	Seepage	---	---	X	---	---	X	2
RWP	MW-88	CCR	---	NS	---	---	NS	---	0
	MW-89	CCR	---	NS	---	---	NS	---	0
	MW-90	CCR	---	NS	---	---	NS	---	0
URS	MW-66	CCR	---	---	X	---	---	X	2
	MW-67	CCR	---	---	X	---	---	X	2
	MW-68	CCR	---	---	X	---	---	X	2
	MW-69	CCR	---	---	X	---	---	X	2
	MW-70	CCR	---	---	X	---	---	X	2
	MW-71[(a)]	CCR	---	---	X	---	---	X	2
	MW-72[(a)]	CCR	---	---	X	---	---	X	2
	MW-73[(a)]	CCR	---	---	X	---	---	X	2
	MW-83	CCR	---	---	X	---	---	X	2
	MW-84	CCR	---	---	X	---	---	X	2
	MW-85	CCR	---	---	X	---	---	X	2
	MW-86	CCR	---	---	X	---	---	X	2
	CM-01	Extraction	---	---	---	---	---	---	0
	CM-02	Extraction	---	---	---	---	---	---	0
	CM-03	Extraction	---	---	---	---	---	---	0
	CM-04	Extraction	---	---	---	---	---	---	0
Analyzed Constituents			*Select App III Constituents*	*App III, Select App IV, and Additional Constituents*	*App III, App IV, and Additional Constituents*	*Select App III Constituents*	*App III, Select App IV, and Additional Constituents*	*App III, App IV, and Additional Constituents*	136

Notes:

[(a)] Background wells for both the CWTP and URS.
[(b)] Totals exclude field duplicate samples.
X - Well Monitored
NS - Not Enough Water to Sample
--- - Well Not Monitored

Abbreviations:

App - Appendix
CCR - coal combustion residuals
CWTP - Combined Waste Treatment Pond
DFADA - Dry Fly Ash Disposal Area
RWP - Return Water Pond
URS - Upper Retention Sump

Table 3-3
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 and CWTP)	6.0[(a)]	0.25[(b)]	April 2021	0.0007	353	0.02
			November 2021	0.0006	318	0.01
Lewis Shale (Multiunit 1)	0.00028[(b)]	0.05[(b)]	April 2021	0.03	258	0.0002
			November 2021	0.03	256	0.0002

Notes:

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

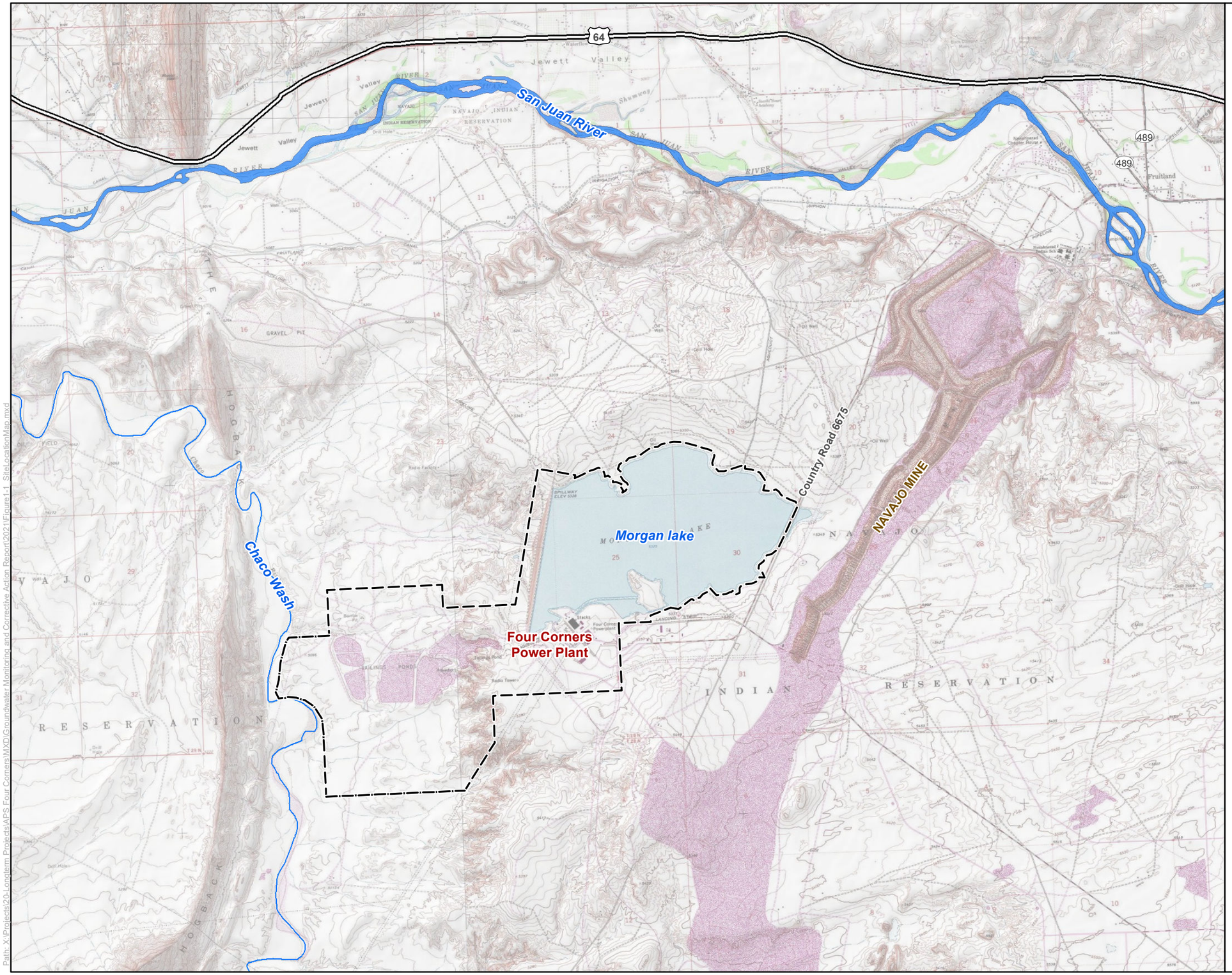
Vol/Vol - volume per volume

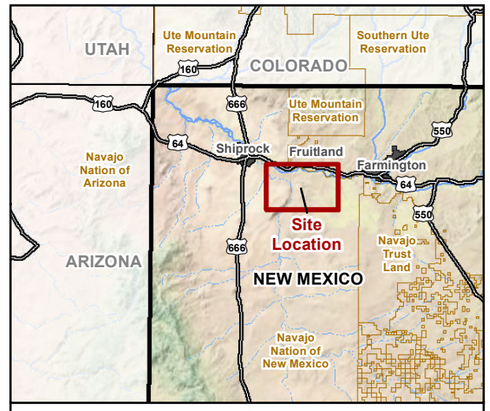
References:

[(a)] AECOM, 2017

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

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

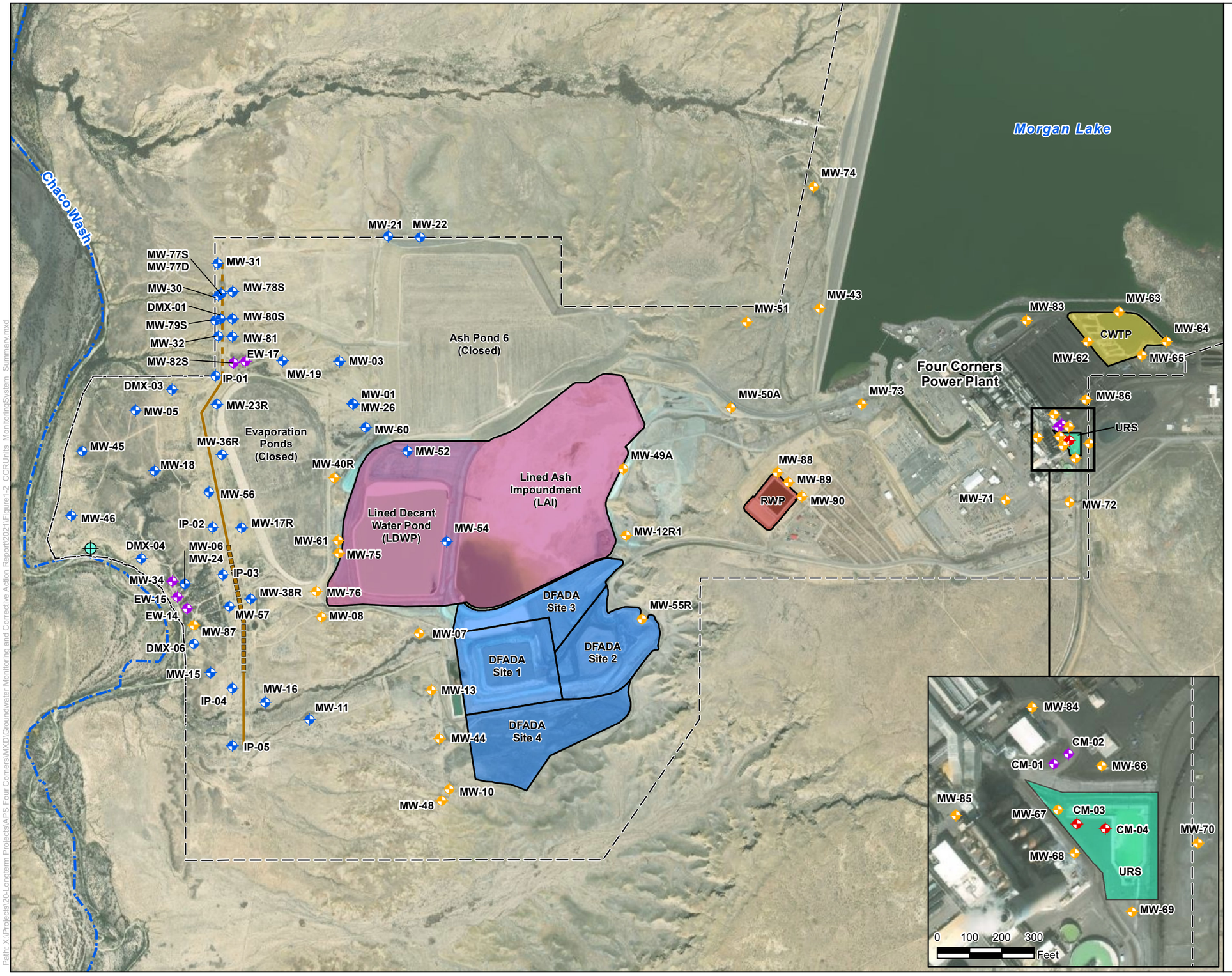
FIGURE **1-1**

Site Location Map

Job No.	14-2021-2005
PM:	MBH
Date:	12/21/2021
Scale:	1"= 0.8 miles

wood.

The map shown here has been created with all due and reasonable care and is strictly for use with Wood Environment & Infrastructure Solutions, Inc. Project Number 14-2021-2005. 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. Wood Environment & Infrastructure Solutions, Inc. assumes no liability, direct or indirect, whatsoever for any such third party or unintended use.



Legend

- CCR Monitoring Well Location
- Extraction Well
- Supplementary Site Monitoring Well Location
- CM Pre-Design Wells
- Chaco Wash Stream Monitoring Station (Approximate Location)
- FCPP Lease Boundary
- North Intercept Trench
- South Intercept Trench
- Approximate Extent of High Flow Zone
- Ephemeral Surface Water Feature

CCR Units

- Multiunit 1(LAI and LDWP)
- Dry Fly Ash Disposal Area
- Combined Waste Treatment Pond (CWTP)
- Upper Retention Sump (URS)
- Return Water Pond (RWP)

Notes:

CCR	Coal Combustion Residuals
CM	Corrective Measures
CWTP	Combined Waste Treatment Pond
DFADA	Dry Fly Ash Disposal Area
FCPP	Four Corners Power Plant
LAI	Lined Ash Impoundment
LDWP	Lined Decant Water Pond
URS	Upper Retention Sump
RWP	Return Water Pond

0 700 1,400
Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE **1-2**

CCR Units and Monitoring System Summary

Job No.	14-2021-2005
PM:	MBH
Date:	1/12/2022
Scale:	1" = 1400'

wood.

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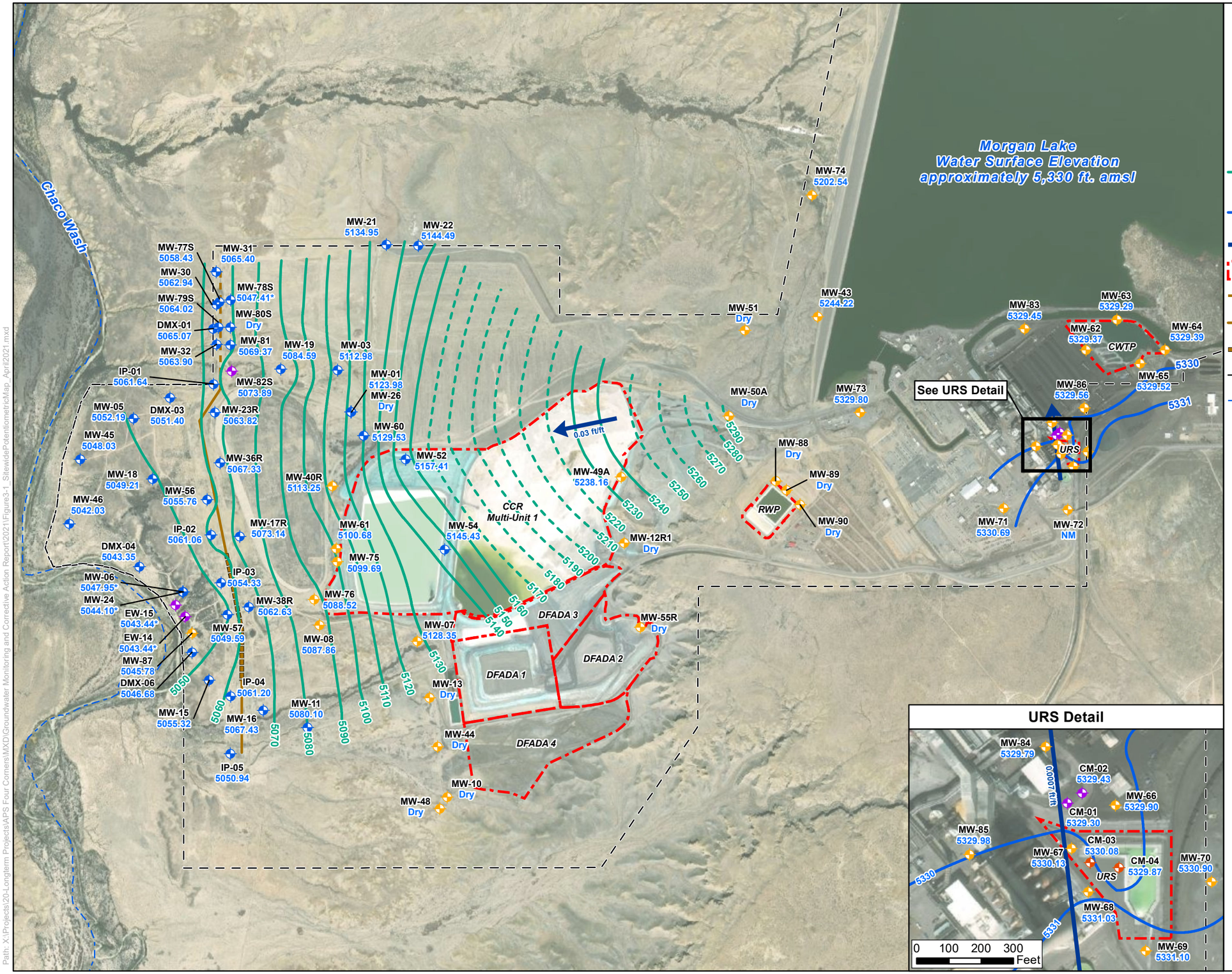

Legend

- CCR Monitoring Well Location
- Supplementary Site Monitoring Well Location
- Extraction Well Location
- CM Pre-Design Well Location
- Groundwater Elevation Contour (ft amsl) 10-Foot Contour Interval (dashed where inferred)
- Groundwater Elevation Contour (ft amsl) 1-Foot Contour Interval (dashed where inferred)
- Groundwater Flow Direction with Gradient (ft/ft)
- CCR Unit Boundary
- North Intercept Trench
- South Intercept Trench
- Approximate Extent of High Flow Zone
- Four Corners Power Plant Lease Boundary
- Ephemeral Surface Water Feature

Notes and Abbreviations:

MW-83	Well Identification
5329.45	Groundwater Elevation (ft amsl)
NM	Not Measured
*	Well not used in potentiometric surface mapping
ft amsl	Feet above mean sea level
CCR	Coal Combustion Residuals
FCCP	Four Corners Power Plant

0 700 1,400 2,800 Feet

N

URS Detail

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE 3-1

Potentiometric Surface Map April 2021

Job No.	14-2021-2005
PM:	MBH
Date:	1/27/2022
Scale:	1" = 1,400'

wood.

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Chaco Wash

Morgan Lake
Water Surface Elevation
approximately 5,330 ft. amsl

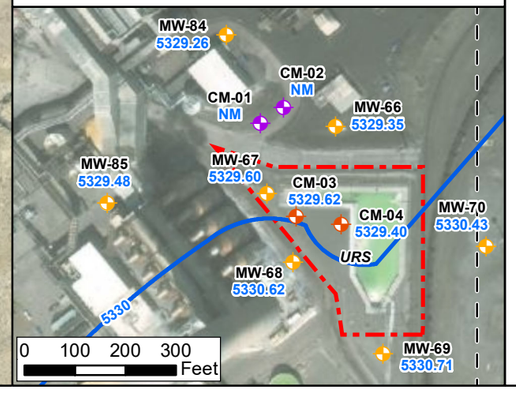
MW-74 5198.98
MW-21 5134.96
MW-22 5144.78
MW-77S 5060.61
MW-31 Dry
MW-30 5062.99
MW-78S 5048.13*
MW-79S 5063.92
MW-80S Dry
DMX-01 5064.69
MW-81 5069.58
MW-32 5063.78
MW-03 5113.01
MW-01 5123.92
IP-01 5061.52
MW-82S NM
MW-19 5086.05
MW-26 Dry
MW-05 5050.93
DMX-03 5051.21
MW-23R 5063.38
MW-60 5128.84
MW-45 Dry
MW-52 5156.97
MW-36R 5067.24
MW-40R 5112.52
MW-18 5048.92
MW-46 5042.1
MW-56 5055.56
IP-02 5061.04
MW-17R 5072.92
MW-61 5100.32
DMX-04 5043.38
MW-54 5144.88
MW-06 5043.35
IP-03 5054.29
MW-75 5099.26
MW-24 5043.43
MW-76 5087.11
MW-38R 5061.53
EW-15 5043.89
MW-07 5127.18
MW-57 5049.34
EW-14 5043.87
MW-08 5085.76
MW-87 5044.86
IP-04 5061.18
DMX-06 5046.53
MW-15 5055.10
MW-11 5080.11
MW-16 5067.15
MW-13 Dry
IP-05 5050.92
MW-44 5121.48
MW-10 Dry
MW-48 Dry
MW-12R1 Dry
MW-55R 5148.02
MW-51 5255.89
MW-43 5244.15
MW-50A 5291.64
MW-73 5329.04
MW-49A 5237.80
MW-88 Dry
MW-89 5334.99
MW-90 Dry
MW-71 5330.03
MW-72 5331.00
MW-83 5329.28
MW-63 5329.91
MW-62 5329.58
MW-64 5330.24
MW-65 5329.99
MW-86 5329.23
See URS Detail

CCR Multi-Unit 1
DFADA 1
DFADA 2
DFADA 3
DFADA 4
RWP
CWTP
URS

0.03 ft/ft
0.005 ft/ft

5030 5040 5050 5060 5070 5080 5090 5100 5110 5120 5130 5140 5150 5160 5170 5180 5190 5200 5210 5220 5230 5240 5250 5260 5270 5280 5290 5330 5331

URS Detail



Legend

- CCR Monitoring Well Location
- Supplementary Site Monitoring Well Location
- Extraction Well Location
- CM Pre-Design Well Location
- Groundwater Elevation Contour (ft amsl) 10-Foot Contour Interval (Dashed Where Inferred)
- Groundwater Elevation Contour (ft amsl) 1-Foot Contour Interval (Dashed Where Inferred)
- Groundwater Flow Direction with Gradient (ft/ft)
- CCR Unit Boundary
- North Intercept Trench
- South Intercept Trench
- Approximate Extent of High Flow Zone
- Four Corners Power Plant Lease Boundary
- Ephemeral Surface Water Feature

Notes and Abbreviations:

MW-83	Well Identification
5329.28	Groundwater Elevation (ft amsl)
NM	Not Measured
*	Well not used in potentiometric surface mapping
ft amsl	Feet above mean sea level
CCR	Coal Combustion Residuals
FCCP	Four Corners Power Plant

0 700 1,400 2,800 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE 3-2

Potentiometric Surface Map November 2021

Job No.	14-2021-2005
PM:	MBH
Date:	1/11/2022
Scale:	1" = 1,400'

wood.

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MW-77S
5058.43
0.028

MW-78S
5047.41*
0.022

MW-21
5134.95
0.0029

MW-30
5062.94
0.0065

MW-79S
5064.02
0.011

DMX-01
5065.07
0.014

MW-81
5069.37
0.0072

MW-82S
5073.89
NS

MW-03
5112.98
0.0022

MW-19
5084.59
0.003

DMX-03
5065.07
0.0011 J

MW-01
5123.98
0.031

MW-50A
Dry
NS

MW-23R
5063.82
0.0052

MW-05
5052.19
0.0024

MW-60
5129.53
0.16

MW-52
5157.41
0.0026

0.03 ft/ft

MW-36R
5067.33
0.0012 J

MW-49A
5238.16
0.051

MW-18
5049.21
0.0023

MW-40R
5113.25
0.062

MW-56
5055.76
0.0043

CCR
Multi-Unit 1

MW-17R
5073.14
0.0014 J

MW-61
5100.68
0.1

DMX-04
5043.35
0.01

MW-75
5099.69
0.18

Chaco Wash

MW-06
5047.95
0.0036

MW-38R
5062.63
0.0065

MW-76
5088.52
0.095

MW-12R1
Dry
NS

MW-24
5044.10
0.15

MW-08
5087.86
0.017

MW-87
5045.78
0.056

MW-57
5049.59
0.006

DFADA 3

MW-55R
Dry
NS

MW-07
5128.35
0.0022

DMX-06
5046.68
0.0032

DFADA 2

DFADA 1

MW-15
5055.32
0.0016 J

MW-13
Dry
NS

MW-11
5080.10
NS

MW-16
5067.43
0.00088 J

MW-44
Dry
NS

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

Molybdenum Concentration in Groundwater (April 2021)

- 0.1 mg/L
- GWPS (0.1 mg/L; Dashed Where Inferred)

Notes and Abbreviations:

MW-52	Well Identification
5157.41	Groundwater Elevation (ft amsl)
0.0026	Molybdenum concentration (mg/L)
NS	Not Sampled
*	Well not used in potentiometric surface mapping
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

0 400 800 1,600 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE 4-1

Molybdenum Iso-Concentration Map for MultiUnit 1 - April 2021

Job No.	14-2021-2005
PM:	MBH
Date:	1/12/2022
Scale:	1" = 800'

wood.

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MW-21
5134.96
0.0039

MW-77S
5060.61
0.02

MW-78S
5048.13*
0.013

MW-30
5062.99
0.015

MW-79S
5063.92
0.0092

DMX-01
5064.69
0.019

MW-81
5069.58
0.0035

MW-82S
NM
0.00048

MW-03
5113.01
0.0022

MW-19
5086.05
0.0032

DMX-03
5051.21
0.00095

MW-01
5123.92
0.036

MW-23R
5063.38
0.0035

MW-05
5050.93
0.0017

MW-50A
5291.64
NS

MW-60
5128.84
0.19

MW-52
5156.97
0.0031

MW-36R
5067.24
0.00056

MW-49A
5237.80
0.049

MW-18
5048.92
0.0017

MW-40R
5112.52
NS

MW-56
5055.56
0.0045

MW-17R
5072.92
0.0013

MW-61
5100.32
0.11

DMX-04
5043.38
0.00055

MW-75
5099.26
0.2

Chaco Wash

MW-06
5043.35
0.004

MW-38R
5061.53
0.006

MW-76
5087.11
NS

MW-24
5043.43
0.034

MW-87
5044.86
0.065

MW-57
5049.34
0.0028

MW-08
5085.76
0.018

MW-07
5127.18
0.0061

DMX-06
5046.53
0.0064

MW-15
5055.10
0.0014

MW-13
Dry
NS

MW-11
5080.11
0.0034*

MW-16
5067.15
0.00079

MW-44
5121.48
NS

MW-12R1
Dry
NS

MW-55R
5148.02
NS

CCR
Multi-Unit 1

DFADA 1

DFADA 2

DFADA 3

DFADA 4

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
5050

Legend

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

Molybdenum Concentration in Groundwater (November 2021)

- 0.1 mg/L
- GWPS (0.1 mg/L; Dashed Where Inferred)

Notes and Abbreviations:

MW-52	Well Identification
5156.97	Groundwater Elevation (ft amsl)
0.0031	Molybdenum concentration (mg/L)
NS	Not Sampled
*	Well not used in potentiometric surface mapping
*	See report section 3.3.1
ft amsl	Feet above mean sea level
mg/L	Milligrams per Liter
CCR	Coal Combustion Residuals
GWPS	Groundwater Protection Standard

0 400 800 1,600 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE 4-2

Molybdenum Iso-Concentration Map for MultiUnit 1 - November 2021

Job No.	14-2021-2005
PM:	MBH
Date:	1/12/2022
Scale:	1" = 800'

wood.

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MW-21
5134.95
0.0052

MW-77S
5058.43
0.0053

MW-78S
5047.41*
0.019

MW-30
5062.94
0.0025

MW-79S
5064.02
0.0038

DMX-01
5065.07
0.00089

MW-81
5069.37
0.02

MW-82S
5073.89
NS

MW-03
5112.98
0.00054

MW-19
5084.59
0.00052

DMX-03
5051.40
0.0015 J

MW-23R
5063.82
0.00092 J

MW-01
5123.98
0.066

MW-05
5052.19
0.0094

MW-60
5129.53
0.21

MW-52
5157.41
0.089

MW-36R
5067.33
0.26

MW-18
5049.21
0.012

MW-40R
5113.25
0.012

MW-56
5055.76
0.00051 J

MW-49A
5238.16
0.00089

MW-50A
Dry
NS

0.03 ft/ft

MW-17R
5073.14
0.066

MW-61
5100.68
0.023

MW-75
5099.69
0.045

CCR
Multi-Unit 1

MW-12R1
Dry
NS

DMX-04
5043.35
0.00058 J

Chaco Wash

MW-38R
5062.63
0.25

MW-76
5088.52
0.015

MW-06
5047.95
0.0086

MW-24
5044.10
0.0021

MW-87
5045.78
0.0081

MW-57
5049.59
0.0019 J

MW-08
5087.86
0.0012

DFADA 3

MW-55R
Dry
NS

MW-07
5128.35
0.000094 J

DMX-06
5046.68
0.00046 J

DFADA 2

DFADA 1

MW-15
5055.32
0.0017 J

MW-13
Dry
NS

MW-11
5080.10
NS

MW-16
5067.43
0.0071

MW-44
Dry
NS

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

Cobalt Concentration in Groundwater (April 2021)

- 0.01 mg/L
- GWPS (0.01 mg/L; Dashed Where Inferred)

Notes and Abbreviations:

MW-52	Well Identification
5157.41	Groundwater Elevation (ft amsl)
0.089	Cobalt concentration (mg/L)
NS	Not Sampled
*	Well not used in potentiometric surface mapping
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

0 400 800 1,600 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE 4-3

Cobalt Iso-Concentration Map for MultiUnit 1 - April 2021

Job No.	14-2021-2005
PM:	MBH
Date:	1/12/2022
Scale:	1" = 800'

wood.

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MW-21
5134.96
0.0059

MW-77S
5060.61
0.0058

MW-78S
5048.13*
0.0071

MW-30
5062.99
0.0042

MW-79S
5063.92
0.0036

DMX-01
5064.69
0.00073

MW-81
5069.58
0.023

MW-82S
NM
0.06

MW-03
5113.01
0.00031

MW-19
5086.05
0.0016

DMX-03
5051.21
0.0013

MW-01
5123.92
0.074

MW-23R
5063.38
0.00068

MW-05
5050.93
0.0082

MW-50A
5291.64
NS

MW-60
5128.84
0.25

MW-52
5156.97
0.12

MW-36R
5067.24
0.26

MW-18
5048.92
0.012

MW-49A
5237.80
0.0014

MW-40R
5112.52
NS

MW-56
5055.56
0.00062

CCR
Multi-Unit 1

MW-17R
5072.92
0.072

MW-61
5100.32
0.028

MW-12R1
Dry
NS

DMX-04
5043.38
0.00055

MW-75
5099.26
0.054

Chaco Wash

MW-06
5043.35
0.00056

MW-38R
5061.53
0.25

MW-76
5087.11
NS

MW-55R
5148.02
NS

MW-24
5043.43
0.0042

MW-87
5044.86
0.0078

MW-57
5049.34
0.0035

MW-08
5085.76
0.00062

DFADA 3

MW-07
5127.18
0.00055

DMX-06
5046.53
0.00055

DFADA 2

DFADA 1

MW-15
5055.10
0.0016

MW-13
Dry
NS

MW-16
5067.15
0.0074

MW-11
5080.11
0.022*

MW-44
5121.48
NS

DFADA 4

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

Cobalt Concentration in Groundwater (November2021)

- 0.01 mg/L
- GWPS (0.01 mg/L; Dashed Where Inferred)

Notes and Abbreviations:

MW-52	Well Identification
5156.97	Groundwater Elevation (ft amsl)
0.012	Cobalt concentration (mg/L)
NS	Not Sampled
*	Well not used in potentiometric surface mapping
*	See report section 3.3.1
ft amsl	Feet above mean sea level
mg/L	Milligrams per Liter
CCR	Coal Combustion Residuals
FCCP	Four Corners Power Plant
GWPS	Groundwater Protection Standard

0 400 800 1,600 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE 4-4

Cobalt Iso-Concentration Map for MultiUnit 1 - November 2021

Job No.	14-2021-2005
PM:	MBH
Date:	1/12/2022
Scale:	1" = 800'

wood.

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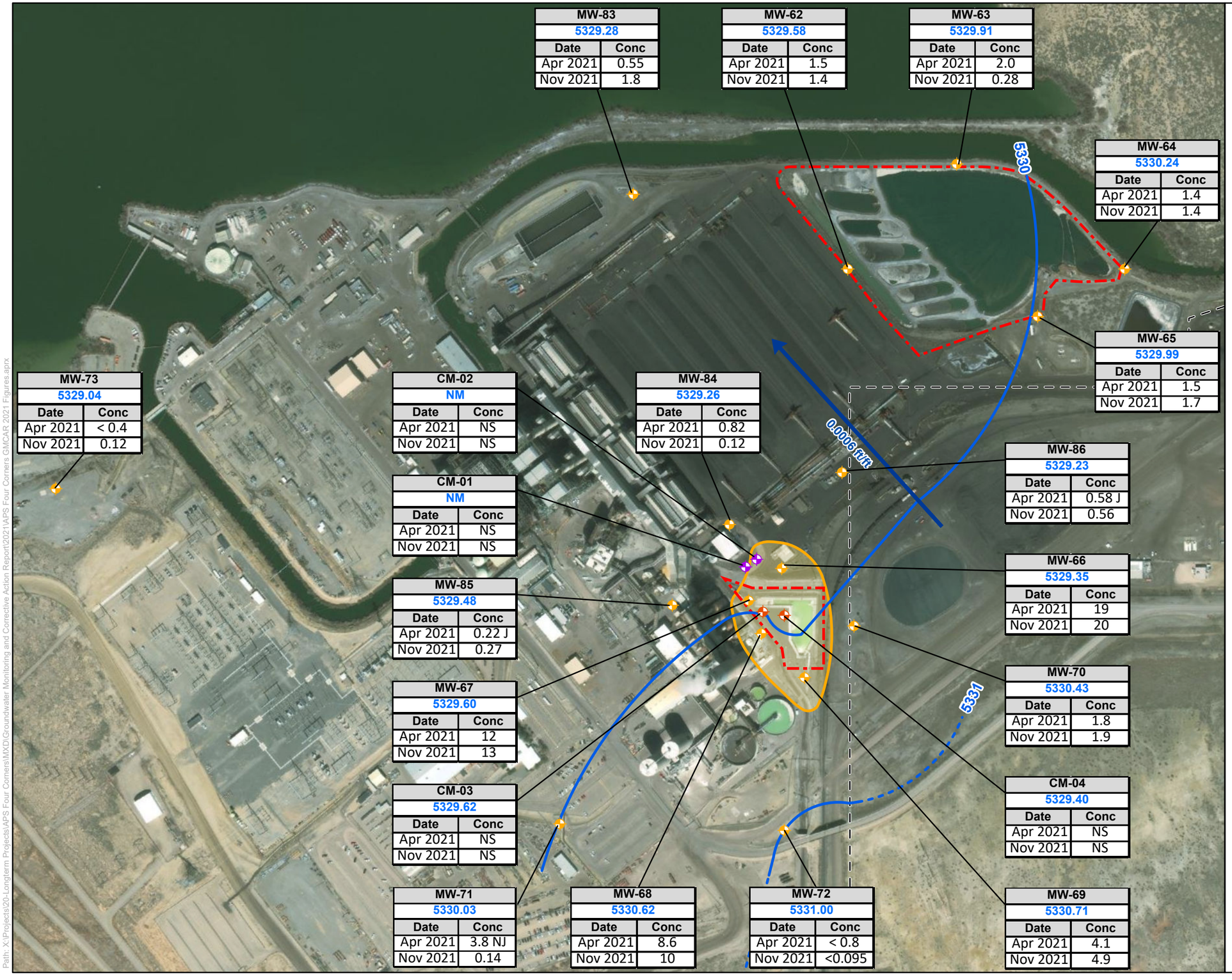

Legend

- CCR Monitoring Well Location
- Extraction Well Location
- CM Pre-Design Well Location
- CCR Unit Boundary
- North Intercept Trench
- South Intercept Trench
- Approximate Extent of High Flow Zone
- Four Corners Power Plant Lease Boundary
- Groundwater Elevation Contour (ft amsl) 1-Foot Contour Interval (Dashed Where Inferred)
- FlowDirection

Fluoride Concentration in Groundwater (April and November 2021)

- 4
- GWPS (4 mg/L; Dashed Where Inferred)

Notes and Abbreviations:

MW-62	Well Identification
5329.58	Groundwater Elevation (ft amsl)November 2021
1.5	Fluoride concentration (mg/L)
NS	Not Sampled
J	Result is estimated quantity
NJ	The analyte has been "tentatively identified" as present anc the associated numerical value is the estimated concentration in the sample
ft amsl	Feet above mean sea level
mg/L	Milligrams per Liter
CCR	Coal Combustion Residuals
FCCP	Four Corners Power Plant
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 2021

Job No. 14-2021-2005
PM: MBH
Date: 1/27/2022
Scale: 1" = 400'

wood.

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Appendix A

Alternative Source Demonstration for Boron and pH at the CWTP

Technical Memorandum

To:	Arizona Public Service Company	**File No:**	14-2021-2005
From:	Maren Henley, PE	**Reviewed by:**	Becky Weaver, PE
Date:	January 11, 2022		

Subject: **ALTERNATIVE SOURCE DEMONSTRATION FOR BORON AND pH AT THE CWTP Arizona Public Service Company Four Corners Power Plant – Fruitland, New Mexico**

1.0 INTRODUCTION

This technical memorandum (memo) documents an Alternative Source Demonstration (ASD) for the Combined Waste Treatment Pond (CWTP) located at the Arizona Public Service Company (APS) Four Corners Power Plant (FCPP) in Fruitland, New Mexico (the Facility). The ASD was prepared pursuant to Coal Combustion Residuals (CCR) Rule requirements for groundwater monitoring and corrective action detailed in 40 Code of Federal Regulations (CFR) Sections 257.90 through 257.98 (CCR Rule) (Federal Register, 2020).

Site background, CCR groundwater monitoring system, and historical operational information is presented in the *Annual Groundwater Monitoring and Corrective Action Report for 2020* (Wood Environment & Infrastructure Solutions, Inc. [Wood], 2021a). The CWTP is one of five regulated CCR units at the Facility. From 1978 to late 2020, the CWTP was used as a detention pond for settling and stabilizing comingled bottom ash transport water and low volume wastewater flows from the plant prior to discharge to Morgan Lake in accordance with a National Pollutant Discharge Elimination System (NPDES) permit. On November 23, 2020, APS ceased CCR discharges to the CWTP and provided notice of its intent to close the unit pursuant to the CCR Rule because it is an unlined pond and does not meet the location restriction requirement relative to the uppermost aquifer.

Throughout the closure process, groundwater monitoring continues. The CWTP is in detection monitoring. Statistical evaluations of Appendix III constituent data collected from CWTP compliance monitoring wells (Figure 1) in April and July of 2021 declared statistically significant increases (SSIs) over respective Background Threshold Values (BTVs) for field pH at MW-63 and boron at MW-65 (Wood, 2021b). These are referred to as the constituents of concern (COC) in this ASD. Recent concentrations of these COCs in CWTP compliance wells and supplementary monitoring points are presented in Figures 2 and 3 for boron and field pH, respectively.

Pursuant to 40 CFR §257.94(e)(2) of the CCR Rule, the owner/operator can demonstrate that a source, other than a release from the CCR unit, caused an apparent SSI within 90 days of the official SSI declaration. The ASD documented herein was performed by Wood to address the boron and field pH BTV exceedances declared on October 13, 2021 (Wood, 2021b). As noted with the statistical analysis performed at that time, there is reasonable doubt to directly conclude these SSI declarations are attributable to a release from the CWTP. Wood recommended performing an ASD to further review field pH and boron with a focus on the

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current Conceptual Site Model, changes in the operation of the CWTP and subsequent effects on the groundwater level and gradient patterns. There is a history of exceedance declarations at the CWTP with corresponding ASDs. Two previous ASDs for the CWTP were completed which are relevant to this ASD as those exceedances are attributable to the same underlying causes. Wood's approach to this ASD was to present the conclusions and recommendations of the previous ASDs and then systematically evaluate additional supporting information collected since the preparation of the previous ASDs to demonstrate that the SSIs declared at the CWTP in October 2021 are related to issues that have previously been identified and are not attributable to a release from the CWTP.

2.0 PREVIOUS ALTERNATIVE SOURCE DEMONSTRATIONS

Both of the previous ASDs prepared for the CWTP present lines of evidence that indicated the SSIs observed at CWTP compliance wells were not the result of a release from the CWTP. The key line of evidence presented in these documents was that the concentrations of Appendix III constituents in water collected from the CWTP (except field pH) are consistently less than the concentrations of these constituents observed in the downgradient compliance monitoring wells. The trend is reversed for field pH with higher concentrations in CWTP samples than groundwater. Supporting evidence that a source other than the CWTP is responsible for the SSIs over background at this unit includes:

- The region surrounding the CWTP contains fill material placed before the CWTP was commissioned that consists of bottom ash and Lewis Shale. At least two CWTP compliance wells (MW-62 and MW-63) are screened in these materials which appear to influence the water quality reported by these wells.
- The CWTP is located adjacent to the Facility cooling water canal and Morgan Lake; surface water from these sources infiltrate into soils surrounding the CWTP at variable rates adjacent to the compliance well locations.
- The coal pile and an unlined stormwater pond where runoff from the area around the coal pile discharges to are located adjacent to the CWTP and CWTP compliance wells MW-62 and MW-65, respectively.

These alternative sources of impacts to groundwater introduce spatial heterogeneity and result in physical limitations on where wells can be placed that could assist in differentiating the contributions of these effects. Therefore, it has been difficult to identify appropriate background data for statistical analysis and consequently appropriate BTVs that would indicate a release from the CWTP. This is an ongoing issue in the groundwater monitoring system that is being addressed in an iterative and data-driven manner through the ASD process.

Summaries of the two previous ASDs for the CWTP are as follows:

1. ***Alternative Source Demonstration for Boron, Calcium, Fluoride, and pH at the CWTP***, July 15, 2019. This ASD was prepared to address SSIs over the fluoride and field pH BTVs and initial exceedances over the calcium and boron BTVs declared on April 15, 2019 (Wood, 2019). The ASD concluded that the SSIs were caused by spatially inconsistent groundwater chemistry resulting from multiple factors, including past anthropogenic activities impacting subsurface conditions (i.e., placement of fill around the CWTP), surface water-groundwater interactions, and natural spatial variations in groundwater quality (Wood, 2019).

The statistical evaluations performed at that time suggested spatial heterogeneity is present which influences the validity of the statistical evaluations that were used to calculate the BTVs for the COCs. On this basis, the recommendation was to continue interwell statistical evaluations for all analytes except fluoride and field pH; but calculate new BTVs using more representative background data given the water quality characteristics of groundwater collected from each well. Intrawell statistical analyses were recommended for fluoride because background data for this analyte were deemed inadequate and non-representative. Intrawell analyses for field pH at MW-64 and MW-65 were recommended because the SSI for field pH at MW-64 and MW-65 was attributed to spatial heterogeneity caused by surface-groundwater interactions which made comparisons to background well data inappropriate.

2. ***Alternative Source Demonstration for Calcium at the CWTP***, July 12, 2020. This ASD was prepared to address SSIs over an updated calcium BTV at monitoring wells MW-62 and MW-63 declared on April 13, 2020. The ASD concluded that the SSIs were the result of spatial variations in groundwater quality and an unrepresentative calcium BTV for CWTP monitoring wells MW-62 and MW-63 which had been incorrectly updated after the 2019 ASD (Wood, 2020). The 2020 ASD recommended calculating two separate calcium BTVs as follows:

    - A new calcium BTV using data collected from background well MW-73 for an interwell comparison to data collected from CCR wells MW-62 and MW-63; and,
    - A new calcium BTV using data collected from background wells MW-71 and MW-72 for an interwell comparison to data collected from CCR wells MW-64 and MW-65.

Table 1 presents the current interwell and intrawell BTVs in place used to statistically evaluate Appendix III groundwater data collected from the CWTP monitoring system.

3.0 EVALUATION OF POTENTIAL ALTERNATIVE SOURCES

Boron and pH concentrations can naturally vary in soil and groundwater due to geologic and surface water infiltration influences but can also vary spatially due to historical site activities (i.e., anthropogenic impacts to groundwater), as in the case of the CWTP where select compliance wells are screened in fill materials consisting of Lewis Shale and bottom ash or adjacent to unlined facilities (coal pile and storm water pond). As identified in Section 2.0, these alternative sources continue to impact statistical assessment of leakage from the CWTP using the existing groundwater monitoring network. The following evaluation supplements analyses conducted in previous ASDs and is a discussion of key and supporting lines of evidence that raise reasonable uncertainty that the October 2021 SSI declarations for boron and field pH were caused by a release from the CWTP.

Operations and CWTP water level. At the end of 2020 and over the course of 2021, APS maintained a lower operating water level in the CWTP than when the unit was in service to preclude discharges from the unit into Morgan Lake through the outlet weir structure. The water level was also temporarily lowered more significantly to perform maintenance on pumps located in the far west region of the CWTP that supply water to the Navajo Mine. The timeline of approximate water level elevations in the CWTP is as follows:

- At the end of October 28, 2020, the operating water level was adjusted from approximately 5,332 feet (ft) to 5,330.6 ft to increase freeboard in the pond.
- In early 2021, the water level was lowered another two feet to perform maintenance on the pumps in the pond.

- The water level dropped to its lowest of approximately 5,328 ft in March 1, 2021.
- The water level was observed to be at approximate operating water level at the time Wood staff completed the November 2021 sampling.

Figure 4 presents a hydrograph with the water levels of the adjacent CCR compliance wells, background wells, and dashed lines to represent the approximate water level in the CWTP. These data show that there was a correlating response between the groundwater levels in the wells and CWTP with the water levels in the monitoring wells dropping approximately 1 to 1.5 ft in April and July of 2021, and then starting to rebound as the water level in the CWTP rose again by November 2021. However, the rebound in the wells was not as pronounced as the water level increase in the pond.

During the sampling event on November 2, 2020, the water level in the pond was likely higher than the water levels in the monitoring wells based on anecdotal evidence from the Site personnel. Over approximately the next 5 to 6 months, the CWTP water level dropped to a point where during the sampling event on April 19, 2021, the water level in the pond was lower than the water levels in the monitoring wells. Between the November 2020 sampling event and the sampling event in April 2021, the hydraulic gradient between the surrounding aquifer and the pond reversed causing groundwater flow to be towards the CWTP at all monitoring wells. As a result, the concentrations reported by MW-63 and MW-65 during the April and July sampling events are not representative of flow from the CWTP, but rather flow from the surrounding aquifer to the CWTP. This reversal in gradient contributed to the variability in boron concentrations and field pH observed and contributed to the declaration of SSIs that are not indicative of a release from the CWTP.

CWTP surface water quality data. An exceedance of a BTV is unlikely to be due to a release from a surface impoundment if the concentration of the constituent in water collected from the unit is less than the concentration of the constituent in downgradient wells. To further evaluate this line of evidence, which was previously documented in the 2019 ASD, one surface water sample was collected from the CWTP (SW-2, shown in Figure 1) on November 15, 2021, and sent to TestAmerica Laboratories, Inc. (TestAmerica) located in Phoenix, Arizona, for analysis of Appendix III constituents and select general chemistry constituents. TestAmerica is an Arizona Department of Health Services-licensed laboratory (AZ0728). In addition, surface water samples were collected from the cooling water canal and Morgan Lake (SW-1 and SW-3 shown in Figure 1).

The results of the analyses (Table 2) indicate that the concentrations of Appendix III constituents (except for field pH) in the CWTP, cooling water canal, and Morgan Lake samples were lower than the concentrations in samples collected from the compliance monitoring wells. This continues to indicate that the elevated concentrations of COCs in compliance wells are not caused by a release from the pond. The results from the surface water samples collected during the April 1, 2019 sampling event are also included in Table 1 for reference. The historical concentrations of Appendix III constituents in the surface water are similar to the recent concentrations in the CWTP for all constituents except field pH which was notably lower in surface water samples collected in November 2021. Laboratory pH is included in Table 2 as supplementary information for comparison purposes. Previous laboratory and field pH results have been virtually identical for surface water samples. The disparity between field and laboratory pH results of November 2021 and comparisons between historical and 2021 laboratory pH results indicate that the recent surface water field pH values may be questionable. Therefore, comparisons of the 2021 field pH data between the CWTP and MW-63 are premature at this time and need further evaluation.

A comparison of groundwater geochemistry with the geochemistry of the surface water samples taken in the November sampling event show that there has been no significant change in groundwater chemistry

signatures presented in previous ASDs. The stiff diagrams (Figure 5) for both the surface (SW-1 through 3) and groundwater sites (MW-62, MW-63, MW-64, and MW-65) continue to demonstrate the spatially heterogenous aquifer properties demonstrated in the 2019 and 2020 ASD. MW-64 and MW-65 continue to resemble that of the surface water samples. MW-62 and MW-63 continue to exhibit the same geochemical signatures indicating spatial variations understood to be caused by the presence of non-native fill materials in the subsurface.

Historical boron concentrations at MW-65. As depicted in Figure 6, boron concentrations measured in MW-65 have varied over the course of the groundwater monitoring program. The elevated levels of boron recently observed at this well (0.73 to 0.87 mg/L) are not unprecedented (they ranged from 0.75 to 0.92 mg/L during the baseline monitoring period) but were not identified as an SSI over background in recent years because the boron BTV for this well was previously based on pooling background well boron data from MW-71, MW-72, and MW-73. There is typically a statistically significant decreasing trend in boron at MW-65, the recent elevated concentration is a departure from this trend. It is possible that fluctuations in water levels in the CWTP have contributed to fluctuations in boron concentrations that have not been observed since the first ASD recommended to base the boron BTV on background data from MW-71 and MW-72 only. This change significantly reduced the boron BTV and did not acknowledge the variability in historical boron data at this well.

Historical pH concentrations at MW-63. As depicted in Figure 7, the field pH of MW-63 water has varied over the course of the groundwater monitoring program. As with the boron exceedance in MW-65, the elevated field pH observed at MW-63 (7.07 and 7.21 standard units [SU]) are also not unprecedented. Historical values in the CWTP compliance and supplementary monitoring wells have ranged from 6.17 to 8.27 SU. Exploratory data analysis (EDA) results of the statistical analysis that declared the pH SSI for MW-63 (Wood, 2021b) states the April and July 2021 field pH exceedances are not statistical outliers. The exceedances are representative of the sample concentrations and can be expected. However, there is typically a statistically significant decreasing trend in field pH at MW-63, the recent field pH is a departure from this trend. In addition, the statistical analysis EDA (Wood, 2021b) also notes relative increases in field pH at MW-64 and background well MW-73. The shared pattern of increases in field pH at the other wells around the CWTP may be attributable to the operational changes described above or suggest regional changes in groundwater.

4.0 FINDINGS AND RECOMMENDATIONS

The data and evaluation presented above indicate that the exceedances at the CWTP for boron and field pH are not definitively attributable to a release from the CWTP. This is consistent with previous ASDs in that the exceedances appear to be associated with anthropogenic activities impacting subsurface conditions and natural spatial variability in groundwater quality conditions.

Therefore, Wood recommends that detection monitoring should continue at the CWTP. In addition to detection monitoring, Wood recommends the following activities be performed to continue collecting supplemental data to support the ASD:

- CWTP surface water samples should be collected at the same time groundwater quality samples are collected during the semiannual sampling events.
- Implement additional quality control procedures for measuring and recording field parameters while collecting surface water samples, such as;
    - Collect and perform field measurements on a minimum of one duplicate surface water sample

    - Confirm probe readings in calibration buffer solutions before and after measuring the surface water sample.
- Evaluate updating the interwell BTV (suggested to be completed every 1 to 2 years [Wood 2021b]) and perform a preliminary intrawell statistical analysis for boron at MW-65

The lines of evidence presented support this ASD prepared in accordance with 40 CFR §257.95(g)(3)(ii) and supports the position that the BTV exceedances for boron and pH declared on October 13, 2021, were not due to a release from the CWTP.

5.0 CERTIFICATION

By means of this certification, I certify that I have reviewed this ASD and find the information presented herein accurate and appropriate and meet the requirements of 40 CFR §257.95(g)(3)(ii).

Rebecca A Weaver
Printed Name of Registered Professional Engineer

Signature

26773	New Mexico	January 11, 2022
Registration No.	Registration State	Date

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 April 17, 2015 with Amendments*.

Wood, 2019. *Alternative Source Demonstration for Boron, Calcium, Fluoride and pH at the CWTP*. Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico. Technical Memorandum dated July 15, 2019.

Wood, 2020. *Alternative Source Demonstration for Calcium at the CWTP*. Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico. Technical Memorandum dated July 12, 2020.

Wood, 2021a. *Annual Groundwater Monitoring and Corrective Action Report for 2020. Coal Combustion Residual Rule Groundwater Monitoring System Compliance*. Prepared on behalf of Arizona Public Service. January 31, 2021.

Wood, 2021b. *CCR Groundwater Detection Monitoring Statistical Analysis and Results for the CWTP Appendix III Constituent Data Collected through July 2021*. Arizona Public Service Four Corners Power Plant, Fruitland, New Mexico. Technical Memorandum dated October 13, 2021.

TABLES

Table 1. CWTP Interwell and Intrawell BTVs

Background Wells	Constituent	Interwell BTV
MW-71, MW-72	Boron	0.70 mg/L[2]
MW-73	Boron	2.0 mg/L[3]
MW-71, MW-72	Calcium	500 mg/L[3]
MW-73	Calcium	551 mg/L[3]
MW-71, MW-72, MW-73	Chloride	634 mg/L
MW-71, MW-72, MW-73	pH	6.48 - 6.93 SU[3]
MW-71, MW-72, MW-73	Sulfate	13000 mg/L
MW-71, MW-72, MW-73	TDS	20000 mg/L

Compliance Well	Constituent	Intrawell BTV
MW-62	Fluoride	1.6 mg/L
MW-63	Fluoride	2.3 mg/L
MW-64	Fluoride	1.5 mg/L
MW-64	pH	7.25 - 7.68 SU
MW-65	Fluoride	2.0 mg/L
MW-65	pH	6.96 - 8.27 SU

Notes:

[2] Only applicable to MW-64 and MW-65

[3] Only applicable to MW-62 and MW-63

Acronymns:

BTV = Background Threshold Value

CWTP = Combined Wastewater Treatment Pond

mg/L = milligrams per liter

SU = standard units

TDS = total dissolved solids

Table 2. Comparison of Analyte Concentrations in the CWTP and Associated Groundwater Monitoring Wells

				Surface Water Samples (see Figure 1 for sample locations)						Surface Water Samples			Groundwater Samples					
		BTV MW	BTV	SW-1	SW-2	SW-3	SW-4	SW-5	SW-6	SW-1	SW-2	SW-3	MW-63			MW-65		
Appendix III Analytes	**Units**	**63**	**MW-65**	4/1/2019						11/15/2021			4/22/2021	7/8/2021	11/15/2021	4/22/2021	7/8/2021	11/15/2021
Boron	mg/L	*2.0*	*0.7*	0.31	0.36	0.33	0.33	0.38	0.31	0.31	0.33	0.31	0.93	--	1.3	0.78	0.87	0.73
Calcium	mg/L	*551*	*500*	83	87	86	87	89	84	77	83	80	400	--	440	170	--	92
Chloride	mg/L	*634*	*634*	48	50	48	48	53	48	46	48	46	88	--	81	71	--	55
Fluoride	mg/L	*2.3*	*2.0*	0.81	0.91	0.81	0.81	0.94	0.82	0.76	0.79	0.75	2.0	--	0.28	1.5	--	1.7
Field pH	SU	*6.48 - 6.93*	*6.96-8.27*	8.38	8.04	8.37	8.45	8.13	8.37	6.73	6.17	6.68	7.07	7.21	6.89	7.19	7.40	7.14
Laboratory pH	SU			8.3	8.0	8.3	8.4	8.1	8.4	8.5	8.0	7.9	7.5	7.2	7.7	7.7	--	8.0
Sulfate	mg/L	*13,000*	*13,000*	410	450	400	410	450	410	420	430	420	1,900	--	2,100	740	--	390
Total Dissolved Solids	mg/L	*20,000*	*20,000*	760	810	760	760	850	770	810	670	680	3,200	--	3,600	540	--	910

Notes:

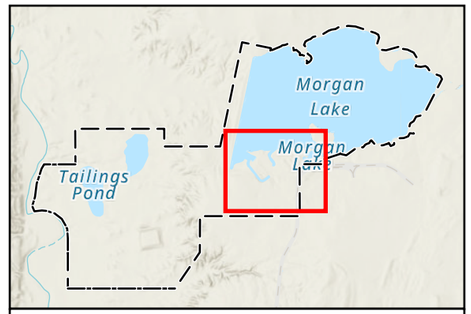
-- Sample not taken (date was for re-sampling).

BTV = Background Threshold Value

mg/L = milligrams per liter

Shaded cells are analyte concentrations tha exceeded the BTV.

FIGURES



Site Overview

Legend

- CCR Monitoring Well Location
- CWTP Compliance Well Location

Surface Water Sample Location by Water Source

- CWTP
- Cooling Water
- Morgan Lake
- FCPP Lease Boundary

CCR Units

- Combined Waste Treatment Pond (CWTP)
- Upper Retention Sump (URS)

Notes:

MW-64	Well Identification
CWTP	Combined Waste Treatment Pond
URS	Upper Retention Sump
CCR	Coal Combustion Residuals
FCPP	Four Corners Power Plant

0 150 300 450 900 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE **1**

CWTP Monitoring Locations

Job No.	14-2021-2005
PM:	MBH
Date:	12/16/2021
Scale:	1" = 450'

wood.

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SW-3 (2019)	
Month	Conc.
April 2019	0.33

SW-4 (2019)	
Month	Conc.
April 2019	0.33

MW-63	
Month	Conc.
April 2021	0.93
Nov 2021	0.58

SW-5 (2019)	
Month	Conc.
April 2019	0.38

SW-6 (2019)	
Month	Conc.
April 2019	0.31

SW-2 (2021)	
Month	Conc.
Nov 2021	0.33

SW-1 (2019)	
Month	Conc.
April 2019	0.31

SW-3 (2021)	
Month	Conc.
Nov 2021	0.31

SW-2 (2019)	
Month	Conc.
April 2019	0.36

MW-64	
Month	Conc.
April 2021	0.50
Nov 2021	0.58

SW-1 (2021)	
Month	Conc.
Nov 2021	0.31

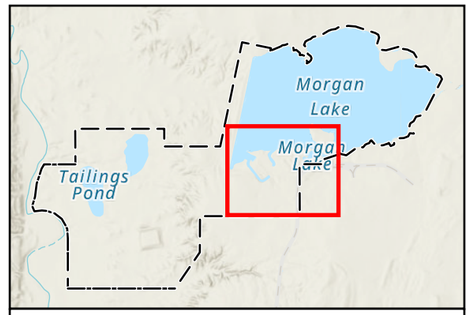
MW-62	
Month	Conc.
April 2021	1.90
Nov 2021	**2.30**

MW-65	
Month	Conc.
April 2021	0.78
July 2021	0.87
Nov 2021	0.73

MW-73	
Month	Conc.
April 2021	1.60
Nov 2021	1.60

MW-71	
Month	Conc.
April 2021	0.73
Nov 2021	0.54

MW-72	
Month	Conc.
April 2021	0.25
Nov 2021	0.22



Site Overview

Legend

- CCR Monitoring Well Location
- CWTP Compliance Well Location

Surface Water Sample Location by Water Source

- CWTP
- Cooling Water
- Morgan Lake
- FCPP Lease Boundary

CCR Units

- Combined Waste Treatment Pond (CWTP)
- Upper Retention Sump (URS)

Notes:

MW-64	Well identification
0,50	Boron concentration (mg/L)
	Bold values indicate measurement exceeds BTV for that well*
*	2,0 mg/L: MW-62, MW-63, MW-73 0.70 mg/L: MW-64, MW-65, MW-71, MW-72
mg/L	milligram per liter
BTV	Background Threshold Value
CWTP	Combined Waste Treatment Pond
URS	Upper Retention Sump
CCR	Coal Combustion Residuals
FCPP	Four Corners Power Plant

0 250 500 1,000 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE 2

Boron Concentrations at CWTP Monitoring Locations

Job No.	14-2021-2005
PM:	MBH
Date:	1/7/2022
Scale:	1" = 500'

wood.

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SW-3 (2019)	
Month	Conc.
April 2019	8.37

SW-4 (2019)	
Month	Conc.
April 2019	8.45

MW-63	
Month	Conc.
April 2021	**7.07**
July 2021	**7.21**
Nov 2021	6.89

SW-5 (2019)	
Month	Conc.
April 2019	8.13

SW-6 (2019)	
Month	Conc.
April 2019	8.37

SW-2 (2021)	
Month	Conc.
Nov 2021	6.17

SW-1 (2019)	
Month	Conc.
April 2019	8.38

SW-3 (2019)	
Month	Conc.
April 2019	8.37

SW-2 (2019)	
Month	Conc.
April 2019	8.04

MW-64	
Month	Conc.
April 2021	7.60
Nov 2021	7.29

SW-1 (2021)	
Month	Conc.
Nov 2021	6.73

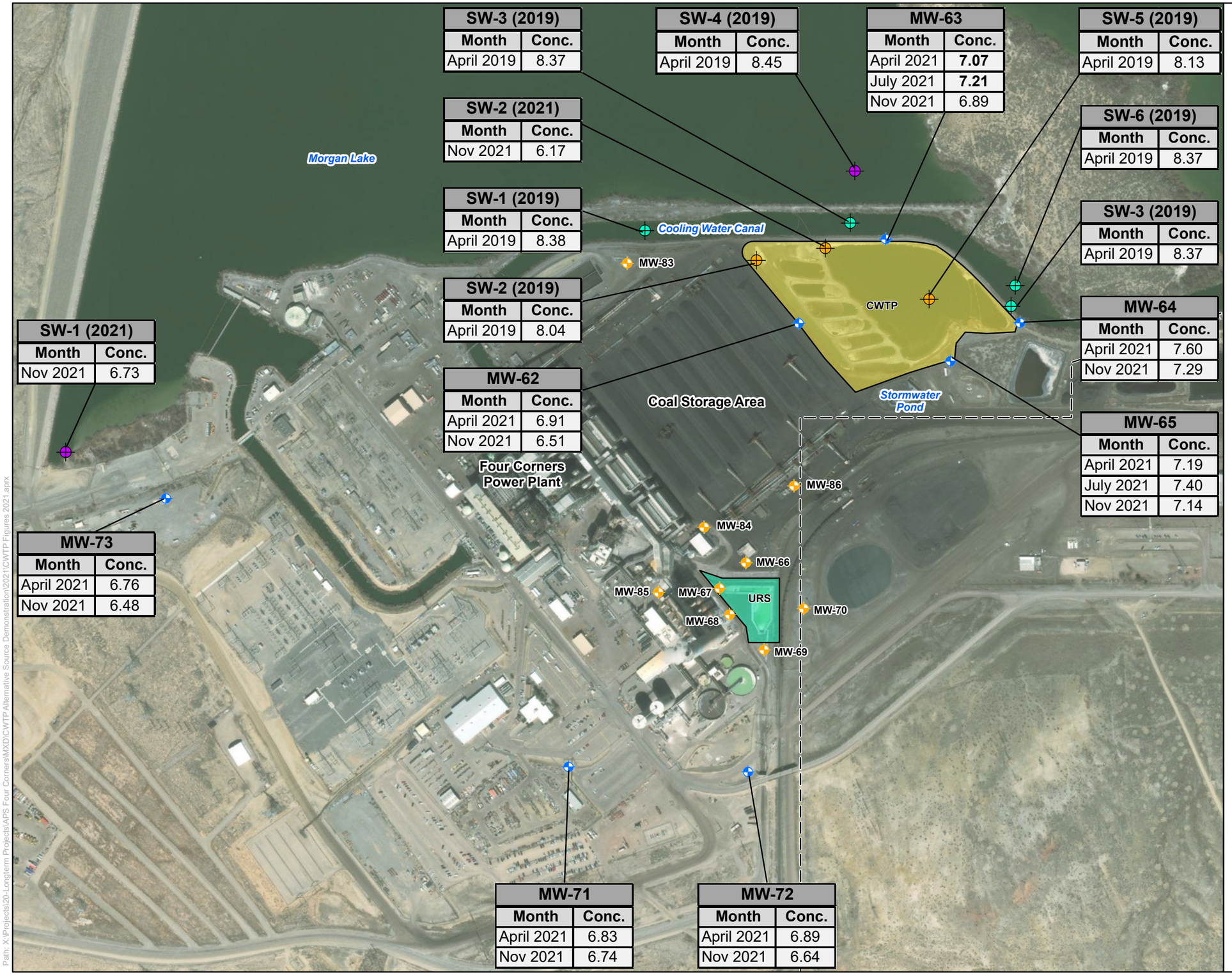
MW-62	
Month	Conc.
April 2021	6.91
Nov 2021	6.51

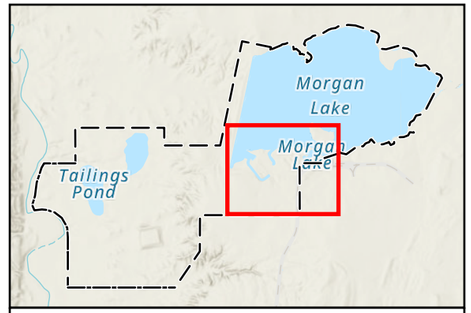
MW-65	
Month	Conc.
April 2021	7.19
July 2021	7.40
Nov 2021	7.14

MW-73	
Month	Conc.
April 2021	6.76
Nov 2021	6.48

MW-71	
Month	Conc.
April 2021	6.83
Nov 2021	6.74

MW-72	
Month	Conc.
April 2021	6.89
Nov 2021	6.64





Site Overview

Legend

- CCR Monitoring Well Location
- CWTP Compliance Well Location

Surface Water Sample Location by Water Source

- CWTP
- Cooling Water
- Morgan Lake
- FCPP Lease Boundary

CCR Units

- Combined Waste Treatment Pond (CWTP)
- Upper Retention Sump (URS)

Notes:

MW-64	Well identification
7,60	pH concentration (su)
	Bold values indicate measurement exceeds BTV for that well*
*	Range of pH (su)
	6.48 – 6.93: MW-62, MW-63, MW-71, MW-72, MW-73
	7.25 – 7.68: MW-64
	6.96 – 8.27: MW-65
su	Standard Units
BTV	Background Threshold Value
CWTP	Combined Waste Treatment Pond
URS	Upper Retention Sump
CCR	Coal Combustion Residuals
FCPP	Four Corners Power Plant

0 250 500 1,000 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE 3

pH Concentrations at CWTP Monitoring Locations

Job No. 14-2021-2005
PM: MBH
Date: 1/7/2022
Scale: 1" = 500'

wood.

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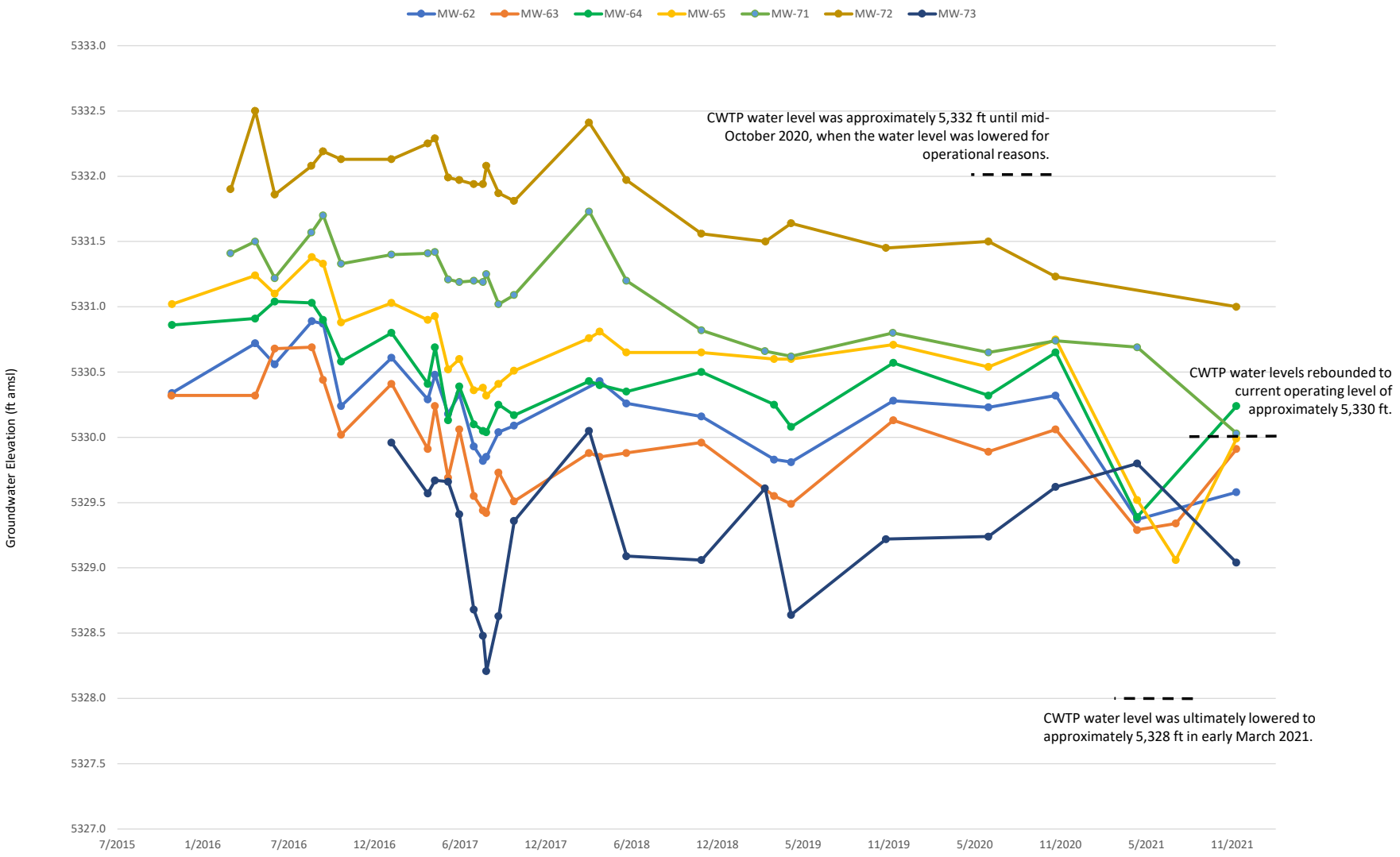
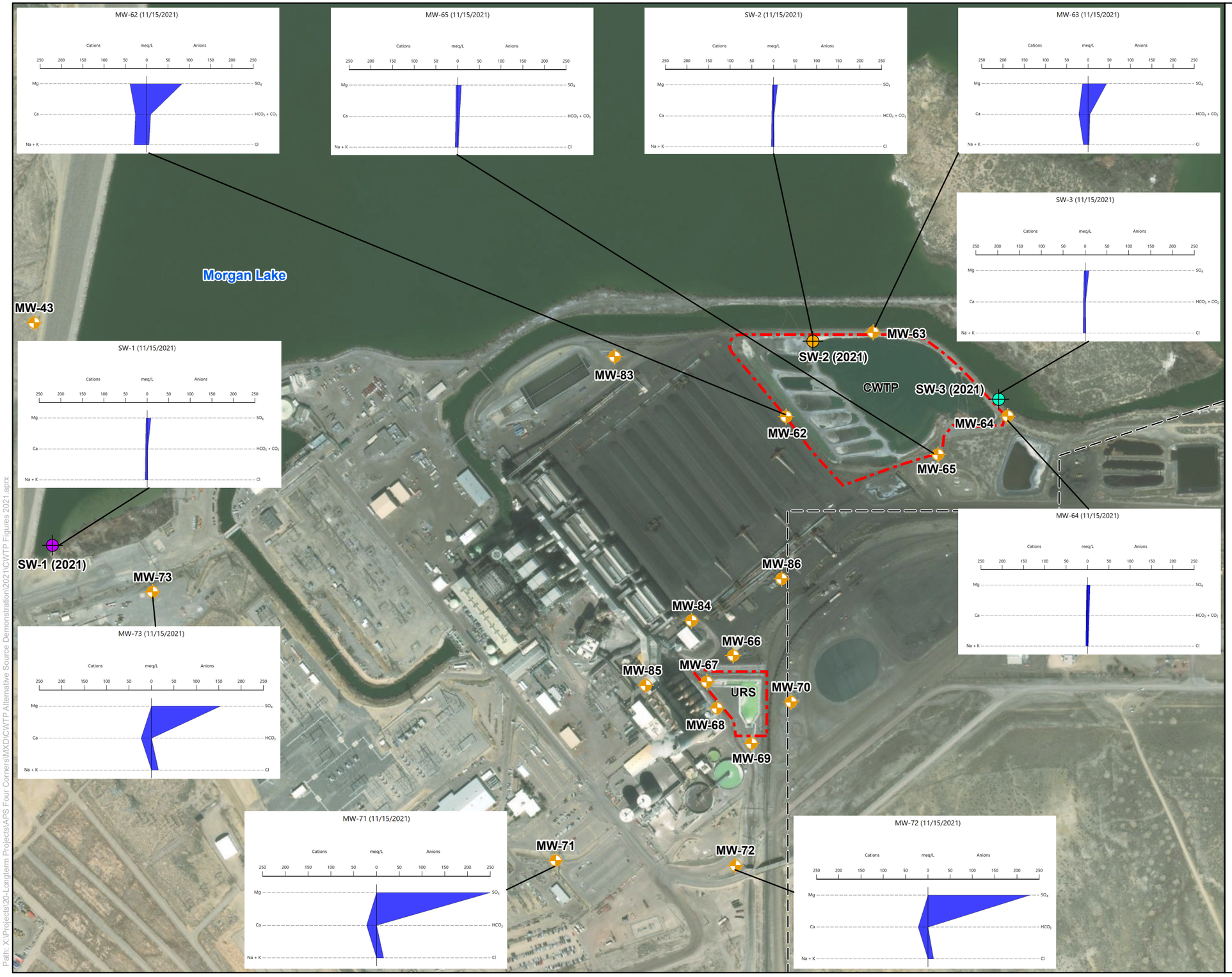
Figure 4
Hydrographs for CWTP Wells



Note: Water level recorded for MW-72 in 4/2021 (5339.66 ft amsl) was likely an error. The water level was not included in this data set.



Legend

- CCR Monitoring Well Location

Surface Water Sample Location by Water Source

- Cooling Water
- CWTP
- Morgan Lake
- Four Corners Power Plant Lease Boundary
- CCR Unit Boundary

Notes:

MW-64	Well Identification
CWTP	Combined Waste Treatment Pond
URS	Upper Retention Sump
CCR	Coal Combustion Residuals
FCPP	Four Corners Power Plant

0 250 500 1,000 Feet

N

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

FIGURE **5**

Stiff Diagrams Depicting General Water Quality at CWTP Monitoring Locations

Job No.	14-2021-2005
PM:	MH
Date:	1/10/2022
Scale:	1" = 500'

wood.

The map shown here has been created with all due and reasonable care and is strictly for use with Wood Environment & Infrastructure Solutions, Inc. Project Number 14-2021-2005. 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. Wood Environment & Infrastructure Solutions, Inc. assumes no liability, direct or indirect, whatsoever for any such third party or unintended use.

Path: X:\Projects\20-Longterm Projects\APS Four Corners\MXD\CWTP Alternative Source Demonstration\2021\CWTP Figures 2021.aprx

Figure 6
CWTP Boron Over Time

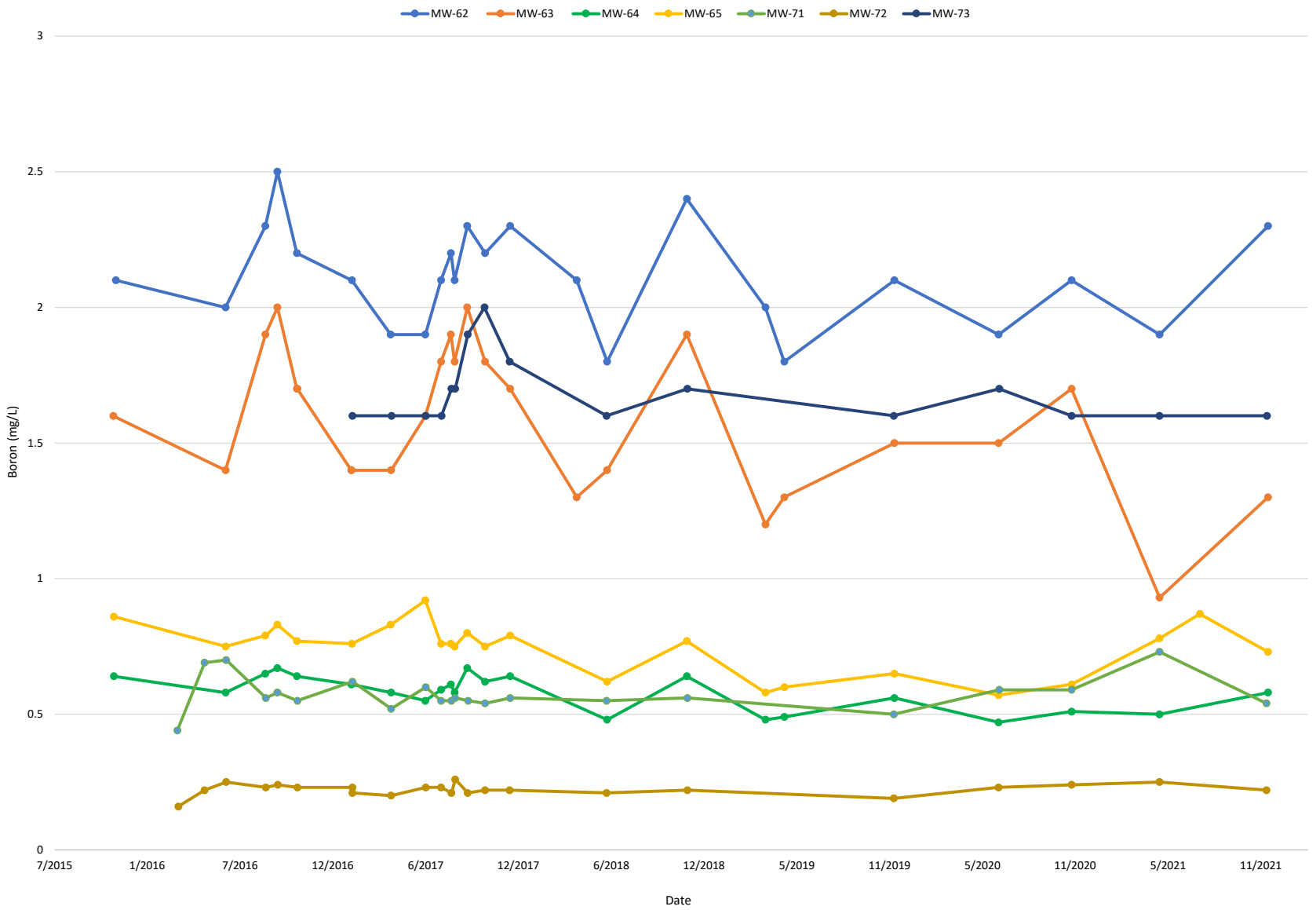
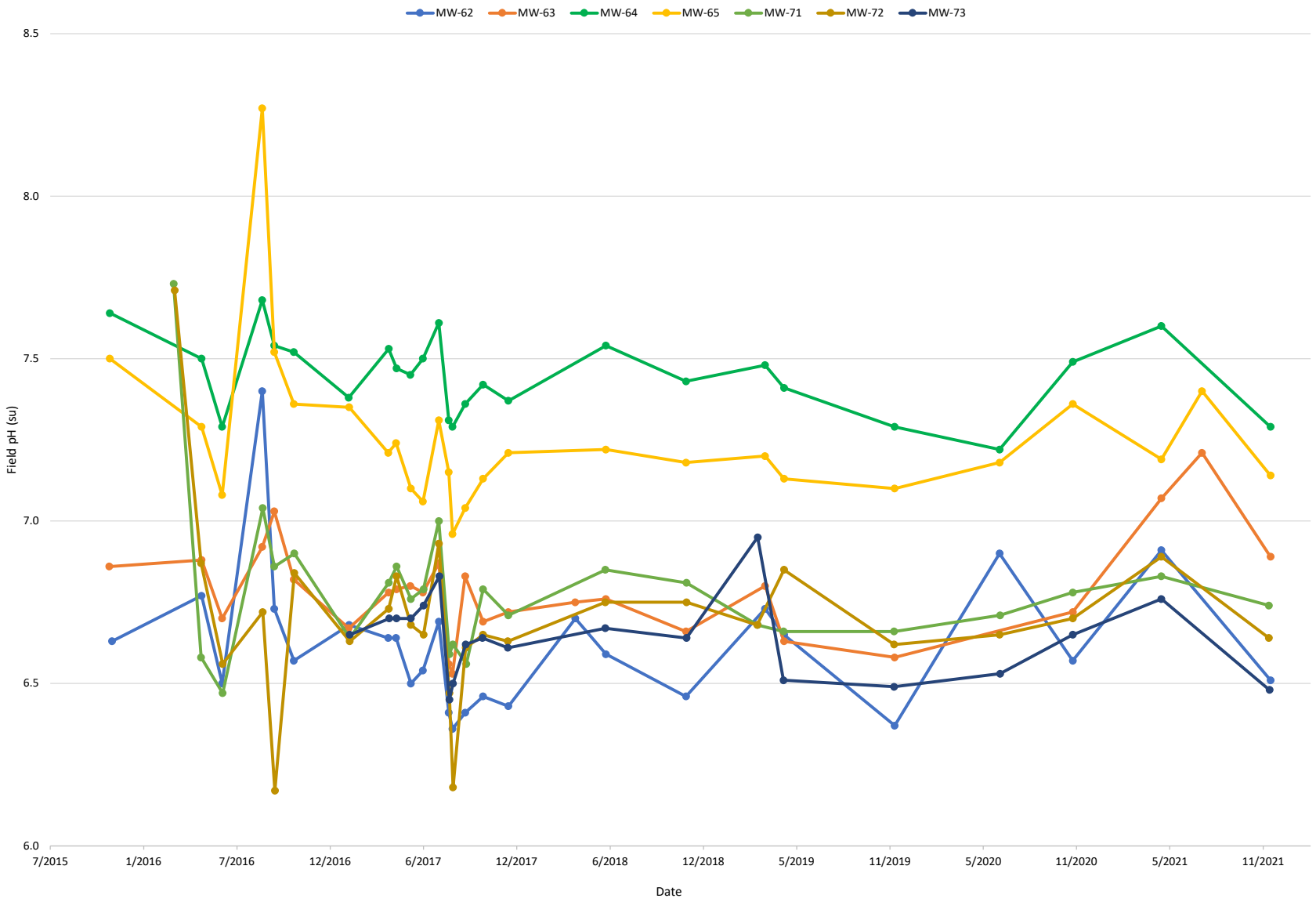


Figure 7
CWTP pH Over Time



APPENDIX A

LABORATORY REPORT FOR ASD SAMPLING EVENTS

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-174394-1
Laboratory SDG: APS Four Corners Power Plant (CWTP)
Client Project/Site: CCR Groundwater Monitoring

For:
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Attn: Jim Edwards

Rachel F. Sester

Authorized for release by:
11/30/2021 4:04:20 PM

Rachel Sester, Project Manager I
(602)659-7615
Rachel.Sester@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174394-1
SDG: APS Four Corners Power Plant (CWTP)

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.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
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
D1	Sample required dilution due to matrix.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
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.

General Chemistry

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
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.
R8	Sample RPD exceeded the method acceptance limit.

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: 550-174394-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-174394-1

Comments
No additional comments.

Receipt
The samples were received on 11/16/2021 3:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 0.2º C, 0.9º C, 1.3º C, 1.5º C and 1.8º C.

Receipt Exceptions
All sample containers received in Denver have 75-125ml of volume.
FC-CCR-MW62-1121 (550-174394-1), FC-CCR-MW63-1121 (550-174394-2), FC-CCR-MW64-1121 (550-174394-3), FC-CCR-MW65-1121 (550-174394-4), FC-CCR-SW1-1121 (550-174394-5), FC-CCR-SW2-1121 (550-174394-6) and FC-CCR-SW3-1121 (550-174394-7)

HPLC/IC
Method 300.0: The following sample was diluted for Nitrate as N and Nitrite as N due to the nature of the sample matrix: FC-CCR-MW62-1121 (550-174394-1). Elevated reporting limits (RLs) have been provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 200.7 Rev 4.4: The continuing calibration blank (CCB) for analytical batch 550-259108 contained Boron 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.

Method 200.7 Rev 4.4: The continuing calibration blank (CCB) for analytical batch 550-259264 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.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method SM 2540C: The sample duplicate (DU) precision for analytical batch 550-259302 was outside control limits for Total Dissolved Solids (TDS). Sample non-homogeneity was suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method SM 2540C: The sample duplicate (DU) precision for 550-259315 was outside control limits for Total Dissolved Solids (TDS). Sample non-homogeneity was suspected. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision met acceptance criteria.

Method SM 2320B: The sample duplicate (DU) precision for the following sample associated with analytical batch 550-259778 was outside control limits for Alkalinity: (550-174392-A-2) and (550-174392-A-2 DU). Non-homogeneity of the sample matrix was suspected. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision met acceptance criteria.

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: 550-174394-1
SDG: APS Four Corners Power Plant (CWTP)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-174394-1	FC-CCR-MW62-1121	Water	11/15/21 11:28	11/16/21 15:15
550-174394-2	FC-CCR-MW63-1121	Water	11/15/21 12:58	11/16/21 15:15
550-174394-3	FC-CCR-MW64-1121	Water	11/15/21 13:58	11/16/21 15:15
550-174394-4	FC-CCR-MW65-1121	Water	11/15/21 10:47	11/16/21 15:15
550-174394-5	FC-CCR-SW1-1121	Water	11/15/21 09:28	11/16/21 15:15
550-174394-6	FC-CCR-SW2-1121	Water	11/15/21 12:22	11/16/21 15:15
550-174394-7	FC-CCR-SW3-1121	Water	11/15/21 13:22	11/16/21 15:15

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174394-1
SDG: APS Four Corners Power Plant (CWTP)

Client Sample ID: FC-CCR-MW62-1121 — Lab Sample ID: 550-174394-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	180	D1	4.0	1.0	mg/L	2		300.0	Total/NA
Fluoride	1.4	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	4000	D2	200	43	mg/L	100		300.0	Total/NA
Lithium	0.14		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	2.3		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	530		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	480		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	9.3		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	670		0.50	0.031	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.025	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cobalt	0.014	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0027	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Thallium	0.000098	D1 E4	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	850		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	850		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6700	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	9.5	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW63-1121 — Lab Sample ID: 550-174394-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	81	D2 E4	100	26	mg/L	50		300.0	Total/NA
Fluoride	0.28	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Nitrate as N	20	D1	0.10	0.028	mg/L	2		300.0	Total/NA
Nitrate Nitrite as N	20	D1	0.10	0.042	mg/L	2		300.0	Total/NA
Nitrite as N	0.15	D1	0.10	0.042	mg/L	2		300.0	Total/NA
Sulfate	2100	D2	200	43	mg/L	100		300.0	Total/NA
Beryllium	0.00019	E4	0.0010	0.000067	mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.066		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	1.3		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	440	M3	2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	160	M3	2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	5.5		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	250	M3	0.50	0.031	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00010	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Barium	0.022	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.000064	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0022	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0035	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Thallium	0.00015	D1 E4	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	330		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	330		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	3600	D2	40	40	mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	9.5	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW64-1121 — Lab Sample ID: 550-174394-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	51		2.0	0.52	mg/L	1		300.0	Total/NA
Fluoride	1.4		0.40	0.047	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample ID: FC-CCR-MW64-1121 (Continued)

Lab Sample ID: 550-174394-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	1.3		0.050	0.014	mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	1.5		0.050	0.021	mg/L	1		300.0	Total/NA
Nitrite as N	0.15		0.050	0.021	mg/L	1		300.0	Total/NA
Sulfate	270	D2	20	4.3	mg/L	10		300.0	Total/NA
Beryllium	0.00030	E4	0.0010	0.000067	mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.019	E4	0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.58		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	72		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	29		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	5.4		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	95		0.50	0.031	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.024	D1 M1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.000058	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0018	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0052	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Thallium	0.00041	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	230		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	230		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	680		20	20	mg/L	1		SM 2540C	Total/NA
pH	7.1	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	8.8	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW65-1121

Lab Sample ID: 550-174394-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	55		2.0	0.52	mg/L	1		300.0	Total/NA
Fluoride	1.7		0.40	0.047	mg/L	1		300.0	Total/NA
Nitrate as N	0.22		0.050	0.014	mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	0.48		0.050	0.021	mg/L	1		300.0	Total/NA
Nitrite as N	0.26		0.050	0.021	mg/L	1		300.0	Total/NA
Sulfate	390	D2	20	4.3	mg/L	10		300.0	Total/NA
Beryllium	0.00020	E4	0.0010	0.000067	mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.053		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.73		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	92		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	53		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	4.2		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	130		0.50	0.031	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.020	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0022	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0098	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Thallium	0.000072	D1 E4	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	330		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	320		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	910		20	20	mg/L	1		SM 2540C	Total/NA
pH	8.0	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	8.4	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-SW1-1121

Lab Sample ID: 550-174394-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	46		2.0	0.52	mg/L	1		300.0	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: 550-174394-1
SDG: APS Four Corners Power Plant (CWTP)

Client Sample ID: FC-CCR-SW1-1121 (Continued) — Lab Sample ID: 550-174394-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.76		0.40	0.047	mg/L	1		300.0	Total/NA
Nitrate as N	0.073		0.050	0.014	mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	0.073		0.050	0.021	mg/L	1		300.0	Total/NA
Sulfate	420	D2	20	4.3	mg/L	10		300.0	Total/NA
Beryllium	0.00012	E4	0.0010	0.000067	mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.082		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.31		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	77		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	30		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	7.1		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	99		0.50	0.031	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00068	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Barium	0.20	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cobalt	0.00023	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0057	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Thallium	0.000046	D1 E4	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	110		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	110		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	810		20	20	mg/L	1		SM 2540C	Total/NA
pH	8.5	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	8.4	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-SW2-1121 — Lab Sample ID: 550-174394-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	48		2.0	0.52	mg/L	1		300.0	Total/NA
Fluoride	0.79		0.40	0.047	mg/L	1		300.0	Total/NA
Nitrate as N	0.081		0.050	0.014	mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	0.081		0.050	0.021	mg/L	1		300.0	Total/NA
Sulfate	430	D2	20	4.3	mg/L	10		300.0	Total/NA
Lithium	0.074		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.33		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	83		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	33		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	7.8		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	110		0.50	0.031	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00064	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Arsenic	0.0010	D1	0.0010	0.00049	mg/L	2		200.8 LL	Total/NA
Barium	0.18	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cobalt	0.00013	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0056	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	130		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	130		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	670	R8	20	20	mg/L	1		SM 2540C	Total/NA
pH	8.0	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	8.7	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-SW3-1121 — Lab Sample ID: 550-174394-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	46		2.0	0.52	mg/L	1		300.0	Total/NA
Fluoride	0.75		0.40	0.047	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample ID: FC-CCR-SW3-1121 (Continued)

Lab Sample ID: 550-174394-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	420	D2	20	4.3	mg/L	10		300.0	Total/NA
Beryllium	0.00014	E4	0.0010	0.000067	mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.079		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.31		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	80		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	30		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	7.4		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	97		0.50	0.031	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00082	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Arsenic	0.00054	D1 E4	0.0010	0.00049	mg/L	2		200.8 LL	Total/NA
Barium	0.22	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cobalt	0.00024	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Lead	0.00044	D1 E4	0.0010	0.00044	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0060	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	100		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	100		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	680		20	20	mg/L	1		SM 2540C	Total/NA
pH	7.9	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	9.7	H5	0.1	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-MW62-1121

Date Collected: 11/15/21 11:28
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**	**D1**	4.0	1.0	mg/L			11/17/21 05:42	2
Fluoride	**1.4**	**D1**	0.80	0.095	mg/L			11/17/21 05:42	2
Nitrate as N	ND	D1 D5 E8	0.10	0.028	mg/L			11/17/21 05:42	2
Nitrate Nitrite as N	ND	D1 D5 E8	0.10	0.042	mg/L			11/17/21 05:42	2
Nitrite as N	ND	D1 D5 E8	0.10	0.042	mg/L			11/17/21 05:42	2
Sulfate	**4000**	**D2**	200	43	mg/L			11/23/21 20:35	100

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/17/21 06:02	11/18/21 23:40	1
Lithium	**0.14**		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 14:52	1
Boron	**2.3**		0.050	0.0025	mg/L		11/17/21 06:02	11/18/21 23:40	1
Calcium	**530**		2.0	0.013	mg/L		11/17/21 06:02	11/18/21 23:40	1
Magnesium	**480**		2.0	0.044	mg/L		11/17/21 06:02	11/19/21 18:12	1
Potassium	**9.3**		0.50	0.17	mg/L		11/17/21 06:02	11/18/21 23:40	1
Sodium	**670**		0.50	0.031	mg/L		11/17/21 06:02	11/19/21 18:12	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0020	0.000087	mg/L		11/17/21 08:25	11/22/21 15:37	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 08:25	11/22/21 15:37	2
Barium	**0.025**	**D1**	0.0010	0.00052	mg/L		11/17/21 08:25	11/22/21 15:37	2
Cadmium	ND	D1 E8	0.00020	0.000046	mg/L		11/17/21 08:25	11/22/21 15:37	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 08:25	11/22/21 15:37	2
Cobalt	**0.014**	**D1**	0.0010	0.00013	mg/L		11/17/21 08:25	11/22/21 15:37	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 08:25	11/22/21 15:37	2
Molybdenum	**0.0027**	**D1**	0.0010	0.00040	mg/L		11/17/21 08:25	11/22/21 15:37	2
Selenium	ND	D1 E8	0.0010	0.00015	mg/L		11/17/21 08:25	11/22/21 15:37	2
Thallium	**0.000098**	**D1 E4**	0.00020	0.000026	mg/L		11/17/21 08:25	11/22/21 15:37	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/23/21 15:43	11/23/21 19:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**850**		6.0	6.0	mg/L			11/28/21 13:20	1
Bicarbonate Alkalinity as CaCO3	**850**		6.0	6.0	mg/L			11/28/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Total Dissolved Solids	**6700**	**D2**	100	100	mg/L			11/22/21 15:11	1
pH	**7.7**	**H5**	1.7	1.7	SU			11/24/21 10:35	1
Temperature	**9.5**	**H5**	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-MW63-1121

Date Collected: 11/15/21 12:58
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-2

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	81	D2 E4	100	26	mg/L			11/24/21 23:51	50
Fluoride	0.28	D1 E4	0.80	0.095	mg/L			11/17/21 05:14	2
Nitrate as N	20	D1	0.10	0.028	mg/L			11/17/21 05:14	2
Nitrate Nitrite as N	20	D1	0.10	0.042	mg/L			11/17/21 05:14	2
Nitrite as N	0.15	D1	0.10	0.042	mg/L			11/17/21 05:14	2
Sulfate	2100	D2	200	43	mg/L			11/23/21 20:17	100

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00019	E4	0.0010	0.000067	mg/L		11/17/21 06:02	11/18/21 23:37	1
Lithium	0.066		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 14:56	1
Boron	1.3		0.050	0.0025	mg/L		11/17/21 06:02	11/18/21 23:37	1
Calcium	440	M3	2.0	0.013	mg/L		11/17/21 06:02	11/18/21 23:37	1
Magnesium	160	M3	2.0	0.044	mg/L		11/17/21 06:02	11/19/21 18:10	1
Potassium	5.5		0.50	0.17	mg/L		11/17/21 06:02	11/18/21 23:37	1
Sodium	250	M3	0.50	0.031	mg/L		11/17/21 06:02	11/19/21 18:10	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00010	D1 E4	0.0020	0.000087	mg/L		11/17/21 08:25	11/22/21 15:39	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 08:25	11/22/21 15:39	2
Barium	0.022	D1	0.0010	0.00052	mg/L		11/17/21 08:25	11/22/21 15:39	2
Cadmium	0.000064	D1 E4	0.00020	0.000046	mg/L		11/17/21 08:25	11/22/21 15:39	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 08:25	11/22/21 15:39	2
Cobalt	0.0022	D1	0.0010	0.00013	mg/L		11/17/21 08:25	11/22/21 15:39	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 08:25	11/22/21 15:39	2
Molybdenum	0.0035	D1	0.0010	0.00040	mg/L		11/17/21 08:25	11/22/21 15:39	2
Selenium	ND	D1 E8	0.0010	0.00015	mg/L		11/17/21 08:25	11/22/21 15:39	2
Thallium	0.00015	D1 E4	0.00020	0.000026	mg/L		11/17/21 08:25	11/22/21 15:39	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/23/21 15:43	11/23/21 19:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	330		6.0	6.0	mg/L			11/22/21 08:02	1
Bicarbonate Alkalinity as CaCO3	330		6.0	6.0	mg/L			11/22/21 08:02	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:02	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/22/21 08:02	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:02	1
Total Dissolved Solids	3600	D2	40	40	mg/L			11/22/21 15:11	1
pH	7.7	H5	1.7	1.7	SU			11/24/21 10:35	1
Temperature	9.5	H5	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-MW64-1121

Date Collected: 11/15/21 13:58
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-3

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	51		2.0	0.52	mg/L			11/17/21 04:46	1
Fluoride	1.4		0.40	0.047	mg/L			11/17/21 04:46	1
Nitrate as N	1.3		0.050	0.014	mg/L			11/17/21 04:46	1
Nitrate Nitrite as N	1.5		0.050	0.021	mg/L			11/17/21 04:46	1
Nitrite as N	0.15		0.050	0.021	mg/L			11/17/21 04:46	1
Sulfate	270	D2	20	4.3	mg/L			11/23/21 19:58	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00030	E4	0.0010	0.000067	mg/L		11/17/21 06:02	11/18/21 23:43	1
Lithium	0.019	E4	0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 15:00	1
Boron	0.58		0.050	0.0025	mg/L		11/17/21 06:02	11/18/21 23:43	1
Calcium	72		2.0	0.013	mg/L		11/17/21 06:02	11/18/21 23:43	1
Magnesium	29		2.0	0.044	mg/L		11/17/21 06:02	11/19/21 18:15	1
Potassium	5.4		0.50	0.17	mg/L		11/17/21 06:02	11/18/21 23:43	1
Sodium	95		0.50	0.031	mg/L		11/17/21 06:02	11/19/21 18:15	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0020	0.000087	mg/L		11/17/21 08:25	11/22/21 15:35	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 08:25	11/22/21 15:35	2
Barium	0.024	D1 M1	0.0010	0.00052	mg/L		11/17/21 08:25	11/22/21 15:35	2
Cadmium	0.000058	D1 E4	0.00020	0.000046	mg/L		11/17/21 08:25	11/22/21 15:35	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 08:25	11/22/21 15:35	2
Cobalt	0.0018	D1	0.0010	0.00013	mg/L		11/17/21 08:25	11/22/21 15:35	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 08:25	11/22/21 15:35	2
Molybdenum	0.0052	D1	0.0010	0.00040	mg/L		11/17/21 08:25	11/22/21 15:35	2
Selenium	ND	D1 E8	0.0010	0.00015	mg/L		11/17/21 08:25	11/22/21 15:35	2
Thallium	0.00041	D1	0.00020	0.000026	mg/L		11/17/21 08:25	11/22/21 15:35	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/23/21 15:43	11/23/21 19:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	230		6.0	6.0	mg/L			11/22/21 08:11	1
Bicarbonate Alkalinity as CaCO3	230		6.0	6.0	mg/L			11/22/21 08:11	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:11	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/22/21 08:11	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:11	1
Total Dissolved Solids	680		20	20	mg/L			11/22/21 15:11	1
pH	7.1	H5	1.7	1.7	SU			11/24/21 10:35	1
Temperature	8.8	H5	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-MW65-1121

Date Collected: 11/15/21 10:47
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-4

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**55**		2.0	0.52	mg/L			11/17/21 04:18	1
Fluoride	**1.7**		0.40	0.047	mg/L			11/17/21 04:18	1
Nitrate as N	**0.22**		0.050	0.014	mg/L			11/17/21 04:18	1
Nitrate Nitrite as N	**0.48**		0.050	0.021	mg/L			11/17/21 04:18	1
Nitrite as N	**0.26**		0.050	0.021	mg/L			11/17/21 04:18	1
Sulfate	**390**	**D2**	20	4.3	mg/L			11/23/21 19:40	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	**0.00020**	**E4**	0.0010	0.000067	mg/L		11/17/21 06:02	11/18/21 23:45	1
Lithium	**0.053**		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 15:04	1
Boron	**0.73**		0.050	0.0025	mg/L		11/17/21 06:02	11/18/21 23:45	1
Calcium	**92**		2.0	0.013	mg/L		11/17/21 06:02	11/18/21 23:45	1
Magnesium	**53**		2.0	0.044	mg/L		11/17/21 06:02	11/19/21 18:17	1
Potassium	**4.2**		0.50	0.17	mg/L		11/17/21 06:02	11/18/21 23:45	1
Sodium	**130**		0.50	0.031	mg/L		11/17/21 06:02	11/19/21 18:17	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0020	0.000087	mg/L		11/17/21 08:25	11/22/21 15:41	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 08:25	11/22/21 15:41	2
Barium	**0.020**	**D1**	0.0010	0.00052	mg/L		11/17/21 08:25	11/22/21 15:41	2
Cadmium	ND	D1 E8	0.00020	0.000046	mg/L		11/17/21 08:25	11/22/21 15:41	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 08:25	11/22/21 15:41	2
Cobalt	**0.0022**	**D1**	0.0010	0.00013	mg/L		11/17/21 08:25	11/22/21 15:41	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 08:25	11/22/21 15:41	2
Molybdenum	**0.0098**	**D1**	0.0010	0.00040	mg/L		11/17/21 08:25	11/22/21 15:41	2
Selenium	ND	D1 E8	0.0010	0.00015	mg/L		11/17/21 08:25	11/22/21 15:41	2
Thallium	**0.000072**	**D1 E4**	0.00020	0.000026	mg/L		11/17/21 08:25	11/22/21 15:41	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/23/21 15:43	11/23/21 19:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**330**		6.0	6.0	mg/L			11/22/21 08:22	1
Bicarbonate Alkalinity as CaCO3	**320**		6.0	6.0	mg/L			11/22/21 08:22	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:22	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/22/21 08:22	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:22	1
Total Dissolved Solids	**910**		20	20	mg/L			11/22/21 15:11	1
pH	**8.0**	**H5**	1.7	1.7	SU			11/24/21 10:35	1
Temperature	**8.4**	**H5**	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-SW1-1121

Date Collected: 11/15/21 09:28
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-5

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**46**		2.0	0.52	mg/L			11/17/21 03:50	1
Fluoride	**0.76**		0.40	0.047	mg/L			11/17/21 03:50	1
Nitrate as N	**0.073**		0.050	0.014	mg/L			11/17/21 03:50	1
Nitrate Nitrite as N	**0.073**		0.050	0.021	mg/L			11/17/21 03:50	1
Nitrite as N	ND	E8	0.050	0.021	mg/L			11/17/21 03:50	1
Sulfate	**420**	**D2**	20	4.3	mg/L			11/23/21 19:21	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	**0.00012**	**E4**	0.0010	0.000067	mg/L		11/17/21 06:02	11/18/21 23:48	1
Lithium	**0.082**		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 15:08	1
Boron	**0.31**		0.050	0.0025	mg/L		11/17/21 06:02	11/19/21 18:20	1
Calcium	**77**		2.0	0.013	mg/L		11/17/21 06:02	11/18/21 23:48	1
Magnesium	**30**		2.0	0.044	mg/L		11/17/21 06:02	11/19/21 18:20	1
Potassium	**7.1**		0.50	0.17	mg/L		11/17/21 06:02	11/18/21 23:48	1
Sodium	**99**		0.50	0.031	mg/L		11/17/21 06:02	11/19/21 18:20	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00068**	**D1 E4**	0.0020	0.000087	mg/L		11/17/21 08:25	11/22/21 15:43	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 08:25	11/22/21 15:43	2
Barium	**0.20**	**D1**	0.0010	0.00052	mg/L		11/17/21 08:25	11/22/21 15:43	2
Cadmium	ND	D1 E8	0.00020	0.000046	mg/L		11/17/21 08:25	11/22/21 15:43	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 08:25	11/22/21 15:43	2
Cobalt	**0.00023**	**D1 E4**	0.0010	0.00013	mg/L		11/17/21 08:25	11/22/21 15:43	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 08:25	11/22/21 15:43	2
Molybdenum	**0.0057**	**D1**	0.0010	0.00040	mg/L		11/17/21 08:25	11/22/21 15:43	2
Selenium	ND	D1 E8	0.0010	0.00015	mg/L		11/17/21 08:25	11/22/21 15:43	2
Thallium	**0.000046**	**D1 E4**	0.00020	0.000026	mg/L		11/17/21 08:25	11/22/21 15:43	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/23/21 15:43	11/23/21 19:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**110**		6.0	6.0	mg/L			11/22/21 08:31	1
Bicarbonate Alkalinity as CaCO3	**110**		6.0	6.0	mg/L			11/22/21 08:31	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:31	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/22/21 08:31	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:31	1
Total Dissolved Solids	**810**		20	20	mg/L			11/22/21 15:11	1
pH	**8.5**	**H5**	1.7	1.7	SU			11/24/21 10:35	1
Temperature	**8.4**	**H5**	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-SW2-1121

Date Collected: 11/15/21 12:22
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-6

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**48**		2.0	0.52	mg/L			11/17/21 03:22	1
Fluoride	**0.79**		0.40	0.047	mg/L			11/17/21 03:22	1
Nitrate as N	**0.081**		0.050	0.014	mg/L			11/17/21 03:22	1
Nitrate Nitrite as N	**0.081**		0.050	0.021	mg/L			11/17/21 03:22	1
Nitrite as N	ND	E8	0.050	0.021	mg/L			11/17/21 03:22	1
Sulfate	**430**	**D2**	20	4.3	mg/L			11/23/21 19:03	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/17/21 06:02	11/18/21 23:50	1
Lithium	**0.074**		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 15:12	1
Boron	**0.33**		0.050	0.0025	mg/L		11/17/21 06:02	11/19/21 18:23	1
Calcium	**83**		2.0	0.013	mg/L		11/17/21 06:02	11/18/21 23:50	1
Magnesium	**33**		2.0	0.044	mg/L		11/17/21 06:02	11/19/21 18:23	1
Potassium	**7.8**		0.50	0.17	mg/L		11/17/21 06:02	11/18/21 23:50	1
Sodium	**110**		0.50	0.031	mg/L		11/17/21 06:02	11/19/21 18:23	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00064**	**D1 E4**	0.0020	0.000087	mg/L		11/17/21 08:25	11/22/21 15:45	2
Arsenic	**0.0010**	**D1**	0.0010	0.00049	mg/L		11/17/21 08:25	11/22/21 15:45	2
Barium	**0.18**	**D1**	0.0010	0.00052	mg/L		11/17/21 08:25	11/22/21 15:45	2
Cadmium	ND	D1 E8	0.00020	0.000046	mg/L		11/17/21 08:25	11/22/21 15:45	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 08:25	11/22/21 15:45	2
Cobalt	**0.00013**	**D1 E4**	0.0010	0.00013	mg/L		11/17/21 08:25	11/22/21 15:45	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 08:25	11/22/21 15:45	2
Molybdenum	**0.0056**	**D1**	0.0010	0.00040	mg/L		11/17/21 08:25	11/22/21 15:45	2
Selenium	ND	D1 E8	0.0010	0.00015	mg/L		11/17/21 08:25	11/22/21 15:45	2
Thallium	ND	D1 E8	0.00020	0.000026	mg/L		11/17/21 08:25	11/22/21 15:45	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/23/21 15:43	11/23/21 19:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**130**		6.0	6.0	mg/L			11/22/21 08:41	1
Bicarbonate Alkalinity as CaCO3	**130**		6.0	6.0	mg/L			11/22/21 08:41	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:41	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/22/21 08:41	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:41	1
Total Dissolved Solids	**670**	**R8**	20	20	mg/L			11/22/21 16:19	1
pH	**8.0**	**H5**	1.7	1.7	SU			11/24/21 10:35	1
Temperature	**8.7**	**H5**	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-SW3-1121

Date Collected: 11/15/21 13:22
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-7

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	46		2.0	0.52	mg/L			11/17/21 01:59	1
Fluoride	0.75		0.40	0.047	mg/L			11/17/21 01:59	1
Nitrate as N	ND	E8	0.050	0.014	mg/L			11/17/21 01:59	1
Nitrate Nitrite as N	ND	E8	0.050	0.021	mg/L			11/17/21 01:59	1
Nitrite as N	ND	E8	0.050	0.021	mg/L			11/17/21 01:59	1
Sulfate	420	D2	20	4.3	mg/L			11/23/21 18:45	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00014	E4	0.0010	0.000067	mg/L		11/17/21 06:02	11/18/21 23:53	1
Lithium	0.079		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 15:32	1
Boron	0.31		0.050	0.0025	mg/L		11/17/21 06:02	11/19/21 18:25	1
Calcium	80		2.0	0.013	mg/L		11/17/21 06:02	11/18/21 23:53	1
Magnesium	30		2.0	0.044	mg/L		11/17/21 06:02	11/19/21 18:25	1
Potassium	7.4		0.50	0.17	mg/L		11/17/21 06:02	11/18/21 23:53	1
Sodium	97		0.50	0.031	mg/L		11/17/21 06:02	11/19/21 18:25	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00082	D1 E4	0.0020	0.000087	mg/L		11/17/21 08:25	11/22/21 15:47	2
Arsenic	0.00054	D1 E4	0.0010	0.00049	mg/L		11/17/21 08:25	11/22/21 15:47	2
Barium	0.22	D1	0.0010	0.00052	mg/L		11/17/21 08:25	11/22/21 15:47	2
Cadmium	ND	D1 E8	0.00020	0.000046	mg/L		11/17/21 08:25	11/22/21 15:47	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 08:25	11/22/21 15:47	2
Cobalt	0.00024	D1 E4	0.0010	0.00013	mg/L		11/17/21 08:25	11/22/21 15:47	2
Lead	0.00044	D1 E4	0.0010	0.00044	mg/L		11/17/21 08:25	11/22/21 15:47	2
Molybdenum	0.0060	D1	0.0010	0.00040	mg/L		11/17/21 08:25	11/22/21 15:47	2
Selenium	ND	D1 E8	0.0010	0.00015	mg/L		11/17/21 08:25	11/22/21 15:47	2
Thallium	ND	D1 E8	0.00020	0.000026	mg/L		11/17/21 08:25	11/22/21 15:47	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/23/21 15:43	11/23/21 19:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	100		6.0	6.0	mg/L			11/22/21 08:50	1
Bicarbonate Alkalinity as CaCO3	100		6.0	6.0	mg/L			11/22/21 08:50	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:50	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/22/21 08:50	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:50	1
Total Dissolved Solids	680		20	20	mg/L			11/22/21 16:19	1
pH	7.9	H5	1.7	1.7	SU			11/24/21 10:35	1
Temperature	9.7	H5	0.1	0.1	Degrees C			11/24/21 10:35	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-258785/1028
Matrix: Water
Analysis Batch: 258785

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/17/21 00:35	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/17/21 00:35	1
Nitrate as N	ND	E8	0.050	0.014	mg/L			11/17/21 00:35	1
Nitrate Nitrite as N	ND	E8	0.050	0.021	mg/L			11/17/21 00:35	1
Nitrite as N	ND	E8	0.050	0.021	mg/L			11/17/21 00:35	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/17/21 00:35	1

Lab Sample ID: LCS 550-258785/29
Matrix: Water
Analysis Batch: 258785

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	20.2		mg/L		101	90 - 110		
Fluoride			4.00	3.88		mg/L		97	90 - 110		
Nitrate as N			4.00	3.94		mg/L		99	90 - 110		
Nitrate Nitrite as N			8.00	7.72		mg/L		97	90 - 110		
Nitrite as N			4.00	3.78		mg/L		94	90 - 110		
Sulfate			20.0	19.3		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-258785/30
Matrix: Water
Analysis Batch: 258785

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	2	20
Fluoride			4.00	3.97		mg/L		99	90 - 110	2	20
Nitrate as N			4.00	4.01		mg/L		100	90 - 110	2	20
Nitrate Nitrite as N			8.00	7.87		mg/L		98	90 - 110	2	20
Nitrite as N			4.00	3.86		mg/L		97	90 - 110	2	20
Sulfate			20.0	19.7		mg/L		99	90 - 110	2	20

Lab Sample ID: 550-174394-7 MS
Matrix: Water
Analysis Batch: 258785

Client Sample ID: FC-CCR-SW3-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	46		20.0	66.5		mg/L		105	80 - 120		
Fluoride	0.75		4.00	4.81		mg/L		101	80 - 120		
Nitrate as N	ND	E8	4.00	4.11		mg/L		103	80 - 120		
Nitrate Nitrite as N	ND	E8	8.00	8.07		mg/L		101	80 - 120		
Nitrite as N	ND	E8	4.00	3.96		mg/L		99	80 - 120		

Lab Sample ID: 550-174394-7 MSD
Matrix: Water
Analysis Batch: 258785

Client Sample ID: FC-CCR-SW3-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	46		20.0	66.5		mg/L		105	80 - 120	0	20
Fluoride	0.75		4.00	4.80		mg/L		101	80 - 120	0	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-174394-7 MSD
Matrix: Water
Analysis Batch: 258785

Client Sample ID: FC-CCR-SW3-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	ND	E8	4.00	4.11		mg/L		103	80 - 120	0	20
Nitrate Nitrite as N	ND	E8	8.00	8.08		mg/L		101	80 - 120	0	20
Nitrite as N	ND	E8	4.00	3.97		mg/L		99	80 - 120	0	20

Lab Sample ID: MB 550-259488/2
Matrix: Water
Analysis Batch: 259488

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/23/21 12:17	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/23/21 12:17	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/23/21 12:17	1

Lab Sample ID: LCS 550-259488/5
Matrix: Water
Analysis Batch: 259488

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	4.29		mg/L		107	90 - 110
Sulfate	20.0	21.3		mg/L		106	90 - 110

Lab Sample ID: LCSD 550-259488/6
Matrix: Water
Analysis Batch: 259488

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	4.30		mg/L		108	90 - 110	0	20
Sulfate	20.0	21.3		mg/L		107	90 - 110	0	20

Lab Sample ID: 550-174447-K-1 MS ^20
Matrix: Water
Analysis Batch: 259488

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	1000	M2 D2	400	1360	D2	mg/L		85	80 - 120
Sulfate	450	D2	400	836	D2	mg/L		98	80 - 120

Lab Sample ID: 550-174447-K-1 MSD ^20
Matrix: Water
Analysis Batch: 259488

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	1000	M2 D2	400	1330	D2 M2	mg/L		78	80 - 120	2	20
Sulfate	450	D2	400	835	D2	mg/L		97	80 - 120	0	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 550-259639/2
Matrix: Water
Analysis Batch: 259639

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/24/21 11:45	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/24/21 11:45	1
Nitrate as N	ND	E8	0.050	0.014	mg/L			11/24/21 11:45	1
Nitrate Nitrite as N	ND	E8	0.050	0.021	mg/L			11/24/21 11:45	1
Nitrite as N	ND	E8	0.050	0.021	mg/L			11/24/21 11:45	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/24/21 11:45	1

Lab Sample ID: LCS 550-259639/5
Matrix: Water
Analysis Batch: 259639

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	3.91		mg/L		98	90 - 110
Nitrate as N	4.00	3.95		mg/L		99	90 - 110
Nitrate Nitrite as N	8.00	7.78		mg/L		97	90 - 110
Nitrite as N	4.00	3.83		mg/L		96	90 - 110
Sulfate	20.0	19.4		mg/L		97	90 - 110

Lab Sample ID: LCSD 550-259639/6
Matrix: Water
Analysis Batch: 259639

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	3.89		mg/L		97	90 - 110	0	20
Nitrate as N	4.00	3.94		mg/L		99	90 - 110	0	20
Nitrate Nitrite as N	8.00	7.77		mg/L		97	90 - 110	0	20
Nitrite as N	4.00	3.83		mg/L		96	90 - 110	0	20
Sulfate	20.0	19.4		mg/L		97	90 - 110	0	20

Lab Sample ID: 550-174794-B-1 MS
Matrix: Water
Analysis Batch: 259639

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	310	E2 M3	20.0	316	E2 M3	mg/L		16	80 - 120
Fluoride	1.3		4.00	5.43		mg/L		104	80 - 120
Nitrate as N	20	M3	4.00	23.1	M3	mg/L		86	80 - 120
Nitrate Nitrite as N	20		8.00	27.2		mg/L		90	80 - 120
Nitrite as N	ND	E8	4.00	4.11		mg/L		103	80 - 120
Sulfate	450	E2 M3	20.0	445	E2 M3	mg/L		-2	80 - 120

Lab Sample ID: 550-174794-B-1 MSD
Matrix: Water
Analysis Batch: 259639

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	310	E2 M3	20.0	316	E2 M3	mg/L		15	80 - 120	0	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-174794-B-1 MSD
Matrix: Water
Analysis Batch: 259639

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	1.3		4.00	5.45		mg/L		105	80 - 120	0	20
Nitrate as N	20	M3	4.00	23.1	M3	mg/L		87	80 - 120	0	20
Nitrate Nitrite as N	20		8.00	27.2		mg/L		90	80 - 120	0	20
Nitrite as N	ND	E8	4.00	4.12		mg/L		103	80 - 120	0	20
Sulfate	450	E2 M3	20.0	445	E2 M3	mg/L		-2	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-258796/1-A
Matrix: Water
Analysis Batch: 259108

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258796

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.000130	E4	0.0010	0.000067	mg/L		11/17/21 06:02	11/18/21 23:24	1
Boron	0.0396	E4	0.050	0.0025	mg/L		11/17/21 06:02	11/18/21 23:24	1
Calcium	0.175	E4	2.0	0.013	mg/L		11/17/21 06:02	11/18/21 23:24	1
Potassium	ND	E8	0.50	0.17	mg/L		11/17/21 06:02	11/18/21 23:24	1

Lab Sample ID: MB 550-258796/1-A
Matrix: Water
Analysis Batch: 259264

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258796

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.0235	E4	0.050	0.0025	mg/L		11/17/21 06:02	11/19/21 17:57	1
Magnesium	ND	E8	2.0	0.044	mg/L		11/17/21 06:02	11/19/21 17:57	1
Sodium	0.382	E4	0.50	0.031	mg/L		11/17/21 06:02	11/19/21 17:57	1

Lab Sample ID: LCS 550-258796/2-A
Matrix: Water
Analysis Batch: 259108

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258796

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	1.02		mg/L		102	85 - 115
Calcium	21.0	20.5		mg/L		98	85 - 115
Potassium	20.0	19.1		mg/L		96	85 - 115

Lab Sample ID: LCS 550-258796/2-A
Matrix: Water
Analysis Batch: 259264

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258796

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.00		mg/L		100	85 - 115
Magnesium	21.0	22.4		mg/L		106	85 - 115
Sodium	20.0	18.5		mg/L		93	85 - 115

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCSD 550-258796/3-A
Matrix: Water
Analysis Batch: 259108

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258796

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium			1.00	0.939		mg/L		94	85 - 115	3	20
Boron			1.00	1.02		mg/L		102	85 - 115	0	20
Calcium			21.0	20.0		mg/L		95	85 - 115	2	20
Potassium			20.0	19.0		mg/L		95	85 - 115	1	20

Lab Sample ID: LCSD 550-258796/3-A
Matrix: Water
Analysis Batch: 259264

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258796

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron			1.00	1.02		mg/L		102	85 - 115	2	20
Magnesium			21.0	22.4		mg/L		107	85 - 115	0	20
Sodium			20.0	18.6		mg/L		93	85 - 115	0	20

Lab Sample ID: 550-174394-2 MS
Matrix: Water
Analysis Batch: 259108

Client Sample ID: FC-CCR-MW63-1121
Prep Type: Total/NA
Prep Batch: 258796

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.00019	E4	1.00	1.02		mg/L		102	70 - 130
Boron	1.3		1.00	2.27		mg/L		92	70 - 130
Calcium	440	M3	21.0	453	M3	mg/L		57	70 - 130
Potassium	5.5		20.0	26.7		mg/L		106	70 - 130

Lab Sample ID: 550-174394-2 MS
Matrix: Water
Analysis Batch: 259264

Client Sample ID: FC-CCR-MW63-1121
Prep Type: Total/NA
Prep Batch: 258796

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.2		1.00	2.26		mg/L		103	70 - 130
Magnesium	160	M3	21.0	201	M3	mg/L		173	70 - 130
Sodium	250	M3	20.0	279	M3	mg/L		142	70 - 130

Lab Sample ID: 550-174394-2 MSD
Matrix: Water
Analysis Batch: 259108

Client Sample ID: FC-CCR-MW63-1121
Prep Type: Total/NA
Prep Batch: 258796

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	0.00019	E4	1.00	1.03		mg/L		103	70 - 130	1	20
Boron	1.3		1.00	2.40		mg/L		105	70 - 130	5	20
Calcium	440	M3	21.0	460	M3	mg/L		89	70 - 130	1	20
Potassium	5.5		20.0	27.1		mg/L		108	70 - 130	1	20

Lab Sample ID: 550-174394-2 MSD
Matrix: Water
Analysis Batch: 259264

Client Sample ID: FC-CCR-MW63-1121
Prep Type: Total/NA
Prep Batch: 258796

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.2		1.00	2.15		mg/L		91	70 - 130	5	20
Magnesium	160	M3	21.0	176	M3	mg/L		54	70 - 130	13	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-174394-2 MSD — **Client Sample ID: FC-CCR-MW63-1121**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 259264 — **Prep Batch: 258796**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sodium	250	M3	20.0	254	M3	mg/L		16	70 - 130	9	20

Lab Sample ID: MB 280-558452/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558746 — **Prep Batch: 558452**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	E8	0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 14:35	1

Lab Sample ID: LCS 280-558452/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558746 — **Prep Batch: 558452**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	1.00	1.03		mg/L		103	90 - 112

Lab Sample ID: 280-156015-E-2-E MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558746 — **Prep Batch: 558452**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.037		1.00	1.07		mg/L		103	70 - 130

Lab Sample ID: 280-156015-E-2-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558746 — **Prep Batch: 558452**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.037		1.00	1.07		mg/L		103	70 - 130	0	20

Lab Sample ID: 280-156021-B-4-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558746 — **Prep Batch: 558452**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.012	E4	1.00	1.02		mg/L		101	70 - 130	0	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-258803/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 259309 — **Prep Batch: 258803**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0000570	E4	0.0010	0.000043	mg/L		11/17/21 08:25	11/22/21 15:24	1
Arsenic	ND	E8	0.00050	0.00025	mg/L		11/17/21 08:25	11/22/21 15:24	1
Barium	ND	E8	0.00050	0.00026	mg/L		11/17/21 08:25	11/22/21 15:24	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		11/17/21 08:25	11/22/21 15:24	1
Chromium	ND	E8	0.0010	0.00043	mg/L		11/17/21 08:25	11/22/21 15:24	1
Cobalt	ND	E8	0.00050	0.000063	mg/L		11/17/21 08:25	11/22/21 15:24	1

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 550-258803/1-A
Matrix: Water
Analysis Batch: 259309

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258803

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	E8	0.00050	0.00022	mg/L		11/17/21 08:25	11/22/21 15:24	1
Molybdenum	ND	E8	0.00050	0.00020	mg/L		11/17/21 08:25	11/22/21 15:24	1
Selenium	ND	E8	0.00050	0.000074	mg/L		11/17/21 08:25	11/22/21 15:24	1
Thallium	0.0000130	E4	0.00010	0.000013	mg/L		11/17/21 08:25	11/22/21 15:24	1

Lab Sample ID: LCS 550-258803/2-A
Matrix: Water
Analysis Batch: 259309

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258803

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.105		mg/L		105	85 - 115
Arsenic	0.100	0.102		mg/L		102	85 - 115
Cadmium	0.100	0.105		mg/L		105	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	0.105		mg/L		105	85 - 115
Molybdenum	0.100	0.105		mg/L		105	85 - 115
Selenium	0.100	0.0997		mg/L		100	85 - 115
Thallium	0.100	0.101		mg/L		101	85 - 115

Lab Sample ID: LCS 550-258803/2-A
Matrix: Water
Analysis Batch: 259406

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258803

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.100	0.113		mg/L		113	85 - 115

Lab Sample ID: LCSD 550-258803/3-A
Matrix: Water
Analysis Batch: 259309

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258803

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	0	20
Arsenic	0.100	0.101		mg/L		101	85 - 115	1	20
Cadmium	0.100	0.106		mg/L		106	85 - 115	1	20
Chromium	0.100	0.102		mg/L		102	85 - 115	2	20
Cobalt	0.100	0.102		mg/L		102	85 - 115	2	20
Lead	0.100	0.107		mg/L		107	85 - 115	2	20
Molybdenum	0.100	0.104		mg/L		104	85 - 115	1	20
Selenium	0.100	0.0985		mg/L		99	85 - 115	1	20
Thallium	0.100	0.102		mg/L		102	85 - 115	2	20

Lab Sample ID: LCSD 550-258803/3-A
Matrix: Water
Analysis Batch: 259406

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258803

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.100	0.115		mg/L		115	85 - 115	2	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: 550-174394-3 MS
Matrix: Water
Analysis Batch: 259309

Client Sample ID: FC-CCR-MW64-1121
Prep Type: Total/NA
Prep Batch: 258803

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND	E8 D1	0.100	0.107		mg/L		107	70 - 130
Arsenic	ND	E8 D1	0.100	0.105		mg/L		105	70 - 130
Barium	0.024	D1 M1	0.100	0.151		mg/L		127	70 - 130
Cadmium	0.000058	E4 D1	0.100	0.106		mg/L		106	70 - 130
Chromium	ND	E8 D1	0.100	0.109		mg/L		109	70 - 130
Cobalt	0.0018	D1	0.100	0.104		mg/L		102	70 - 130
Lead	ND	E8 D1	0.100	0.103		mg/L		103	70 - 130
Molybdenum	0.0052	D1	0.100	0.113		mg/L		108	70 - 130
Selenium	ND	E8 D1	0.100	0.101		mg/L		101	70 - 130
Thallium	0.00041	D1	0.100	0.0988		mg/L		98	70 - 130

Lab Sample ID: 550-174394-3 MSD
Matrix: Water
Analysis Batch: 259309

Client Sample ID: FC-CCR-MW64-1121
Prep Type: Total/NA
Prep Batch: 258803

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND	E8 D1	0.100	0.108		mg/L		108	70 - 130	0	20
Arsenic	ND	E8 D1	0.100	0.102		mg/L		102	70 - 130	3	20
Barium	0.024	D1 M1	0.100	0.155	M1	mg/L		131	70 - 130	2	20
Cadmium	0.000058	E4 D1	0.100	0.105		mg/L		105	70 - 130	1	20
Chromium	ND	E8 D1	0.100	0.105		mg/L		105	70 - 130	3	20
Cobalt	0.0018	D1	0.100	0.102		mg/L		100	70 - 130	1	20
Lead	ND	E8 D1	0.100	0.102		mg/L		102	70 - 130	1	20
Molybdenum	0.0052	D1	0.100	0.112		mg/L		106	70 - 130	1	20
Selenium	ND	E8 D1	0.100	0.0959		mg/L		96	70 - 130	5	20
Thallium	0.00041	D1	0.100	0.0971		mg/L		97	70 - 130	2	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-259457/1-A
Matrix: Water
Analysis Batch: 259504

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259457

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/23/21 15:43	11/23/21 19:22	1

Lab Sample ID: LCS 550-259457/2-A
Matrix: Water
Analysis Batch: 259504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259457

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.00500	0.00451		mg/L		90	85 - 115

Lab Sample ID: LCSD 550-259457/3-A
Matrix: Water
Analysis Batch: 259504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259457

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.00500	0.00435		mg/L		87	85 - 115	4	20

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 550-174528-A-1-C MS
Matrix: Water
Analysis Batch: 259504

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 259457

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	ND	E8	0.00500	0.00467		mg/L		93	70 - 130

Lab Sample ID: 550-174528-A-1-D MSD
Matrix: Water
Analysis Batch: 259504

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 259457

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND	E8	0.00500	0.00449		mg/L		90	70 - 130	4	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-259292/35
Matrix: Water
Analysis Batch: 259292

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1

Lab Sample ID: LCS 550-259292/34
Matrix: Water
Analysis Batch: 259292

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	234		mg/L		94	90 - 110

Lab Sample ID: LCSD 550-259292/47
Matrix: Water
Analysis Batch: 259292

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	2	20

Lab Sample ID: 550-174257-M-5 DU
Matrix: Water
Analysis Batch: 259292

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	110		108		mg/L		1	20
Bicarbonate Alkalinity as CaCO3	110		108		mg/L		1	20
Carbonate Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20
Alkalinity, Phenolphthalein	ND	E8	ND	E8	mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MB 550-259777/1
Matrix: Water
Analysis Batch: 259777

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1

Lab Sample ID: LCS 550-259777/2
Matrix: Water
Analysis Batch: 259777

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	226		mg/L		90	90 - 110

Lab Sample ID: LCSD 550-259777/8
Matrix: Water
Analysis Batch: 259777

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	246		mg/L		98	90 - 110	8	20

Lab Sample ID: 550-174492-K-13 DU
Matrix: Water
Analysis Batch: 259777

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	730		758		mg/L		3	20
Bicarbonate Alkalinity as CaCO3	730		758		mg/L		3	20
Carbonate Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20
Alkalinity, Phenolphthalein	ND	E8	ND	E8	mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20

Lab Sample ID: 550-174392-A-2 DU
Matrix: Water
Analysis Batch: 259778

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	950	R8	750	R8	mg/L		24	20
Bicarbonate Alkalinity as CaCO3	950	R8	750	R8	mg/L		24	20
Carbonate Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20
Alkalinity, Phenolphthalein	ND	E8	ND	E8	mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-259302/1
Matrix: Water
Analysis Batch: 259302

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			11/22/21 15:11	1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: LCS 550-259302/2
Matrix: Water
Analysis Batch: 259302

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 550-259302/3
Matrix: Water
Analysis Batch: 259302

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	1070		mg/L		107	90 - 110	1	10

Lab Sample ID: 550-174257-M-6 DU
Matrix: Water
Analysis Batch: 259302

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	4500	D2 R8		3970	D2 R8	mg/L				12	10

Lab Sample ID: MB 550-259315/1
Matrix: Water
Analysis Batch: 259315

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			11/22/21 16:19	1

Lab Sample ID: LCS 550-259315/2
Matrix: Water
Analysis Batch: 259315

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	997		mg/L		100	90 - 110		

Lab Sample ID: LCSD 550-259315/3
Matrix: Water
Analysis Batch: 259315

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	999		mg/L		100	90 - 110	0	10

Lab Sample ID: 550-174394-6 DU
Matrix: Water
Analysis Batch: 259315

Client Sample ID: FC-CCR-SW2-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	670	R8		760	R8	mg/L				12	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-259745/103
Matrix: Water
Analysis Batch: 259745

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 550-259745/85
Matrix: Water
Analysis Batch: 259745

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		100.1	98.5 - 101.5

Lab Sample ID: LCSSRM 550-259745/96
Matrix: Water
Analysis Batch: 259745

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: 550-174394-7 DU
Matrix: Water
Analysis Batch: 259745

Client Sample ID: FC-CCR-SW3-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.9	H5	7.9	H5	SU		0.1	5
Temperature	9.7	H5	10.1	H5	Degrees C		4	

Lab Sample ID: 550-174712-A-1 DU
Matrix: Water
Analysis Batch: 259745

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	H5	7.5	H5	SU		0	5
Temperature	18.6	H5	18.7	H5	Degrees C		0.5	

HPLC/IC

Analysis Batch: 258785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	300.0	
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	300.0	
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	300.0	
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	300.0	
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	300.0	
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	300.0	
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	300.0	
MB 550-258785/1028	Method Blank	Total/NA	Water	300.0	
LCS 550-258785/29	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-258785/30	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174394-7 MS	FC-CCR-SW3-1121	Total/NA	Water	300.0	
550-174394-7 MSD	FC-CCR-SW3-1121	Total/NA	Water	300.0	

Analysis Batch: 259488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	300.0	
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	300.0	
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	300.0	
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	300.0	
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	300.0	
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	300.0	
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	300.0	
MB 550-259488/2	Method Blank	Total/NA	Water	300.0	
LCS 550-259488/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-259488/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174447-K-1 MS ^20	Matrix Spike	Total/NA	Water	300.0	
550-174447-K-1 MSD ^20	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 259639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	300.0	
MB 550-259639/2	Method Blank	Total/NA	Water	300.0	
LCS 550-259639/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-259639/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174794-B-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-174794-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 258796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	200.7	
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	200.7	
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	200.7	
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	200.7	
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	200.7	
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	200.7	
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	200.7	
MB 550-258796/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-258796/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-258796/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	

Metals (Continued)

Prep Batch: 258796 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-2 MS	FC-CCR-MW63-1121	Total/NA	Water	200.7	
550-174394-2 MSD	FC-CCR-MW63-1121	Total/NA	Water	200.7	

Prep Batch: 258803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	200.8	
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	200.8	
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	200.8	
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	200.8	
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	200.8	
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	200.8	
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	200.8	
MB 550-258803/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-258803/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-258803/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-174394-3 MS	FC-CCR-MW64-1121	Total/NA	Water	200.8	
550-174394-3 MSD	FC-CCR-MW64-1121	Total/NA	Water	200.8	

Analysis Batch: 259108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	200.7 Rev 4.4	258796
MB 550-258796/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	258796
LCS 550-258796/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	258796
LCSD 550-258796/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-2 MS	FC-CCR-MW63-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-2 MSD	FC-CCR-MW63-1121	Total/NA	Water	200.7 Rev 4.4	258796

Analysis Batch: 259264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	200.7 Rev 4.4	258796
MB 550-258796/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	258796
LCS 550-258796/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	258796
LCSD 550-258796/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-2 MS	FC-CCR-MW63-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-2 MSD	FC-CCR-MW63-1121	Total/NA	Water	200.7 Rev 4.4	258796

Analysis Batch: 259309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	200.8 LL	258803

Metals (Continued)

Analysis Batch: 259309 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	200.8 LL	258803
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	200.8 LL	258803
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	200.8 LL	258803
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	200.8 LL	258803
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	200.8 LL	258803
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	200.8 LL	258803
MB 550-258803/1-A	Method Blank	Total/NA	Water	200.8 LL	258803
LCS 550-258803/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	258803
LCSD 550-258803/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	258803
550-174394-3 MS	FC-CCR-MW64-1121	Total/NA	Water	200.8 LL	258803
550-174394-3 MSD	FC-CCR-MW64-1121	Total/NA	Water	200.8 LL	258803

Analysis Batch: 259406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 550-258803/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	258803
LCSD 550-258803/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	258803

Prep Batch: 259457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	245.1	
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	245.1	
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	245.1	
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	245.1	
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	245.1	
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	245.1	
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	245.1	
MB 550-259457/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-259457/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-259457/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-174528-A-1-C MS	Matrix Spike	Total/NA	Water	245.1	
550-174528-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 259504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	245.1	259457
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	245.1	259457
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	245.1	259457
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	245.1	259457
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	245.1	259457
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	245.1	259457
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	245.1	259457
MB 550-259457/1-A	Method Blank	Total/NA	Water	245.1	259457
LCS 550-259457/2-A	Lab Control Sample	Total/NA	Water	245.1	259457
LCSD 550-259457/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	259457
550-174528-A-1-C MS	Matrix Spike	Total/NA	Water	245.1	259457
550-174528-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	259457

Prep Batch: 558452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	200.7	
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	200.7	

Metals (Continued)

Prep Batch: 558452 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	200.7	
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	200.7	
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	200.7	
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	200.7	
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	200.7	
MB 280-558452/1-A	Method Blank	Total/NA	Water	200.7	
LCS 280-558452/2-A	Lab Control Sample	Total/NA	Water	200.7	
280-156015-E-2-E MS	Matrix Spike	Total/NA	Water	200.7	
280-156015-E-2-F MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
280-156021-B-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Analysis Batch: 558746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	200.7 Rev 4.4	558452
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	200.7 Rev 4.4	558452
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	200.7 Rev 4.4	558452
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	200.7 Rev 4.4	558452
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	200.7 Rev 4.4	558452
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	200.7 Rev 4.4	558452
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	200.7 Rev 4.4	558452
MB 280-558452/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	558452
LCS 280-558452/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	558452
280-156015-E-2-E MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	558452
280-156015-E-2-F MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	558452
280-156021-B-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	558452

General Chemistry

Analysis Batch: 259292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	SM 2320B	
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	SM 2320B	
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	SM 2320B	
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	SM 2320B	
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	SM 2320B	
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	SM 2320B	
MB 550-259292/35	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-259292/34	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-259292/47	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-174257-M-5 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 259302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	SM 2540C	
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	SM 2540C	
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	SM 2540C	
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	SM 2540C	
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	SM 2540C	
MB 550-259302/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-259302/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-259302/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 259302 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174257-M-6 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 259315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	SM 2540C	
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	SM 2540C	
MB 550-259315/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-259315/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-259315/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-174394-6 DU	FC-CCR-SW2-1121	Total/NA	Water	SM 2540C	

Analysis Batch: 259745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	SM 4500 H+ B	
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	SM 4500 H+ B	
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	SM 4500 H+ B	
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	SM 4500 H+ B	
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	SM 4500 H+ B	
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	SM 4500 H+ B	
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259745/103	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259745/85	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259745/96	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-174394-7 DU	FC-CCR-SW3-1121	Total/NA	Water	SM 4500 H+ B	
550-174712-A-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 259777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-259777/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-259777/2	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-259777/8	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-174492-K-13 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 259778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	SM 2320B	
550-174392-A-2 DU	Duplicate	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174394-1
SDG: APS Four Corners Power Plant (CWTP)

Client Sample ID: FC-CCR-MW62-1121

Lab Sample ID: 550-174394-1

Date Collected: 11/15/21 11:28
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100	259488	11/23/21 20:35	JNW	TAL PHX
Total/NA	Analysis	300.0		2	258785	11/17/21 05:42	JNW	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259108	11/18/21 23:40	MGM	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259264	11/19/21 18:12	MGM	TAL PHX
Total/NA	Prep	200.7			558452	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 14:52	MAB	TAL DEN
Total/NA	Prep	200.8			258803	11/17/21 08:25	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259309	11/22/21 15:37	ARE	TAL PHX
Total/NA	Prep	245.1			259457	11/23/21 15:43	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259504	11/23/21 19:41	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259778	11/28/21 13:20	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259302		EJR	TAL PHX
					(Start)	11/22/21 15:11		
					(End)	11/26/21 17:00		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Client Sample ID: FC-CCR-MW63-1121

Lab Sample ID: 550-174394-2

Date Collected: 11/15/21 12:58
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100	259488	11/23/21 20:17	JNW	TAL PHX
Total/NA	Analysis	300.0		2	258785	11/17/21 05:14	JNW	TAL PHX
Total/NA	Analysis	300.0		50	259639	11/24/21 23:51	JNW	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259108	11/18/21 23:37	MGM	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259264	11/19/21 18:10	MGM	TAL PHX
Total/NA	Prep	200.7			558452	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 14:56	MAB	TAL DEN
Total/NA	Prep	200.8			258803	11/17/21 08:25	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259309	11/22/21 15:39	ARE	TAL PHX
Total/NA	Prep	245.1			259457	11/23/21 15:43	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259504	11/23/21 19:44	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259292	11/22/21 08:02	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259302		EJR	TAL PHX
					(Start)	11/22/21 15:11		
					(End)	11/26/21 17:00		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Client Sample ID: FC-CCR-MW64-1121

Lab Sample ID: 550-174394-3

Date Collected: 11/15/21 13:58

Matrix: Water

Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	259488	11/23/21 19:58	JNW	TAL PHX
Total/NA	Analysis	300.0		1	258785	11/17/21 04:46	JNW	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259108	11/18/21 23:43	MGM	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259264	11/19/21 18:15	MGM	TAL PHX
Total/NA	Prep	200.7			558452	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 15:00	MAB	TAL DEN
Total/NA	Prep	200.8			258803	11/17/21 08:25	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259309	11/22/21 15:35	ARE	TAL PHX
Total/NA	Prep	245.1			259457	11/23/21 15:43	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259504	11/23/21 19:46	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259292	11/22/21 08:11	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259302		EJR	TAL PHX
					(Start)	11/22/21 15:11		
					(End)	11/26/21 17:00		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Client Sample ID: FC-CCR-MW65-1121

Lab Sample ID: 550-174394-4

Date Collected: 11/15/21 10:47

Matrix: Water

Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	259488	11/23/21 19:40	JNW	TAL PHX
Total/NA	Analysis	300.0		1	258785	11/17/21 04:18	JNW	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259108	11/18/21 23:45	MGM	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259264	11/19/21 18:17	MGM	TAL PHX
Total/NA	Prep	200.7			558452	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 15:04	MAB	TAL DEN
Total/NA	Prep	200.8			258803	11/17/21 08:25	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259309	11/22/21 15:41	ARE	TAL PHX
Total/NA	Prep	245.1			259457	11/23/21 15:43	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259504	11/23/21 19:48	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259292	11/22/21 08:22	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259302		EJR	TAL PHX
					(Start)	11/22/21 15:11		
					(End)	11/26/21 17:00		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174394-1
SDG: APS Four Corners Power Plant (CWTP)

Client Sample ID: FC-CCR-SW1-1121

Date Collected: 11/15/21 09:28
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	259488	11/23/21 19:21	JNW	TAL PHX
Total/NA	Analysis	300.0		1	258785	11/17/21 03:50	JNW	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259108	11/18/21 23:48	MGM	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259264	11/19/21 18:20	MGM	TAL PHX
Total/NA	Prep	200.7			558452	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 15:08	MAB	TAL DEN
Total/NA	Prep	200.8			258803	11/17/21 08:25	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259309	11/22/21 15:43	ARE	TAL PHX
Total/NA	Prep	245.1			259457	11/23/21 15:43	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259504	11/23/21 19:51	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259292	11/22/21 08:31	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259302		EJR	TAL PHX
					(Start)	11/22/21 15:11		
					(End)	11/26/21 17:00		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Client Sample ID: FC-CCR-SW2-1121

Date Collected: 11/15/21 12:22
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	259488	11/23/21 19:03	JNW	TAL PHX
Total/NA	Analysis	300.0		1	258785	11/17/21 03:22	JNW	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259108	11/18/21 23:50	MGM	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259264	11/19/21 18:23	MGM	TAL PHX
Total/NA	Prep	200.7			558452	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 15:12	MAB	TAL DEN
Total/NA	Prep	200.8			258803	11/17/21 08:25	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259309	11/22/21 15:45	ARE	TAL PHX
Total/NA	Prep	245.1			259457	11/23/21 15:43	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259504	11/23/21 19:53	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259292	11/22/21 08:41	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259315		EJR	TAL PHX
					(Start)	11/22/21 16:19		
					(End)	11/28/21 06:05		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174394-1
SDG: APS Four Corners Power Plant (CWTP)

Client Sample ID: FC-CCR-SW3-1121

Date Collected: 11/15/21 13:22
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	259488	11/23/21 18:45	JNW	TAL PHX
Total/NA	Analysis	300.0		1	258785	11/17/21 01:59	JNW	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259108	11/18/21 23:53	MGM	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259264	11/19/21 18:25	MGM	TAL PHX
Total/NA	Prep	200.7			558452	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 15:32	MAB	TAL DEN
Total/NA	Prep	200.8			258803	11/17/21 08:25	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259309	11/22/21 15:47	ARE	TAL PHX
Total/NA	Prep	245.1			259457	11/23/21 15:43	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259504	11/23/21 19:56	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259292	11/22/21 08:50	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259315		EJR	TAL PHX
					(Start)	11/22/21 16:19		
					(End)	11/28/21 06:05		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174394-1
SDG: APS Four Corners Power Plant (CWTP)

Laboratory: Eurofins TestAmerica, 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	06-10-22

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 2320B		Water	Alkalinity, Phenolphthalein
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins TestAmerica, Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	11-30-21
A2LA	ISO/IEC 17025	2907.01	11-30-21
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-28-22
Arizona	State	AZ0713	12-19-21
Arkansas DEQ	State	19-047-0	06-01-21 *
California	State	2513	01-08-22
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-22
Georgia	State	4025-011	01-08-22
Illinois	NELAP	2000172019-1	04-30-22
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	04-30-22
Kentucky (WW)	State	KY98047	12-31-21
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-22
Minnesota	NELAP	1788752	12-31-21
Nevada	State	CO000262020-1	07-31-22
New Hampshire	NELAP	205319	04-29-22
New Jersey	NELAP	190002	07-01-22
New York	NELAP	59923	04-01-22
North Carolina (WW/SW)	State	358	12-31-21
North Dakota	State	R-034	01-08-22
Oklahoma	State	2018-006	08-31-22
Oregon	NELAP	4025-011	01-08-22
Pennsylvania	NELAP	013	07-31-22
South Carolina	State	72002001	01-08-22
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-21 *
Virginia	NELAP	10490	06-14-22
Washington	State	C583-19	08-03-22
West Virginia DEP	State	354	11-30-21
Wisconsin	State	999615430	08-31-22
Wyoming (UST)	A2LA	2907.01	11-30-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174394-1
SDG: APS Four Corners Power Plant (CWTP)

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
200.8 LL	Metals (ICP/MS)	EPA	TAL PHX
245.1	Mercury (CVAA)	EPA	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 4500 H+ B	pH	SM	TAL PHX
200.7	Preparation, Total Metals	EPA	TAL DEN
200.7	Preparation, Total Metals	EPA	TAL PHX
200.8	Preparation, Total Metals	EPA	TAL PHX
245.1	Preparation, Mercury	EPA	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, 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

174394

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

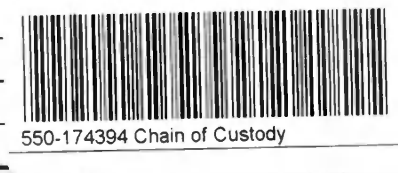
11/30/2021

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	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 (CWTP)	☐ 2 days			Job / SDG No.:
PO #: 100613442	☐ 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-H+B (pH)	SM 2540C (TDS)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 245.1 - Totals (Hg)	EPA 200.7 - Totals (B, Ca, Be, Li, Mg, K, Na)	SM 2320B (CO3, HCO3 - Alkalinity as CaCO3)	EPA 300.0 (Total Nitrogen, Nitrate as N), Nitrite (as N)					Sample Specific Notes:
FC-CCR-MW62-1121	11/15/2021	11:27	G	W	2	N	N	X		X	X	X	X	X	X	X				-01	Low Flow
FC-CCR-MW63-1121	11/15/2021	12:58	G	W	2	N	N	X		X	X	X	X	X	X	X				-02	"
FC-CCR-MW64-1121	11/15/2021	13:58	G	W	2	N	N	X		X	X	X	X	X	X	X				-03	"
FC-CCR-MW65-1121	11/15/2021	10:47	G	W	2	N	N	X		X	X	X	X	X	X	X				-04	"
FC-CCR-SW1-1121	11/15/2021	9:28	G	W	2	N	N	X		X	X	X	X	X	X	X				-05	Surface water grab sample
FC-CCR-SW2-1121	11/15/2021	12:22	G	W	2	N	N	X		X	X	X	X	X	X	X				-06	"
FC-CCR-SW3-1121	11/15/2021	13:22	G	W	2	N	N	X		X	X	X	X	X	X	X				-07	"



Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

								1		1	1	4	4	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.

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

	Company	Date/Time		Company	Date/Time
Relinquished by:	Wood	11/16/21 07:40	Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received in Laboratory by:	E-TA Phx	11-16-21 15:15

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

0.2°C 1.8°C 0.9°C 1.5°C 1.3°C CDA-ice

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd Suite 189
Phoenix, AZ 85040
Phone: 602-437-3340 Fax: 602-454-9303

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Baker, Ken	Carrier Tracking No(s):	COC No: 550-32385.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Baker@Eurofinset.com	State of Origin: Arizona	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Arizona		Job #: 550-174394-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 11/30/2021			
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 #: 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, 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_TOT Lithium-ICP	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
FC-CCR-MW62-1121 (550-174394-1)	11/15/21	11:28 Arizona		Water			X	1	AZ Sample
FC-CCR-MW63-1121 (550-174394-2)	11/15/21	12:58 Arizona		Water			X	1	AZ Sample
FC-CCR-MW64-1121 (550-174394-3)	11/15/21	13:58 Arizona		Water			X	1	AZ Sample
FC-CCR-MW65-1121 (550-174394-4)	11/15/21	10:47 Arizona		Water			X	1	AZ Sample
FC-CCR-SW1-1121 (550-174394-5)	11/15/21	09:28 Arizona		Water			X	1	AZ Sample
FC-CCR-SW2-1121 (550-174394-6)	11/15/21	12:22 Arizona		Water			X	1	AZ Sample
FC-CCR-SW3-1121 (550-174394-7)	11/15/21	13:22 Arizona		Water			X	1	AZ Sample

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

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
Nicole Strand	11/17/21 1400	Eurofins	FedEx		
Relinquished by: FedEx	Date/Time:	Company	Received by:	Date/Time: 11/18/2021 1030	Company ETA-PHX
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.: 175491	Cooler Temperature(s) °C and Other Remarks: 2.1 IR#11 +1.0

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-174394-1
SDG Number: APS Four Corners Power Plant (CWTP)

Login Number: 174394
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins TestAmerica, 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: 550-174394-1
SDG Number: APS Four Corners Power Plant (CWTP)

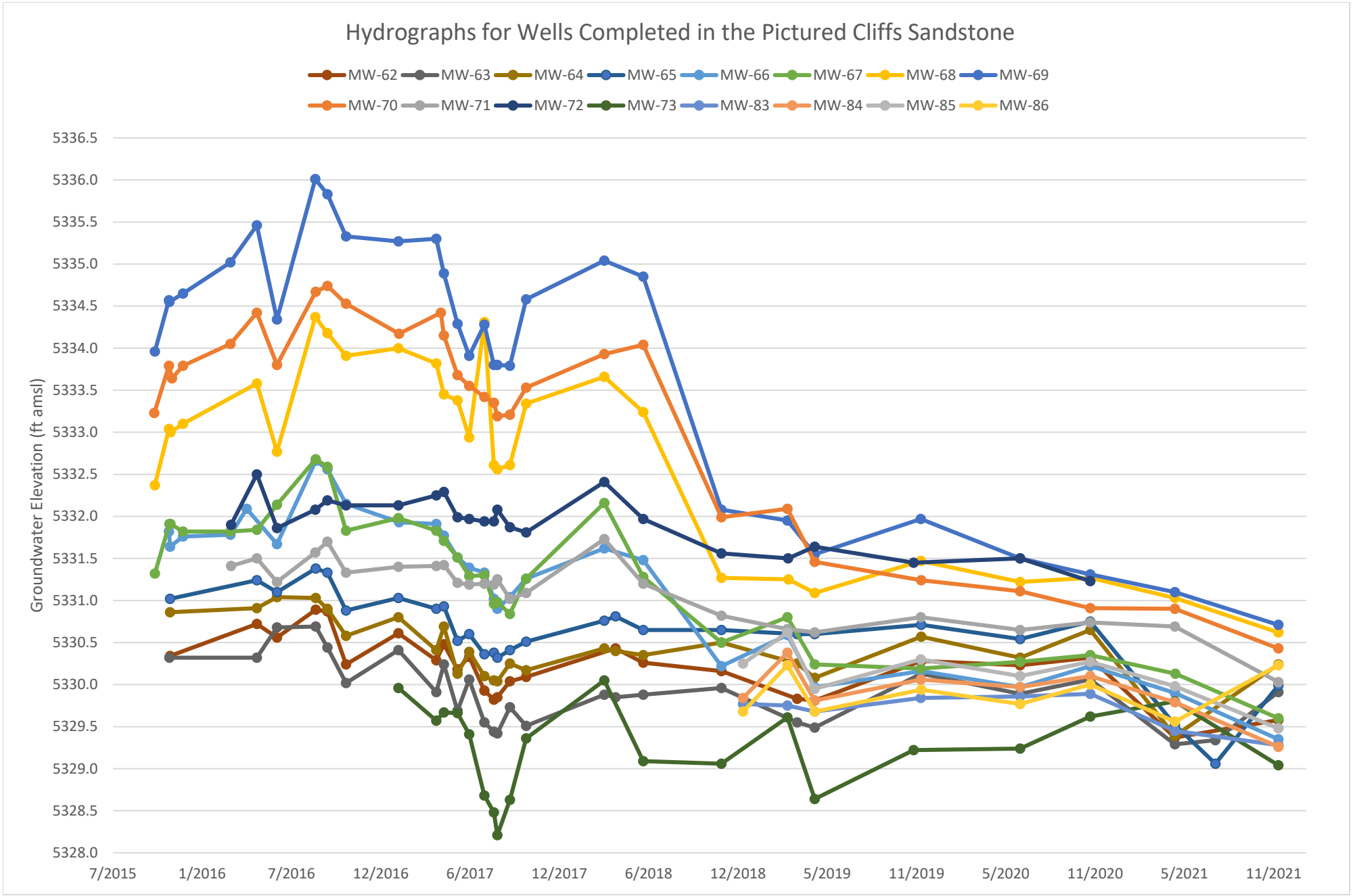
Login Number: 174394
List Number: 2
Creator: Rystrom, Joshua R

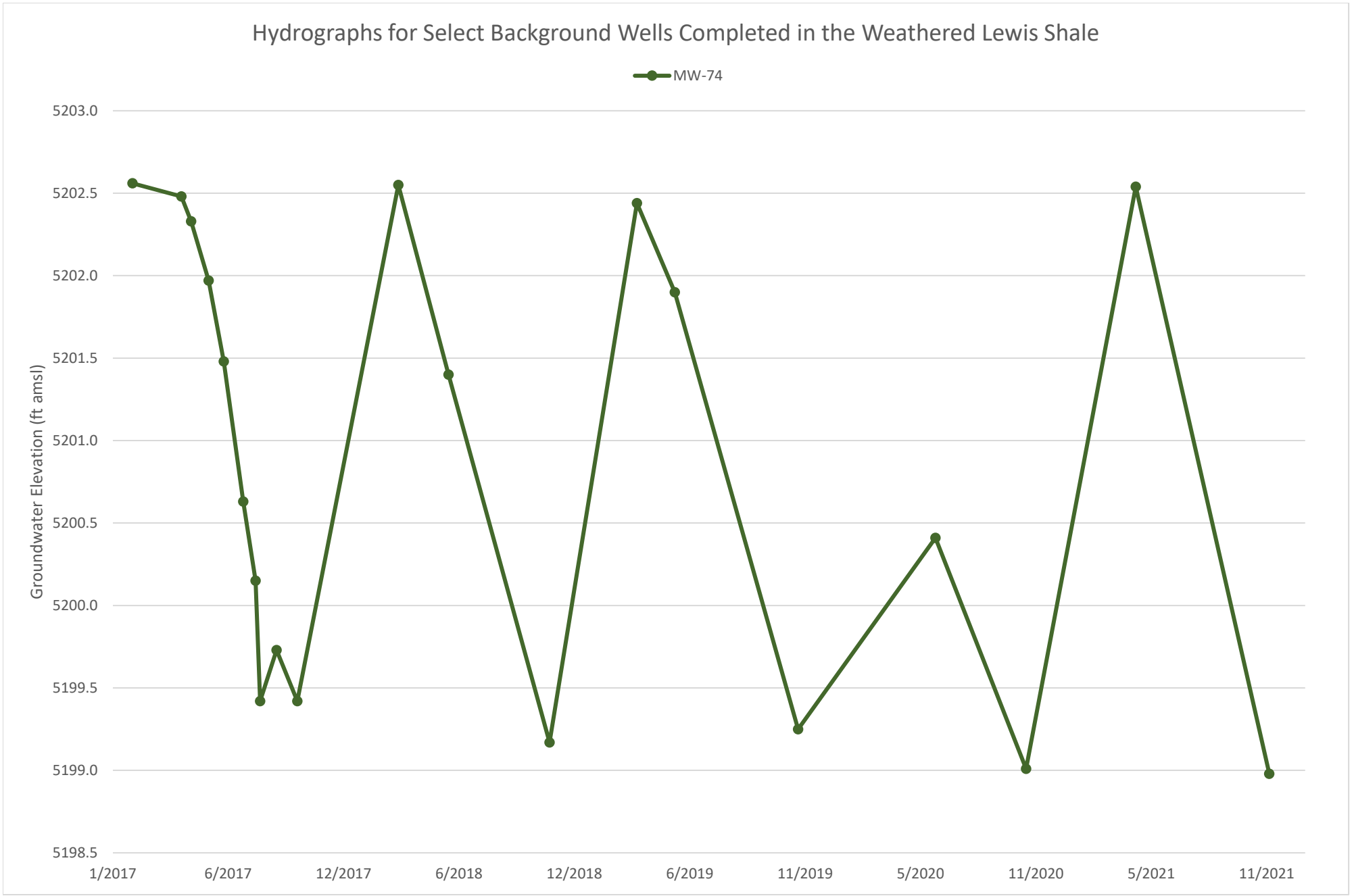
List Source: Eurofins TestAmerica, Denver
List Creation: 11/18/21 05:14 PM

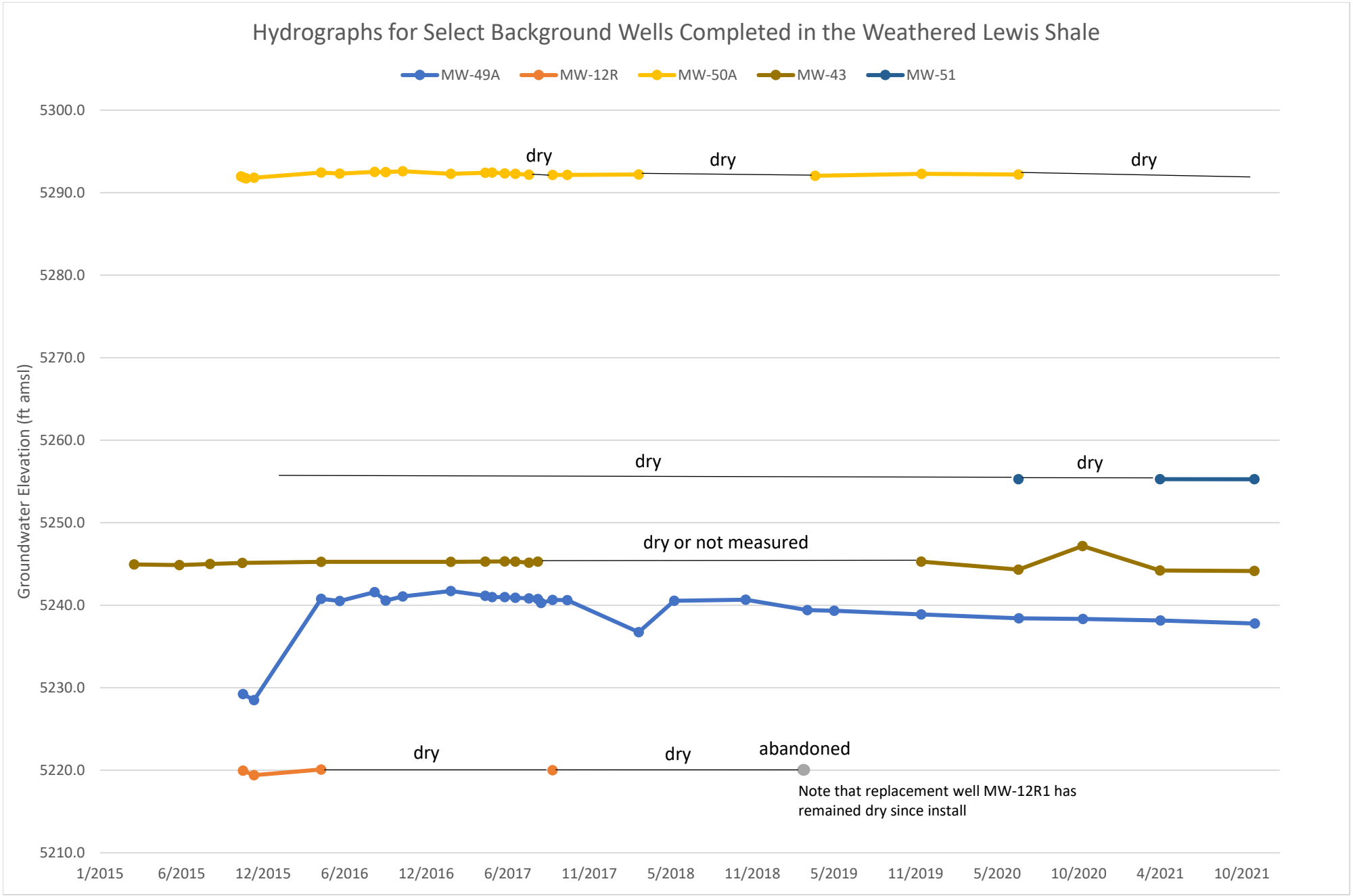
Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
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.	False	Limited volume received.
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	

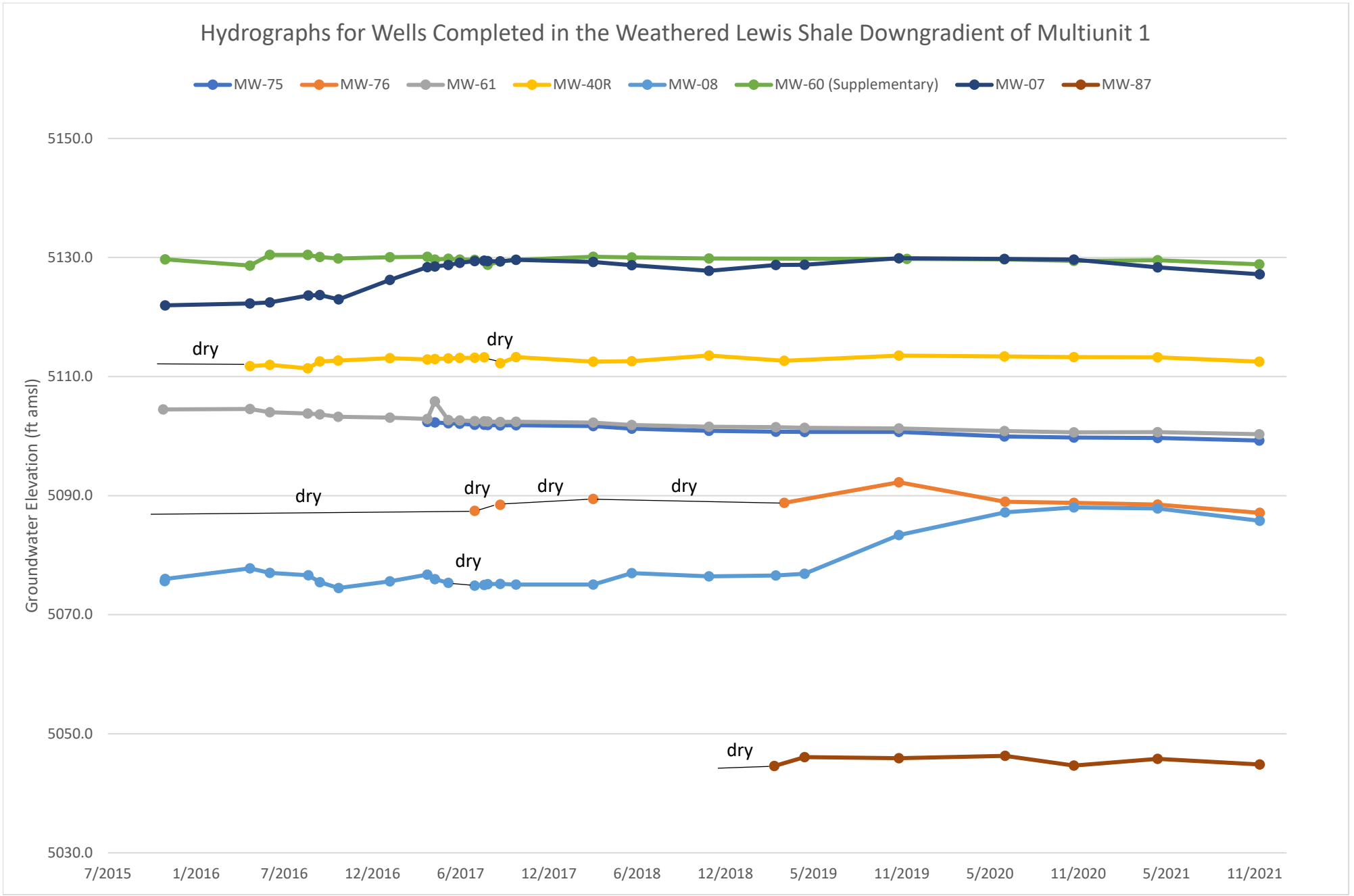
Appendix B

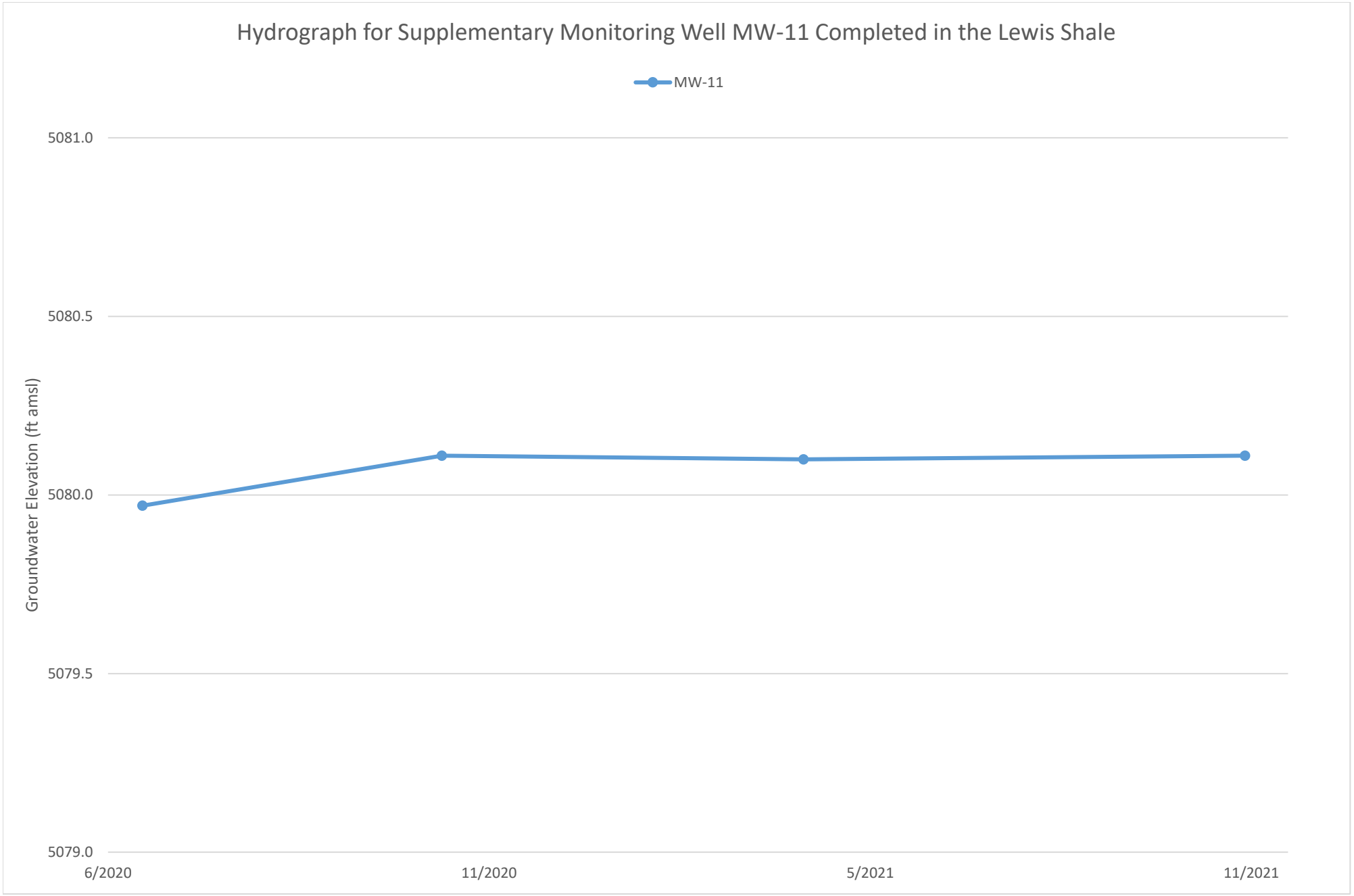
Groundwater Elevation Data and Hydrographs Through 2021


Hydrographs for Wells Completed in the Pictured Cliffs Sandstone
MW-62
MW-63
MW-64
MW-65
MW-66
MW-67
MW-68
MW-69
MW-70
MW-71
MW-72
MW-73
MW-83
MW-84
MW-85
MW-86
Groundwater Elevation (ft amsl)
5336.5
5336.0
5335.5
5335.0
5334.5
5334.0
5333.5
5333.0
5332.5
5332.0
5331.5
5331.0
5330.5
5330.0
5329.5
5329.0
5328.5
5328.0
7/2015
1/2016
7/2016
12/2016
6/2017
12/2017
6/2018
12/2018
5/2019
11/2019
5/2020
11/2020
5/2021
11/2021


Hydrographs for Select Background Wells Completed in the Weathered Lewis Shale
MW-74
Groundwater Elevation (ft amsl)
5203.0
5202.5
5202.0
5201.5
5201.0
5200.5
5200.0
5199.5
5199.0
5198.5
1/2017
6/2017
12/2017
6/2018
12/2018
6/2019
11/2019
5/2020
11/2020
5/2021
11/2021


Hydrographs for Select Background Wells Completed in the Weathered Lewis Shale
MW-49A
MW-12R
MW-50A
MW-43
MW-51
Groundwater Elevation (ft amsl)
5300.0
5290.0
5280.0
5270.0
5260.0
5250.0
5240.0
5230.0
5220.0
5210.0
dry
dry
dry
dry
dry
dry or not measured
dry
dry
abandoned
Note that replacement well MW-12R1 has remained dry since install
1/2015
6/2015
12/2015
6/2016
12/2016
6/2017
11/2017
5/2018
11/2018
5/2019
11/2019
5/2020
10/2020
4/2021
10/2021


Hydrographs for Wells Completed in the Weathered Lewis Shale Downgradient of Multiunit 1
MW-75
MW-76
MW-61
MW-40R
MW-08
MW-60 (Supplementary)
MW-07
MW-87
Groundwater Elevation (ft amsl)
5150.0
5130.0
5110.0
5090.0
5070.0
5050.0
5030.0
7/2015
1/2016
7/2016
12/2016
6/2017
12/2017
6/2018
12/2018
5/2019
11/2019
5/2020
11/2020
5/2021
11/2021
dry
dry
dry
dry
dry
dry
dry
dry


Hydrograph for Supplementary Monitoring Well MW-11 Completed in the Lewis Shale
MW-11
5081.0
5080.5
5080.0
5079.5
5079.0
Groundwater Elevation (ft amsl)
6/2020
11/2020
5/2021
11/2021

MW-07			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
	Maximum Observed:	*5129.89*	*ft AMSL*
	Minimum Observed:	*5121.97*	*ft AMSL*
	Range:	*7.92*	*ft*

MW-08			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
	Maximum Observed:	*5088.02*	*ft AMSL*
	Minimum Observed:	*5074.49*	*ft AMSL*
	Range:	*13.53*	*ft*

MW-10			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
11/29/2017	5150.71	Dry	
3/15/2018	5150.71	Dry	
5/31/2018	5151.71	Dry	
11/21/2018	5151.71	Dry	
11/18/2019	5151.71	Dry	
6/17/2020	5150.71	Dry	
11/3/2020	5150.71	Dry	
4/20/2021	5150.71	Dry	
11/11/2021	5150.71	Dry	

Maximum Observed: *0.00 ft AMSL*

Minimum Observed: *0.00 ft AMSL*

Range: *0.00 ft*

MW-11			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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

Maximum Observed: *5080.11 ft AMSL*
Minimum Observed: *5079.97 ft AMSL*
Range: *0.14 ft*

MW-12R			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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**	**Water Level**	**GW Elevation**
06/17/2020	5264.44	Dry	
11/3/2020	5264.44	Dry	
4/20/2021	5264.44	Dry	
11/11/2021	5264.44	Dry	

Maximum Observed: *0.00* *ft AMSL*

Minimum Observed: *0.00* *ft AMSL*

Range: *0.00* *ft*

MW-13			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
11/29/2017	5150.75	Dry	
3/15/2018	5150.75	Dry	
5/31/2018	5150.75	Dry	
11/21/2018	5150.75	Dry	
11/18/2019	5150.75	Dry	
6/17/2020	5155.75	Dry	
11/3/2020	5155.75	Dry	
4/20/2021	5155.75	Dry	
11/11/2021	5155.75	Dry	

Maximum Observed: *0.00 ft AMSL*

Minimum Observed: *0.00 ft AMSL*

Range: *0.00 ft*

MW-40R			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
	Maximum Observed:	*5113.54*	*ft AMSL*
	Minimum Observed:	*5111.38*	*ft AMSL*
	Range:	*2.16*	*ft*

MW-43			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
Maximum Observed:		*5245.31*	*ft AMSL*
Minimum Observed:		*5244.15*	*ft AMSL*
Range:		*1.16*	*ft*

Note: Probable error in 11/2/2020 water level measurement.

MW-44			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
11/29/2017	5146.89	Dry	
3/15/2018	5146.89	Dry	
5/31/2018	5146.89	Dry	
11/21/2018	5146.89	Dry	
11/18/2019	5146.89	25.5	5121.39
6/17/2020	5146.89	Dry	
11/3/2020	5146.89	Dry	
4/20/2021	5146.89	Dry	
11/11/2021	5146.89	Dry	

Maximum Observed: *5121.39 ft AMSL*
Minimum Observed: *5121.39 ft AMSL*
Range: *0.00 ft*

Note: Water levels are field-noted to be measurements of saturated sediment or likely condensate accumulation in well.

MW-48			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
11/29/2017	5165.96	Dry	
3/15/2018	5165.96	Dry	
5/31/2018	5165.96	Dry	
11/21/2018	5165.96	Dry	
11/18/2019	5165.96	Dry	
6/17/2020	5165.96	Dry	
11/3/2020	5165.96	Dry	
4/20/2021	5165.96	Dry	
11/11/2021	5165.96	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**	**Water Level**	**GW Elevation**
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
	Maximum Observed:	*5241.73*	*ft AMSL*
	Minimum Observed:	*5228.51*	*ft AMSL*
	Range:	*13.22*	*ft*

MW-50A			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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	
Maximum Observed:		*5292.60*	*ft AMSL*
Minimum Observed:		*5291.72*	*ft AMSL*
Range:		*0.88*	*ft*

MW-51			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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

Maximum Observed: *5255.29 ft AMSL*
Minimum Observed: *5255.27 ft AMSL*
Range: *0.02 ft*

MW-55R			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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

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-60 (Supplementary)			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
	Maximum Observed:	*5130.44*	*ft AMSL*
	Minimum Observed:	*5128.65*	*ft AMSL*
	Range:	*1.79*	*ft*

MW-61			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
	Maximum Observed:	*5105.83*	*ft AMSL*
	Minimum Observed:	*5100.32*	*ft AMSL*
	Range:	*5.51*	*ft*

MW-62			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
	Maximum Observed:	*5330.89*	*ft AMSL*
	Minimum Observed:	*5329.37*	*ft AMSL*
	Range:	*1.52*	*ft*

MW-63			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
	Maximum Observed:	*5330.69*	*ft AMSL*
	Minimum Observed:	*5329.29*	*ft AMSL*
	Range:	*1.40*	*ft*

MW-64			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
	Maximum Observed:	*5331.04*	*ft AMSL*
	Minimum Observed:	*5329.39*	*ft AMSL*
	Range:	*1.65*	*ft*

MW-65			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
	Maximum Observed:	*5331.38*	*ft AMSL*
	Minimum Observed:	*5329.06*	*ft AMSL*
	Range:	*2.32*	*ft*

MW-66			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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

Maximum Observed: *5332.66* *ft AMSL*

Minimum Observed: *5329.35* *ft AMSL*

Range: *3.31* *ft*

MW-67			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
	Maximum Observed:	*5332.68*	*ft AMSL*
	Minimum Observed:	*5329.60*	*ft AMSL*
	Range:	*3.08*	*ft*

MW-68			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
	Maximum Observed:	*5334.37*	*ft AMSL*
	Minimum Observed:	*5330.62*	*ft AMSL*
	Range:	*3.75*	*ft*

MW-69			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
	Maximum Observed:	*5336.01*	*ft AMSL*
	Minimum Observed:	*5330.71*	*ft AMSL*
	Range:	*5.30*	*ft*

MW-70			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
	Maximum Observed:	*5334.74*	*ft AMSL*
	Minimum Observed:	*5330.43*	*ft AMSL*
	Range:	*4.31*	*ft*

MW-71			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
	Maximum Observed:	*5331.73*	*ft AMSL*
	Minimum Observed:	*5330.03*	*ft AMSL*
	Range:	*1.70*	*ft*

MW-72			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
	Maximum Observed:	*5332.50*	*ft AMSL*
	Minimum Observed:	*5331.00*	*ft AMSL*
	Range:	*1.50*	*ft*

MW-73			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
Maximum Observed:		*5330.05*	*ft AMSL*
Minimum Observed:		*5328.21*	*ft AMSL*
Range:		*1.84*	*ft*

MW-74			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
	Maximum Observed:	*5202.56*	*ft AMSL*
	Minimum Observed:	*5198.98*	*ft AMSL*
	Range:	*3.58*	*ft*

MW-75			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
Maximum Observed:		*5102.38*	*ft AMSL*
Minimum Observed:		*5099.26*	*ft AMSL*
Range:		*3.12*	*ft*

MW-76			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
	Maximum Observed:	*5092.25*	*ft AMSL*
	Minimum Observed:	*5087.11*	*ft AMSL*
	Range:	*5.14*	*ft*

MW-83			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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

Maximum Observed: *5329.89* *ft AMSL*
Minimum Observed: *5329.28* *ft AMSL*
Range: *0.61* *ft*

MW-84			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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

Maximum Observed: *5330.38* *ft AMSL*

Minimum Observed: *5329.26* *ft AMSL*

Range: *1.12* *ft*

MW-85			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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

Maximum Observed: *5330.62* *ft AMSL*

Minimum Observed: *5329.48* *ft AMSL*

Range: *1.14* *ft*

MW-86			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
Maximum Observed:		*5330.23*	*ft AMSL*
Minimum Observed:		*5329.56*	*ft AMSL*
Range:		*0.67*	*ft*

MW-87			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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
Maximum Observed:		*5046.29*	*ft AMSL*
Minimum Observed:		*5044.58*	*ft AMSL*
Range:		*1.71*	*ft*

MW-88			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
6/17/2020	5365.249	Dry	
11/2/2020	5365.249	Dry	
4/19/2021	5365.249	Dry	
11/10/2021	5365.249	Dry	

Maximum Observed:	*0.00*	*ft AMSL*
Minimum Observed:	*0.00*	*ft AMSL*
Range:	*0.00*	*ft*

MW-89			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
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

Maximum Observed:	*5335.02*	*ft AMSL*
Minimum Observed:	*5334.99*	*ft AMSL*
Range:	*0.03*	*ft*

Note: Water levels are field-noted to be measurements of saturated sediment or likely condensate accumulation in well.

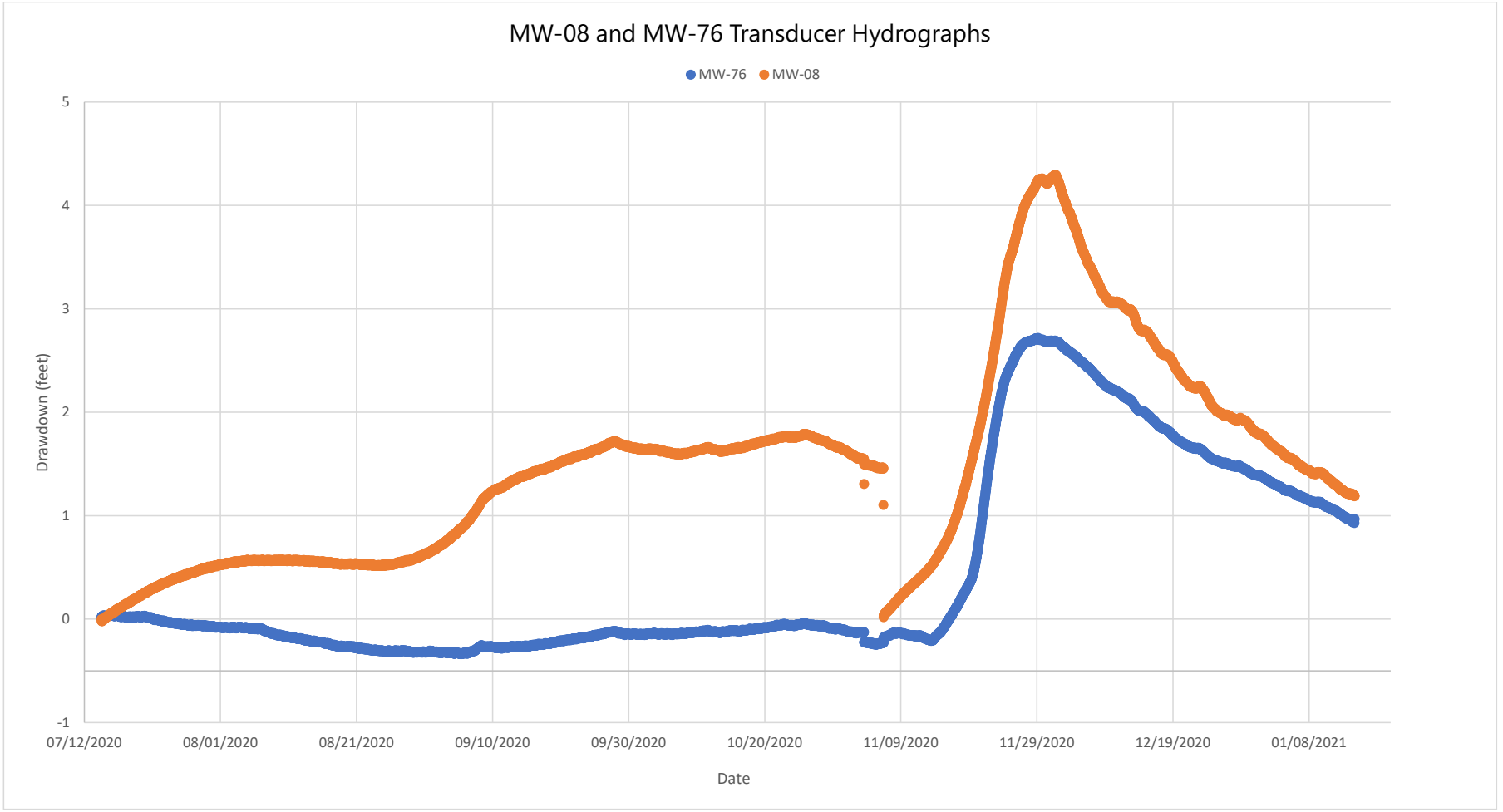
MW-90			
Date of Measurement	**Measuring Pt Elevation**	**Water Level**	**GW Elevation**
6/17/2020	5374.082	40.32	5333.762
11/2/2020	5374.082	40.31	5333.772
4/19/2021	5374.082	40.16	5333.922
11/10/2021	5374.082	40.19	5333.892

Maximum Observed:	*5333.92*	*ft AMSL*
Minimum Observed:	*5333.76*	*ft AMSL*
Range:	*0.16*	*ft*

Note: Water levels are field-noted to be measurements of saturated sediment or likely condensate accumulation in well.

Appendix C

MW-08 and MW-76 Transducer Hydrographs



Note: Readings recorded as linear 30 second time intervals.

Appendix D

2021 Analytical Laboratory Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-156602-1
Laboratory Sample Delivery Group: 1420202015.****.06
Client Project/Site: Four Corners CCR

For:
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Attn: Natalie Chrisman

Authorized for release by:
1/31/2021 10:47:28 AM

Ken Baker, Project Manager II
(602)659-7624
Ken.Baker@Eurofinset.com

LINKS

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Visit us at:
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

Job ID: 550-156602-1
SDG: 1420202015.****.06

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

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: 550-156602-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-156602-1

Comments
No additional comments.

Receipt
The sample was received on 1/18/2021 3:55 PM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.0º C.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

Job ID: 550-156602-1
SDG: 1420202015.****.06

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-156602-1	FC-CCR-MW62-011421	Water	01/14/21 15:28	01/18/21 15:55	

Detection Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

Job ID: 550-156602-1
SDG: 1420202015.****.06

Client Sample ID: FC-CCR-MW62-011421 — Lab Sample ID: 550-156602-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.2		0.40	0.047	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

Job ID: 550-156602-1
SDG: 1420202015.****.06

Client Sample ID: FC-CCR-MW62-011421
Date Collected: 01/14/21 15:28
Date Received: 01/18/21 15:55

Lab Sample ID: 550-156602-1
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	1.2		0.40	0.047	mg/L			01/29/21 03:55	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-231712/19
Matrix: Water
Analysis Batch: 231712

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	E8	0.40	0.047	mg/L			01/28/21 20:09	1

Lab Sample ID: LCS 550-231712/20
Matrix: Water
Analysis Batch: 231712

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	3.91		mg/L		98	90 - 110		

Lab Sample ID: LCSD 550-231712/21
Matrix: Water
Analysis Batch: 231712

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	3.94		mg/L		98	90 - 110	1	20

Lab Sample ID: 550-156131-AC-8 MS ^10
Matrix: Water
Analysis Batch: 231712

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	0.62	E4 D1	40.0	41.2	D1	mg/L		102	80 - 120		

Lab Sample ID: 550-156131-AC-8 MSD ^10
Matrix: Water
Analysis Batch: 231712

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	0.62	E4 D1	40.0	40.8	D1	mg/L		101	80 - 120	1	20

QC Association Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

Job ID: 550-156602-1
SDG: 1420202015.****.06

HPLC/IC

Analysis Batch: 231712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-156602-1	FC-CCR-MW62-011421	Total/NA	Water	300.0	
MB 550-231712/19	Method Blank	Total/NA	Water	300.0	
LCS 550-231712/20	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-231712/21	Lab Control Sample Dup	Total/NA	Water	300.0	
550-156131-AC-8 MS ^10	Matrix Spike	Total/NA	Water	300.0	
550-156131-AC-8 MSD ^10	Matrix Spike Duplicate	Total/NA	Water	300.0	

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

Job ID: 550-156602-1
SDG: 1420202015.****.06

Client Sample ID: FC-CCR-MW62-011421

Date Collected: 01/14/21 15:28
Date Received: 01/18/21 15:55

Lab Sample ID: 550-156602-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	231712	01/29/21 03:55	JRP	TAL PHX

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

Job ID: 550-156602-1
SDG: 1420202015.****.06

Laboratory: Eurofins TestAmerica, Phoenix

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0728	06-08-21

Method Summary

Client: Arizona Public Service Company
Project/Site: Four Corners CCR

Job ID: 550-156602-1
SDG: 1420202015.****.06

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Chain of Custody Record 479155

eurofins | Environment Testing TestAmerica

1566602

1/31/2021

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Natalie Chrisman	Site Contact: Jim Edwards	Date: 01/18/21	COC No:
Company Name: APS	Tel/Email: 602 250-3608	Lab Contact: Ken Baker	Carrier:	1 of 1 COCs
Address: PO Box 355, MS 4915	Analysis Turnaround Time			Sampler:
City/State/Zip: 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: Four Corners CCR	☐ 1 week			
Site:	☐ 2 days			Job / SDG No.:
~~PO#~~ Project # 1420202015.****.06	☐ 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)	300.0 (F)	Sample Specific Notes:
FC-CCR-MW62-011421	1/14/21	15:28	G	W	1	N	N	X	Low Flow/CWTP

550-156602 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:

4.0°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:
Isaac Torres	Wood	01/18/21 1555			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA-Phx	Date/Time: 1/18/21 1555

CDO

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-156602-1
SDG Number: 1420202015.****.06

Login Number: 156602
List Number: 1
Creator: Maycock, Lisa

List Source: Eurofins TestAmerica, 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 America

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-162767-1
Laboratory SDG: APS Four Corners Power Plant
Client Project/Site: CCR Groundwater Monitoring

For:
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Attn: Jim Edwards

Authorized for release by:
5/12/2021 7:24:06 AM

Ken Baker, Project Manager II
(602)659-7624
Ken.Baker@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162767-1
SDG: APS Four Corners Power Plant

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of analyte.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Metals

Qualifier	Qualifier Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

General Chemistry

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
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.

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: 550-162767-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-162767-1

Comments
No additional comments.

Receipt
The samples were received on 4/28/2021 4:44 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 was 0.3º C.

HPLC/IC
Method 300.0: The method blank for 550-241309 contained Sulfate above the method detection limit (MDL). This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-analysis of samples was not performed.

Method 300.0: The continuing calibration blank (CCB) for analytical batch 550-241309 contained Sulfate above the method detection limit (MDL). This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162767-1
SDG: APS Four Corners Power Plant

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-162767-1	FC-CCR-MW62-0421	Water	04/22/21 13:02	04/28/21 16:44	
550-162767-2	FC-CCR-MW63-0421	Water	04/22/21 14:09	04/28/21 16:44	
550-162767-3	FC-CCR-MW64-0421	Water	04/22/21 14:50	04/28/21 16:44	
550-162767-4	FC-CCR-MW65-0421	Water	04/22/21 12:16	04/28/21 16:44	

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162767-1
SDG: APS Four Corners Power Plant

Client Sample ID: FC-CCR-MW62-0421 — Lab Sample ID: 550-162767-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	130	D1	4.0	1.0	mg/L	2		300.0	Total/NA
Fluoride	1.5	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	3400	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.12		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	1.9		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	530		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00013	E4	0.0010	0.000043	mg/L	1		200.8 LL	Total/NA
Arsenic	0.0019		0.00050	0.00025	mg/L	1		200.8 LL	Total/NA
Barium	0.016		0.00050	0.00026	mg/L	1		200.8 LL	Total/NA
Cobalt	0.00065		0.00050	0.000063	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0029		0.00050	0.00020	mg/L	1		200.8 LL	Total/NA
Selenium	0.00080		0.00050	0.000074	mg/L	1		200.8 LL	Total/NA
Total Dissolved Solids	5700	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	16.5	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW63-0421 — Lab Sample ID: 550-162767-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	88	D1	4.0	1.0	mg/L	2		300.0	Total/NA
Fluoride	2.0	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	1900	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.057		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.93		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	400		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00017	E4	0.0010	0.000043	mg/L	1		200.8 LL	Total/NA
Arsenic	0.0013		0.00050	0.00025	mg/L	1		200.8 LL	Total/NA
Barium	0.020		0.00050	0.00026	mg/L	1		200.8 LL	Total/NA
Cobalt	0.00062		0.00050	0.000063	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0019		0.00050	0.00020	mg/L	1		200.8 LL	Total/NA
Selenium	0.00047	E4	0.00050	0.000074	mg/L	1		200.8 LL	Total/NA
Total Dissolved Solids	3200	D2	40	40	mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	15.3	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW64-0421 — Lab Sample ID: 550-162767-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	52	D1	4.0	1.0	mg/L	2		300.0	Total/NA
Fluoride	1.4	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	300	D2	40	8.5	mg/L	20		300.0	Total/NA
Lithium	0.019	E4	0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.50		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	89		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.000094	E4	0.0010	0.000043	mg/L	1		200.8 LL	Total/NA
Arsenic	0.00096		0.00050	0.00025	mg/L	1		200.8 LL	Total/NA
Barium	0.033		0.00050	0.00026	mg/L	1		200.8 LL	Total/NA
Cobalt	0.00083		0.00050	0.000063	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0047		0.00050	0.00020	mg/L	1		200.8 LL	Total/NA
Selenium	0.00036	E4	0.00050	0.000074	mg/L	1		200.8 LL	Total/NA
Total Dissolved Solids	660		20	20	mg/L	1		SM 2540C	Total/NA
pH	7.9	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW64-0421 (Continued) — Lab Sample ID: 550-162767-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Temperature	14.8	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW65-0421 — Lab Sample ID: 550-162767-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	71	D1	4.0	1.0	mg/L	2		300.0	Total/NA
Fluoride	1.5	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	740	D2	40	8.5	mg/L	20		300.0	Total/NA
Lithium	0.061		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.78		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	170		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.000075	E4	0.0010	0.000043	mg/L	1		200.8 LL	Total/NA
Arsenic	0.00099		0.00050	0.00025	mg/L	1		200.8 LL	Total/NA
Barium	0.032		0.00050	0.00026	mg/L	1		200.8 LL	Total/NA
Cobalt	0.0020		0.00050	0.000063	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0072		0.00050	0.00020	mg/L	1		200.8 LL	Total/NA
Selenium	0.00059		0.00050	0.000074	mg/L	1		200.8 LL	Total/NA
Total Dissolved Solids	540		20	20	mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	14.2	H5	0.1	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-MW62-0421

Lab Sample ID: 550-162767-1
Date Collected: 04/22/21 13:02
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	130	D1	4.0	1.0	mg/L			04/29/21 15:11	2
Fluoride	1.5	D1	0.80	0.095	mg/L			04/29/21 15:11	2
Sulfate	3400	D2	400	85	mg/L			04/29/21 15:30	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:18	05/03/21 19:43	1
Lithium	0.12		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 20:11	1
Boron	1.9		0.050	0.0025	mg/L		04/29/21 19:18	05/03/21 19:43	1
Calcium	530		2.0	0.013	mg/L		04/29/21 19:18	05/03/21 19:43	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00013	E4	0.0010	0.000043	mg/L		04/28/21 20:48	05/05/21 18:23	1
Arsenic	0.0019		0.00050	0.00025	mg/L		04/28/21 20:48	05/05/21 18:23	1
Barium	0.016		0.00050	0.00026	mg/L		04/28/21 20:48	05/05/21 18:23	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		04/28/21 20:48	05/05/21 18:23	1
Chromium	ND	E8	0.0010	0.00043	mg/L		04/28/21 20:48	05/10/21 19:12	1
Cobalt	0.00065		0.00050	0.000063	mg/L		04/28/21 20:48	05/05/21 18:23	1
Lead	ND	E8	0.00050	0.00022	mg/L		04/28/21 20:48	05/05/21 18:23	1
Molybdenum	0.0029		0.00050	0.00020	mg/L		04/28/21 20:48	05/05/21 18:23	1
Selenium	0.00080		0.00050	0.000074	mg/L		04/28/21 20:48	05/11/21 14:22	1
Thallium	ND	E8	0.00010	0.000013	mg/L		04/28/21 20:48	05/05/21 18:23	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:04	04/30/21 19:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5700	D2	100	100	mg/L			04/29/21 08:38	1
pH	7.3	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	16.5	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW63-0421

Lab Sample ID: 550-162767-2
Date Collected: 04/22/21 14:09
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	88	D1	4.0	1.0	mg/L			04/29/21 16:25	2
Fluoride	2.0	D1	0.80	0.095	mg/L			04/29/21 16:25	2
Sulfate	1900	D2	400	85	mg/L			04/29/21 16:43	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:18	05/03/21 19:47	1
Lithium	0.057		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 20:14	1
Boron	0.93		0.050	0.0025	mg/L		04/29/21 19:18	05/03/21 19:47	1
Calcium	400		2.0	0.013	mg/L		04/29/21 19:18	05/03/21 19:47	1

Client Sample ID: FC-CCR-MW63-0421

Lab Sample ID: 550-162767-2
Date Collected: 04/22/21 14:09
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00017**	**E4**	0.0010	0.000043	mg/L		04/28/21 20:48	05/05/21 18:25	1
Arsenic	**0.0013**		0.00050	0.00025	mg/L		04/28/21 20:48	05/05/21 18:25	1
Barium	**0.020**		0.00050	0.00026	mg/L		04/28/21 20:48	05/05/21 18:25	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		04/28/21 20:48	05/05/21 18:25	1
Chromium	ND	E8	0.0010	0.00043	mg/L		04/28/21 20:48	05/10/21 19:14	1
Cobalt	**0.00062**		0.00050	0.000063	mg/L		04/28/21 20:48	05/05/21 18:25	1
Lead	ND	E8	0.00050	0.00022	mg/L		04/28/21 20:48	05/05/21 18:25	1
Molybdenum	**0.0019**		0.00050	0.00020	mg/L		04/28/21 20:48	05/05/21 18:25	1
Selenium	**0.00047**	**E4**	0.00050	0.000074	mg/L		04/28/21 20:48	05/11/21 14:24	1
Thallium	ND	E8	0.00010	0.000013	mg/L		04/28/21 20:48	05/05/21 18:25	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:04	04/30/21 19:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**3200**	**D2**	40	40	mg/L			04/29/21 08:38	1
pH	**7.5**	**H5**	1.7	1.7	SU			05/05/21 17:02	1
Temperature	**15.3**	**H5**	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW64-0421

Lab Sample ID: 550-162767-3
Date Collected: 04/22/21 14:50
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**52**	**D1**	4.0	1.0	mg/L			05/03/21 14:50	2
Fluoride	**1.4**	**D1**	0.80	0.095	mg/L			05/03/21 14:50	2
Sulfate	**300**	**D2**	40	8.5	mg/L			05/03/21 15:08	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:18	05/03/21 19:51	1
Lithium	**0.019**	**E4**	0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 20:17	1
Boron	**0.50**		0.050	0.0025	mg/L		04/29/21 19:18	05/03/21 19:51	1
Calcium	**89**		2.0	0.013	mg/L		04/29/21 19:18	05/03/21 19:51	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.000094**	**E4**	0.0010	0.000043	mg/L		04/28/21 20:48	05/05/21 18:27	1
Arsenic	**0.00096**		0.00050	0.00025	mg/L		04/28/21 20:48	05/05/21 18:27	1
Barium	**0.033**		0.00050	0.00026	mg/L		04/28/21 20:48	05/05/21 18:27	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		04/28/21 20:48	05/05/21 18:27	1
Chromium	ND	E8	0.0010	0.00043	mg/L		04/28/21 20:48	05/10/21 19:17	1
Cobalt	**0.00083**		0.00050	0.000063	mg/L		04/28/21 20:48	05/05/21 18:27	1
Lead	ND	E8	0.00050	0.00022	mg/L		04/28/21 20:48	05/05/21 18:27	1
Molybdenum	**0.0047**		0.00050	0.00020	mg/L		04/28/21 20:48	05/05/21 18:27	1
Selenium	**0.00036**	**E4**	0.00050	0.000074	mg/L		04/28/21 20:48	05/11/21 14:26	1
Thallium	ND	E8	0.00010	0.000013	mg/L		04/28/21 20:48	05/05/21 18:27	1

Client Sample ID: FC-CCR-MW64-0421

Lab Sample ID: 550-162767-3
Date Collected: 04/22/21 14:50
Matrix: Water
Date Received: 04/28/21 16:44

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:04	04/30/21 20:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	660		20	20	mg/L			04/29/21 08:38	1
pH	7.9	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	14.8	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW65-0421

Lab Sample ID: 550-162767-4
Date Collected: 04/22/21 12:16
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	71	D1	4.0	1.0	mg/L			05/03/21 15:27	2
Fluoride	1.5	D1	0.80	0.095	mg/L			05/03/21 15:27	2
Sulfate	740	D2	40	8.5	mg/L			05/03/21 15:45	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:18	05/03/21 19:54	1
Lithium	0.061		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 20:21	1
Boron	0.78		0.050	0.0025	mg/L		04/29/21 19:18	05/03/21 19:54	1
Calcium	170		2.0	0.013	mg/L		04/29/21 19:18	05/03/21 19:54	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.000075	E4	0.0010	0.000043	mg/L		04/28/21 20:48	05/05/21 18:30	1
Arsenic	0.00099		0.00050	0.00025	mg/L		04/28/21 20:48	05/05/21 18:30	1
Barium	0.032		0.00050	0.00026	mg/L		04/28/21 20:48	05/05/21 18:30	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		04/28/21 20:48	05/05/21 18:30	1
Chromium	ND	E8	0.0010	0.00043	mg/L		04/28/21 20:48	05/10/21 19:19	1
Cobalt	0.0020		0.00050	0.000063	mg/L		04/28/21 20:48	05/05/21 18:30	1
Lead	ND	E8	0.00050	0.00022	mg/L		04/28/21 20:48	05/05/21 18:30	1
Molybdenum	0.0072		0.00050	0.00020	mg/L		04/28/21 20:48	05/05/21 18:30	1
Selenium	0.00059		0.00050	0.000074	mg/L		04/28/21 20:48	05/11/21 14:28	1
Thallium	ND	E8	0.00010	0.000013	mg/L		04/28/21 20:48	05/05/21 18:30	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:04	04/30/21 20:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	540		20	20	mg/L			04/29/21 08:38	1
pH	7.7	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	14.2	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-240915/2
Matrix: Water
Analysis Batch: 240915

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			04/29/21 11:12	1
Fluoride	ND	E8	0.40	0.047	mg/L			04/29/21 11:12	1
Sulfate	ND	E8	2.0	0.43	mg/L			04/29/21 11:12	1

Lab Sample ID: LCS 550-240915/5
Matrix: Water
Analysis Batch: 240915

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	20.9		mg/L		105	90 - 110
Fluoride	4.00	4.15		mg/L		104	90 - 110
Sulfate	20.0	20.8		mg/L		104	90 - 110

Lab Sample ID: LCSD 550-240915/6
Matrix: Water
Analysis Batch: 240915

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		106	90 - 110	1	20
Fluoride	4.00	4.19		mg/L		105	90 - 110	1	20
Sulfate	20.0	21.0		mg/L		105	90 - 110	1	20

Lab Sample ID: 550-162673-A-8 MS ^10
Matrix: Water
Analysis Batch: 240915

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	250	D2	200	477	D2	mg/L		112	80 - 120
Fluoride	3.4	E4 D1	40.0	45.9	D1	mg/L		106	80 - 120
Sulfate	330	D2	200	551	D2	mg/L		110	80 - 120

Lab Sample ID: 550-162673-A-8 MSD ^10
Matrix: Water
Analysis Batch: 240915

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	250	D2	200	469	D2	mg/L		108	80 - 120	2	20
Fluoride	3.4	E4 D1	40.0	44.4	D1	mg/L		103	80 - 120	3	20
Sulfate	330	D2	200	542	D2	mg/L		106	80 - 120	2	20

Lab Sample ID: MB 550-241309/2
Matrix: Water
Analysis Batch: 241309

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			05/03/21 13:18	1
Fluoride	ND	E8	0.40	0.047	mg/L			05/03/21 13:18	1
Sulfate	0.990	E4	2.0	0.43	mg/L			05/03/21 13:18	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-241309/5
Matrix: Water
Analysis Batch: 241309

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	4.13		mg/L		103	90 - 110		
Sulfate			20.0	20.7		mg/L		103	90 - 110		

Lab Sample ID: LCSD 550-241309/6
Matrix: Water
Analysis Batch: 241309

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	1	20
Fluoride			4.00	4.16		mg/L		104	90 - 110	1	20
Sulfate			20.0	21.0		mg/L		105	90 - 110	2	20

Lab Sample ID: 550-162769-A-1 MS ^200
Matrix: Water
Analysis Batch: 241309

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	1700	D2	4000	6150	D2	mg/L		111	80 - 120		
Fluoride	25	E4 D2	800	866	D2	mg/L		105	80 - 120		
Sulfate	12000	D2	4000	16400	D2	mg/L		103	80 - 120		

Lab Sample ID: 550-162769-A-1 MSD ^200
Matrix: Water
Analysis Batch: 241309

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	1700	D2	4000	6050	D2	mg/L		109	80 - 120	2	20
Fluoride	25	E4 D2	800	855	D2	mg/L		104	80 - 120	1	20
Sulfate	12000	D2	4000	15800	D2	mg/L		88	80 - 120	4	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-240933/1-A
Matrix: Water
Analysis Batch: 241266

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240933

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:18	05/03/21 19:21	1
Boron	0.00845	E4	0.050	0.0025	mg/L		04/29/21 19:18	05/03/21 19:21	1
Calcium	0.0418	E4	2.0	0.013	mg/L		04/29/21 19:18	05/03/21 19:21	1

Lab Sample ID: LCS 550-240933/2-A
Matrix: Water
Analysis Batch: 241266

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240933

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Beryllium			1.00	0.934		mg/L		93	85 - 115		
Boron			1.00	0.942		mg/L		94	85 - 115		
Calcium			21.0	19.5		mg/L		93	85 - 115		

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: LCSD 550-240933/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241266 — **Prep Batch: 240933**

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	10	20
Boron			1.00	0.955		mg/L		95	85 - 115	1	20
Calcium			21.0	21.3		mg/L		101	85 - 115	9	20

Lab Sample ID: 550-162829-D-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241266 — **Prep Batch: 240933**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.00036	E4	1.00	1.04		mg/L		104	70 - 130
Boron	0.21		1.00	1.19		mg/L		99	70 - 130
Calcium	33		21.0	53.7		mg/L		99	70 - 130

Lab Sample ID: 550-162829-D-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241266 — **Prep Batch: 240933**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	0.00036	E4	1.00	1.07		mg/L		107	70 - 130	2	20
Boron	0.21		1.00	1.20		mg/L		99	70 - 130	0	20
Calcium	33		21.0	55.6		mg/L		108	70 - 130	4	20

Lab Sample ID: MB 280-535039/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 535416 — **Prep Batch: 535039**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	E8	0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 20:04	1

Lab Sample ID: LCS 280-535039/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 535416 — **Prep Batch: 535039**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium			1.00	0.977		mg/L		98	90 - 112

Lab Sample ID: 550-162771-C-4-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 535416 — **Prep Batch: 535039**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.76		1.00	1.82		mg/L		107	70 - 130

Lab Sample ID: 550-162771-C-4-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 535416 — **Prep Batch: 535039**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.76		1.00	1.84		mg/L		109	70 - 130	1	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-240779/1-A
Matrix: Water
Analysis Batch: 241599

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.000166	E4	0.0010	0.000043	mg/L		04/28/21 20:48	05/05/21 18:09	1
Arsenic	0.000457	E4	0.00050	0.00025	mg/L		04/28/21 20:48	05/05/21 18:09	1
Barium	0.000370	E4	0.00050	0.00026	mg/L		04/28/21 20:48	05/05/21 18:09	1
Cadmium	0.0000900	E4	0.00010	0.000023	mg/L		04/28/21 20:48	05/05/21 18:09	1
Cobalt	ND	E8	0.00050	0.000063	mg/L		04/28/21 20:48	05/05/21 18:09	1
Lead	ND	E8	0.00050	0.00022	mg/L		04/28/21 20:48	05/05/21 18:09	1
Molybdenum	ND	E8	0.00050	0.00020	mg/L		04/28/21 20:48	05/05/21 18:09	1
Selenium	0.000295	E4	0.00050	0.000074	mg/L		04/28/21 20:48	05/05/21 18:09	1
Thallium	0.0000900	E4	0.00010	0.000013	mg/L		04/28/21 20:48	05/05/21 18:09	1

Lab Sample ID: MB 550-240779/1-A
Matrix: Water
Analysis Batch: 242002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND	E8	0.0010	0.00043	mg/L		04/28/21 20:48	05/10/21 18:58	1

Lab Sample ID: LCS 550-240779/2-A
Matrix: Water
Analysis Batch: 241599

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.0991		mg/L		99	85 - 115
Arsenic	0.100	0.0987		mg/L		99	85 - 115
Barium	0.100	0.115		mg/L		115	85 - 115
Cadmium	0.100	0.0969		mg/L		97	85 - 115
Cobalt	0.100	0.0931		mg/L		93	85 - 115
Lead	0.100	0.0956		mg/L		96	85 - 115
Molybdenum	0.100	0.0958		mg/L		96	85 - 115
Selenium	0.100	0.103		mg/L		103	85 - 115
Thallium	0.100	0.0940		mg/L		94	85 - 115

Lab Sample ID: LCS 550-240779/2-A
Matrix: Water
Analysis Batch: 242002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.100	0.111		mg/L		111	85 - 115

Lab Sample ID: LCSD 550-240779/3-A
Matrix: Water
Analysis Batch: 241599

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240779

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.100	0.0989		mg/L		99	85 - 115	0	20
Arsenic	0.100	0.0974		mg/L		97	85 - 115	1	20
Barium	0.100	0.114		mg/L		114	85 - 115	2	20
Cadmium	0.100	0.0976		mg/L		98	85 - 115	1	20
Cobalt	0.100	0.0928		mg/L		93	85 - 115	0	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 550-240779/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241599 — **Prep Batch: 240779**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.100	0.0944		mg/L		94	85 - 115	1	20
Molybdenum	0.100	0.0962		mg/L		96	85 - 115	0	20
Selenium	0.100	0.102		mg/L		102	85 - 115	0	20
Thallium	0.100	0.0932		mg/L		93	85 - 115	1	20

Lab Sample ID: LCSD 550-240779/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 242002 — **Prep Batch: 240779**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	0.100	0.112		mg/L		112	85 - 115	0	20

Lab Sample ID: 550-162712-B-1-A MS T — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241599 — **Prep Batch: 240779**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.00032	E4	0.100	0.102		mg/L		101	70 - 130
Arsenic	0.0026		0.100	0.103		mg/L		100	70 - 130
Barium	0.037		0.100	0.153		mg/L		116	70 - 130
Cadmium	0.000026	E4	0.100	0.0970		mg/L		97	70 - 130
Cobalt	ND	E8	0.100	0.0906		mg/L		91	70 - 130
Lead	0.00072		0.100	0.0940		mg/L		93	70 - 130
Molybdenum	0.016		0.100	0.118		mg/L		102	70 - 130
Selenium	0.00076		0.100	0.105		mg/L		105	70 - 130
Thallium	0.000093	E4	0.100	0.0919		mg/L		92	70 - 130

Lab Sample ID: 550-162712-B-1-A MS T — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 242002 — **Prep Batch: 240779**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.00048	E4	0.100	0.110		mg/L		110	70 - 130

Lab Sample ID: 550-162712-B-1-B MSD T — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241599 — **Prep Batch: 240779**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.00032	E4	0.100	0.105		mg/L		105	70 - 130	4	20
Arsenic	0.0026		0.100	0.105		mg/L		102	70 - 130	2	20
Barium	0.037		0.100	0.161		mg/L		124	70 - 130	5	20
Cadmium	0.000026	E4	0.100	0.0995		mg/L		99	70 - 130	3	20
Cobalt	ND	E8	0.100	0.0916		mg/L		92	70 - 130	1	20
Lead	0.00072		0.100	0.0976		mg/L		97	70 - 130	4	20
Molybdenum	0.016		0.100	0.120		mg/L		104	70 - 130	2	20
Selenium	0.00076		0.100	0.107		mg/L		106	70 - 130	1	20
Thallium	0.000093	E4	0.100	0.0947		mg/L		95	70 - 130	3	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: 550-162712-B-1-B MSD T — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 242002 — **Prep Batch: 240779**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	0.00048	E4	0.100	0.112		mg/L		112	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-241075/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241093 — **Prep Batch: 241075**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:04	04/30/21 19:44	1

Lab Sample ID: LCS 550-241075/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241093 — **Prep Batch: 241075**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.00500	0.00532		mg/L		106	85 - 115

Lab Sample ID: LCSD 550-241075/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241093 — **Prep Batch: 241075**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.00500	0.00509		mg/L		102	85 - 115	4	20

Lab Sample ID: 550-162835-A-5-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241093 — **Prep Batch: 241075**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	ND	E8	0.00500	0.00471		mg/L		94	70 - 130

Lab Sample ID: 550-162835-A-5-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241093 — **Prep Batch: 241075**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND	E8	0.00500	0.00426		mg/L		85	70 - 130	10	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-240828/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 240828

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			04/29/21 08:38	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 550-240828/2
Matrix: Water
Analysis Batch: 240828

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 550-240828/3
Matrix: Water
Analysis Batch: 240828

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	980		mg/L		98	90 - 110	2	10

Lab Sample ID: 550-162767-1 DU
Matrix: Water
Analysis Batch: 240828

Client Sample ID: FC-CCR-MW62-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	5700	D2		5570	D2	mg/L				3	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-241582/1
Matrix: Water
Analysis Batch: 241582

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 550-241582/13
Matrix: Water
Analysis Batch: 241582

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: 550-162767-1 DU
Matrix: Water
Analysis Batch: 241582

Client Sample ID: FC-CCR-MW62-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.3	H5		7.3	H5	SU				0.4	5
Temperature	16.5	H5		16.4	H5	Degrees C				0.6	

HPLC/IC

Analysis Batch: 240915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162767-1	FC-CCR-MW62-0421	Total/NA	Water	300.0	
550-162767-1	FC-CCR-MW62-0421	Total/NA	Water	300.0	
550-162767-2	FC-CCR-MW63-0421	Total/NA	Water	300.0	
550-162767-2	FC-CCR-MW63-0421	Total/NA	Water	300.0	
MB 550-240915/2	Method Blank	Total/NA	Water	300.0	
LCS 550-240915/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-240915/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-162673-A-8 MS ^10	Matrix Spike	Total/NA	Water	300.0	
550-162673-A-8 MSD ^10	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 241309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162767-3	FC-CCR-MW64-0421	Total/NA	Water	300.0	
550-162767-3	FC-CCR-MW64-0421	Total/NA	Water	300.0	
550-162767-4	FC-CCR-MW65-0421	Total/NA	Water	300.0	
550-162767-4	FC-CCR-MW65-0421	Total/NA	Water	300.0	
MB 550-241309/2	Method Blank	Total/NA	Water	300.0	
LCS 550-241309/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-241309/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-162769-A-1 MS ^200	Matrix Spike	Total/NA	Water	300.0	
550-162769-A-1 MSD ^200	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 240779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162767-1	FC-CCR-MW62-0421	Total/NA	Water	200.8	
550-162767-2	FC-CCR-MW63-0421	Total/NA	Water	200.8	
550-162767-3	FC-CCR-MW64-0421	Total/NA	Water	200.8	
550-162767-4	FC-CCR-MW65-0421	Total/NA	Water	200.8	
MB 550-240779/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-240779/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-240779/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-162712-B-1-A MS T	Matrix Spike	Total/NA	Water	200.8	
550-162712-B-1-B MSD T	Matrix Spike Duplicate	Total/NA	Water	200.8	

Prep Batch: 240933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162767-1	FC-CCR-MW62-0421	Total/NA	Water	200.7	
550-162767-2	FC-CCR-MW63-0421	Total/NA	Water	200.7	
550-162767-3	FC-CCR-MW64-0421	Total/NA	Water	200.7	
550-162767-4	FC-CCR-MW65-0421	Total/NA	Water	200.7	
MB 550-240933/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-240933/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-240933/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-162829-D-1-A MS	Matrix Spike	Total/NA	Water	200.7	
550-162829-D-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Prep Batch: 241075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162767-1	FC-CCR-MW62-0421	Total/NA	Water	245.1	

Metals (Continued)

Prep Batch: 241075 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162767-2	FC-CCR-MW63-0421	Total/NA	Water	245.1	
550-162767-3	FC-CCR-MW64-0421	Total/NA	Water	245.1	
550-162767-4	FC-CCR-MW65-0421	Total/NA	Water	245.1	
MB 550-241075/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-241075/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-241075/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-162835-A-5-B MS	Matrix Spike	Total/NA	Water	245.1	
550-162835-A-5-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 241093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162767-1	FC-CCR-MW62-0421	Total/NA	Water	245.1	241075
550-162767-2	FC-CCR-MW63-0421	Total/NA	Water	245.1	241075
550-162767-3	FC-CCR-MW64-0421	Total/NA	Water	245.1	241075
550-162767-4	FC-CCR-MW65-0421	Total/NA	Water	245.1	241075
MB 550-241075/1-A	Method Blank	Total/NA	Water	245.1	241075
LCS 550-241075/2-A	Lab Control Sample	Total/NA	Water	245.1	241075
LCSD 550-241075/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	241075
550-162835-A-5-B MS	Matrix Spike	Total/NA	Water	245.1	241075
550-162835-A-5-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	241075

Analysis Batch: 241266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162767-1	FC-CCR-MW62-0421	Total/NA	Water	200.7 Rev 4.4	240933
550-162767-2	FC-CCR-MW63-0421	Total/NA	Water	200.7 Rev 4.4	240933
550-162767-3	FC-CCR-MW64-0421	Total/NA	Water	200.7 Rev 4.4	240933
550-162767-4	FC-CCR-MW65-0421	Total/NA	Water	200.7 Rev 4.4	240933
MB 550-240933/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	240933
LCS 550-240933/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	240933
LCSD 550-240933/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	240933
550-162829-D-1-A MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	240933
550-162829-D-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	240933

Analysis Batch: 241599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162767-1	FC-CCR-MW62-0421	Total/NA	Water	200.8 LL	240779
550-162767-2	FC-CCR-MW63-0421	Total/NA	Water	200.8 LL	240779
550-162767-3	FC-CCR-MW64-0421	Total/NA	Water	200.8 LL	240779
550-162767-4	FC-CCR-MW65-0421	Total/NA	Water	200.8 LL	240779
MB 550-240779/1-A	Method Blank	Total/NA	Water	200.8 LL	240779
LCS 550-240779/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	240779
LCSD 550-240779/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	240779
550-162712-B-1-A MS T	Matrix Spike	Total/NA	Water	200.8 LL	240779
550-162712-B-1-B MSD T	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	240779

Analysis Batch: 242002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162767-1	FC-CCR-MW62-0421	Total/NA	Water	200.8 LL	240779
550-162767-2	FC-CCR-MW63-0421	Total/NA	Water	200.8 LL	240779
550-162767-3	FC-CCR-MW64-0421	Total/NA	Water	200.8 LL	240779
550-162767-4	FC-CCR-MW65-0421	Total/NA	Water	200.8 LL	240779

Metals (Continued)

Analysis Batch: 242002 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-240779/1-A	Method Blank	Total/NA	Water	200.8 LL	240779
LCS 550-240779/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	240779
LCSD 550-240779/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	240779
550-162712-B-1-A MS T	Matrix Spike	Total/NA	Water	200.8 LL	240779
550-162712-B-1-B MSD T	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	240779

Analysis Batch: 242064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162767-1	FC-CCR-MW62-0421	Total/NA	Water	200.8 LL	240779
550-162767-2	FC-CCR-MW63-0421	Total/NA	Water	200.8 LL	240779
550-162767-3	FC-CCR-MW64-0421	Total/NA	Water	200.8 LL	240779
550-162767-4	FC-CCR-MW65-0421	Total/NA	Water	200.8 LL	240779

Prep Batch: 535039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162767-1	FC-CCR-MW62-0421	Total/NA	Water	200.7	
550-162767-2	FC-CCR-MW63-0421	Total/NA	Water	200.7	
550-162767-3	FC-CCR-MW64-0421	Total/NA	Water	200.7	
550-162767-4	FC-CCR-MW65-0421	Total/NA	Water	200.7	
MB 280-535039/1-A	Method Blank	Total/NA	Water	200.7	
LCS 280-535039/2-A	Lab Control Sample	Total/NA	Water	200.7	
550-162771-C-4-B MS	Matrix Spike	Total/NA	Water	200.7	
550-162771-C-4-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Analysis Batch: 535416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162767-1	FC-CCR-MW62-0421	Total/NA	Water	200.7 Rev 4.4	535039
550-162767-2	FC-CCR-MW63-0421	Total/NA	Water	200.7 Rev 4.4	535039
550-162767-3	FC-CCR-MW64-0421	Total/NA	Water	200.7 Rev 4.4	535039
550-162767-4	FC-CCR-MW65-0421	Total/NA	Water	200.7 Rev 4.4	535039
MB 280-535039/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	535039
LCS 280-535039/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	535039
550-162771-C-4-B MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	535039
550-162771-C-4-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	535039

General Chemistry

Analysis Batch: 240828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162767-1	FC-CCR-MW62-0421	Total/NA	Water	SM 2540C	
550-162767-2	FC-CCR-MW63-0421	Total/NA	Water	SM 2540C	
550-162767-3	FC-CCR-MW64-0421	Total/NA	Water	SM 2540C	
550-162767-4	FC-CCR-MW65-0421	Total/NA	Water	SM 2540C	
MB 550-240828/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-240828/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-240828/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-162767-1 DU	FC-CCR-MW62-0421	Total/NA	Water	SM 2540C	

Analysis Batch: 241582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162767-1	FC-CCR-MW62-0421	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 241582 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162767-2	FC-CCR-MW63-0421	Total/NA	Water	SM 4500 H+ B	
550-162767-3	FC-CCR-MW64-0421	Total/NA	Water	SM 4500 H+ B	
550-162767-4	FC-CCR-MW65-0421	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-241582/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-241582/13	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-162767-1 DU	FC-CCR-MW62-0421	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162767-1
SDG: APS Four Corners Power Plant

Client Sample ID: FC-CCR-MW62-0421

Lab Sample ID: 550-162767-1

Date Collected: 04/22/21 13:02

Matrix: Water

Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	240915	04/29/21 15:11	JRP	TAL PHX
Total/NA	Analysis	300.0		200	240915	04/29/21 15:30	JRP	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241266	05/03/21 19:43	MGM	TAL PHX
Total/NA	Prep	200.7			535039	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 20:11	LMT	TAL DEN
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	241599	05/05/21 18:23	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242002	05/10/21 19:12	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242064	05/11/21 14:22	ARE	TAL PHX
Total/NA	Prep	245.1			241075	04/30/21 17:04	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241093	04/30/21 19:57	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
					(Start)	04/29/21 08:38		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW63-0421

Lab Sample ID: 550-162767-2

Date Collected: 04/22/21 14:09

Matrix: Water

Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	240915	04/29/21 16:25	JRP	TAL PHX
Total/NA	Analysis	300.0		200	240915	04/29/21 16:43	JRP	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241266	05/03/21 19:47	MGM	TAL PHX
Total/NA	Prep	200.7			535039	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 20:14	LMT	TAL DEN
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	241599	05/05/21 18:25	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242002	05/10/21 19:14	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242064	05/11/21 14:24	ARE	TAL PHX
Total/NA	Prep	245.1			241075	04/30/21 17:04	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241093	04/30/21 19:59	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
					(Start)	04/29/21 08:38		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162767-1
SDG: APS Four Corners Power Plant

Client Sample ID: FC-CCR-MW64-0421

Date Collected: 04/22/21 14:50
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162767-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241309	05/03/21 14:50	JRP	TAL PHX
Total/NA	Analysis	300.0		20	241309	05/03/21 15:08	JRP	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241266	05/03/21 19:51	MGM	TAL PHX
Total/NA	Prep	200.7			535039	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 20:17	LMT	TAL DEN
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	241599	05/05/21 18:27	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242002	05/10/21 19:17	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242064	05/11/21 14:26	ARE	TAL PHX
Total/NA	Prep	245.1			241075	04/30/21 17:04	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241093	04/30/21 20:00	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
					(Start)	04/29/21 08:38		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW65-0421

Date Collected: 04/22/21 12:16
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162767-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241309	05/03/21 15:27	JRP	TAL PHX
Total/NA	Analysis	300.0		20	241309	05/03/21 15:45	JRP	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241266	05/03/21 19:54	MGM	TAL PHX
Total/NA	Prep	200.7			535039	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 20:21	LMT	TAL DEN
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	241599	05/05/21 18:30	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242002	05/10/21 19:19	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242064	05/11/21 14:28	ARE	TAL PHX
Total/NA	Prep	245.1			241075	04/30/21 17:04	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241093	04/30/21 20:02	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
					(Start)	04/29/21 08:38		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162767-1
SDG: APS Four Corners Power Plant

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162767-1
SDG: APS Four Corners Power Plant

Laboratory: Eurofins TestAmerica, 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	06-08-21

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 TestAmerica, Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-21
A2LA	ISO/IEC 17025	2907.01	10-31-21
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-28-22
Arizona	State	AZ0713	12-21-21
Arkansas DEQ	State	19-047-0	06-01-21
California	State	2513	01-08-22
Connecticut	State	PH-0686	11-30-22
Florida	NELAP	E87667-57	07-01-21
Georgia	State	4025-011	01-08-22
Illinois	NELAP	2000172019-1	04-30-21 *
Iowa	State	IA#370	12-02-21
Kansas	NELAP	E-10166	04-30-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-21
Minnesota	NELAP	1788752	12-31-21
Nevada	State	CO000262020-1	07-31-21
New Hampshire	NELAP	205319	04-29-22
New Jersey	NELAP	190002	06-30-21
New York	NELAP	59923	04-01-22
North Carolina (WW/SW)	State	358	12-31-21
North Dakota	State	R-034	01-08-22
Oklahoma	State	2018-006	09-01-21
Oregon	NELAP	4025-011	01-08-22
Pennsylvania	NELAP	013	07-31-21
South Carolina	State	72002001	01-08-22
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-20-18	09-30-21
US Fish & Wildlife	US Federal Programs	058448	08-01-21
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-21
Virginia	NELAP	10490	06-14-21
Washington	State	C583-19	08-03-21
West Virginia DEP	State	354	11-30-21
Wisconsin	State	999615430	08-31-21
Wyoming (UST)	A2LA	2907.01	10-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162767-1
SDG: APS Four Corners Power Plant

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
200.8 LL	Metals (ICP/MS)	EPA	TAL PHX
245.1	Mercury (CVAA)	EPA	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 4500 H+ B	pH	SM	TAL PHX
200.7	Preparation, Total Metals	EPA	TAL DEN
200.7	Preparation, Total Metals	EPA	TAL PHX
200.8	Preparation, Total Metals	EPA	TAL PHX
245.1	Preparation, Mercury	EPA	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, 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

162767

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

5/12/2021

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	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 (CWTP)	☐ 2 days			Job / SDG No.:
PO #: 100611133	☐ 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)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	Sample Specific Notes:
1	FC-CCR-MW62-0421	4/22/2021	13:02	G	W	2	N	N	X	X	X	X	X	X	Low Flow
2	FC-CCR-MW63-0421	4/22/2021	14:09	G	W	2	N	N	X	X	X	X	X	X	"
3	FC-CCR-MW64-0421	4/22/2021	14:50	G	W	2	N	N	X	X	X	X	X	X	"
4	FC-CCR-MW65-0421	4/22/2021	12:16	G	W	2	N	N	X	X	X	X	X	X	"

550-162767 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

		1	4	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

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: Brandon Perry	Wood PLC	4-28-21/16:47	Received by:		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Nick Sterrett	Company: ETA PHX	Date/Time: 4/29/21 1644

COD 0.3

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd Suite 189
Phoenix, AZ 85040
Phone: 602-437-3340 Fax: 602-454-9303

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Baker, Ken	Carrier Tracking No(s):	COC No: 550-30782.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Baker@Eurofinset.com	State of Origin: Arizona	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Arizona		Job #: 550-162767-1
Address: 4955 Yarrow Street,	Due Date Requested: 5/11/2021			
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 #: 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, 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_TOT Lithium-ICP	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
FC-CCR-MW62-0421 (550-162767-1)	4/22/21	13:02 Arizona		Water			X	1	AZ Sample
FC-CCR-MW63-0421 (550-162767-2)	4/22/21	14:09 Arizona		Water			X	1	AZ Sample
FC-CCR-MW64-0421 (550-162767-3)	4/22/21	14:50 Arizona		Water			X	1	AZ Sample
FC-CCR-MW65-0421 (550-162767-4)	4/22/21	12:16 Arizona		Water			X	1	AZ Sample

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

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: Eric 05-03-21	Date/Time: 13:45	Company: TA-PHX	Received by: Fedex
Relinquished by:	Date/Time:	Company	Received by: Date/Time: 5/4/21 950 Company: TA 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: 0.1 IR11 CF#4

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-162767-1
SDG Number: APS Four Corners Power Plant

Login Number: 162767
List Number: 1
Creator: Maycock, Lisa

List Source: Eurofins TestAmerica, 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: 550-162767-1
SDG Number: APS Four Corners Power Plant

Login Number: 162767
List Number: 2
Creator: Dubicki, Adam L

List Source: Eurofins TestAmerica, Denver
List Creation: 05/04/21 12:27 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.	False	
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	

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: April 22, 2021
Sample Received: April 29, 2021
Analysis Completed: May 11, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW62-0421	< 0.4	< 0.7	< 0.7
Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/11/2021
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: _____

April 22, 2021 (Sample Date) 13:02 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	< 0.7		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.7		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66471

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. (480) 897-9459

Comments: FC-CCR-MW62-0421

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: April 22, 2021
Sample Received: April 29, 2021
Analysis Completed: May 11, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW63-0421	< 0.4	< 0.7	< 0.7

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

5/11/2021
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: _____

April 22, 2021 (Sample Date) 14:09 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	< 0.7		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.7		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66472

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. (480) 897-9459

Comments: FC-CCR-MW63-0421

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: April 22, 2021
Sample Received: April 29, 2021
Analysis Completed: May 11, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW64-0421	< 0.4	< 0.7	< 0.7
Date of Analysis	4/30/2021	4/30/2021	4/30/2021

5/11/2021

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: _____

April 22, 2021 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	< 0.7		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.7		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66473

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. (480) 897-9459

Comments: FC-CCR-MW64-0421

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: April 22, 2021
Sample Received: April 29, 2021
Analysis Completed: May 11, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW65-0421	< 0.4	< 0.7	< 0.7

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/11/2021 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: _____

April 22, 2021 (Sample Date) 12:16 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	< 0.7		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.7		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66474

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. (480) 897-9459

Comments: FC-CCR-MW65-0421

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Client Information

Name:	**Natalie Chrisman/602-250-3608** **Jim Edwards/928-288-1241**
Company	**Arizona Public Service**
Address	**PO Box 355, MS 4915** **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-MW62-0421	4/22/2021	13:02	**GW**						X	X	X				66471	
FC-CCR-MW63-0421	4/22/2021	14:09	**GW**						X	X	X				66472	
FC-CCR-MW64-0421	4/22/2021	14:50	**GW**						X	X	X				66473	
FC-CCR-MW65-0421	4/22/2021	12:16	**GW**						X	X	X				66474	

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:

Instructions/Comments

Method HPGe

Relinguished By:	Company: Wood	Date/time: 4/29/21 12:10	Received By: Pat Flannery		Company: RSE	Date/time: 4.29.21
Relinguished By:	Company:	Date/time:	Received By:		Company:	Date/time: 12:10
Relinguished 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 America

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-166823-1
Laboratory SDG: APS Four Corners Power Plant ((LDWP)
Client Project/Site: CCR Groundwater Monitoring

For:
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Attn: Natalie Chrisman

Authorized for release by:
8/2/2021 4:11:00 PM

Ken Baker, Project Manager II
(602)659-7624
Ken.Baker@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-166823-1
SDG: APS Four Corners Power Plant ((LDWP)

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.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.

Metals

Qualifier	Qualifier Description
B1	Target analyte detected in method blank at or above the method reporting limit.
B3	Target analyte detected in calibration 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.
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of analyte.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
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.
R13	MS/MSD RPD exceeded the method acceptance limit. Matrix spike recovery was outside acceptance criteria. Batch precision and accuracy were demonstrated.

General Chemistry

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
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.

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: 550-166823-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-166823-1

Comments
No additional comments.

Receipt
The samples were received on 7/9/2021 4:50 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 was 0.4º C.

HPLC/IC
Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for 550-248629 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample and duplicate (LCS/LCSD) recovery 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 200.7 Rev 4.4: The following sample was diluted due to the nature of the sample matrix: FC-CCR-LDWP-0721 (550-166823-1). Elevated reporting limits (RLs) are provided.

Method 200.7 Rev 4.4: The continuing calibration blank (CCB) for analytical batch 550-248600 contained Boron 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.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-166823-1
SDG: APS Four Corners Power Plant ((LDWP)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-166823-1	FC-CCR-LDWP-0721	Water	07/08/21 11:22	07/09/21 16:50
550-166823-2	FC-CCR-LDWP-BCH-0721	Solid	07/08/21 11:22	07/09/21 16:50
550-166823-3	FC-CCR-LDWP-SUB-0721	Solid	07/08/21 11:22	07/09/21 16:50
550-166823-4	FC-CCR-MW63-0721	Water	07/08/21 10:41	07/09/21 16:50
550-166823-5	FC-CCR-MW65-0721	Water	07/08/21 09:54	07/09/21 16:50

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-166823-1
SDG: APS Four Corners Power Plant ((LDWP)

Client Sample ID: FC-CCR-LDWP-0721 — Lab Sample ID: 550-166823-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	470	D2	80	9.5	mg/L	200		300.0	Total/NA
Beryllium	0.0036	D1 E4	0.010	0.00067	mg/L	10		200.7 Rev 4.4	Total/NA
Lithium	7.3		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	1000	B3 D2	1.0	0.051	mg/L	20		200.7 Rev 4.4	Total/NA
Calcium	560	D1	20	0.13	mg/L	10		200.7 Rev 4.4	Total/NA
Antimony	0.029	D1	0.010	0.00043	mg/L	10		200.8 LL	Total/NA
Arsenic	0.45	D1	0.025	0.012	mg/L	50		200.8 LL	Total/NA
Barium	0.10	D1	0.0050	0.0026	mg/L	10		200.8 LL	Total/NA
Cadmium	0.0013	D1	0.0010	0.00023	mg/L	10		200.8 LL	Total/NA
Cobalt	0.077	D1	0.025	0.0031	mg/L	50		200.8 LL	Total/NA
Lead	0.0015	D1 E4	0.0025	0.0011	mg/L	5		200.8 LL	Total/NA
Molybdenum	0.61	B7 D1	0.0050	0.0020	mg/L	10		200.8 LL	Total/NA
Selenium	0.044	D1	0.025	0.0037	mg/L	50		200.8 LL	Total/NA
Total Dissolved Solids	130000		1000	1000	mg/L	1		SM 2540C	Total/NA
pH	6.1	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	12.8	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-LDWP-BCH-0721 — Lab Sample ID: 550-166823-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	1.4		0.039	0.0046	mg/Kg	1		6020B	Total/NA
Arsenic	9.7	B7	0.049	0.016	mg/Kg	1		6020B	Total/NA
Barium	42	M3 R13	0.049	0.027	mg/Kg	1		6020B	Total/NA
Beryllium	0.091		0.039	0.0078	mg/Kg	1		6020B	Total/NA
Cadmium	0.036		0.0098	0.0016	mg/Kg	1		6020B	Total/NA
Chromium	0.48		0.049	0.024	mg/Kg	1		6020B	Total/NA
Copper	0.97	E4 M2	0.98	0.20	mg/Kg	1		6020B	Total/NA
Lead	0.72		0.049	0.043	mg/Kg	1		6020B	Total/NA
Nickel	2.0	B7	0.049	0.036	mg/Kg	1		6020B	Total/NA
Selenium	4.5	M2	0.049	0.019	mg/Kg	1		6020B	Total/NA
Silver	0.011	E4 M2	0.049	0.0056	mg/Kg	1		6020B	Total/NA
Thallium	0.031	E4	0.049	0.0060	mg/Kg	1		6020B	Total/NA
Zinc	0.98	E4 M2	1.2	0.28	mg/Kg	1		6020B	Total/NA

Client Sample ID: FC-CCR-LDWP-SUB-0721 — Lab Sample ID: 550-166823-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.81		0.039	0.0046	mg/Kg	1		6020B	Total/NA
Arsenic	6.7	B7	0.049	0.016	mg/Kg	1		6020B	Total/NA
Barium	23		0.049	0.027	mg/Kg	1		6020B	Total/NA
Beryllium	0.032	E4	0.039	0.0078	mg/Kg	1		6020B	Total/NA
Cadmium	0.012		0.0098	0.0016	mg/Kg	1		6020B	Total/NA
Chromium	0.25		0.049	0.024	mg/Kg	1		6020B	Total/NA
Copper	0.62	E4	0.98	0.20	mg/Kg	1		6020B	Total/NA
Lead	0.23		0.049	0.043	mg/Kg	1		6020B	Total/NA
Nickel	1.4	B7	0.049	0.036	mg/Kg	1		6020B	Total/NA
Selenium	3.3		0.049	0.019	mg/Kg	1		6020B	Total/NA
Thallium	0.013	E4	0.049	0.0060	mg/Kg	1		6020B	Total/NA
Zinc	0.65	E4	1.2	0.29	mg/Kg	1		6020B	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: 550-166823-1
SDG: APS Four Corners Power Plant ((LDWP)

Client Sample ID: FC-CCR-MW63-0721 — Lab Sample ID: 550-166823-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	7.2	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	14.2	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW65-0721 — Lab Sample ID: 550-166823-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.87		0.050	0.0025	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: 550-166823-1
SDG: APS Four Corners Power Plant ((LDWP)

Client Sample ID: FC-CCR-LDWP-0721

Date Collected: 07/08/21 11:22
Date Received: 07/09/21 16:50

Lab Sample ID: 550-166823-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	D1 D5 E8 M2	4.0	1.0	mg/L			07/22/21 21:02	2
Fluoride	**470**	**D2**	80	9.5	mg/L			07/22/21 21:58	200
Sulfate	ND	D1 D5 E8 M2	4.0	0.85	mg/L			07/22/21 21:02	2

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	**0.0036**	**D1 E4**	0.010	0.00067	mg/L		07/13/21 11:03	07/17/21 05:28	10
Lithium	**7.3**		0.020	0.0091	mg/L		07/26/21 09:20	07/27/21 02:35	1
Boron	**1000**	**B3 D2**	1.0	0.051	mg/L		07/13/21 11:03	07/23/21 01:24	20
Calcium	**560**	**D1**	20	0.13	mg/L		07/13/21 11:03	07/17/21 05:28	10

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.029**	**D1**	0.010	0.00043	mg/L		07/27/21 06:37	07/28/21 11:41	10
Arsenic	**0.45**	**D1**	0.025	0.012	mg/L		07/27/21 06:37	07/28/21 12:41	50
Barium	**0.10**	**D1**	0.0050	0.0026	mg/L		07/27/21 06:37	07/28/21 11:41	10
Cadmium	**0.0013**	**D1**	0.0010	0.00023	mg/L		07/27/21 06:37	07/28/21 11:41	10
Chromium	ND	D1 E8	0.050	0.022	mg/L		07/27/21 06:37	07/28/21 12:41	50
Cobalt	**0.077**	**D1**	0.025	0.0031	mg/L		07/27/21 06:37	07/28/21 12:41	50
Lead	**0.0015**	**D1 E4**	0.0025	0.0011	mg/L		07/27/21 06:37	07/28/21 11:43	5
Molybdenum	**0.61**	**B7 D1**	0.0050	0.0020	mg/L		07/27/21 06:37	07/28/21 11:41	10
Selenium	**0.044**	**D1**	0.025	0.0037	mg/L		07/27/21 06:37	07/28/21 12:41	50
Thallium	ND	D1 E8	0.00050	0.000066	mg/L		07/27/21 06:37	07/28/21 11:43	5

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		07/22/21 16:10	07/22/21 20:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**130000**		1000	1000	mg/L			07/12/21 19:43	1
pH	**6.1**	**H5**	1.7	1.7	SU			07/10/21 13:43	1
Temperature	**12.8**	**H5**	0.1	0.1	Degrees C			07/10/21 13:43	1

Client Sample ID: FC-CCR-LDWP-BCH-0721

Date Collected: 07/08/21 11:22
Date Received: 07/09/21 16:50

Lab Sample ID: 550-166823-2

Matrix: Solid

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**1.4**		0.039	0.0046	mg/Kg		07/30/21 11:37	08/02/21 13:12	1
Arsenic	**9.7**	**B7**	0.049	0.016	mg/Kg		07/30/21 11:37	08/02/21 13:12	1
Barium	**42**	**M3 R13**	0.049	0.027	mg/Kg		07/30/21 11:37	08/02/21 13:12	1
Beryllium	**0.091**		0.039	0.0078	mg/Kg		07/30/21 11:37	08/02/21 13:12	1
Cadmium	**0.036**		0.0098	0.0016	mg/Kg		07/30/21 11:37	08/02/21 13:12	1
Chromium	**0.48**		0.049	0.024	mg/Kg		07/30/21 11:37	08/02/21 13:12	1
Copper	**0.97**	**E4 M2**	0.98	0.20	mg/Kg		07/30/21 11:37	08/02/21 13:12	1
Lead	**0.72**		0.049	0.043	mg/Kg		07/30/21 11:37	08/02/21 13:12	1
Nickel	**2.0**	**B7**	0.049	0.036	mg/Kg		07/30/21 11:37	08/02/21 13:12	1

Client Sample ID: FC-CCR-LDWP-BCH-0721

Lab Sample ID: 550-166823-2
Date Collected: 07/08/21 11:22
Matrix: Solid
Date Received: 07/09/21 16:50

Method: 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	4.5	M2	0.049	0.019	mg/Kg		07/30/21 11:37	08/02/21 13:12	1
Silver	0.011	E4 M2	0.049	0.0056	mg/Kg		07/30/21 11:37	08/02/21 13:12	1
Thallium	0.031	E4	0.049	0.0060	mg/Kg		07/30/21 11:37	08/02/21 13:12	1
Zinc	0.98	E4 M2	1.2	0.28	mg/Kg		07/30/21 11:37	08/02/21 13:12	1

Client Sample ID: FC-CCR-LDWP-SUB-0721

Lab Sample ID: 550-166823-3
Date Collected: 07/08/21 11:22
Matrix: Solid
Date Received: 07/09/21 16:50

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.81		0.039	0.0046	mg/Kg		07/30/21 11:37	08/02/21 13:14	1
Arsenic	6.7	B7	0.049	0.016	mg/Kg		07/30/21 11:37	08/02/21 13:14	1
Barium	23		0.049	0.027	mg/Kg		07/30/21 11:37	08/02/21 13:14	1
Beryllium	0.032	E4	0.039	0.0078	mg/Kg		07/30/21 11:37	08/02/21 13:14	1
Cadmium	0.012		0.0098	0.0016	mg/Kg		07/30/21 11:37	08/02/21 13:14	1
Chromium	0.25		0.049	0.024	mg/Kg		07/30/21 11:37	08/02/21 13:14	1
Copper	0.62	E4	0.98	0.20	mg/Kg		07/30/21 11:37	08/02/21 13:14	1
Lead	0.23		0.049	0.043	mg/Kg		07/30/21 11:37	08/02/21 13:14	1
Nickel	1.4	B7	0.049	0.036	mg/Kg		07/30/21 11:37	08/02/21 13:14	1
Selenium	3.3		0.049	0.019	mg/Kg		07/30/21 11:37	08/02/21 13:14	1
Silver	ND	E8	0.049	0.0056	mg/Kg		07/30/21 11:37	08/02/21 13:14	1
Thallium	0.013	E4	0.049	0.0060	mg/Kg		07/30/21 11:37	08/02/21 13:14	1
Zinc	0.65	E4	1.2	0.29	mg/Kg		07/30/21 11:37	08/02/21 13:14	1

Client Sample ID: FC-CCR-MW63-0721

Lab Sample ID: 550-166823-4
Date Collected: 07/08/21 10:41
Matrix: Water
Date Received: 07/09/21 16:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.2	H5	1.7	1.7	SU			07/10/21 13:43	1
Temperature	14.2	H5	0.1	0.1	Degrees C			07/10/21 13:43	1

Client Sample ID: FC-CCR-MW65-0721

Lab Sample ID: 550-166823-5
Date Collected: 07/08/21 09:54
Matrix: Water
Date Received: 07/09/21 16:50

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.87		0.050	0.0025	mg/L		07/27/21 16:50	07/28/21 12:02	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-248629/1030
Matrix: Water
Analysis Batch: 248629

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			07/22/21 20:07	1
Fluoride	ND	E8	0.40	0.047	mg/L			07/22/21 20:07	1
Sulfate	ND	E8	2.0	0.43	mg/L			07/22/21 20:07	1

Lab Sample ID: LCS 550-248629/31
Matrix: Water
Analysis Batch: 248629

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	4.14		mg/L		103	90 - 110
Sulfate	20.0	20.3		mg/L		101	90 - 110

Lab Sample ID: LCSD 550-248629/32
Matrix: Water
Analysis Batch: 248629

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	4.13		mg/L		103	90 - 110	0	20
Sulfate	20.0	20.2		mg/L		101	90 - 110	0	20

Lab Sample ID: 550-166823-1 MS
Matrix: Water
Analysis Batch: 248629

Client Sample ID: FC-CCR-LDWP-0721
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	ND	E8 M2 D1 D5	40.0	ND	D1 D5 E8 M2	mg/L		0	80 - 120
Sulfate	ND	E8 M2 D1 D5	40.0	ND	D1 D5 E8 M2	mg/L		0	80 - 120

Lab Sample ID: 550-166823-1 MSD
Matrix: Water
Analysis Batch: 248629

Client Sample ID: FC-CCR-LDWP-0721
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	ND	E8 M2 D1 D5	40.0	ND	D1 D5 E8 M2	mg/L		0	80 - 120	NC	20
Sulfate	ND	E8 M2 D1 D5	40.0	ND	D1 D5 E8 M2	mg/L		0	80 - 120	NC	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-247636/1-A
Matrix: Water
Analysis Batch: 248135

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 247636

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.0000900	E4	0.0010	0.000067	mg/L		07/13/21 11:03	07/17/21 04:54	1
Calcium	0.0161	E4	2.0	0.013	mg/L		07/13/21 11:03	07/17/21 04:54	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-247636/1-A
Matrix: Water
Analysis Batch: 248600

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 247636

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND	E8	0.050	0.0025	mg/L		07/13/21 11:03	07/23/21 00:41	1

Lab Sample ID: LCS 550-247636/2-A
Matrix: Water
Analysis Batch: 248135

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 247636

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	1.00	0.988		mg/L		99	85 - 115
Calcium	21.0	20.4		mg/L		97	85 - 115

Lab Sample ID: LCS 550-247636/2-A
Matrix: Water
Analysis Batch: 248600

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 247636

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.999		mg/L		100	85 - 115

Lab Sample ID: LCSD 550-247636/3-A
Matrix: Water
Analysis Batch: 248135

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 247636

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	1.00	0.997		mg/L		100	85 - 115	1	20
Calcium	21.0	20.3		mg/L		97	85 - 115	0	20

Lab Sample ID: LCSD 550-247636/3-A
Matrix: Water
Analysis Batch: 248600

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 247636

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	1.06		mg/L		106	85 - 115	6	20

Lab Sample ID: 550-166825-A-1-A MS
Matrix: Water
Analysis Batch: 247959

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 247636

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	ND	E8	1.00	1.01		mg/L		101	70 - 130
Boron	0.36		1.00	1.28		mg/L		93	70 - 130
Calcium	2.6		21.0	23.5		mg/L		100	70 - 130

Lab Sample ID: 550-166825-A-1-A MS T
Matrix: Water
Analysis Batch: 248135

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 247636

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	ND	E8	1.00	1.07		mg/L		107	70 - 130
Calcium	2.6		21.0	24.3		mg/L		103	70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-166825-A-1-A MS T
Matrix: Water
Analysis Batch: 248600

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 247636

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.40		1.00	1.15		mg/L		75	70 - 130

Lab Sample ID: 550-166825-A-1-B MSD T
Matrix: Water
Analysis Batch: 248135

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 247636

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	ND	E8	1.00	1.09		mg/L		109	70 - 130	2	20
Calcium	2.6		21.0	25.0		mg/L		107	70 - 130	3	20

Lab Sample ID: 550-166825-A-1-B MSD T
Matrix: Water
Analysis Batch: 248600

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 247636

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.40		1.00	1.17		mg/L		76	70 - 130	2	20

Lab Sample ID: MB 550-248949/1-A
Matrix: Water
Analysis Batch: 249065

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 248949

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.00468	E4	0.050	0.0025	mg/L		07/27/21 16:50	07/28/21 11:40	1

Lab Sample ID: LCS 550-248949/2-A
Matrix: Water
Analysis Batch: 249065

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 248949

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.992		mg/L		99	85 - 115

Lab Sample ID: LCSD 550-248949/3-A
Matrix: Water
Analysis Batch: 249065

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 248949

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	0.986		mg/L		99	85 - 115	1	20

Lab Sample ID: 550-166653-K-1-D MS
Matrix: Water
Analysis Batch: 249065

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 248949

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.044	E4	1.00	1.03		mg/L		99	70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-166653-K-1-E MSD
Matrix: Water
Analysis Batch: 249065

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 248949

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.044	E4	1.00	1.05		mg/L		101	70 - 130	2	20

Lab Sample ID: MB 280-544056/1-A
Matrix: Water
Analysis Batch: 544391

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 544056

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	E8	0.020	0.0091	mg/L		07/26/21 09:20	07/27/21 00:42	1

Lab Sample ID: LCS 280-544056/2-A
Matrix: Water
Analysis Batch: 544391

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 544056

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	1.00	0.969		mg/L		97	90 - 112

Lab Sample ID: 280-151026-C-1-B MS
Matrix: Water
Analysis Batch: 544391

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 544056

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.086		1.00	1.09		mg/L		101	70 - 130

Lab Sample ID: 280-151026-C-1-C MSD
Matrix: Water
Analysis Batch: 544391

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 544056

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.086		1.00	1.11		mg/L		103	70 - 130	2	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-248842/1-A
Matrix: Water
Analysis Batch: 249044

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 248842

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	E8	0.0010	0.000043	mg/L		07/27/21 06:37	07/28/21 10:55	1
Arsenic	ND	E8	0.00050	0.00025	mg/L		07/27/21 06:37	07/28/21 10:55	1
Barium	ND	E8	0.00050	0.00026	mg/L		07/27/21 06:37	07/28/21 10:55	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		07/27/21 06:37	07/28/21 10:55	1
Chromium	ND	E8	0.0010	0.00043	mg/L		07/27/21 06:37	07/28/21 10:55	1
Cobalt	ND	E8	0.00050	0.000063	mg/L		07/27/21 06:37	07/28/21 10:55	1
Lead	ND	E8	0.00050	0.00022	mg/L		07/27/21 06:37	07/28/21 10:55	1
Molybdenum	0.000885	B1	0.00050	0.00020	mg/L		07/27/21 06:37	07/28/21 10:55	1
Selenium	0.000262	E4	0.00050	0.000074	mg/L		07/27/21 06:37	07/28/21 10:55	1
Thallium	ND	E8	0.00010	0.000013	mg/L		07/27/21 06:37	07/28/21 10:55	1

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 550-248842/2-A
Matrix: Water
Analysis Batch: 249044

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 248842

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.0988		mg/L		99	85 - 115
Arsenic	0.100	0.100		mg/L		100	85 - 115
Barium	0.100	0.108		mg/L		108	85 - 115
Cadmium	0.100	0.0982		mg/L		98	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	0.0978		mg/L		98	85 - 115
Molybdenum	0.100	0.0958		mg/L		96	85 - 115
Selenium	0.100	0.102		mg/L		102	85 - 115
Thallium	0.100	0.0982		mg/L		98	85 - 115

Lab Sample ID: LCSD 550-248842/3-A
Matrix: Water
Analysis Batch: 249044

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 248842

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.100	0.0977		mg/L		98	85 - 115	1	20
Arsenic	0.100	0.100		mg/L		100	85 - 115	0	20
Barium	0.100	0.109		mg/L		109	85 - 115	1	20
Cadmium	0.100	0.0979		mg/L		98	85 - 115	0	20
Chromium	0.100	0.104		mg/L		104	85 - 115	0	20
Cobalt	0.100	0.101		mg/L		101	85 - 115	4	20
Lead	0.100	0.0984		mg/L		98	85 - 115	1	20
Molybdenum	0.100	0.0950		mg/L		95	85 - 115	1	20
Selenium	0.100	0.103		mg/L		103	85 - 115	1	20
Thallium	0.100	0.0947		mg/L		95	85 - 115	4	20

Lab Sample ID: 550-167522-L-1-G MS
Matrix: Water
Analysis Batch: 249044

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 248842

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.000086	E4	0.100	0.105		mg/L		105	70 - 130
Arsenic	0.0022		0.100	0.105		mg/L		102	70 - 130
Barium	0.17		0.100	0.277		mg/L		109	70 - 130
Cadmium	0.000027	E4	0.100	0.0971		mg/L		97	70 - 130
Chromium	0.0010		0.100	0.104		mg/L		103	70 - 130
Cobalt	0.000063	E4	0.100	0.0990		mg/L		99	70 - 130
Lead	ND	E8	0.100	0.0936		mg/L		94	70 - 130
Molybdenum	0.00047	E4 B1	0.100	0.102		mg/L		102	70 - 130
Selenium	0.00033	E4	0.100	0.103		mg/L		102	70 - 130
Thallium	0.000073	E4	0.100	0.0937		mg/L		94	70 - 130

Lab Sample ID: 550-167522-L-1-H MSD
Matrix: Water
Analysis Batch: 249044

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 248842

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.000086	E4	0.100	0.103		mg/L		103	70 - 130	1	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: 550-167522-L-1-H MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 249044 — **Prep Batch: 248842**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0022		0.100	0.105		mg/L		103	70 - 130	0	20
Barium	0.17		0.100	0.281		mg/L		113	70 - 130	1	20
Cadmium	0.000027	E4	0.100	0.0989		mg/L		99	70 - 130	2	20
Chromium	0.0010		0.100	0.106		mg/L		105	70 - 130	1	20
Cobalt	0.000063	E4	0.100	0.0996		mg/L		100	70 - 130	1	20
Lead	ND	E8	0.100	0.0962		mg/L		96	70 - 130	3	20
Molybdenum	0.00047	E4 B1	0.100	0.102		mg/L		101	70 - 130	1	20
Selenium	0.00033	E4	0.100	0.102		mg/L		102	70 - 130	0	20
Thallium	0.000073	E4	0.100	0.0946		mg/L		95	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-248539/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 248564 — **Prep Batch: 248539**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	0.0000950	E4	0.00020	0.000070	mg/L		07/22/21 16:10	07/22/21 19:54	1

Lab Sample ID: LCS 550-248539/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 248564 — **Prep Batch: 248539**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.00500	0.00483		mg/L		97	85 - 115

Lab Sample ID: LCSD 550-248539/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 248564 — **Prep Batch: 248539**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.00500	0.00434		mg/L		87	85 - 115	11	20

Lab Sample ID: 550-167047-K-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 248564 — **Prep Batch: 248539**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	ND	E8 M2	0.00500	ND	E8 M2	mg/L		0	70 - 130

Lab Sample ID: 550-167047-K-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 248564 — **Prep Batch: 248539**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND	E8 M2	0.00500	ND	E8 M2	mg/L		0	70 - 130	NC	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 550-249303/1-A
Matrix: Solid
Analysis Batch: 249465

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 249303

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	E8	0.038	0.0045	mg/Kg		07/30/21 11:37	08/02/21 13:00	1
Arsenic	0.0876	B7	0.048	0.015	mg/Kg		07/30/21 11:37	08/02/21 13:00	1
Barium	ND	E8	0.048	0.026	mg/Kg		07/30/21 11:37	08/02/21 13:00	1
Beryllium	ND	E8	0.038	0.0076	mg/Kg		07/30/21 11:37	08/02/21 13:00	1
Cadmium	ND	E8	0.0095	0.0015	mg/Kg		07/30/21 11:37	08/02/21 13:00	1
Chromium	0.0387	E4	0.048	0.024	mg/Kg		07/30/21 11:37	08/02/21 13:00	1
Copper	ND	E8	0.95	0.19	mg/Kg		07/30/21 11:37	08/02/21 13:00	1
Lead	ND	E8	0.048	0.042	mg/Kg		07/30/21 11:37	08/02/21 13:00	1
Nickel	0.0522	B7	0.048	0.035	mg/Kg		07/30/21 11:37	08/02/21 13:00	1
Selenium	ND	E8	0.048	0.018	mg/Kg		07/30/21 11:37	08/02/21 13:00	1
Silver	ND	E8	0.048	0.0054	mg/Kg		07/30/21 11:37	08/02/21 13:00	1
Thallium	ND	E8	0.048	0.0058	mg/Kg		07/30/21 11:37	08/02/21 13:00	1
Zinc	ND	E8	1.2	0.28	mg/Kg		07/30/21 11:37	08/02/21 13:00	1

Lab Sample ID: LCS 550-249303/2-A
Matrix: Solid
Analysis Batch: 249465

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 249303

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	9.06	8.67		mg/Kg		96	80 - 120
Arsenic	9.06	8.96		mg/Kg		99	80 - 120
Barium	9.06	9.60		mg/Kg		106	80 - 120
Beryllium	9.06	8.79		mg/Kg		97	80 - 120
Cadmium	9.06	8.80		mg/Kg		97	80 - 120
Chromium	9.06	9.10		mg/Kg		100	80 - 120
Copper	9.06	9.31		mg/Kg		103	80 - 120
Lead	9.06	8.99		mg/Kg		99	80 - 120
Nickel	9.06	9.05		mg/Kg		100	80 - 120
Selenium	9.06	9.07		mg/Kg		100	80 - 120
Silver	9.06	8.53		mg/Kg		94	80 - 120
Thallium	9.06	8.33		mg/Kg		92	80 - 120
Zinc	9.06	9.01		mg/Kg		99	80 - 120

Lab Sample ID: LCSD 550-249303/3-A
Matrix: Solid
Analysis Batch: 249465

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 249303

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	9.35	9.21		mg/Kg		98	80 - 120	6	20
Arsenic	9.35	9.22		mg/Kg		99	80 - 120	3	20
Barium	9.35	10.1		mg/Kg		108	80 - 120	5	20
Beryllium	9.35	9.06		mg/Kg		97	80 - 120	3	20
Cadmium	9.35	9.28		mg/Kg		99	80 - 120	5	20
Chromium	9.35	9.10		mg/Kg		97	80 - 120	0	20
Copper	9.35	9.59		mg/Kg		103	80 - 120	3	20
Lead	9.35	9.13		mg/Kg		98	80 - 120	1	20
Nickel	9.35	9.26		mg/Kg		99	80 - 120	2	20
Selenium	9.35	9.37		mg/Kg		100	80 - 120	3	20
Silver	9.35	9.08		mg/Kg		97	80 - 120	6	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 550-249303/3-A
Matrix: Solid
Analysis Batch: 249465

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 249303

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Thallium			9.35	9.08		mg/Kg		97	80 - 120	9	20
Zinc			9.35	9.36		mg/Kg		100	80 - 120	4	20

Lab Sample ID: 550-166823-2 MS
Matrix: Solid
Analysis Batch: 249465

Client Sample ID: FC-CCR-LDWP-BCH-0721
Prep Type: Total/NA
Prep Batch: 249303

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.4		9.64	9.84		mg/Kg		87	75 - 125
Arsenic	9.7	B7	9.64	19.1		mg/Kg		98	75 - 125
Barium	42	M3 R13	9.64	31.9	M3	mg/Kg		-100	75 - 125
Beryllium	0.091		9.64	8.37		mg/Kg		86	75 - 125
Cadmium	0.036		9.64	8.95		mg/Kg		92	75 - 125
Chromium	0.48		9.64	7.76		mg/Kg		76	75 - 125
Copper	0.97	E4 M2	9.64	8.06	M2	mg/Kg		74	75 - 125
Lead	0.72		9.64	8.93		mg/Kg		85	75 - 125
Nickel	2.0	B7	9.64	9.40		mg/Kg		76	75 - 125
Selenium	4.5	M2	9.64	10.7	M2	mg/Kg		64	75 - 125
Silver	0.011	E4 M2	9.64	6.25	M2	mg/Kg		65	75 - 125
Thallium	0.031	E4	9.64	8.80		mg/Kg		91	75 - 125
Zinc	0.98	E4 M2	9.64	7.99	M2	mg/Kg		73	75 - 125

Lab Sample ID: 550-166823-2 MSD
Matrix: Solid
Analysis Batch: 249465

Client Sample ID: FC-CCR-LDWP-BCH-0721
Prep Type: Total/NA
Prep Batch: 249303

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	1.4		9.80	9.95		mg/Kg		87	75 - 125	1	20
Arsenic	9.7	B7	9.80	17.7		mg/Kg		82	75 - 125	7	20
Barium	42	M3 R13	9.80	47.4	M3 R13	mg/Kg		59	75 - 125	39	20
Beryllium	0.091		9.80	8.38		mg/Kg		85	75 - 125	0	20
Cadmium	0.036		9.80	9.31		mg/Kg		95	75 - 125	4	20
Chromium	0.48		9.80	7.80		mg/Kg		75	75 - 125	1	20
Copper	0.97	E4 M2	9.80	8.25	M2	mg/Kg		74	75 - 125	2	20
Lead	0.72		9.80	9.56		mg/Kg		90	75 - 125	7	20
Nickel	2.0	B7	9.80	9.36		mg/Kg		75	75 - 125	0	20
Selenium	4.5	M2	9.80	11.2	M2	mg/Kg		68	75 - 125	4	20
Silver	0.011	E4 M2	9.80	6.97	M2	mg/Kg		71	75 - 125	11	20
Thallium	0.031	E4	9.80	8.85		mg/Kg		90	75 - 125	1	20
Zinc	0.98	E4 M2	9.80	8.25	M2	mg/Kg		74	75 - 125	3	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-247592/1
Matrix: Water
Analysis Batch: 247592

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			07/12/21 19:43	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 550-247592/2
Matrix: Water
Analysis Batch: 247592

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	940		mg/L		94	90 - 110		

Lab Sample ID: LCSD 550-247592/3
Matrix: Water
Analysis Batch: 247592

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	918		mg/L		92	90 - 110	2	10

Lab Sample ID: 550-166798-A-1 DU
Matrix: Water
Analysis Batch: 247592

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			1410		mg/L				0.4	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-247478/13
Matrix: Water
Analysis Batch: 247478

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		100.3	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-247478/23
Matrix: Water
Analysis Batch: 247478

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: 550-166761-E-1 DU
Matrix: Water
Analysis Batch: 247478

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	8.0	H5		8.0	H5	SU				0.1	5
Temperature	10.4	H5		11.1	H5	Degrees C				7	

HPLC/IC

Analysis Batch: 248629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166823-1	FC-CCR-LDWP-0721	Total/NA	Water	300.0	
550-166823-1	FC-CCR-LDWP-0721	Total/NA	Water	300.0	
MB 550-248629/1030	Method Blank	Total/NA	Water	300.0	
LCS 550-248629/31	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-248629/32	Lab Control Sample Dup	Total/NA	Water	300.0	
550-166823-1 MS	FC-CCR-LDWP-0721	Total/NA	Water	300.0	
550-166823-1 MSD	FC-CCR-LDWP-0721	Total/NA	Water	300.0	

Metals

Prep Batch: 247636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166823-1	FC-CCR-LDWP-0721	Total/NA	Water	200.7	
MB 550-247636/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-247636/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-247636/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-166825-A-1-A MS	Matrix Spike	Total/NA	Water	200.7	
550-166825-A-1-A MS T	Matrix Spike	Total/NA	Water	200.7	
550-166825-A-1-B MSD T	Matrix Spike Duplicate	Total/NA	Water	200.7	

Analysis Batch: 247959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166825-A-1-A MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	247636

Analysis Batch: 248135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166823-1	FC-CCR-LDWP-0721	Total/NA	Water	200.7 Rev 4.4	247636
MB 550-247636/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	247636
LCS 550-247636/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	247636
LCSD 550-247636/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	247636
550-166825-A-1-A MS T	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	247636
550-166825-A-1-B MSD T	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	247636

Prep Batch: 248539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166823-1	FC-CCR-LDWP-0721	Total/NA	Water	245.1	
MB 550-248539/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-248539/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-248539/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-167047-K-1-B MS	Matrix Spike	Total/NA	Water	245.1	
550-167047-K-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 248564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166823-1	FC-CCR-LDWP-0721	Total/NA	Water	245.1	248539
MB 550-248539/1-A	Method Blank	Total/NA	Water	245.1	248539
LCS 550-248539/2-A	Lab Control Sample	Total/NA	Water	245.1	248539
LCSD 550-248539/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	248539
550-167047-K-1-B MS	Matrix Spike	Total/NA	Water	245.1	248539
550-167047-K-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	248539

Metals

Analysis Batch: 248600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166823-1	FC-CCR-LDWP-0721	Total/NA	Water	200.7 Rev 4.4	247636
MB 550-247636/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	247636
LCS 550-247636/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	247636
LCSD 550-247636/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	247636
550-166825-A-1-A MS T	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	247636
550-166825-A-1-B MSD T	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	247636

Prep Batch: 248842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166823-1	FC-CCR-LDWP-0721	Total/NA	Water	200.8	
MB 550-248842/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-248842/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-248842/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-167522-L-1-G MS	Matrix Spike	Total/NA	Water	200.8	
550-167522-L-1-H MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	

Prep Batch: 248949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166823-5	FC-CCR-MW65-0721	Total/NA	Water	200.7	
MB 550-248949/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-248949/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-248949/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-166653-K-1-D MS	Matrix Spike	Total/NA	Water	200.7	
550-166653-K-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Analysis Batch: 249044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166823-1	FC-CCR-LDWP-0721	Total/NA	Water	200.8 LL	248842
550-166823-1	FC-CCR-LDWP-0721	Total/NA	Water	200.8 LL	248842
MB 550-248842/1-A	Method Blank	Total/NA	Water	200.8 LL	248842
LCS 550-248842/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	248842
LCSD 550-248842/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	248842
550-167522-L-1-G MS	Matrix Spike	Total/NA	Water	200.8 LL	248842
550-167522-L-1-H MSD	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	248842

Analysis Batch: 249056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166823-1	FC-CCR-LDWP-0721	Total/NA	Water	200.8 LL	248842

Analysis Batch: 249065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166823-5	FC-CCR-MW65-0721	Total/NA	Water	200.7 Rev 4.4	248949
MB 550-248949/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	248949
LCS 550-248949/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	248949
LCSD 550-248949/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	248949
550-166653-K-1-D MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	248949
550-166653-K-1-E MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	248949

Prep Batch: 249303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166823-2	FC-CCR-LDWP-BCH-0721	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 249303 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166823-3	FC-CCR-LDWP-SUB-0721	Total/NA	Solid	3050B	
MB 550-249303/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 550-249303/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 550-249303/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
550-166823-2 MS	FC-CCR-LDWP-BCH-0721	Total/NA	Solid	3050B	
550-166823-2 MSD	FC-CCR-LDWP-BCH-0721	Total/NA	Solid	3050B	

Analysis Batch: 249465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166823-2	FC-CCR-LDWP-BCH-0721	Total/NA	Solid	6020B	249303
550-166823-3	FC-CCR-LDWP-SUB-0721	Total/NA	Solid	6020B	249303
MB 550-249303/1-A	Method Blank	Total/NA	Solid	6020B	249303
LCS 550-249303/2-A	Lab Control Sample	Total/NA	Solid	6020B	249303
LCSD 550-249303/3-A	Lab Control Sample Dup	Total/NA	Solid	6020B	249303
550-166823-2 MS	FC-CCR-LDWP-BCH-0721	Total/NA	Solid	6020B	249303
550-166823-2 MSD	FC-CCR-LDWP-BCH-0721	Total/NA	Solid	6020B	249303

Prep Batch: 544056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166823-1	FC-CCR-LDWP-0721	Total/NA	Water	200.7	
MB 280-544056/1-A	Method Blank	Total/NA	Water	200.7	
LCS 280-544056/2-A	Lab Control Sample	Total/NA	Water	200.7	
280-151026-C-1-B MS	Matrix Spike	Total/NA	Water	200.7	
280-151026-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Analysis Batch: 544391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166823-1	FC-CCR-LDWP-0721	Total/NA	Water	200.7 Rev 4.4	544056
MB 280-544056/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	544056
LCS 280-544056/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	544056
280-151026-C-1-B MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	544056
280-151026-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	544056

General Chemistry

Analysis Batch: 247478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166823-1	FC-CCR-LDWP-0721	Total/NA	Water	SM 4500 H+ B	
550-166823-4	FC-CCR-MW63-0721	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-247478/13	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-247478/23	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-166761-E-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 247592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-166823-1	FC-CCR-LDWP-0721	Total/NA	Water	SM 2540C	
MB 550-247592/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-247592/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-247592/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-166798-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-166823-1
SDG: APS Four Corners Power Plant ((LDWP)

Client Sample ID: FC-CCR-LDWP-0721
Date Collected: 07/08/21 11:22
Date Received: 07/09/21 16:50

Lab Sample ID: 550-166823-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	248629	07/22/21 21:02	JRP	TAL PHX
Total/NA	Analysis	300.0		200	248629	07/22/21 21:58	JRP	TAL PHX
Total/NA	Prep	200.7			247636	07/13/21 11:03	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	248135	07/17/21 05:28	MGM	TAL PHX
Total/NA	Prep	200.7			247636	07/13/21 11:03	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		20	248600	07/23/21 01:24	MGM	TAL PHX
Total/NA	Prep	200.7			544056	07/26/21 09:20	MAB	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	544391	07/27/21 02:35	LMT	TAL DEN
Total/NA	Prep	200.8			248842	07/27/21 06:37	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		10	249044	07/28/21 11:41	ARE	TAL PHX
Total/NA	Prep	200.8			248842	07/27/21 06:37	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		5	249044	07/28/21 11:43	ARE	TAL PHX
Total/NA	Prep	200.8			248842	07/27/21 06:37	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		50	249056	07/28/21 12:41	ARE	TAL PHX
Total/NA	Prep	245.1			248539	07/22/21 16:10	SRR	TAL PHX
Total/NA	Analysis	245.1		1	248564	07/22/21 20:15	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	247592		CMM	TAL PHX
					(Start)	07/12/21 19:43		
					(End)	07/13/21 14:00		
Total/NA	Analysis	SM 4500 H+ B		1	247478	07/10/21 13:43	MEG	TAL PHX

Client Sample ID: FC-CCR-LDWP-BCH-0721
Date Collected: 07/08/21 11:22
Date Received: 07/09/21 16:50

Lab Sample ID: 550-166823-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			249303	07/30/21 11:37	ARE	TAL PHX
Total/NA	Analysis	6020B		1	249465	08/02/21 13:12	ARE	TAL PHX

Client Sample ID: FC-CCR-LDWP-SUB-0721
Date Collected: 07/08/21 11:22
Date Received: 07/09/21 16:50

Lab Sample ID: 550-166823-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			249303	07/30/21 11:37	ARE	TAL PHX
Total/NA	Analysis	6020B		1	249465	08/02/21 13:14	ARE	TAL PHX

Client Sample ID: FC-CCR-MW63-0721
Date Collected: 07/08/21 10:41
Date Received: 07/09/21 16:50

Lab Sample ID: 550-166823-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 H+ B		1	247478	07/10/21 13:43	MEG	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-166823-1
SDG: APS Four Corners Power Plant ((LDWP)

Client Sample ID: FC-CCR-MW65-0721

Date Collected: 07/08/21 09:54
Date Received: 07/09/21 16:50

Lab Sample ID: 550-166823-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			248949	07/27/21 16:50	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	249065	07/28/21 12:02	MGM	TAL PHX

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-166823-1
SDG: APS Four Corners Power Plant ((LDWP)

Laboratory: Eurofins TestAmerica, 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	06-10-22

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 TestAmerica, Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	11-02-21
A2LA	ISO/IEC 17025	2907.01	11-02-21
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-28-22
Arizona	State	AZ0713	12-21-21
Arkansas DEQ	State	19-047-0	06-01-21 *
California	State	2513	01-08-22
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-22
Georgia	State	4025-011	01-08-22
Illinois	NELAP	2000172019-1	04-30-22
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	04-30-22
Kentucky (WW)	State	KY98047	12-31-21
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-22
Minnesota	NELAP	1788752	12-31-21
Nevada	State	CO000262020-1	07-31-21
New Hampshire	NELAP	205319	04-29-22
New Jersey	NELAP	190002	07-01-22
New York	NELAP	59923	04-01-22
North Carolina (WW/SW)	State	358	12-31-21
North Dakota	State	R-034	01-08-22
Oklahoma	State	2018-006	09-01-21
Oregon	NELAP	4025-011	01-08-22
Pennsylvania	NELAP	013	07-31-21
South Carolina	State	72002001	01-08-22
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-20-18	09-30-21
US Fish & Wildlife	US Federal Programs	058448	08-01-21
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-21
Virginia	NELAP	10490	06-14-22
Washington	State	C583-19	08-03-21
West Virginia DEP	State	354	11-30-21
Wisconsin	State	999615430	08-31-21
Wyoming (UST)	A2LA	2907.01	10-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-166823-1
SDG: APS Four Corners Power Plant ((LDWP)

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
200.8 LL	Metals (ICP/MS)	EPA	TAL PHX
245.1	Mercury (CVAA)	EPA	TAL PHX
6020B	Metals (ICP/MS)	SW846	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 4500 H+ B	pH	SM	TAL PHX
200.7	Preparation, Total Metals	EPA	TAL DEN
200.7	Preparation, Total Metals	EPA	TAL PHX
200.8	Preparation, Total Metals	EPA	TAL PHX
245.1	Preparation, Mercury	EPA	TAL PHX
3050B	Preparation, Metals	SW846	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
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:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, 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

166823

TestAmerica THE LEADER IN ENVIRONM

8/2/2021

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☑Other: CCR

TestAmerica Labo

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	Carrier:	1 of 2
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 (LDWP)	☐ 2 days			Job / SDG No.:
PO #: 100611133	☐ 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)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	6020B - (MOD) PPM-13 ICP Metals+Ba	Sample Specific
1	FC-CCR-LDWP-0721	7/8/2021	11:22	G	W	2	N	N	X	X	X	X	X	X		LDWP surface water, hig
2	FC-CCR-LDWP-BCH-0721	7/8/2021	11:22	G	S	1	N	N							X	
3	FC-CCR-LDWP-SUB-0721	7/8/2021	11:22	G	S	1	N	N							X	
									1	4	4	4	1	1		

550-166823 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

0.4°C ICE CO2

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____		
Relinquished by:	Company: Wood PLC	Date/Time: 7-9-21 16:50	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: EPA DHX	Date/Time: 7/9/21 1650

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

166823

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

8/2/2021

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☑Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	**Natalie Chrisman**	**Jim Edwards / (928) 288-1241**	**Date:**
Arizona Public Service	**602-250-3608**	**Lab Contact: Ken Baker**	**Carrier:**
PO Box 355, MS 4915	**Analysis Turnaround Time**		
Fruitland, NM 87416	☐ CALENDAR DAYS ☑ WORKING DAYS		
Phone	TAT if different from Below _____		
FAX	☑ 2 weeks		
Project Name: CCR Groundwater Monitoring	☐ 1 week		
Site: APS Four Corners Power Plant (CWTP)	☐ 2 days		
PO #: 100611133	☐ 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 200.7 - Totals (B)	SM 4500-HB (pH)	Sample Specific Notes:
4 FC-CCR-MW63-0721	7/8/2021	10:41	G	W	1	N			X	Low flow, April 2021 re-sample
5 FC-CCR-MW65-0721	7/8/2021	9:54	G	W	1	N		X		"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								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

0.4°C ICE CDS

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Relinquished by:	Company: Wood PLC	Date/Time: 07-09-21	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Nicole Arend	Company: TA PHX	Date/Time: 7/9/21 1650

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd Suite 189
Phoenix, AZ 85040
Phone: 602-437-3340 Fax: 602-454-9303

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Baker, Ken	Carrier Tracking No(s):	COC No: 550-31345.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Baker@Eurofinset.com	State of Origin: Arizona	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Arizona		Job #: 550-166823-1
Address: 4955 Yarrow Street,	Due Date Requested: 8/12/2021			
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 #: 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; 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_TOT Lithium-ICP	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
FC-CCR-LDWP-0721 (550-166823-1)	7/8/21	11:22 Arizona		Water			X	1	AZ Sample

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

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: [illegible] 7-12-21 15:00	Date/Time:	Company	Received by: Fedex
Relinquished by: FedEx	Date/Time:	Company	Received by: KM
Relinquished by:	Date/Time:	Company	Received by:

Date/Time:	Company
7/13/21 0910	ETA DEN

Custody Seals Intact: ☒ Yes ☐ No	Custody Seal No.: 1677278	Cooler Temperature(s) °C and Other Remarks: 1.5 CF+0.6 IR#2

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-166823-1
SDG Number: APS Four Corners Power Plant ((LDWP)

Login Number: 166823
List Number: 1
Creator: Maycock, Lisa

List Source: Eurofins TestAmerica, 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: 550-166823-1
SDG Number: APS Four Corners Power Plant ((LDWP)

Login Number: 166823
List Number: 2
Creator: Roehsner, Karen P

List Source: Eurofins TestAmerica, Denver
List Creation: 07/13/21 12:45 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.	False	Limited volume received.
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	

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ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-174394-1
Laboratory SDG: APS Four Corners Power Plant (CWTP)
Client Project/Site: CCR Groundwater Monitoring

For:
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Attn: Jim Edwards

Rachel F. Sester

Authorized for release by:
11/30/2021 4:04:20 PM

Rachel Sester, Project Manager I
(602)659-7615
Rachel.Sester@Eurofinset.com

LINKS

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Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174394-1
SDG: APS Four Corners Power Plant (CWTP)

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.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
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
D1	Sample required dilution due to matrix.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
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.

General Chemistry

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
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.
R8	Sample RPD exceeded the method acceptance limit.

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: 550-174394-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-174394-1

Comments
No additional comments.

Receipt
The samples were received on 11/16/2021 3:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 0.2º C, 0.9º C, 1.3º C, 1.5º C and 1.8º C.

Receipt Exceptions
All sample containers received in Denver have 75-125ml of volume.
FC-CCR-MW62-1121 (550-174394-1), FC-CCR-MW63-1121 (550-174394-2), FC-CCR-MW64-1121 (550-174394-3), FC-CCR-MW65-1121 (550-174394-4), FC-CCR-SW1-1121 (550-174394-5), FC-CCR-SW2-1121 (550-174394-6) and FC-CCR-SW3-1121 (550-174394-7)

HPLC/IC
Method 300.0: The following sample was diluted for Nitrate as N and Nitrite as N due to the nature of the sample matrix: FC-CCR-MW62-1121 (550-174394-1). Elevated reporting limits (RLs) have been provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 200.7 Rev 4.4: The continuing calibration blank (CCB) for analytical batch 550-259108 contained Boron 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.

Method 200.7 Rev 4.4: The continuing calibration blank (CCB) for analytical batch 550-259264 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.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method SM 2540C: The sample duplicate (DU) precision for analytical batch 550-259302 was outside control limits for Total Dissolved Solids (TDS). Sample non-homogeneity was suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method SM 2540C: The sample duplicate (DU) precision for 550-259315 was outside control limits for Total Dissolved Solids (TDS). Sample non-homogeneity was suspected. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision met acceptance criteria.

Method SM 2320B: The sample duplicate (DU) precision for the following sample associated with analytical batch 550-259778 was outside control limits for Alkalinity: (550-174392-A-2) and (550-174392-A-2 DU). Non-homogeneity of the sample matrix was suspected. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision met acceptance criteria.

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: 550-174394-1
SDG: APS Four Corners Power Plant (CWTP)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-174394-1	FC-CCR-MW62-1121	Water	11/15/21 11:28	11/16/21 15:15
550-174394-2	FC-CCR-MW63-1121	Water	11/15/21 12:58	11/16/21 15:15
550-174394-3	FC-CCR-MW64-1121	Water	11/15/21 13:58	11/16/21 15:15
550-174394-4	FC-CCR-MW65-1121	Water	11/15/21 10:47	11/16/21 15:15
550-174394-5	FC-CCR-SW1-1121	Water	11/15/21 09:28	11/16/21 15:15
550-174394-6	FC-CCR-SW2-1121	Water	11/15/21 12:22	11/16/21 15:15
550-174394-7	FC-CCR-SW3-1121	Water	11/15/21 13:22	11/16/21 15:15

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174394-1
SDG: APS Four Corners Power Plant (CWTP)

Client Sample ID: FC-CCR-MW62-1121 — Lab Sample ID: 550-174394-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	180	D1	4.0	1.0	mg/L	2		300.0	Total/NA
Fluoride	1.4	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	4000	D2	200	43	mg/L	100		300.0	Total/NA
Lithium	0.14		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	2.3		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	530		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	480		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	9.3		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	670		0.50	0.031	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.025	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cobalt	0.014	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0027	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Thallium	0.000098	D1 E4	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	850		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	850		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6700	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	9.5	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW63-1121 — Lab Sample ID: 550-174394-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	81	D2 E4	100	26	mg/L	50		300.0	Total/NA
Fluoride	0.28	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Nitrate as N	20	D1	0.10	0.028	mg/L	2		300.0	Total/NA
Nitrate Nitrite as N	20	D1	0.10	0.042	mg/L	2		300.0	Total/NA
Nitrite as N	0.15	D1	0.10	0.042	mg/L	2		300.0	Total/NA
Sulfate	2100	D2	200	43	mg/L	100		300.0	Total/NA
Beryllium	0.00019	E4	0.0010	0.000067	mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.066		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	1.3		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	440	M3	2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	160	M3	2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	5.5		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	250	M3	0.50	0.031	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00010	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Barium	0.022	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.000064	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0022	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0035	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Thallium	0.00015	D1 E4	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	330		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	330		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	3600	D2	40	40	mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	9.5	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW64-1121 — Lab Sample ID: 550-174394-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	51		2.0	0.52	mg/L	1		300.0	Total/NA
Fluoride	1.4		0.40	0.047	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample ID: FC-CCR-MW64-1121 (Continued)

Lab Sample ID: 550-174394-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	1.3		0.050	0.014	mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	1.5		0.050	0.021	mg/L	1		300.0	Total/NA
Nitrite as N	0.15		0.050	0.021	mg/L	1		300.0	Total/NA
Sulfate	270	D2	20	4.3	mg/L	10		300.0	Total/NA
Beryllium	0.00030	E4	0.0010	0.000067	mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.019	E4	0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.58		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	72		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	29		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	5.4		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	95		0.50	0.031	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.024	D1 M1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.000058	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0018	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0052	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Thallium	0.00041	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	230		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	230		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	680		20	20	mg/L	1		SM 2540C	Total/NA
pH	7.1	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	8.8	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW65-1121

Lab Sample ID: 550-174394-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	55		2.0	0.52	mg/L	1		300.0	Total/NA
Fluoride	1.7		0.40	0.047	mg/L	1		300.0	Total/NA
Nitrate as N	0.22		0.050	0.014	mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	0.48		0.050	0.021	mg/L	1		300.0	Total/NA
Nitrite as N	0.26		0.050	0.021	mg/L	1		300.0	Total/NA
Sulfate	390	D2	20	4.3	mg/L	10		300.0	Total/NA
Beryllium	0.00020	E4	0.0010	0.000067	mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.053		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.73		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	92		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	53		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	4.2		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	130		0.50	0.031	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.020	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0022	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0098	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Thallium	0.000072	D1 E4	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	330		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	320		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	910		20	20	mg/L	1		SM 2540C	Total/NA
pH	8.0	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	8.4	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-SW1-1121

Lab Sample ID: 550-174394-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	46		2.0	0.52	mg/L	1		300.0	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: 550-174394-1
SDG: APS Four Corners Power Plant (CWTP)

Client Sample ID: FC-CCR-SW1-1121 (Continued) — Lab Sample ID: 550-174394-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.76		0.40	0.047	mg/L	1		300.0	Total/NA
Nitrate as N	0.073		0.050	0.014	mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	0.073		0.050	0.021	mg/L	1		300.0	Total/NA
Sulfate	420	D2	20	4.3	mg/L	10		300.0	Total/NA
Beryllium	0.00012	E4	0.0010	0.000067	mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.082		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.31		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	77		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	30		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	7.1		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	99		0.50	0.031	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00068	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Barium	0.20	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cobalt	0.00023	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0057	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Thallium	0.000046	D1 E4	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	110		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	110		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	810		20	20	mg/L	1		SM 2540C	Total/NA
pH	8.5	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	8.4	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-SW2-1121 — Lab Sample ID: 550-174394-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	48		2.0	0.52	mg/L	1		300.0	Total/NA
Fluoride	0.79		0.40	0.047	mg/L	1		300.0	Total/NA
Nitrate as N	0.081		0.050	0.014	mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	0.081		0.050	0.021	mg/L	1		300.0	Total/NA
Sulfate	430	D2	20	4.3	mg/L	10		300.0	Total/NA
Lithium	0.074		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.33		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	83		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	33		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	7.8		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	110		0.50	0.031	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00064	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Arsenic	0.0010	D1	0.0010	0.00049	mg/L	2		200.8 LL	Total/NA
Barium	0.18	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cobalt	0.00013	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0056	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	130		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	130		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	670	R8	20	20	mg/L	1		SM 2540C	Total/NA
pH	8.0	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	8.7	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-SW3-1121 — Lab Sample ID: 550-174394-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	46		2.0	0.52	mg/L	1		300.0	Total/NA
Fluoride	0.75		0.40	0.047	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample ID: FC-CCR-SW3-1121 (Continued)

Lab Sample ID: 550-174394-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	420	D2	20	4.3	mg/L	10		300.0	Total/NA
Beryllium	0.00014	E4	0.0010	0.000067	mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.079		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.31		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	80		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	30		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	7.4		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	97		0.50	0.031	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00082	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Arsenic	0.00054	D1 E4	0.0010	0.00049	mg/L	2		200.8 LL	Total/NA
Barium	0.22	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cobalt	0.00024	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Lead	0.00044	D1 E4	0.0010	0.00044	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0060	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	100		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	100		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	680		20	20	mg/L	1		SM 2540C	Total/NA
pH	7.9	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	9.7	H5	0.1	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-MW62-1121

Date Collected: 11/15/21 11:28
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**	**D1**	4.0	1.0	mg/L			11/17/21 05:42	2
Fluoride	**1.4**	**D1**	0.80	0.095	mg/L			11/17/21 05:42	2
Nitrate as N	ND	D1 D5 E8	0.10	0.028	mg/L			11/17/21 05:42	2
Nitrate Nitrite as N	ND	D1 D5 E8	0.10	0.042	mg/L			11/17/21 05:42	2
Nitrite as N	ND	D1 D5 E8	0.10	0.042	mg/L			11/17/21 05:42	2
Sulfate	**4000**	**D2**	200	43	mg/L			11/23/21 20:35	100

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/17/21 06:02	11/18/21 23:40	1
Lithium	**0.14**		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 14:52	1
Boron	**2.3**		0.050	0.0025	mg/L		11/17/21 06:02	11/18/21 23:40	1
Calcium	**530**		2.0	0.013	mg/L		11/17/21 06:02	11/18/21 23:40	1
Magnesium	**480**		2.0	0.044	mg/L		11/17/21 06:02	11/19/21 18:12	1
Potassium	**9.3**		0.50	0.17	mg/L		11/17/21 06:02	11/18/21 23:40	1
Sodium	**670**		0.50	0.031	mg/L		11/17/21 06:02	11/19/21 18:12	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0020	0.000087	mg/L		11/17/21 08:25	11/22/21 15:37	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 08:25	11/22/21 15:37	2
Barium	**0.025**	**D1**	0.0010	0.00052	mg/L		11/17/21 08:25	11/22/21 15:37	2
Cadmium	ND	D1 E8	0.00020	0.000046	mg/L		11/17/21 08:25	11/22/21 15:37	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 08:25	11/22/21 15:37	2
Cobalt	**0.014**	**D1**	0.0010	0.00013	mg/L		11/17/21 08:25	11/22/21 15:37	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 08:25	11/22/21 15:37	2
Molybdenum	**0.0027**	**D1**	0.0010	0.00040	mg/L		11/17/21 08:25	11/22/21 15:37	2
Selenium	ND	D1 E8	0.0010	0.00015	mg/L		11/17/21 08:25	11/22/21 15:37	2
Thallium	**0.000098**	**D1 E4**	0.00020	0.000026	mg/L		11/17/21 08:25	11/22/21 15:37	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/23/21 15:43	11/23/21 19:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**850**		6.0	6.0	mg/L			11/28/21 13:20	1
Bicarbonate Alkalinity as CaCO3	**850**		6.0	6.0	mg/L			11/28/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Total Dissolved Solids	**6700**	**D2**	100	100	mg/L			11/22/21 15:11	1
pH	**7.7**	**H5**	1.7	1.7	SU			11/24/21 10:35	1
Temperature	**9.5**	**H5**	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-MW63-1121

Date Collected: 11/15/21 12:58
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-2

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	81	D2 E4	100	26	mg/L			11/24/21 23:51	50
Fluoride	0.28	D1 E4	0.80	0.095	mg/L			11/17/21 05:14	2
Nitrate as N	20	D1	0.10	0.028	mg/L			11/17/21 05:14	2
Nitrate Nitrite as N	20	D1	0.10	0.042	mg/L			11/17/21 05:14	2
Nitrite as N	0.15	D1	0.10	0.042	mg/L			11/17/21 05:14	2
Sulfate	2100	D2	200	43	mg/L			11/23/21 20:17	100

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00019	E4	0.0010	0.000067	mg/L		11/17/21 06:02	11/18/21 23:37	1
Lithium	0.066		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 14:56	1
Boron	1.3		0.050	0.0025	mg/L		11/17/21 06:02	11/18/21 23:37	1
Calcium	440	M3	2.0	0.013	mg/L		11/17/21 06:02	11/18/21 23:37	1
Magnesium	160	M3	2.0	0.044	mg/L		11/17/21 06:02	11/19/21 18:10	1
Potassium	5.5		0.50	0.17	mg/L		11/17/21 06:02	11/18/21 23:37	1
Sodium	250	M3	0.50	0.031	mg/L		11/17/21 06:02	11/19/21 18:10	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00010	D1 E4	0.0020	0.000087	mg/L		11/17/21 08:25	11/22/21 15:39	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 08:25	11/22/21 15:39	2
Barium	0.022	D1	0.0010	0.00052	mg/L		11/17/21 08:25	11/22/21 15:39	2
Cadmium	0.000064	D1 E4	0.00020	0.000046	mg/L		11/17/21 08:25	11/22/21 15:39	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 08:25	11/22/21 15:39	2
Cobalt	0.0022	D1	0.0010	0.00013	mg/L		11/17/21 08:25	11/22/21 15:39	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 08:25	11/22/21 15:39	2
Molybdenum	0.0035	D1	0.0010	0.00040	mg/L		11/17/21 08:25	11/22/21 15:39	2
Selenium	ND	D1 E8	0.0010	0.00015	mg/L		11/17/21 08:25	11/22/21 15:39	2
Thallium	0.00015	D1 E4	0.00020	0.000026	mg/L		11/17/21 08:25	11/22/21 15:39	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/23/21 15:43	11/23/21 19:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	330		6.0	6.0	mg/L			11/22/21 08:02	1
Bicarbonate Alkalinity as CaCO3	330		6.0	6.0	mg/L			11/22/21 08:02	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:02	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/22/21 08:02	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:02	1
Total Dissolved Solids	3600	D2	40	40	mg/L			11/22/21 15:11	1
pH	7.7	H5	1.7	1.7	SU			11/24/21 10:35	1
Temperature	9.5	H5	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-MW64-1121

Date Collected: 11/15/21 13:58
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-3

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	51		2.0	0.52	mg/L			11/17/21 04:46	1
Fluoride	1.4		0.40	0.047	mg/L			11/17/21 04:46	1
Nitrate as N	1.3		0.050	0.014	mg/L			11/17/21 04:46	1
Nitrate Nitrite as N	1.5		0.050	0.021	mg/L			11/17/21 04:46	1
Nitrite as N	0.15		0.050	0.021	mg/L			11/17/21 04:46	1
Sulfate	270	D2	20	4.3	mg/L			11/23/21 19:58	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00030	E4	0.0010	0.000067	mg/L		11/17/21 06:02	11/18/21 23:43	1
Lithium	0.019	E4	0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 15:00	1
Boron	0.58		0.050	0.0025	mg/L		11/17/21 06:02	11/18/21 23:43	1
Calcium	72		2.0	0.013	mg/L		11/17/21 06:02	11/18/21 23:43	1
Magnesium	29		2.0	0.044	mg/L		11/17/21 06:02	11/19/21 18:15	1
Potassium	5.4		0.50	0.17	mg/L		11/17/21 06:02	11/18/21 23:43	1
Sodium	95		0.50	0.031	mg/L		11/17/21 06:02	11/19/21 18:15	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0020	0.000087	mg/L		11/17/21 08:25	11/22/21 15:35	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 08:25	11/22/21 15:35	2
Barium	0.024	D1 M1	0.0010	0.00052	mg/L		11/17/21 08:25	11/22/21 15:35	2
Cadmium	0.000058	D1 E4	0.00020	0.000046	mg/L		11/17/21 08:25	11/22/21 15:35	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 08:25	11/22/21 15:35	2
Cobalt	0.0018	D1	0.0010	0.00013	mg/L		11/17/21 08:25	11/22/21 15:35	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 08:25	11/22/21 15:35	2
Molybdenum	0.0052	D1	0.0010	0.00040	mg/L		11/17/21 08:25	11/22/21 15:35	2
Selenium	ND	D1 E8	0.0010	0.00015	mg/L		11/17/21 08:25	11/22/21 15:35	2
Thallium	0.00041	D1	0.00020	0.000026	mg/L		11/17/21 08:25	11/22/21 15:35	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/23/21 15:43	11/23/21 19:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	230		6.0	6.0	mg/L			11/22/21 08:11	1
Bicarbonate Alkalinity as CaCO3	230		6.0	6.0	mg/L			11/22/21 08:11	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:11	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/22/21 08:11	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:11	1
Total Dissolved Solids	680		20	20	mg/L			11/22/21 15:11	1
pH	7.1	H5	1.7	1.7	SU			11/24/21 10:35	1
Temperature	8.8	H5	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-MW65-1121

Date Collected: 11/15/21 10:47
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-4

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**55**		2.0	0.52	mg/L			11/17/21 04:18	1
Fluoride	**1.7**		0.40	0.047	mg/L			11/17/21 04:18	1
Nitrate as N	**0.22**		0.050	0.014	mg/L			11/17/21 04:18	1
Nitrate Nitrite as N	**0.48**		0.050	0.021	mg/L			11/17/21 04:18	1
Nitrite as N	**0.26**		0.050	0.021	mg/L			11/17/21 04:18	1
Sulfate	**390**	**D2**	20	4.3	mg/L			11/23/21 19:40	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	**0.00020**	**E4**	0.0010	0.000067	mg/L		11/17/21 06:02	11/18/21 23:45	1
Lithium	**0.053**		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 15:04	1
Boron	**0.73**		0.050	0.0025	mg/L		11/17/21 06:02	11/18/21 23:45	1
Calcium	**92**		2.0	0.013	mg/L		11/17/21 06:02	11/18/21 23:45	1
Magnesium	**53**		2.0	0.044	mg/L		11/17/21 06:02	11/19/21 18:17	1
Potassium	**4.2**		0.50	0.17	mg/L		11/17/21 06:02	11/18/21 23:45	1
Sodium	**130**		0.50	0.031	mg/L		11/17/21 06:02	11/19/21 18:17	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0020	0.000087	mg/L		11/17/21 08:25	11/22/21 15:41	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 08:25	11/22/21 15:41	2
Barium	**0.020**	**D1**	0.0010	0.00052	mg/L		11/17/21 08:25	11/22/21 15:41	2
Cadmium	ND	D1 E8	0.00020	0.000046	mg/L		11/17/21 08:25	11/22/21 15:41	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 08:25	11/22/21 15:41	2
Cobalt	**0.0022**	**D1**	0.0010	0.00013	mg/L		11/17/21 08:25	11/22/21 15:41	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 08:25	11/22/21 15:41	2
Molybdenum	**0.0098**	**D1**	0.0010	0.00040	mg/L		11/17/21 08:25	11/22/21 15:41	2
Selenium	ND	D1 E8	0.0010	0.00015	mg/L		11/17/21 08:25	11/22/21 15:41	2
Thallium	**0.000072**	**D1 E4**	0.00020	0.000026	mg/L		11/17/21 08:25	11/22/21 15:41	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/23/21 15:43	11/23/21 19:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**330**		6.0	6.0	mg/L			11/22/21 08:22	1
Bicarbonate Alkalinity as CaCO3	**320**		6.0	6.0	mg/L			11/22/21 08:22	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:22	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/22/21 08:22	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:22	1
Total Dissolved Solids	**910**		20	20	mg/L			11/22/21 15:11	1
pH	**8.0**	**H5**	1.7	1.7	SU			11/24/21 10:35	1
Temperature	**8.4**	**H5**	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-SW1-1121

Date Collected: 11/15/21 09:28
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-5

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**46**		2.0	0.52	mg/L			11/17/21 03:50	1
Fluoride	**0.76**		0.40	0.047	mg/L			11/17/21 03:50	1
Nitrate as N	**0.073**		0.050	0.014	mg/L			11/17/21 03:50	1
Nitrate Nitrite as N	**0.073**		0.050	0.021	mg/L			11/17/21 03:50	1
Nitrite as N	ND	E8	0.050	0.021	mg/L			11/17/21 03:50	1
Sulfate	**420**	**D2**	20	4.3	mg/L			11/23/21 19:21	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	**0.00012**	**E4**	0.0010	0.000067	mg/L		11/17/21 06:02	11/18/21 23:48	1
Lithium	**0.082**		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 15:08	1
Boron	**0.31**		0.050	0.0025	mg/L		11/17/21 06:02	11/19/21 18:20	1
Calcium	**77**		2.0	0.013	mg/L		11/17/21 06:02	11/18/21 23:48	1
Magnesium	**30**		2.0	0.044	mg/L		11/17/21 06:02	11/19/21 18:20	1
Potassium	**7.1**		0.50	0.17	mg/L		11/17/21 06:02	11/18/21 23:48	1
Sodium	**99**		0.50	0.031	mg/L		11/17/21 06:02	11/19/21 18:20	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00068**	**D1 E4**	0.0020	0.000087	mg/L		11/17/21 08:25	11/22/21 15:43	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 08:25	11/22/21 15:43	2
Barium	**0.20**	**D1**	0.0010	0.00052	mg/L		11/17/21 08:25	11/22/21 15:43	2
Cadmium	ND	D1 E8	0.00020	0.000046	mg/L		11/17/21 08:25	11/22/21 15:43	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 08:25	11/22/21 15:43	2
Cobalt	**0.00023**	**D1 E4**	0.0010	0.00013	mg/L		11/17/21 08:25	11/22/21 15:43	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 08:25	11/22/21 15:43	2
Molybdenum	**0.0057**	**D1**	0.0010	0.00040	mg/L		11/17/21 08:25	11/22/21 15:43	2
Selenium	ND	D1 E8	0.0010	0.00015	mg/L		11/17/21 08:25	11/22/21 15:43	2
Thallium	**0.000046**	**D1 E4**	0.00020	0.000026	mg/L		11/17/21 08:25	11/22/21 15:43	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/23/21 15:43	11/23/21 19:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**110**		6.0	6.0	mg/L			11/22/21 08:31	1
Bicarbonate Alkalinity as CaCO3	**110**		6.0	6.0	mg/L			11/22/21 08:31	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:31	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/22/21 08:31	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:31	1
Total Dissolved Solids	**810**		20	20	mg/L			11/22/21 15:11	1
pH	**8.5**	**H5**	1.7	1.7	SU			11/24/21 10:35	1
Temperature	**8.4**	**H5**	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-SW2-1121

Date Collected: 11/15/21 12:22
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-6

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**48**		2.0	0.52	mg/L			11/17/21 03:22	1
Fluoride	**0.79**		0.40	0.047	mg/L			11/17/21 03:22	1
Nitrate as N	**0.081**		0.050	0.014	mg/L			11/17/21 03:22	1
Nitrate Nitrite as N	**0.081**		0.050	0.021	mg/L			11/17/21 03:22	1
Nitrite as N	ND	E8	0.050	0.021	mg/L			11/17/21 03:22	1
Sulfate	**430**	**D2**	20	4.3	mg/L			11/23/21 19:03	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/17/21 06:02	11/18/21 23:50	1
Lithium	**0.074**		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 15:12	1
Boron	**0.33**		0.050	0.0025	mg/L		11/17/21 06:02	11/19/21 18:23	1
Calcium	**83**		2.0	0.013	mg/L		11/17/21 06:02	11/18/21 23:50	1
Magnesium	**33**		2.0	0.044	mg/L		11/17/21 06:02	11/19/21 18:23	1
Potassium	**7.8**		0.50	0.17	mg/L		11/17/21 06:02	11/18/21 23:50	1
Sodium	**110**		0.50	0.031	mg/L		11/17/21 06:02	11/19/21 18:23	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00064**	**D1 E4**	0.0020	0.000087	mg/L		11/17/21 08:25	11/22/21 15:45	2
Arsenic	**0.0010**	**D1**	0.0010	0.00049	mg/L		11/17/21 08:25	11/22/21 15:45	2
Barium	**0.18**	**D1**	0.0010	0.00052	mg/L		11/17/21 08:25	11/22/21 15:45	2
Cadmium	ND	D1 E8	0.00020	0.000046	mg/L		11/17/21 08:25	11/22/21 15:45	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 08:25	11/22/21 15:45	2
Cobalt	**0.00013**	**D1 E4**	0.0010	0.00013	mg/L		11/17/21 08:25	11/22/21 15:45	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 08:25	11/22/21 15:45	2
Molybdenum	**0.0056**	**D1**	0.0010	0.00040	mg/L		11/17/21 08:25	11/22/21 15:45	2
Selenium	ND	D1 E8	0.0010	0.00015	mg/L		11/17/21 08:25	11/22/21 15:45	2
Thallium	ND	D1 E8	0.00020	0.000026	mg/L		11/17/21 08:25	11/22/21 15:45	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/23/21 15:43	11/23/21 19:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**130**		6.0	6.0	mg/L			11/22/21 08:41	1
Bicarbonate Alkalinity as CaCO3	**130**		6.0	6.0	mg/L			11/22/21 08:41	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:41	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/22/21 08:41	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:41	1
Total Dissolved Solids	**670**	**R8**	20	20	mg/L			11/22/21 16:19	1
pH	**8.0**	**H5**	1.7	1.7	SU			11/24/21 10:35	1
Temperature	**8.7**	**H5**	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-SW3-1121

Date Collected: 11/15/21 13:22
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-7

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	46		2.0	0.52	mg/L			11/17/21 01:59	1
Fluoride	0.75		0.40	0.047	mg/L			11/17/21 01:59	1
Nitrate as N	ND	E8	0.050	0.014	mg/L			11/17/21 01:59	1
Nitrate Nitrite as N	ND	E8	0.050	0.021	mg/L			11/17/21 01:59	1
Nitrite as N	ND	E8	0.050	0.021	mg/L			11/17/21 01:59	1
Sulfate	420	D2	20	4.3	mg/L			11/23/21 18:45	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00014	E4	0.0010	0.000067	mg/L		11/17/21 06:02	11/18/21 23:53	1
Lithium	0.079		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 15:32	1
Boron	0.31		0.050	0.0025	mg/L		11/17/21 06:02	11/19/21 18:25	1
Calcium	80		2.0	0.013	mg/L		11/17/21 06:02	11/18/21 23:53	1
Magnesium	30		2.0	0.044	mg/L		11/17/21 06:02	11/19/21 18:25	1
Potassium	7.4		0.50	0.17	mg/L		11/17/21 06:02	11/18/21 23:53	1
Sodium	97		0.50	0.031	mg/L		11/17/21 06:02	11/19/21 18:25	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00082	D1 E4	0.0020	0.000087	mg/L		11/17/21 08:25	11/22/21 15:47	2
Arsenic	0.00054	D1 E4	0.0010	0.00049	mg/L		11/17/21 08:25	11/22/21 15:47	2
Barium	0.22	D1	0.0010	0.00052	mg/L		11/17/21 08:25	11/22/21 15:47	2
Cadmium	ND	D1 E8	0.00020	0.000046	mg/L		11/17/21 08:25	11/22/21 15:47	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 08:25	11/22/21 15:47	2
Cobalt	0.00024	D1 E4	0.0010	0.00013	mg/L		11/17/21 08:25	11/22/21 15:47	2
Lead	0.00044	D1 E4	0.0010	0.00044	mg/L		11/17/21 08:25	11/22/21 15:47	2
Molybdenum	0.0060	D1	0.0010	0.00040	mg/L		11/17/21 08:25	11/22/21 15:47	2
Selenium	ND	D1 E8	0.0010	0.00015	mg/L		11/17/21 08:25	11/22/21 15:47	2
Thallium	ND	D1 E8	0.00020	0.000026	mg/L		11/17/21 08:25	11/22/21 15:47	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/23/21 15:43	11/23/21 19:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	100		6.0	6.0	mg/L			11/22/21 08:50	1
Bicarbonate Alkalinity as CaCO3	100		6.0	6.0	mg/L			11/22/21 08:50	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:50	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/22/21 08:50	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 08:50	1
Total Dissolved Solids	680		20	20	mg/L			11/22/21 16:19	1
pH	7.9	H5	1.7	1.7	SU			11/24/21 10:35	1
Temperature	9.7	H5	0.1	0.1	Degrees C			11/24/21 10:35	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-258785/1028
Matrix: Water
Analysis Batch: 258785

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/17/21 00:35	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/17/21 00:35	1
Nitrate as N	ND	E8	0.050	0.014	mg/L			11/17/21 00:35	1
Nitrate Nitrite as N	ND	E8	0.050	0.021	mg/L			11/17/21 00:35	1
Nitrite as N	ND	E8	0.050	0.021	mg/L			11/17/21 00:35	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/17/21 00:35	1

Lab Sample ID: LCS 550-258785/29
Matrix: Water
Analysis Batch: 258785

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	20.2		mg/L		101	90 - 110		
Fluoride			4.00	3.88		mg/L		97	90 - 110		
Nitrate as N			4.00	3.94		mg/L		99	90 - 110		
Nitrate Nitrite as N			8.00	7.72		mg/L		97	90 - 110		
Nitrite as N			4.00	3.78		mg/L		94	90 - 110		
Sulfate			20.0	19.3		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-258785/30
Matrix: Water
Analysis Batch: 258785

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	2	20
Fluoride			4.00	3.97		mg/L		99	90 - 110	2	20
Nitrate as N			4.00	4.01		mg/L		100	90 - 110	2	20
Nitrate Nitrite as N			8.00	7.87		mg/L		98	90 - 110	2	20
Nitrite as N			4.00	3.86		mg/L		97	90 - 110	2	20
Sulfate			20.0	19.7		mg/L		99	90 - 110	2	20

Lab Sample ID: 550-174394-7 MS
Matrix: Water
Analysis Batch: 258785

Client Sample ID: FC-CCR-SW3-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	46		20.0	66.5		mg/L		105	80 - 120		
Fluoride	0.75		4.00	4.81		mg/L		101	80 - 120		
Nitrate as N	ND	E8	4.00	4.11		mg/L		103	80 - 120		
Nitrate Nitrite as N	ND	E8	8.00	8.07		mg/L		101	80 - 120		
Nitrite as N	ND	E8	4.00	3.96		mg/L		99	80 - 120		

Lab Sample ID: 550-174394-7 MSD
Matrix: Water
Analysis Batch: 258785

Client Sample ID: FC-CCR-SW3-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	46		20.0	66.5		mg/L		105	80 - 120	0	20
Fluoride	0.75		4.00	4.80		mg/L		101	80 - 120	0	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-174394-7 MSD
Matrix: Water
Analysis Batch: 258785

Client Sample ID: FC-CCR-SW3-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	ND	E8	4.00	4.11		mg/L		103	80 - 120	0	20
Nitrate Nitrite as N	ND	E8	8.00	8.08		mg/L		101	80 - 120	0	20
Nitrite as N	ND	E8	4.00	3.97		mg/L		99	80 - 120	0	20

Lab Sample ID: MB 550-259488/2
Matrix: Water
Analysis Batch: 259488

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/23/21 12:17	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/23/21 12:17	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/23/21 12:17	1

Lab Sample ID: LCS 550-259488/5
Matrix: Water
Analysis Batch: 259488

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	4.29		mg/L		107	90 - 110
Sulfate	20.0	21.3		mg/L		106	90 - 110

Lab Sample ID: LCSD 550-259488/6
Matrix: Water
Analysis Batch: 259488

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	4.30		mg/L		108	90 - 110	0	20
Sulfate	20.0	21.3		mg/L		107	90 - 110	0	20

Lab Sample ID: 550-174447-K-1 MS ^20
Matrix: Water
Analysis Batch: 259488

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	1000	M2 D2	400	1360	D2	mg/L		85	80 - 120
Sulfate	450	D2	400	836	D2	mg/L		98	80 - 120

Lab Sample ID: 550-174447-K-1 MSD ^20
Matrix: Water
Analysis Batch: 259488

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	1000	M2 D2	400	1330	D2 M2	mg/L		78	80 - 120	2	20
Sulfate	450	D2	400	835	D2	mg/L		97	80 - 120	0	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 550-259639/2
Matrix: Water
Analysis Batch: 259639

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/24/21 11:45	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/24/21 11:45	1
Nitrate as N	ND	E8	0.050	0.014	mg/L			11/24/21 11:45	1
Nitrate Nitrite as N	ND	E8	0.050	0.021	mg/L			11/24/21 11:45	1
Nitrite as N	ND	E8	0.050	0.021	mg/L			11/24/21 11:45	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/24/21 11:45	1

Lab Sample ID: LCS 550-259639/5
Matrix: Water
Analysis Batch: 259639

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	3.91		mg/L		98	90 - 110
Nitrate as N	4.00	3.95		mg/L		99	90 - 110
Nitrate Nitrite as N	8.00	7.78		mg/L		97	90 - 110
Nitrite as N	4.00	3.83		mg/L		96	90 - 110
Sulfate	20.0	19.4		mg/L		97	90 - 110

Lab Sample ID: LCSD 550-259639/6
Matrix: Water
Analysis Batch: 259639

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	3.89		mg/L		97	90 - 110	0	20
Nitrate as N	4.00	3.94		mg/L		99	90 - 110	0	20
Nitrate Nitrite as N	8.00	7.77		mg/L		97	90 - 110	0	20
Nitrite as N	4.00	3.83		mg/L		96	90 - 110	0	20
Sulfate	20.0	19.4		mg/L		97	90 - 110	0	20

Lab Sample ID: 550-174794-B-1 MS
Matrix: Water
Analysis Batch: 259639

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	310	E2 M3	20.0	316	E2 M3	mg/L		16	80 - 120
Fluoride	1.3		4.00	5.43		mg/L		104	80 - 120
Nitrate as N	20	M3	4.00	23.1	M3	mg/L		86	80 - 120
Nitrate Nitrite as N	20		8.00	27.2		mg/L		90	80 - 120
Nitrite as N	ND	E8	4.00	4.11		mg/L		103	80 - 120
Sulfate	450	E2 M3	20.0	445	E2 M3	mg/L		-2	80 - 120

Lab Sample ID: 550-174794-B-1 MSD
Matrix: Water
Analysis Batch: 259639

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	310	E2 M3	20.0	316	E2 M3	mg/L		15	80 - 120	0	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-174794-B-1 MSD
Matrix: Water
Analysis Batch: 259639

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	1.3		4.00	5.45		mg/L		105	80 - 120	0	20
Nitrate as N	20	M3	4.00	23.1	M3	mg/L		87	80 - 120	0	20
Nitrate Nitrite as N	20		8.00	27.2		mg/L		90	80 - 120	0	20
Nitrite as N	ND	E8	4.00	4.12		mg/L		103	80 - 120	0	20
Sulfate	450	E2 M3	20.0	445	E2 M3	mg/L		-2	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-258796/1-A
Matrix: Water
Analysis Batch: 259108

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258796

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.000130	E4	0.0010	0.000067	mg/L		11/17/21 06:02	11/18/21 23:24	1
Boron	0.0396	E4	0.050	0.0025	mg/L		11/17/21 06:02	11/18/21 23:24	1
Calcium	0.175	E4	2.0	0.013	mg/L		11/17/21 06:02	11/18/21 23:24	1
Potassium	ND	E8	0.50	0.17	mg/L		11/17/21 06:02	11/18/21 23:24	1

Lab Sample ID: MB 550-258796/1-A
Matrix: Water
Analysis Batch: 259264

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258796

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.0235	E4	0.050	0.0025	mg/L		11/17/21 06:02	11/19/21 17:57	1
Magnesium	ND	E8	2.0	0.044	mg/L		11/17/21 06:02	11/19/21 17:57	1
Sodium	0.382	E4	0.50	0.031	mg/L		11/17/21 06:02	11/19/21 17:57	1

Lab Sample ID: LCS 550-258796/2-A
Matrix: Water
Analysis Batch: 259108

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258796

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	1.02		mg/L		102	85 - 115
Calcium	21.0	20.5		mg/L		98	85 - 115
Potassium	20.0	19.1		mg/L		96	85 - 115

Lab Sample ID: LCS 550-258796/2-A
Matrix: Water
Analysis Batch: 259264

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258796

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.00		mg/L		100	85 - 115
Magnesium	21.0	22.4		mg/L		106	85 - 115
Sodium	20.0	18.5		mg/L		93	85 - 115

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCSD 550-258796/3-A
Matrix: Water
Analysis Batch: 259108

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258796

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium			1.00	0.939		mg/L		94	85 - 115	3	20
Boron			1.00	1.02		mg/L		102	85 - 115	0	20
Calcium			21.0	20.0		mg/L		95	85 - 115	2	20
Potassium			20.0	19.0		mg/L		95	85 - 115	1	20

Lab Sample ID: LCSD 550-258796/3-A
Matrix: Water
Analysis Batch: 259264

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258796

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron			1.00	1.02		mg/L		102	85 - 115	2	20
Magnesium			21.0	22.4		mg/L		107	85 - 115	0	20
Sodium			20.0	18.6		mg/L		93	85 - 115	0	20

Lab Sample ID: 550-174394-2 MS
Matrix: Water
Analysis Batch: 259108

Client Sample ID: FC-CCR-MW63-1121
Prep Type: Total/NA
Prep Batch: 258796

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.00019	E4	1.00	1.02		mg/L		102	70 - 130
Boron	1.3		1.00	2.27		mg/L		92	70 - 130
Calcium	440	M3	21.0	453	M3	mg/L		57	70 - 130
Potassium	5.5		20.0	26.7		mg/L		106	70 - 130

Lab Sample ID: 550-174394-2 MS
Matrix: Water
Analysis Batch: 259264

Client Sample ID: FC-CCR-MW63-1121
Prep Type: Total/NA
Prep Batch: 258796

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.2		1.00	2.26		mg/L		103	70 - 130
Magnesium	160	M3	21.0	201	M3	mg/L		173	70 - 130
Sodium	250	M3	20.0	279	M3	mg/L		142	70 - 130

Lab Sample ID: 550-174394-2 MSD
Matrix: Water
Analysis Batch: 259108

Client Sample ID: FC-CCR-MW63-1121
Prep Type: Total/NA
Prep Batch: 258796

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	0.00019	E4	1.00	1.03		mg/L		103	70 - 130	1	20
Boron	1.3		1.00	2.40		mg/L		105	70 - 130	5	20
Calcium	440	M3	21.0	460	M3	mg/L		89	70 - 130	1	20
Potassium	5.5		20.0	27.1		mg/L		108	70 - 130	1	20

Lab Sample ID: 550-174394-2 MSD
Matrix: Water
Analysis Batch: 259264

Client Sample ID: FC-CCR-MW63-1121
Prep Type: Total/NA
Prep Batch: 258796

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.2		1.00	2.15		mg/L		91	70 - 130	5	20
Magnesium	160	M3	21.0	176	M3	mg/L		54	70 - 130	13	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-174394-2 MSD — **Client Sample ID: FC-CCR-MW63-1121**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 259264 — **Prep Batch: 258796**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sodium	250	M3	20.0	254	M3	mg/L		16	70 - 130	9	20

Lab Sample ID: MB 280-558452/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558746 — **Prep Batch: 558452**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	E8	0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 14:35	1

Lab Sample ID: LCS 280-558452/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558746 — **Prep Batch: 558452**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	1.00	1.03		mg/L		103	90 - 112

Lab Sample ID: 280-156015-E-2-E MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558746 — **Prep Batch: 558452**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.037		1.00	1.07		mg/L		103	70 - 130

Lab Sample ID: 280-156015-E-2-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558746 — **Prep Batch: 558452**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.037		1.00	1.07		mg/L		103	70 - 130	0	20

Lab Sample ID: 280-156021-B-4-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558746 — **Prep Batch: 558452**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.012	E4	1.00	1.02		mg/L		101	70 - 130	0	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-258803/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 259309 — **Prep Batch: 258803**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0000570	E4	0.0010	0.000043	mg/L		11/17/21 08:25	11/22/21 15:24	1
Arsenic	ND	E8	0.00050	0.00025	mg/L		11/17/21 08:25	11/22/21 15:24	1
Barium	ND	E8	0.00050	0.00026	mg/L		11/17/21 08:25	11/22/21 15:24	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		11/17/21 08:25	11/22/21 15:24	1
Chromium	ND	E8	0.0010	0.00043	mg/L		11/17/21 08:25	11/22/21 15:24	1
Cobalt	ND	E8	0.00050	0.000063	mg/L		11/17/21 08:25	11/22/21 15:24	1

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 550-258803/1-A
Matrix: Water
Analysis Batch: 259309

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258803

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	E8	0.00050	0.00022	mg/L		11/17/21 08:25	11/22/21 15:24	1
Molybdenum	ND	E8	0.00050	0.00020	mg/L		11/17/21 08:25	11/22/21 15:24	1
Selenium	ND	E8	0.00050	0.000074	mg/L		11/17/21 08:25	11/22/21 15:24	1
Thallium	0.0000130	E4	0.00010	0.000013	mg/L		11/17/21 08:25	11/22/21 15:24	1

Lab Sample ID: LCS 550-258803/2-A
Matrix: Water
Analysis Batch: 259309

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258803

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.105		mg/L		105	85 - 115
Arsenic	0.100	0.102		mg/L		102	85 - 115
Cadmium	0.100	0.105		mg/L		105	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	0.105		mg/L		105	85 - 115
Molybdenum	0.100	0.105		mg/L		105	85 - 115
Selenium	0.100	0.0997		mg/L		100	85 - 115
Thallium	0.100	0.101		mg/L		101	85 - 115

Lab Sample ID: LCS 550-258803/2-A
Matrix: Water
Analysis Batch: 259406

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258803

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.100	0.113		mg/L		113	85 - 115

Lab Sample ID: LCSD 550-258803/3-A
Matrix: Water
Analysis Batch: 259309

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258803

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	0	20
Arsenic	0.100	0.101		mg/L		101	85 - 115	1	20
Cadmium	0.100	0.106		mg/L		106	85 - 115	1	20
Chromium	0.100	0.102		mg/L		102	85 - 115	2	20
Cobalt	0.100	0.102		mg/L		102	85 - 115	2	20
Lead	0.100	0.107		mg/L		107	85 - 115	2	20
Molybdenum	0.100	0.104		mg/L		104	85 - 115	1	20
Selenium	0.100	0.0985		mg/L		99	85 - 115	1	20
Thallium	0.100	0.102		mg/L		102	85 - 115	2	20

Lab Sample ID: LCSD 550-258803/3-A
Matrix: Water
Analysis Batch: 259406

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258803

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.100	0.115		mg/L		115	85 - 115	2	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: 550-174394-3 MS
Matrix: Water
Analysis Batch: 259309

Client Sample ID: FC-CCR-MW64-1121
Prep Type: Total/NA
Prep Batch: 258803

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND	E8 D1	0.100	0.107		mg/L		107	70 - 130
Arsenic	ND	E8 D1	0.100	0.105		mg/L		105	70 - 130
Barium	0.024	D1 M1	0.100	0.151		mg/L		127	70 - 130
Cadmium	0.000058	E4 D1	0.100	0.106		mg/L		106	70 - 130
Chromium	ND	E8 D1	0.100	0.109		mg/L		109	70 - 130
Cobalt	0.0018	D1	0.100	0.104		mg/L		102	70 - 130
Lead	ND	E8 D1	0.100	0.103		mg/L		103	70 - 130
Molybdenum	0.0052	D1	0.100	0.113		mg/L		108	70 - 130
Selenium	ND	E8 D1	0.100	0.101		mg/L		101	70 - 130
Thallium	0.00041	D1	0.100	0.0988		mg/L		98	70 - 130

Lab Sample ID: 550-174394-3 MSD
Matrix: Water
Analysis Batch: 259309

Client Sample ID: FC-CCR-MW64-1121
Prep Type: Total/NA
Prep Batch: 258803

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND	E8 D1	0.100	0.108		mg/L		108	70 - 130	0	20
Arsenic	ND	E8 D1	0.100	0.102		mg/L		102	70 - 130	3	20
Barium	0.024	D1 M1	0.100	0.155	M1	mg/L		131	70 - 130	2	20
Cadmium	0.000058	E4 D1	0.100	0.105		mg/L		105	70 - 130	1	20
Chromium	ND	E8 D1	0.100	0.105		mg/L		105	70 - 130	3	20
Cobalt	0.0018	D1	0.100	0.102		mg/L		100	70 - 130	1	20
Lead	ND	E8 D1	0.100	0.102		mg/L		102	70 - 130	1	20
Molybdenum	0.0052	D1	0.100	0.112		mg/L		106	70 - 130	1	20
Selenium	ND	E8 D1	0.100	0.0959		mg/L		96	70 - 130	5	20
Thallium	0.00041	D1	0.100	0.0971		mg/L		97	70 - 130	2	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-259457/1-A
Matrix: Water
Analysis Batch: 259504

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259457

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/23/21 15:43	11/23/21 19:22	1

Lab Sample ID: LCS 550-259457/2-A
Matrix: Water
Analysis Batch: 259504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259457

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.00500	0.00451		mg/L		90	85 - 115

Lab Sample ID: LCSD 550-259457/3-A
Matrix: Water
Analysis Batch: 259504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259457

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.00500	0.00435		mg/L		87	85 - 115	4	20

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 550-174528-A-1-C MS
Matrix: Water
Analysis Batch: 259504

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 259457

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	ND	E8	0.00500	0.00467		mg/L		93	70 - 130

Lab Sample ID: 550-174528-A-1-D MSD
Matrix: Water
Analysis Batch: 259504

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 259457

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND	E8	0.00500	0.00449		mg/L		90	70 - 130	4	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-259292/35
Matrix: Water
Analysis Batch: 259292

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1

Lab Sample ID: LCS 550-259292/34
Matrix: Water
Analysis Batch: 259292

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	234		mg/L		94	90 - 110

Lab Sample ID: LCSD 550-259292/47
Matrix: Water
Analysis Batch: 259292

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	2	20

Lab Sample ID: 550-174257-M-5 DU
Matrix: Water
Analysis Batch: 259292

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	110		108		mg/L		1	20
Bicarbonate Alkalinity as CaCO3	110		108		mg/L		1	20
Carbonate Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20
Alkalinity, Phenolphthalein	ND	E8	ND	E8	mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MB 550-259777/1
Matrix: Water
Analysis Batch: 259777

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1

Lab Sample ID: LCS 550-259777/2
Matrix: Water
Analysis Batch: 259777

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	226		mg/L		90	90 - 110

Lab Sample ID: LCSD 550-259777/8
Matrix: Water
Analysis Batch: 259777

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	246		mg/L		98	90 - 110	8	20

Lab Sample ID: 550-174492-K-13 DU
Matrix: Water
Analysis Batch: 259777

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	730		758		mg/L		3	20
Bicarbonate Alkalinity as CaCO3	730		758		mg/L		3	20
Carbonate Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20
Alkalinity, Phenolphthalein	ND	E8	ND	E8	mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20

Lab Sample ID: 550-174392-A-2 DU
Matrix: Water
Analysis Batch: 259778

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	950	R8	750	R8	mg/L		24	20
Bicarbonate Alkalinity as CaCO3	950	R8	750	R8	mg/L		24	20
Carbonate Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20
Alkalinity, Phenolphthalein	ND	E8	ND	E8	mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-259302/1
Matrix: Water
Analysis Batch: 259302

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			11/22/21 15:11	1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: LCS 550-259302/2
Matrix: Water
Analysis Batch: 259302

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 550-259302/3
Matrix: Water
Analysis Batch: 259302

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	1070		mg/L		107	90 - 110	1	10

Lab Sample ID: 550-174257-M-6 DU
Matrix: Water
Analysis Batch: 259302

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	4500	D2 R8		3970	D2 R8	mg/L				12	10

Lab Sample ID: MB 550-259315/1
Matrix: Water
Analysis Batch: 259315

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			11/22/21 16:19	1

Lab Sample ID: LCS 550-259315/2
Matrix: Water
Analysis Batch: 259315

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	997		mg/L		100	90 - 110		

Lab Sample ID: LCSD 550-259315/3
Matrix: Water
Analysis Batch: 259315

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	999		mg/L		100	90 - 110	0	10

Lab Sample ID: 550-174394-6 DU
Matrix: Water
Analysis Batch: 259315

Client Sample ID: FC-CCR-SW2-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	670	R8		760	R8	mg/L				12	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-259745/103
Matrix: Water
Analysis Batch: 259745

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 550-259745/85
Matrix: Water
Analysis Batch: 259745

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		100.1	98.5 - 101.5

Lab Sample ID: LCSSRM 550-259745/96
Matrix: Water
Analysis Batch: 259745

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: 550-174394-7 DU
Matrix: Water
Analysis Batch: 259745

Client Sample ID: FC-CCR-SW3-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.9	H5	7.9	H5	SU		0.1	5
Temperature	9.7	H5	10.1	H5	Degrees C		4	

Lab Sample ID: 550-174712-A-1 DU
Matrix: Water
Analysis Batch: 259745

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	H5	7.5	H5	SU		0	5
Temperature	18.6	H5	18.7	H5	Degrees C		0.5	

HPLC/IC

Analysis Batch: 258785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	300.0	
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	300.0	
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	300.0	
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	300.0	
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	300.0	
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	300.0	
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	300.0	
MB 550-258785/1028	Method Blank	Total/NA	Water	300.0	
LCS 550-258785/29	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-258785/30	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174394-7 MS	FC-CCR-SW3-1121	Total/NA	Water	300.0	
550-174394-7 MSD	FC-CCR-SW3-1121	Total/NA	Water	300.0	

Analysis Batch: 259488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	300.0	
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	300.0	
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	300.0	
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	300.0	
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	300.0	
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	300.0	
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	300.0	
MB 550-259488/2	Method Blank	Total/NA	Water	300.0	
LCS 550-259488/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-259488/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174447-K-1 MS ^20	Matrix Spike	Total/NA	Water	300.0	
550-174447-K-1 MSD ^20	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 259639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	300.0	
MB 550-259639/2	Method Blank	Total/NA	Water	300.0	
LCS 550-259639/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-259639/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174794-B-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-174794-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 258796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	200.7	
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	200.7	
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	200.7	
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	200.7	
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	200.7	
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	200.7	
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	200.7	
MB 550-258796/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-258796/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-258796/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	

Metals (Continued)

Prep Batch: 258796 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-2 MS	FC-CCR-MW63-1121	Total/NA	Water	200.7	
550-174394-2 MSD	FC-CCR-MW63-1121	Total/NA	Water	200.7	

Prep Batch: 258803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	200.8	
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	200.8	
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	200.8	
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	200.8	
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	200.8	
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	200.8	
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	200.8	
MB 550-258803/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-258803/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-258803/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-174394-3 MS	FC-CCR-MW64-1121	Total/NA	Water	200.8	
550-174394-3 MSD	FC-CCR-MW64-1121	Total/NA	Water	200.8	

Analysis Batch: 259108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	200.7 Rev 4.4	258796
MB 550-258796/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	258796
LCS 550-258796/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	258796
LCSD 550-258796/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-2 MS	FC-CCR-MW63-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-2 MSD	FC-CCR-MW63-1121	Total/NA	Water	200.7 Rev 4.4	258796

Analysis Batch: 259264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	200.7 Rev 4.4	258796
MB 550-258796/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	258796
LCS 550-258796/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	258796
LCSD 550-258796/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-2 MS	FC-CCR-MW63-1121	Total/NA	Water	200.7 Rev 4.4	258796
550-174394-2 MSD	FC-CCR-MW63-1121	Total/NA	Water	200.7 Rev 4.4	258796

Analysis Batch: 259309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	200.8 LL	258803

Metals (Continued)

Analysis Batch: 259309 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	200.8 LL	258803
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	200.8 LL	258803
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	200.8 LL	258803
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	200.8 LL	258803
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	200.8 LL	258803
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	200.8 LL	258803
MB 550-258803/1-A	Method Blank	Total/NA	Water	200.8 LL	258803
LCS 550-258803/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	258803
LCSD 550-258803/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	258803
550-174394-3 MS	FC-CCR-MW64-1121	Total/NA	Water	200.8 LL	258803
550-174394-3 MSD	FC-CCR-MW64-1121	Total/NA	Water	200.8 LL	258803

Analysis Batch: 259406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 550-258803/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	258803
LCSD 550-258803/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	258803

Prep Batch: 259457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	245.1	
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	245.1	
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	245.1	
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	245.1	
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	245.1	
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	245.1	
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	245.1	
MB 550-259457/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-259457/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-259457/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-174528-A-1-C MS	Matrix Spike	Total/NA	Water	245.1	
550-174528-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 259504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	245.1	259457
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	245.1	259457
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	245.1	259457
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	245.1	259457
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	245.1	259457
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	245.1	259457
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	245.1	259457
MB 550-259457/1-A	Method Blank	Total/NA	Water	245.1	259457
LCS 550-259457/2-A	Lab Control Sample	Total/NA	Water	245.1	259457
LCSD 550-259457/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	259457
550-174528-A-1-C MS	Matrix Spike	Total/NA	Water	245.1	259457
550-174528-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	259457

Prep Batch: 558452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	200.7	
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	200.7	

Metals (Continued)

Prep Batch: 558452 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	200.7	
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	200.7	
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	200.7	
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	200.7	
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	200.7	
MB 280-558452/1-A	Method Blank	Total/NA	Water	200.7	
LCS 280-558452/2-A	Lab Control Sample	Total/NA	Water	200.7	
280-156015-E-2-E MS	Matrix Spike	Total/NA	Water	200.7	
280-156015-E-2-F MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
280-156021-B-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Analysis Batch: 558746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	200.7 Rev 4.4	558452
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	200.7 Rev 4.4	558452
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	200.7 Rev 4.4	558452
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	200.7 Rev 4.4	558452
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	200.7 Rev 4.4	558452
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	200.7 Rev 4.4	558452
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	200.7 Rev 4.4	558452
MB 280-558452/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	558452
LCS 280-558452/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	558452
280-156015-E-2-E MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	558452
280-156015-E-2-F MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	558452
280-156021-B-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	558452

General Chemistry

Analysis Batch: 259292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	SM 2320B	
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	SM 2320B	
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	SM 2320B	
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	SM 2320B	
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	SM 2320B	
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	SM 2320B	
MB 550-259292/35	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-259292/34	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-259292/47	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-174257-M-5 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 259302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	SM 2540C	
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	SM 2540C	
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	SM 2540C	
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	SM 2540C	
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	SM 2540C	
MB 550-259302/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-259302/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-259302/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 259302 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174257-M-6 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 259315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	SM 2540C	
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	SM 2540C	
MB 550-259315/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-259315/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-259315/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-174394-6 DU	FC-CCR-SW2-1121	Total/NA	Water	SM 2540C	

Analysis Batch: 259745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	SM 4500 H+ B	
550-174394-2	FC-CCR-MW63-1121	Total/NA	Water	SM 4500 H+ B	
550-174394-3	FC-CCR-MW64-1121	Total/NA	Water	SM 4500 H+ B	
550-174394-4	FC-CCR-MW65-1121	Total/NA	Water	SM 4500 H+ B	
550-174394-5	FC-CCR-SW1-1121	Total/NA	Water	SM 4500 H+ B	
550-174394-6	FC-CCR-SW2-1121	Total/NA	Water	SM 4500 H+ B	
550-174394-7	FC-CCR-SW3-1121	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259745/103	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259745/85	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259745/96	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-174394-7 DU	FC-CCR-SW3-1121	Total/NA	Water	SM 4500 H+ B	
550-174712-A-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 259777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-259777/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-259777/2	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-259777/8	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-174492-K-13 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 259778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174394-1	FC-CCR-MW62-1121	Total/NA	Water	SM 2320B	
550-174392-A-2 DU	Duplicate	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174394-1
SDG: APS Four Corners Power Plant (CWTP)

Client Sample ID: FC-CCR-MW62-1121

Lab Sample ID: 550-174394-1

Date Collected: 11/15/21 11:28
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100	259488	11/23/21 20:35	JNW	TAL PHX
Total/NA	Analysis	300.0		2	258785	11/17/21 05:42	JNW	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259108	11/18/21 23:40	MGM	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259264	11/19/21 18:12	MGM	TAL PHX
Total/NA	Prep	200.7			558452	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 14:52	MAB	TAL DEN
Total/NA	Prep	200.8			258803	11/17/21 08:25	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259309	11/22/21 15:37	ARE	TAL PHX
Total/NA	Prep	245.1			259457	11/23/21 15:43	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259504	11/23/21 19:41	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259778	11/28/21 13:20	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259302		EJR	TAL PHX
					(Start)	11/22/21 15:11		
					(End)	11/26/21 17:00		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Client Sample ID: FC-CCR-MW63-1121

Lab Sample ID: 550-174394-2

Date Collected: 11/15/21 12:58
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100	259488	11/23/21 20:17	JNW	TAL PHX
Total/NA	Analysis	300.0		2	258785	11/17/21 05:14	JNW	TAL PHX
Total/NA	Analysis	300.0		50	259639	11/24/21 23:51	JNW	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259108	11/18/21 23:37	MGM	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259264	11/19/21 18:10	MGM	TAL PHX
Total/NA	Prep	200.7			558452	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 14:56	MAB	TAL DEN
Total/NA	Prep	200.8			258803	11/17/21 08:25	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259309	11/22/21 15:39	ARE	TAL PHX
Total/NA	Prep	245.1			259457	11/23/21 15:43	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259504	11/23/21 19:44	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259292	11/22/21 08:02	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259302		EJR	TAL PHX
					(Start)	11/22/21 15:11		
					(End)	11/26/21 17:00		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Client Sample ID: FC-CCR-MW64-1121

Lab Sample ID: 550-174394-3

Date Collected: 11/15/21 13:58

Matrix: Water

Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	259488	11/23/21 19:58	JNW	TAL PHX
Total/NA	Analysis	300.0		1	258785	11/17/21 04:46	JNW	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259108	11/18/21 23:43	MGM	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259264	11/19/21 18:15	MGM	TAL PHX
Total/NA	Prep	200.7			558452	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 15:00	MAB	TAL DEN
Total/NA	Prep	200.8			258803	11/17/21 08:25	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259309	11/22/21 15:35	ARE	TAL PHX
Total/NA	Prep	245.1			259457	11/23/21 15:43	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259504	11/23/21 19:46	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259292	11/22/21 08:11	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259302		EJR	TAL PHX
					(Start)	11/22/21 15:11		
					(End)	11/26/21 17:00		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Client Sample ID: FC-CCR-MW65-1121

Lab Sample ID: 550-174394-4

Date Collected: 11/15/21 10:47

Matrix: Water

Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	259488	11/23/21 19:40	JNW	TAL PHX
Total/NA	Analysis	300.0		1	258785	11/17/21 04:18	JNW	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259108	11/18/21 23:45	MGM	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259264	11/19/21 18:17	MGM	TAL PHX
Total/NA	Prep	200.7			558452	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 15:04	MAB	TAL DEN
Total/NA	Prep	200.8			258803	11/17/21 08:25	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259309	11/22/21 15:41	ARE	TAL PHX
Total/NA	Prep	245.1			259457	11/23/21 15:43	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259504	11/23/21 19:48	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259292	11/22/21 08:22	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259302		EJR	TAL PHX
					(Start)	11/22/21 15:11		
					(End)	11/26/21 17:00		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174394-1
SDG: APS Four Corners Power Plant (CWTP)

Client Sample ID: FC-CCR-SW1-1121

Date Collected: 11/15/21 09:28
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	259488	11/23/21 19:21	JNW	TAL PHX
Total/NA	Analysis	300.0		1	258785	11/17/21 03:50	JNW	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259108	11/18/21 23:48	MGM	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259264	11/19/21 18:20	MGM	TAL PHX
Total/NA	Prep	200.7			558452	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 15:08	MAB	TAL DEN
Total/NA	Prep	200.8			258803	11/17/21 08:25	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259309	11/22/21 15:43	ARE	TAL PHX
Total/NA	Prep	245.1			259457	11/23/21 15:43	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259504	11/23/21 19:51	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259292	11/22/21 08:31	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259302		EJR	TAL PHX
					(Start)	11/22/21 15:11		
					(End)	11/26/21 17:00		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Client Sample ID: FC-CCR-SW2-1121

Date Collected: 11/15/21 12:22
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	259488	11/23/21 19:03	JNW	TAL PHX
Total/NA	Analysis	300.0		1	258785	11/17/21 03:22	JNW	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259108	11/18/21 23:50	MGM	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259264	11/19/21 18:23	MGM	TAL PHX
Total/NA	Prep	200.7			558452	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 15:12	MAB	TAL DEN
Total/NA	Prep	200.8			258803	11/17/21 08:25	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259309	11/22/21 15:45	ARE	TAL PHX
Total/NA	Prep	245.1			259457	11/23/21 15:43	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259504	11/23/21 19:53	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259292	11/22/21 08:41	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259315		EJR	TAL PHX
					(Start)	11/22/21 16:19		
					(End)	11/28/21 06:05		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174394-1
SDG: APS Four Corners Power Plant (CWTP)

Client Sample ID: FC-CCR-SW3-1121

Date Collected: 11/15/21 13:22
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174394-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	259488	11/23/21 18:45	JNW	TAL PHX
Total/NA	Analysis	300.0		1	258785	11/17/21 01:59	JNW	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259108	11/18/21 23:53	MGM	TAL PHX
Total/NA	Prep	200.7			258796	11/17/21 06:02	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259264	11/19/21 18:25	MGM	TAL PHX
Total/NA	Prep	200.7			558452	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 15:32	MAB	TAL DEN
Total/NA	Prep	200.8			258803	11/17/21 08:25	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259309	11/22/21 15:47	ARE	TAL PHX
Total/NA	Prep	245.1			259457	11/23/21 15:43	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259504	11/23/21 19:56	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259292	11/22/21 08:50	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259315		EJR	TAL PHX
					(Start)	11/22/21 16:19		
					(End)	11/28/21 06:05		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174394-1
SDG: APS Four Corners Power Plant (CWTP)

Laboratory: Eurofins TestAmerica, 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	06-10-22

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 2320B		Water	Alkalinity, Phenolphthalein
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins TestAmerica, Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	11-30-21
A2LA	ISO/IEC 17025	2907.01	11-30-21
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-28-22
Arizona	State	AZ0713	12-19-21
Arkansas DEQ	State	19-047-0	06-01-21 *
California	State	2513	01-08-22
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-22
Georgia	State	4025-011	01-08-22
Illinois	NELAP	2000172019-1	04-30-22
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	04-30-22
Kentucky (WW)	State	KY98047	12-31-21
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-22
Minnesota	NELAP	1788752	12-31-21
Nevada	State	CO000262020-1	07-31-22
New Hampshire	NELAP	205319	04-29-22
New Jersey	NELAP	190002	07-01-22
New York	NELAP	59923	04-01-22
North Carolina (WW/SW)	State	358	12-31-21
North Dakota	State	R-034	01-08-22
Oklahoma	State	2018-006	08-31-22
Oregon	NELAP	4025-011	01-08-22
Pennsylvania	NELAP	013	07-31-22
South Carolina	State	72002001	01-08-22
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-21 *
Virginia	NELAP	10490	06-14-22
Washington	State	C583-19	08-03-22
West Virginia DEP	State	354	11-30-21
Wisconsin	State	999615430	08-31-22
Wyoming (UST)	A2LA	2907.01	11-30-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174394-1
SDG: APS Four Corners Power Plant (CWTP)

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
200.8 LL	Metals (ICP/MS)	EPA	TAL PHX
245.1	Mercury (CVAA)	EPA	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 4500 H+ B	pH	SM	TAL PHX
200.7	Preparation, Total Metals	EPA	TAL DEN
200.7	Preparation, Total Metals	EPA	TAL PHX
200.8	Preparation, Total Metals	EPA	TAL PHX
245.1	Preparation, Mercury	EPA	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, 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

174394

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

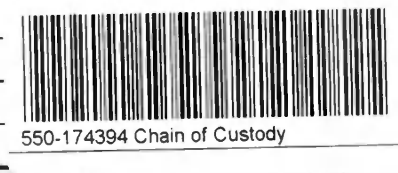
11/30/2021

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	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 (CWTP)	☐ 2 days			Job / SDG No.:
PO #: 100613442	☐ 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-H+B (pH)	SM 2540C (TDS)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 245.1 - Totals (Hg)	EPA 200.7 - Totals (B, Ca, Be, Li, Mg, K, Na)	SM 2320B (CO3, HCO3 - Alkalinity as CaCO3)	EPA 300.0 (Total Nitrogen, Nitrate as N), Nitrite (as N)					Sample Specific Notes:
FC-CCR-MW62-1121	11/15/2021	11:27	G	W	2	N	N	X		X	X	X	X	X	X	X				-01	Low Flow
FC-CCR-MW63-1121	11/15/2021	12:58	G	W	2	N	N	X		X	X	X	X	X	X	X				-02	"
FC-CCR-MW64-1121	11/15/2021	13:58	G	W	2	N	N	X		X	X	X	X	X	X	X				-03	"
FC-CCR-MW65-1121	11/15/2021	10:47	G	W	2	N	N	X		X	X	X	X	X	X	X				-04	"
FC-CCR-SW1-1121	11/15/2021	9:28	G	W	2	N	N	X		X	X	X	X	X	X	X				-05	Surface water grab sample
FC-CCR-SW2-1121	11/15/2021	12:22	G	W	2	N	N	X		X	X	X	X	X	X	X				-06	"
FC-CCR-SW3-1121	11/15/2021	13:22	G	W	2	N	N	X		X	X	X	X	X	X	X				-07	"



Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

								1		1	1	4	4	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.

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

	Company	Date/Time		Company	Date/Time
Relinquished by:	Wood	11/16/21 07:40	Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received in Laboratory by:	E-TA Phx	11-16-21 15:15

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

0.2°C 1.8°C 0.9°C 1.5°C 1.3°C CDA-ice

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd Suite 189
Phoenix, AZ 85040
Phone: 602-437-3340 Fax: 602-454-9303

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Baker, Ken	Carrier Tracking No(s):	COC No: 550-32385.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Baker@Eurofinset.com	State of Origin: Arizona	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Arizona		Job #: 550-174394-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 11/30/2021			
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 #: 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, 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_TOT Lithium-ICP	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
FC-CCR-MW62-1121 (550-174394-1)	11/15/21	11:28 Arizona		Water			X	1	AZ Sample
FC-CCR-MW63-1121 (550-174394-2)	11/15/21	12:58 Arizona		Water			X	1	AZ Sample
FC-CCR-MW64-1121 (550-174394-3)	11/15/21	13:58 Arizona		Water			X	1	AZ Sample
FC-CCR-MW65-1121 (550-174394-4)	11/15/21	10:47 Arizona		Water			X	1	AZ Sample
FC-CCR-SW1-1121 (550-174394-5)	11/15/21	09:28 Arizona		Water			X	1	AZ Sample
FC-CCR-SW2-1121 (550-174394-6)	11/15/21	12:22 Arizona		Water			X	1	AZ Sample
FC-CCR-SW3-1121 (550-174394-7)	11/15/21	13:22 Arizona		Water			X	1	AZ Sample

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

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
Nicole Strand	11/17/21 1400	Eurofins	FedEx		
Relinquished by: FedEx	Date/Time:	Company	Received by:	Date/Time: 11/18/2021 1030	Company ETA-PHX
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.: 175491	Cooler Temperature(s) °C and Other Remarks: 2.1 IR#11 +1.0

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-174394-1
SDG Number: APS Four Corners Power Plant (CWTP)

Login Number: 174394
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins TestAmerica, 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: 550-174394-1
SDG Number: APS Four Corners Power Plant (CWTP)

Login Number: 174394
List Number: 2
Creator: Rystrom, Joshua R

List Source: Eurofins TestAmerica, Denver
List Creation: 11/18/21 05:14 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.	False	Limited volume received.
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	

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, 2021
Sample Received: November 22, 2021
Analysis Completed: December 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW62-1121	0.4 ± 0.1	0.7 ± 0.3	1.1 ± 0.3

Date of Analysis	11/24/2021	11/24/2021	11/24/2021

12/13/2021

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, 2021 (Sample Date) 11:27 (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 — 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	1.1 ± 0.3		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.4 ± 0.1		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	0.7 ± 0.3		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67839

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. (480) 897-9459

Comments: FC-CCR-MW62-1121

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 15, 2021
Sample Received: November 22, 2021
Analysis Completed: December 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW63-1121	< 0.3	< 0.6	< 0.6
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Robert L. Metzger, Ph.D., C.H.P. 12/13/2021 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, 2021 (Sample Date) 12:58 (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 — 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	< 0.6		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	< 0.3		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	< 0.6		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67840

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. (480) 897-9459

Comments: FC-CCR-MW63-1121

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, 2021
Sample Received: November 22, 2021
Analysis Completed: December 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW64-1121	< 0.3	< 0.6	< 0.6
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

12/13/2021

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, 2021 (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 — 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	< 0.6		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	< 0.3		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	< 0.6		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67841

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. (480) 897-9459

Comments: FC-CCR-MW64-1121

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 15, 2021
Sample Received: November 22, 2021
Analysis Completed: December 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW65-1121	< 0.3	< 0.6	< 0.6
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

12/13/2021

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, 2021 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	< 0.6		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	< 0.3		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	< 0.6		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67842

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. (480) 897-9459

Comments: FC-CCR-MW65-1121

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, 2021
Sample Received: November 22, 2021
Analysis Completed: December 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-SW1-1121	< 0.3	< 0.6	< 0.6
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Robert L. Metzger, Ph.D., C.H.P. 12/13/2021
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, 2021 (Sample Date) 9:28 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	< 0.6		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	< 0.3		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	< 0.6		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67843

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. (480) 897-9459

Comments: FC-CCR-SW1-1121

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, 2021
Sample Received: November 22, 2021
Analysis Completed: December 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-SW2-1121	< 0.3	< 0.6	< 0.6
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Robert L. Metzger, Ph.D., C.H.P. 12/13/2021 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, 2021 (Sample Date) 12:22 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	< 0.6		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	< 0.3		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	< 0.6		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67844

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. (480) 897-9459

Comments: FC-CCR-SW2-1121

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, 2021
Sample Received: November 22, 2021
Analysis Completed: December 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-SW3-1121	0.7 ± 0.2	0.6 ± 0.3	1.3 ± 0.4

Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Robert L. Metzger, Ph.D., C.H.P. 12/13/2021
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, 2021 (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 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	1.3 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	0.6 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

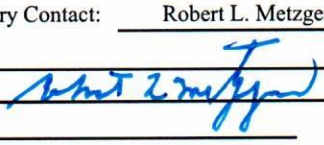
Specimen Number: RSE67845

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. (480) 897-9459

Comments: FC-CCR-SW3-1121

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Client Information		Radiation Safety Engineering, Inc.		
Name:	Natalie Chrisman/602-250-3608 Jim Edwards/928-288-1241	3245 North Washington Street	85225	Chandler, Arizona
Company	Arizona Public Service		Analysis Request	
Address	PO Box 355, MS 4915 Fruitland, NM 87416			
Phone				
Site	APS Four Corners Power Plant (CWTP)			

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-MW62-1121	11/15/2021	11:27	GW						X	X	X						678 39
FC-CCR-MW63-1121	11/15/2021	12:58	GW						X	X	X						678 40
FC-CCR-MW64-1121	11/15/2021	13:58	GW						X	X	X						678 41
FC-CCR-MW65-1121	11/15/2021	10:47	GW						X	X	X						678 42
FC-CCR-SW1-1121	11/15/2021	9:28	GW						X	X	X						678 43
FC-CCR-SW2-1121	11/15/2021	12:22	GW						X	X	X						678 44
FC-CCR-SW3-1121	11/15/2021	13:22	GW						X	X	X						678 45

Sample Receipt		Invoice to:	Instructions/Comments
Total No. of Containers		PO#: 100611133	Method HPGe
Chain of Custody Seals			1 week TAT
Container Condition			
Lab No.			

Relinquished By:	Company: Weil	Date/time: 11/22/21 09:58	Received By: Pat Flannery		Company: RSE	Date/time: 11-22-21 9:58	
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

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-162769-1
Laboratory SDG: APS Four Corners Power Plant
Client Project/Site: CCR Groundwater Monitoring
Revision: 1

For:
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Attn: Jim Edwards

Authorized for release by:
5/13/2021 1:31:52 PM

Ken Baker, Project Manager II
(602)659-7624
Ken.Baker@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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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.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target 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.
N1	See case narrative.

Metals

Qualifier	Qualifier Description
B1	Target analyte detected in method blank at or above the method reporting limit.
B3	Target analyte detected in calibration blank at or above the method reporting limit.
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of analyte.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
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.

General Chemistry

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
H1	Sample analysis performed 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.

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)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: 550-162769-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-162769-1

Comments
This report contains the Correct pH result for sample 550-162769-3.

Receipt
The samples were received on 4/28/2021 4:44 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 was 0.3º C.

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): FC-CCR-MW85-0421 (550-162769-12). The container labels list a sample time of 08:54, while the COC lists a sample time of 8:59. The client was contacted, and the lab was instructed to <EXPLANATION_REQUIRED>.

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): FC-CCR-MW86-0421 (550-162769-13) and FC-CCR-FD02-0421 (550-162769-14). The container labels list a sample time of 14:52, while the COC lists a sample time of 15:20. The client was contacted, and the lab was instructed to <EXPLANATION_REQUIRED>.

HPLC/IC
Method 300.0: The following sample was diluted for Fluoride due to the nature of the sample matrix: FC-CCR-MW70-0421 (550-162769-5). An elevated reporting limit (RL) has been provided.

Method 300.0: The results for the laboratory control sample duplicate (LCSD) associated with analytical batch 550-240916 for Anions by method EPA 300.0 could not be reported due to an instrument loading error. The auto-sampler mis-injected the sample vial during the loading procedure; as such, no results could be be reported for the associated LCSD. The results for the batch laboratory control sample and matrix spike / matrix spike duplicate (MS/MSD) samples met method acceptance criteria and may be used to verify batch accuracy and precision. Therefore, the following data results have been reported and qualified with N1 flags.

FC-CCR-MW70-0421 (550-162769-5), (LCS 550-240916/32), (550-162769-A-5 MS ^200) and (550-162769-A-5 MSD ^200)

Method 300.0: The method blank for 550-241309 contained Sulfate above the method detection limit (MDL). This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-analysis of samples was not performed.

Method 300.0: The continuing calibration blank (CCB) for analytical batch 550-241309 contained Sulfate above the method detection limit (MDL). This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-analysis of samples was not performed.

Method 300.0: The following sample was diluted for Fluoride due to the nature of the sample matrix: FC-CCR-MW86-0421 (550-162769-13). An elevated reporting limit (RL) has been provided.

Method 300.0: The following samples were diluted for Fluoride due to the nature of the sample matrix: FC-CCR-MW72-0421 (550-162769-7) and (550-162768-A-4). This analyte was not detected in the diluted sample. Elevated reporting limits (RLs) have been provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 200.7 Rev 4.4: The method blank for preparation batch 550-240942 and analytical batch 550-241270 contained Sodium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 200.7 Rev 4.4: The continuing calibration blank (CCB) for analytical batch 550-241270 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.

Job ID: 550-162769-1 (Continued)

Laboratory: Eurofins TestAmerica, Phoenix (Continued)

Method 200.7 Rev 4.4: The following samples were diluted to bring the concentration of target analytes within the calibration range: FC-CCR-MW66-0421 (550-162769-1), FC-CCR-MW67-0421 (550-162769-2), FC-CCR-MW68-0421 (550-162769-3), FC-CCR-FD01-0421 (550-162769-11), FC-CCR-MW86-0421 (550-162769-13) and FC-CCR-FD02-0421 (550-162769-14). Elevated reporting limits (RLs) are provided.

Method 200.8 LL: The continuing calibration blank (CCB) for analytical batch 550-242136 contained Chromium 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.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Method SM 2540C: The following samples were received with less than 1 day remaining on the 7 day holding time for Total Dissolved Solids (TDS). As such, the laboratory had insufficient time remaining to perform the analysis within holding time: FC-CCR-MW66-0421 (550-162769-1), FC-CCR-MW67-0421 (550-162769-2), FC-CCR-MW69-0421 (550-162769-4), FC-CCR-MW70-0421 (550-162769-5), FC-CCR-MW83-0421 (550-162769-9), FC-CCR-MW84-0421 (550-162769-10), FC-CCR-FD01-0421 (550-162769-11), FC-CCR-MW85-0421 (550-162769-12), FC-CCR-MW86-0421 (550-162769-13), FC-CCR-MW86-0421 (550-162769-13[DU]) and FC-CCR-FD02-0421 (550-162769-14).

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: 550-162769-1
SDG: APS Four Corners Power Plant

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-162769-1	FC-CCR-MW66-0421	Water	04/21/21 16:02	04/28/21 16:44	
550-162769-2	FC-CCR-MW67-0421	Water	04/21/21 09:41	04/28/21 16:44	
550-162769-3	FC-CCR-MW68-0421	Water	04/22/21 07:30	04/28/21 16:44	
550-162769-4	FC-CCR-MW69-0421	Water	04/21/21 10:38	04/28/21 16:44	
550-162769-5	FC-CCR-MW70-0421	Water	04/21/21 13:54	04/28/21 16:44	
550-162769-6	FC-CCR-MW71-0421	Water	04/22/21 08:32	04/28/21 16:44	
550-162769-7	FC-CCR-MW72-0421	Water	04/22/21 09:22	04/28/21 16:44	
550-162769-8	FC-CCR-MW73-0421	Water	04/22/21 11:19	04/28/21 16:44	
550-162769-9	FC-CCR-MW83-0421	Water	04/21/21 12:11	04/28/21 16:44	
550-162769-10	FC-CCR-MW84-0421	Water	04/21/21 11:27	04/28/21 16:44	
550-162769-11	FC-CCR-FD01-0421	Water	04/21/21 09:41	04/28/21 16:44	
550-162769-12	FC-CCR-MW85-0421	Water	04/21/21 08:59	04/28/21 16:44	
550-162769-13	FC-CCR-MW86-0421	Water	04/21/21 15:20	04/28/21 16:44	
550-162769-14	FC-CCR-FD02-0421	Water	04/21/21 15:20	04/28/21 16:44	

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162769-1
SDG: APS Four Corners Power Plant

Client Sample ID: FC-CCR-MW66-0421 — Lab Sample ID: 550-162769-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1700	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	19	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	12000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.32		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	150	D2	0.10	0.0051	mg/L	2		200.7 Rev 4.4	Total/NA
Calcium	500		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00029	D1 E4	0.0040	0.00017	mg/L	4		200.8 LL	Total/NA
Arsenic	0.0014	D1 E4	0.0020	0.00099	mg/L	4		200.8 LL	Total/NA
Barium	0.021	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00013	D1 E4	0.00040	0.000092	mg/L	4		200.8 LL	Total/NA
Cobalt	0.010	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.022	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.0028	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00082	D1	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Total Dissolved Solids	19000	D2 H1	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	16.4	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW67-0421 — Lab Sample ID: 550-162769-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1800	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	12	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	13000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.39		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	160	D2	0.10	0.0051	mg/L	2		200.7 Rev 4.4	Total/NA
Calcium	490		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00022	D1 E4	0.0040	0.00017	mg/L	4		200.8 LL	Total/NA
Arsenic	0.0018	D1 E4	0.0020	0.00099	mg/L	4		200.8 LL	Total/NA
Barium	0.019	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00027	D1 E4	0.00040	0.000092	mg/L	4		200.8 LL	Total/NA
Cobalt	0.012	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.044	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.0042	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.0011	D1	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Total Dissolved Solids	19000	D2 H1	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	16.2	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW68-0421 — Lab Sample ID: 550-162769-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1200	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	8.6	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	11000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.41		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	110	D2	0.10	0.0051	mg/L	2		200.7 Rev 4.4	Total/NA
Calcium	500		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00019	D1 E4	0.0040	0.00017	mg/L	4		200.8 LL	Total/NA
Arsenic	0.0017	D1 E4	0.0020	0.00099	mg/L	4		200.8 LL	Total/NA
Barium	0.011	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00016	D1 E4	0.00040	0.000092	mg/L	4		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW68-0421 (Continued) — Lab Sample ID: 550-162769-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.0076	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0079	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.036	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.0016	D1	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Total Dissolved Solids	17000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	16.1	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW69-0421 — Lab Sample ID: 550-162769-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	810	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	4.1	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	5000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.19		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	53		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	590		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00027	D1 E4	0.0040	0.00017	mg/L	4		200.8 LL	Total/NA
Arsenic	0.0021	D1	0.0020	0.00099	mg/L	4		200.8 LL	Total/NA
Barium	0.0090	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0021	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0075	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.14	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00030	D1 E4	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Total Dissolved Solids	8300	D2 H1	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	16.6	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW70-0421 — Lab Sample ID: 550-162769-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1100	D2 N1	400	100	mg/L	200		300.0	Total/NA
Fluoride	1.8	D1 N1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	5600	D2	200	43	mg/L	100		300.0	Total/NA
Lithium	0.34		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	97		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	540		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.012	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0034	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0057	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.19	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00024	D1 E4	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Total Dissolved Solids	11000	D2 H1	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.0	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	15.9	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW71-0421 — Lab Sample ID: 550-162769-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	560	D2	200	52	mg/L	100		300.0	Total/NA
Fluoride	3.8		0.40	0.047	mg/L	1		300.0	Total/NA
Sulfate	14000	D2	400	85	mg/L	200		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW71-0421 (Continued) — Lab Sample ID: 550-162769-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.40		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.73		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	510		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0013	D1 E4	0.0020	0.00099	mg/L	4		200.8 LL	Total/NA
Barium	0.014	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00012	D1 E4	0.00040	0.000092	mg/L	4		200.8 LL	Total/NA
Cobalt	0.00030	D1 E4	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Selenium	0.36	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00040	D1	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Total Dissolved Solids	19000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	15.9	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW72-0421 — Lab Sample ID: 550-162769-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	400	D2	200	52	mg/L	100		300.0	Total/NA
Sulfate	10000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.37		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.25		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	480		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0026	D1	0.0020	0.00099	mg/L	4		200.8 LL	Total/NA
Barium	0.0086	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00012	D1 E4	0.00040	0.000092	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0029	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0011	D1 E4	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.11	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.0010	D1	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Total Dissolved Solids	16000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	16.4	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW73-0421 — Lab Sample ID: 550-162769-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	380	D2	200	52	mg/L	100		300.0	Total/NA
Sulfate	5700	D2	200	43	mg/L	100		300.0	Total/NA
Lithium	0.23		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	1.6		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	530		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.021	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00016	D1 E4	0.00040	0.000092	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0027	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0011	D1 E4	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.015	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00026	D1 E4	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Total Dissolved Solids	9700	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.1	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	17.2	H5	0.1	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: 550-162769-1
SDG: APS Four Corners Power Plant

Client Sample ID: FC-CCR-MW83-0421 — Lab Sample ID: 550-162769-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	77		2.0	0.52	mg/L	1		300.0	Total/NA
Fluoride	0.55		0.40	0.047	mg/L	1		300.0	Total/NA
Sulfate	1200	D2	200	43	mg/L	100		300.0	Total/NA
Lithium	0.19		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	2.3		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	310		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0026	D1	0.0020	0.00099	mg/L	4		200.8 LL	Total/NA
Barium	0.038	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.060	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.00042	D1 E4	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Total Dissolved Solids	2100	H1	20	20	mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.9	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW84-0421 — Lab Sample ID: 550-162769-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	430	D2	200	52	mg/L	100		300.0	Total/NA
Fluoride	0.82		0.40	0.047	mg/L	1		300.0	Total/NA
Sulfate	6900	D2	200	43	mg/L	100		300.0	Total/NA
Lithium	0.34		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	27		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	470		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00039	D1 E4	0.0040	0.00017	mg/L	4		200.8 LL	Total/NA
Arsenic	0.0010	D1 E4	0.0020	0.00099	mg/L	4		200.8 LL	Total/NA
Barium	0.017	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00016	D1 E4	0.00040	0.000092	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0010	D1 E4	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0027	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.053	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00062	D1	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Total Dissolved Solids	11000	D2 H1	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.5	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-FD01-0421 — Lab Sample ID: 550-162769-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1800	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	12	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	13000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.39		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	160	D2	0.10	0.0051	mg/L	2		200.7 Rev 4.4	Total/NA
Calcium	490		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00019	D1 E4	0.0040	0.00017	mg/L	4		200.8 LL	Total/NA
Arsenic	0.0020	D1	0.0020	0.00099	mg/L	4		200.8 LL	Total/NA
Barium	0.018	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00026	D1 E4	0.00040	0.000092	mg/L	4		200.8 LL	Total/NA
Cobalt	0.011	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.041	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.0044	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.0011	D1	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-FD01-0421 (Continued) — Lab Sample ID: 550-162769-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	20000	D2 H1	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.0	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW85-0421 — Lab Sample ID: 550-162769-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	560	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.22	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	4800	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.25		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	30		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	560		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0021	D1	0.0020	0.00099	mg/L	4		200.8 LL	Total/NA
Barium	0.022	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Chromium	0.0049	D1	0.0040	0.0017	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0039	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.20	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00022	D1 E4	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Total Dissolved Solids	8300	D2 H1	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	17.8	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW86-0421 — Lab Sample ID: 550-162769-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1300	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.58	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	8900	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.30		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	110	D2 M3	0.25	0.013	mg/L	5		200.7 Rev 4.4	Total/NA
Calcium	500	M3	2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00028	D1 E4	0.0040	0.00017	mg/L	4		200.8 LL	Total/NA
Arsenic	0.0012	D1 E4	0.0020	0.00099	mg/L	4		200.8 LL	Total/NA
Barium	0.015	D1 M1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00028	D1 E4	0.00040	0.000092	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0052	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0022	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.0046	D1 M1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00080	D1	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Total Dissolved Solids	14000	D2 H1	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	17.7	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-FD02-0421 — Lab Sample ID: 550-162769-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1300	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.60	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	8700	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.31		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	110	D2	0.10	0.0051	mg/L	2		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-FD02-0421 (Continued)

Lab Sample ID: 550-162769-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	510		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0017	D1 E4	0.0020	0.00099	mg/L	4		200.8 LL	Total/NA
Barium	0.014	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00016	D1 E4	0.00040	0.000092	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0049	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0018	D1 E4	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.0042	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00070	D1	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Total Dissolved Solids	14000	D2 H1	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.0	H5	0.1	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-MW66-0421

Lab Sample ID: 550-162769-1
Matrix: Water
Date Collected: 04/21/21 16:02
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1700	D2	400	100	mg/L			05/03/21 19:26	200
Fluoride	19	D1	0.80	0.095	mg/L			05/03/21 19:08	2
Sulfate	12000	D2	400	85	mg/L			05/03/21 19:26	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 21:19	05/04/21 01:57	1
Lithium	0.32		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 18:14	1
Boron	150	D2	0.10	0.0051	mg/L		04/29/21 21:19	05/04/21 20:51	2
Calcium	500		2.0	0.013	mg/L		04/29/21 21:19	05/04/21 01:57	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00029	D1 E4	0.0040	0.00017	mg/L		04/29/21 08:46	05/11/21 19:24	4
Arsenic	0.0014	D1 E4	0.0020	0.00099	mg/L		04/29/21 08:46	05/11/21 19:24	4
Barium	0.021	D1	0.0020	0.0010	mg/L		04/29/21 08:46	05/11/21 19:24	4
Cadmium	0.00013	D1 E4	0.00040	0.000092	mg/L		04/29/21 08:46	05/11/21 19:24	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/29/21 08:46	05/11/21 19:24	4
Cobalt	0.010	D1	0.0020	0.00025	mg/L		04/29/21 08:46	05/11/21 19:24	4
Lead	ND	D1 E8	0.0020	0.00088	mg/L		04/29/21 08:46	05/11/21 19:24	4
Molybdenum	0.022	D1	0.0020	0.00081	mg/L		04/29/21 08:46	05/11/21 19:24	4
Selenium	0.0028	D1	0.0020	0.00030	mg/L		04/29/21 08:46	05/11/21 19:24	4
Thallium	0.00082	D1	0.00040	0.000053	mg/L		04/29/21 08:46	05/12/21 12:09	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:31	04/30/21 20:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	19000	D2 H1	100	100	mg/L			05/06/21 08:51	1
pH	7.4	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	16.4	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW67-0421

Lab Sample ID: 550-162769-2
Matrix: Water
Date Collected: 04/21/21 09:41
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1800	D2	400	100	mg/L			05/03/21 20:40	200
Fluoride	12	D1	0.80	0.095	mg/L			05/03/21 20:21	2
Sulfate	13000	D2	400	85	mg/L			05/03/21 20:40	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 21:19	05/04/21 02:01	1
Lithium	0.39		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 18:17	1
Boron	160	D2	0.10	0.0051	mg/L		04/29/21 21:19	05/04/21 20:54	2
Calcium	490		2.0	0.013	mg/L		04/29/21 21:19	05/04/21 02:01	1

Client Sample ID: FC-CCR-MW67-0421

Lab Sample ID: 550-162769-2

Date Collected: 04/21/21 09:41
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00022	D1 E4	0.0040	0.00017	mg/L		04/29/21 08:46	05/11/21 19:27	4
Arsenic	0.0018	D1 E4	0.0020	0.00099	mg/L		04/29/21 08:46	05/11/21 19:27	4
Barium	0.019	D1	0.0020	0.0010	mg/L		04/29/21 08:46	05/11/21 19:27	4
Cadmium	0.00027	D1 E4	0.00040	0.000092	mg/L		04/29/21 08:46	05/11/21 19:27	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/29/21 08:46	05/11/21 19:27	4
Cobalt	0.012	D1	0.0020	0.00025	mg/L		04/29/21 08:46	05/11/21 19:27	4
Lead	ND	D1 E8	0.0020	0.00088	mg/L		04/29/21 08:46	05/11/21 19:27	4
Molybdenum	0.044	D1	0.0020	0.00081	mg/L		04/29/21 08:46	05/11/21 19:27	4
Selenium	0.0042	D1	0.0020	0.00030	mg/L		04/29/21 08:46	05/11/21 19:27	4
Thallium	0.0011	D1	0.00040	0.000053	mg/L		04/29/21 08:46	05/12/21 12:11	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:31	04/30/21 20:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	19000	D2 H1	200	200	mg/L			05/06/21 08:51	1
pH	7.4	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	16.2	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW68-0421

Lab Sample ID: 550-162769-3

Date Collected: 04/22/21 07:30
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1200	D2	400	100	mg/L			05/03/21 21:17	200
Fluoride	8.6	D1	0.80	0.095	mg/L			05/03/21 20:58	2
Sulfate	11000	D2	400	85	mg/L			05/03/21 21:17	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 21:19	05/04/21 02:05	1
Lithium	0.41		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 18:21	1
Boron	110	D2	0.10	0.0051	mg/L		04/29/21 21:19	05/04/21 20:58	2
Calcium	500		2.0	0.013	mg/L		04/29/21 21:19	05/04/21 02:05	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00019	D1 E4	0.0040	0.00017	mg/L		04/29/21 08:46	05/11/21 19:29	4
Arsenic	0.0017	D1 E4	0.0020	0.00099	mg/L		04/29/21 08:46	05/11/21 19:29	4
Barium	0.011	D1	0.0020	0.0010	mg/L		04/29/21 08:46	05/11/21 19:29	4
Cadmium	0.00016	D1 E4	0.00040	0.000092	mg/L		04/29/21 08:46	05/11/21 19:29	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/29/21 08:46	05/11/21 19:29	4
Cobalt	0.0076	D1	0.0020	0.00025	mg/L		04/29/21 08:46	05/11/21 19:29	4
Lead	ND	D1 E8	0.0020	0.00088	mg/L		04/29/21 08:46	05/11/21 19:29	4
Molybdenum	0.0079	D1	0.0020	0.00081	mg/L		04/29/21 08:46	05/11/21 19:29	4
Selenium	0.036	D1	0.0020	0.00030	mg/L		04/29/21 08:46	05/11/21 19:29	4
Thallium	0.0016	D1	0.00040	0.000053	mg/L		04/29/21 08:46	05/12/21 12:13	4

Client Sample ID: FC-CCR-MW68-0421

Lab Sample ID: 550-162769-3
Date Collected: 04/22/21 07:30
Matrix: Water
Date Received: 04/28/21 16:44

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:31	04/30/21 20:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**17000**	**D2**	100	100	mg/L			04/29/21 08:38	1
pH	**7.3**	**H5**	1.7	1.7	SU			05/05/21 17:02	1
Temperature	**16.1**	**H5**	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW69-0421

Lab Sample ID: 550-162769-4
Date Collected: 04/21/21 10:38
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**810**	**D2**	400	100	mg/L			04/29/21 19:11	200
Fluoride	**4.1**	**D1**	0.80	0.095	mg/L			04/29/21 18:52	2
Sulfate	**5000**	**D2**	400	85	mg/L			04/29/21 19:11	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 21:19	05/04/21 02:08	1
Lithium	**0.19**		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 18:24	1
Boron	**53**		0.050	0.0025	mg/L		04/29/21 21:19	05/04/21 02:08	1
Calcium	**590**		2.0	0.013	mg/L		04/29/21 21:19	05/04/21 02:08	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00027**	**D1 E4**	0.0040	0.00017	mg/L		04/29/21 08:46	05/11/21 19:31	4
Arsenic	**0.0021**	**D1**	0.0020	0.00099	mg/L		04/29/21 08:46	05/11/21 19:31	4
Barium	**0.0090**	**D1**	0.0020	0.0010	mg/L		04/29/21 08:46	05/11/21 19:31	4
Cadmium	ND	D1 E8	0.00040	0.000092	mg/L		04/29/21 08:46	05/11/21 19:31	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/29/21 08:46	05/11/21 19:31	4
Cobalt	**0.0021**	**D1**	0.0020	0.00025	mg/L		04/29/21 08:46	05/11/21 19:31	4
Lead	ND	D1 E8	0.0020	0.00088	mg/L		04/29/21 08:46	05/11/21 19:31	4
Molybdenum	**0.0075**	**D1**	0.0020	0.00081	mg/L		04/29/21 08:46	05/11/21 19:31	4
Selenium	**0.14**	**D1**	0.0020	0.00030	mg/L		04/29/21 08:46	05/11/21 19:31	4
Thallium	**0.00030**	**D1 E4**	0.00040	0.000053	mg/L		04/29/21 08:46	05/12/21 12:15	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:31	04/30/21 20:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**8300**	**D2 H1**	100	100	mg/L			05/06/21 08:51	1
pH	**7.4**	**H5**	1.7	1.7	SU			05/05/21 17:02	1
Temperature	**16.6**	**H5**	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW70-0421

Lab Sample ID: 550-162769-5
Date Collected: 04/21/21 13:54
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1100	D2 N1	400	100	mg/L			04/29/21 21:01	200
Fluoride	1.8	D1 N1	0.80	0.095	mg/L			04/29/21 20:43	2
Sulfate	5600	D2	200	43	mg/L			05/08/21 10:24	100

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 21:19	05/04/21 02:12	1
Lithium	0.34		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 18:27	1
Boron	97		0.050	0.0025	mg/L		04/29/21 21:19	05/04/21 02:12	1
Calcium	540		2.0	0.013	mg/L		04/29/21 21:19	05/04/21 02:12	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0040	0.00017	mg/L		04/29/21 08:46	05/11/21 19:33	4
Arsenic	ND	D1 E8	0.0020	0.00099	mg/L		04/29/21 08:46	05/11/21 19:33	4
Barium	0.012	D1	0.0020	0.0010	mg/L		04/29/21 08:46	05/11/21 19:33	4
Cadmium	ND	D1 E8	0.00040	0.000092	mg/L		04/29/21 08:46	05/11/21 19:33	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/29/21 08:46	05/11/21 19:33	4
Cobalt	0.0034	D1	0.0020	0.00025	mg/L		04/29/21 08:46	05/11/21 19:33	4
Lead	ND	D1 E8	0.0020	0.00088	mg/L		04/29/21 08:46	05/11/21 19:33	4
Molybdenum	0.0057	D1	0.0020	0.00081	mg/L		04/29/21 08:46	05/11/21 19:33	4
Selenium	0.19	D1	0.0020	0.00030	mg/L		04/29/21 08:46	05/11/21 19:33	4
Thallium	0.00024	D1 E4	0.00040	0.000053	mg/L		04/29/21 08:46	05/12/21 12:23	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:31	04/30/21 20:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	11000	D2 H1	100	100	mg/L			05/06/21 08:51	1
pH	7.0	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	15.9	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW71-0421

Lab Sample ID: 550-162769-6
Date Collected: 04/22/21 08:32
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	560	D2	200	52	mg/L			05/03/21 23:07	100
Fluoride	3.8		0.40	0.047	mg/L			05/03/21 22:49	1
Sulfate	14000	D2	400	85	mg/L			05/08/21 10:43	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 21:19	05/04/21 02:16	1
Lithium	0.40		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 18:31	1
Boron	0.73		0.050	0.0025	mg/L		04/29/21 21:19	05/04/21 02:16	1
Calcium	510		2.0	0.013	mg/L		04/29/21 21:19	05/04/21 02:16	1

Client Sample ID: FC-CCR-MW71-0421

Lab Sample ID: 550-162769-6
Matrix: Water
Date Collected: 04/22/21 08:32
Date Received: 04/28/21 16:44

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0040	0.00017	mg/L		04/29/21 08:46	05/11/21 19:35	4
Arsenic	**0.0013**	**D1 E4**	0.0020	0.00099	mg/L		04/29/21 08:46	05/11/21 19:35	4
Barium	**0.014**	**D1**	0.0020	0.0010	mg/L		04/29/21 08:46	05/11/21 19:35	4
Cadmium	**0.00012**	**D1 E4**	0.00040	0.000092	mg/L		04/29/21 08:46	05/11/21 19:35	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/29/21 08:46	05/11/21 19:35	4
Cobalt	**0.00030**	**D1 E4**	0.0020	0.00025	mg/L		04/29/21 08:46	05/11/21 19:35	4
Lead	ND	D1 E8	0.0020	0.00088	mg/L		04/29/21 08:46	05/11/21 19:35	4
Molybdenum	ND	D1 E8	0.0020	0.00081	mg/L		04/29/21 08:46	05/11/21 19:35	4
Selenium	**0.36**	**D1**	0.0020	0.00030	mg/L		04/29/21 08:46	05/11/21 19:35	4
Thallium	**0.00040**	**D1**	0.00040	0.000053	mg/L		04/29/21 08:46	05/12/21 12:26	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:31	04/30/21 20:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**19000**	**D2**	100	100	mg/L			04/29/21 08:38	1
pH	**7.2**	**H5**	1.7	1.7	SU			05/05/21 17:02	1
Temperature	**15.9**	**H5**	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW72-0421

Lab Sample ID: 550-162769-7
Matrix: Water
Date Collected: 04/22/21 09:22
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**400**	**D2**	200	52	mg/L			05/08/21 11:20	100
Fluoride	ND	D1 D5 E8	0.80	0.095	mg/L			05/08/21 11:01	2
Sulfate	**10000**	**D2**	400	85	mg/L			05/08/21 11:38	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 21:19	05/04/21 02:20	1
Lithium	**0.37**		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 18:34	1
Boron	**0.25**		0.050	0.0025	mg/L		04/29/21 21:19	05/04/21 02:20	1
Calcium	**480**		2.0	0.013	mg/L		04/29/21 21:19	05/04/21 02:20	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0040	0.00017	mg/L		04/29/21 08:46	05/11/21 19:37	4
Arsenic	**0.0026**	**D1**	0.0020	0.00099	mg/L		04/29/21 08:46	05/11/21 19:37	4
Barium	**0.0086**	**D1**	0.0020	0.0010	mg/L		04/29/21 08:46	05/11/21 19:37	4
Cadmium	**0.00012**	**D1 E4**	0.00040	0.000092	mg/L		04/29/21 08:46	05/11/21 19:37	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/29/21 08:46	05/11/21 19:37	4
Cobalt	**0.0029**	**D1**	0.0020	0.00025	mg/L		04/29/21 08:46	05/11/21 19:37	4
Lead	ND	D1 E8	0.0020	0.00088	mg/L		04/29/21 08:46	05/11/21 19:37	4
Molybdenum	**0.0011**	**D1 E4**	0.0020	0.00081	mg/L		04/29/21 08:46	05/11/21 19:37	4
Selenium	**0.11**	**D1**	0.0020	0.00030	mg/L		04/29/21 08:46	05/11/21 19:37	4
Thallium	**0.0010**	**D1**	0.00040	0.000053	mg/L		04/29/21 08:46	05/12/21 12:28	4

Client Sample ID: FC-CCR-MW72-0421

Lab Sample ID: 550-162769-7
Date Collected: 04/22/21 09:22
Matrix: Water
Date Received: 04/28/21 16:44

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:31	04/30/21 20:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**16000**	**D2**	100	100	mg/L			04/29/21 08:38	1
pH	**7.2**	**H5**	1.7	1.7	SU			05/05/21 17:02	1
Temperature	**16.4**	**H5**	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW73-0421

Lab Sample ID: 550-162769-8
Date Collected: 04/22/21 11:19
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**380**	**D2**	200	52	mg/L			05/08/21 12:15	100
Fluoride	ND	E8	0.40	0.047	mg/L			05/08/21 11:56	1
Sulfate	**5700**	**D2**	200	43	mg/L			05/08/21 12:15	100

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 21:19	05/04/21 02:23	1
Lithium	**0.23**		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 18:51	1
Boron	**1.6**		0.050	0.0025	mg/L		04/29/21 21:19	05/04/21 02:23	1
Calcium	**530**		2.0	0.013	mg/L		04/29/21 21:19	05/04/21 02:23	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0040	0.00017	mg/L		04/29/21 08:46	05/11/21 19:39	4
Arsenic	ND	D1 E8	0.0020	0.00099	mg/L		04/29/21 08:46	05/11/21 19:39	4
Barium	**0.021**	**D1**	0.0020	0.0010	mg/L		04/29/21 08:46	05/11/21 19:39	4
Cadmium	**0.00016**	**D1 E4**	0.00040	0.000092	mg/L		04/29/21 08:46	05/11/21 19:39	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/29/21 08:46	05/11/21 19:39	4
Cobalt	**0.0027**	**D1**	0.0020	0.00025	mg/L		04/29/21 08:46	05/11/21 19:39	4
Lead	ND	D1 E8	0.0020	0.00088	mg/L		04/29/21 08:46	05/11/21 19:39	4
Molybdenum	**0.0011**	**D1 E4**	0.0020	0.00081	mg/L		04/29/21 08:46	05/11/21 19:39	4
Selenium	**0.015**	**D1**	0.0020	0.00030	mg/L		04/29/21 08:46	05/11/21 19:39	4
Thallium	**0.00026**	**D1 E4**	0.00040	0.000053	mg/L		04/29/21 08:46	05/12/21 12:30	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:31	04/30/21 20:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**9700**	**D2**	100	100	mg/L			04/29/21 08:38	1
pH	**7.1**	**H5**	1.7	1.7	SU			05/05/21 17:02	1
Temperature	**17.2**	**H5**	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW83-0421

Lab Sample ID: 550-162769-9
Date Collected: 04/21/21 12:11
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	77		2.0	0.52	mg/L			05/08/21 12:33	1
Fluoride	0.55		0.40	0.047	mg/L			05/08/21 12:33	1
Sulfate	1200	D2	200	43	mg/L			05/08/21 12:52	100

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 21:19	05/04/21 02:27	1
Lithium	0.19		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 18:54	1
Boron	2.3		0.050	0.0025	mg/L		04/29/21 21:19	05/04/21 02:27	1
Calcium	310		2.0	0.013	mg/L		04/29/21 21:19	05/04/21 02:27	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0040	0.00017	mg/L		04/29/21 08:46	05/11/21 19:41	4
Arsenic	0.0026	D1	0.0020	0.00099	mg/L		04/29/21 08:46	05/11/21 19:41	4
Barium	0.038	D1	0.0020	0.0010	mg/L		04/29/21 08:46	05/11/21 19:41	4
Cadmium	ND	D1 E8	0.00040	0.000092	mg/L		04/29/21 08:46	05/11/21 19:41	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/29/21 08:46	05/11/21 19:41	4
Cobalt	ND	D1 E8	0.0020	0.00025	mg/L		04/29/21 08:46	05/11/21 19:41	4
Lead	ND	D1 E8	0.0020	0.00088	mg/L		04/29/21 08:46	05/11/21 19:41	4
Molybdenum	0.060	D1	0.0020	0.00081	mg/L		04/29/21 08:46	05/11/21 19:41	4
Selenium	0.00042	D1 E4	0.0020	0.00030	mg/L		04/29/21 08:46	05/11/21 19:41	4
Thallium	ND	D1 E8	0.00040	0.000053	mg/L		04/29/21 08:46	05/12/21 12:32	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:31	04/30/21 21:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2100	H1	20	20	mg/L			05/06/21 08:51	1
pH	7.3	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	18.9	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW84-0421

Lab Sample ID: 550-162769-10
Date Collected: 04/21/21 11:27
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	430	D2	200	52	mg/L			05/08/21 08:43	100
Fluoride	0.82		0.40	0.047	mg/L			05/08/21 08:16	1
Sulfate	6900	D2	200	43	mg/L			05/08/21 08:43	100

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 21:19	05/04/21 02:39	1
Lithium	0.34		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 18:58	1
Boron	27		0.050	0.0025	mg/L		04/29/21 21:19	05/04/21 02:39	1
Calcium	470		2.0	0.013	mg/L		04/29/21 21:19	05/04/21 02:39	1

Client Sample ID: FC-CCR-MW84-0421

Lab Sample ID: 550-162769-10
Matrix: Water
Date Collected: 04/21/21 11:27
Date Received: 04/28/21 16:44

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00039	D1 E4	0.0040	0.00017	mg/L		04/29/21 08:46	05/11/21 19:47	4
Arsenic	0.0010	D1 E4	0.0020	0.00099	mg/L		04/29/21 08:46	05/11/21 19:47	4
Barium	0.017	D1	0.0020	0.0010	mg/L		04/29/21 08:46	05/11/21 19:47	4
Cadmium	0.00016	D1 E4	0.00040	0.000092	mg/L		04/29/21 08:46	05/11/21 19:47	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/29/21 08:46	05/11/21 19:47	4
Cobalt	0.0010	D1 E4	0.0020	0.00025	mg/L		04/29/21 08:46	05/11/21 19:47	4
Lead	ND	D1 E8	0.0020	0.00088	mg/L		04/29/21 08:46	05/11/21 19:47	4
Molybdenum	0.0027	D1	0.0020	0.00081	mg/L		04/29/21 08:46	05/11/21 19:47	4
Selenium	0.053	D1	0.0020	0.00030	mg/L		04/29/21 08:46	05/11/21 19:47	4
Thallium	0.00062	D1	0.00040	0.000053	mg/L		04/29/21 08:46	05/12/21 12:34	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:31	04/30/21 21:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	11000	D2 H1	100	100	mg/L			05/06/21 08:51	1
pH	7.2	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	18.5	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-FD01-0421

Lab Sample ID: 550-162769-11
Matrix: Water
Date Collected: 04/21/21 09:41
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1800	D2	400	100	mg/L			05/03/21 23:44	200
Fluoride	12	D1	0.80	0.095	mg/L			05/03/21 23:25	2
Sulfate	13000	D2	400	85	mg/L			05/03/21 23:44	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 21:19	05/04/21 02:42	1
Lithium	0.39		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 19:01	1
Boron	160	D2	0.10	0.0051	mg/L		04/29/21 21:19	05/04/21 21:02	2
Calcium	490		2.0	0.013	mg/L		04/29/21 21:19	05/04/21 02:42	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00019	D1 E4	0.0040	0.00017	mg/L		04/29/21 08:46	05/11/21 19:50	4
Arsenic	0.0020	D1	0.0020	0.00099	mg/L		04/29/21 08:46	05/11/21 19:50	4
Barium	0.018	D1	0.0020	0.0010	mg/L		04/29/21 08:46	05/11/21 19:50	4
Cadmium	0.00026	D1 E4	0.00040	0.000092	mg/L		04/29/21 08:46	05/11/21 19:50	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/29/21 08:46	05/11/21 19:50	4
Cobalt	0.011	D1	0.0020	0.00025	mg/L		04/29/21 08:46	05/11/21 19:50	4
Lead	ND	D1 E8	0.0020	0.00088	mg/L		04/29/21 08:46	05/11/21 19:50	4
Molybdenum	0.041	D1	0.0020	0.00081	mg/L		04/29/21 08:46	05/11/21 19:50	4
Selenium	0.0044	D1	0.0020	0.00030	mg/L		04/29/21 08:46	05/11/21 19:50	4
Thallium	0.0011	D1	0.00040	0.000053	mg/L		04/29/21 08:46	05/12/21 12:36	4

Client Sample ID: FC-CCR-FD01-0421

Lab Sample ID: 550-162769-11
Date Collected: 04/21/21 09:41
Matrix: Water
Date Received: 04/28/21 16:44

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:31	04/30/21 21:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	20000	D2 H1	200	200	mg/L			05/06/21 08:51	1
pH	7.4	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	18.0	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW85-0421

Lab Sample ID: 550-162769-12
Date Collected: 04/21/21 08:59
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	560	D2	400	100	mg/L			05/04/21 00:21	200
Fluoride	0.22	D1 E4	0.80	0.095	mg/L			05/04/21 00:02	2
Sulfate	4800	D2	400	85	mg/L			05/04/21 00:21	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 21:19	05/04/21 02:46	1
Lithium	0.25		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 19:04	1
Boron	30		0.050	0.0025	mg/L		04/29/21 21:19	05/04/21 02:46	1
Calcium	560		2.0	0.013	mg/L		04/29/21 21:19	05/04/21 02:46	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0040	0.00017	mg/L		04/29/21 08:46	05/11/21 19:52	4
Arsenic	0.0021	D1	0.0020	0.00099	mg/L		04/29/21 08:46	05/11/21 19:52	4
Barium	0.022	D1	0.0020	0.0010	mg/L		04/29/21 08:46	05/11/21 19:52	4
Cadmium	ND	D1 E8	0.00040	0.000092	mg/L		04/29/21 08:46	05/11/21 19:52	4
Chromium	0.0049	D1	0.0040	0.0017	mg/L		04/29/21 08:46	05/12/21 15:04	4
Cobalt	ND	D1 E8	0.0020	0.00025	mg/L		04/29/21 08:46	05/11/21 19:52	4
Lead	ND	D1 E8	0.0020	0.00088	mg/L		04/29/21 08:46	05/11/21 19:52	4
Molybdenum	0.0039	D1	0.0020	0.00081	mg/L		04/29/21 08:46	05/11/21 19:52	4
Selenium	0.20	D1	0.0020	0.00030	mg/L		04/29/21 08:46	05/11/21 19:52	4
Thallium	0.00022	D1 E4	0.00040	0.000053	mg/L		04/29/21 08:46	05/12/21 12:38	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:31	04/30/21 21:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	8300	D2 H1	100	100	mg/L			05/06/21 08:51	1
pH	7.2	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	17.8	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW86-0421

Lab Sample ID: 550-162769-13
Date Collected: 04/21/21 15:20
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1300	D2	400	100	mg/L			05/04/21 00:57	200
Fluoride	0.58	D1 E4	0.80	0.095	mg/L			05/04/21 00:39	2
Sulfate	8900	D2	400	85	mg/L			05/04/21 00:57	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 21:19	05/04/21 01:53	1
Lithium	0.30		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 19:08	1
Boron	110	D2 M3	0.25	0.013	mg/L		04/29/21 21:19	05/04/21 20:47	5
Calcium	500	M3	2.0	0.013	mg/L		04/29/21 21:19	05/04/21 01:53	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00028	D1 E4	0.0040	0.00017	mg/L		04/29/21 08:46	05/11/21 19:14	4
Arsenic	0.0012	D1 E4	0.0020	0.00099	mg/L		04/29/21 08:46	05/11/21 19:14	4
Barium	0.015	D1 M1	0.0020	0.0010	mg/L		04/29/21 08:46	05/11/21 19:14	4
Cadmium	0.00028	D1 E4	0.00040	0.000092	mg/L		04/29/21 08:46	05/11/21 19:14	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/29/21 08:46	05/11/21 19:14	4
Cobalt	0.0052	D1	0.0020	0.00025	mg/L		04/29/21 08:46	05/11/21 19:14	4
Lead	ND	D1 E8	0.0020	0.00088	mg/L		04/29/21 08:46	05/11/21 19:14	4
Molybdenum	0.0022	D1	0.0020	0.00081	mg/L		04/29/21 08:46	05/11/21 19:14	4
Selenium	0.0046	D1 M1	0.0020	0.00030	mg/L		04/29/21 08:46	05/11/21 19:14	4
Thallium	0.00080	D1	0.00040	0.000053	mg/L		04/29/21 08:46	05/12/21 12:05	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:31	04/30/21 20:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	14000	D2 H1	100	100	mg/L			05/06/21 08:51	1
pH	7.2	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	17.7	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-FD02-0421

Lab Sample ID: 550-162769-14
Date Collected: 04/21/21 15:20
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1300	D2	400	100	mg/L			05/08/21 06:44	200
Fluoride	0.60	D1 E4	0.80	0.095	mg/L			05/08/21 06:25	2
Sulfate	8700	D2	400	85	mg/L			05/08/21 06:44	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 21:19	05/04/21 02:50	1
Lithium	0.31		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 19:37	1
Boron	110	D2	0.10	0.0051	mg/L		04/29/21 21:19	05/04/21 21:06	2
Calcium	510		2.0	0.013	mg/L		04/29/21 21:19	05/04/21 02:50	1

Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162769-1
SDG: APS Four Corners Power Plant

Client Sample ID: FC-CCR-FD02-0421

Date Collected: 04/21/21 15:20
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162769-14

Matrix: Water

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0040	0.00017	mg/L		04/29/21 08:46	05/11/21 19:54	4
Arsenic	**0.0017**	**D1 E4**	0.0020	0.00099	mg/L		04/29/21 08:46	05/11/21 19:54	4
Barium	**0.014**	**D1**	0.0020	0.0010	mg/L		04/29/21 08:46	05/11/21 19:54	4
Cadmium	**0.00016**	**D1 E4**	0.00040	0.000092	mg/L		04/29/21 08:46	05/11/21 19:54	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/29/21 08:46	05/11/21 19:54	4
Cobalt	**0.0049**	**D1**	0.0020	0.00025	mg/L		04/29/21 08:46	05/11/21 19:54	4
Lead	ND	D1 E8	0.0020	0.00088	mg/L		04/29/21 08:46	05/11/21 19:54	4
Molybdenum	**0.0018**	**D1 E4**	0.0020	0.00081	mg/L		04/29/21 08:46	05/11/21 19:54	4
Selenium	**0.0042**	**D1**	0.0020	0.00030	mg/L		04/29/21 08:46	05/11/21 19:54	4
Thallium	**0.00070**	**D1**	0.00040	0.000053	mg/L		04/29/21 08:46	05/12/21 12:40	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:31	04/30/21 21:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**14000**	**D2 H1**	100	100	mg/L			05/06/21 08:51	1
pH	**7.3**	**H5**	1.7	1.7	SU			05/05/21 17:02	1
Temperature	**18.0**	**H5**	0.1	0.1	Degrees C			05/05/21 17:02	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-240915/2
Matrix: Water
Analysis Batch: 240915

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			04/29/21 11:12	1
Fluoride	ND	E8	0.40	0.047	mg/L			04/29/21 11:12	1
Sulfate	ND	E8	2.0	0.43	mg/L			04/29/21 11:12	1

Lab Sample ID: LCS 550-240915/5
Matrix: Water
Analysis Batch: 240915

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	20.9		mg/L		105	90 - 110
Fluoride	4.00	4.15		mg/L		104	90 - 110
Sulfate	20.0	20.8		mg/L		104	90 - 110

Lab Sample ID: LCSD 550-240915/6
Matrix: Water
Analysis Batch: 240915

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		106	90 - 110	1	20
Fluoride	4.00	4.19		mg/L		105	90 - 110	1	20
Sulfate	20.0	21.0		mg/L		105	90 - 110	1	20

Lab Sample ID: 550-162673-A-8 MS ^10
Matrix: Water
Analysis Batch: 240915

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	250	D2	200	477	D2	mg/L		112	80 - 120
Fluoride	3.4	E4 D1	40.0	45.9	D1	mg/L		106	80 - 120
Sulfate	330	D2	200	551	D2	mg/L		110	80 - 120

Lab Sample ID: 550-162673-A-8 MSD ^10
Matrix: Water
Analysis Batch: 240915

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	250	D2	200	469	D2	mg/L		108	80 - 120	2	20
Fluoride	3.4	E4 D1	40.0	44.4	D1	mg/L		103	80 - 120	3	20
Sulfate	330	D2	200	542	D2	mg/L		106	80 - 120	2	20

Lab Sample ID: MB 550-240916/1030
Matrix: Water
Analysis Batch: 240916

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			04/29/21 19:47	1
Fluoride	ND	E8	0.40	0.047	mg/L			04/29/21 19:47	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-240916/32
Matrix: Water
Analysis Batch: 240916

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	21.3	N1	mg/L		107	90 - 110		
Fluoride			4.00	4.25	N1	mg/L		106	90 - 110		

Lab Sample ID: 550-162769-5 MS
Matrix: Water
Analysis Batch: 240916

Client Sample ID: FC-CCR-MW70-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1100	N1 D2	4000	5380	D2 N1	mg/L		107	80 - 120
Fluoride	ND	E8 N1 D1 D5	800	829	D1 N1	mg/L		104	80 - 120

Lab Sample ID: 550-162769-5 MSD
Matrix: Water
Analysis Batch: 240916

Client Sample ID: FC-CCR-MW70-0421
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	N1 D2	4000	5460	D2 N1	mg/L		108	80 - 120	1	20
Fluoride	ND	E8 N1 D1 D5	800	836	D1 N1	mg/L		104	80 - 120	1	20

Lab Sample ID: MB 550-241309/2
Matrix: Water
Analysis Batch: 241309

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			05/03/21 13:18	1
Fluoride	ND	E8	0.40	0.047	mg/L			05/03/21 13:18	1
Sulfate	0.990	E4	2.0	0.43	mg/L			05/03/21 13:18	1

Lab Sample ID: LCS 550-241309/5
Matrix: Water
Analysis Batch: 241309

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	4.13		mg/L		103	90 - 110		
Sulfate			20.0	20.7		mg/L		103	90 - 110		

Lab Sample ID: LCSD 550-241309/6
Matrix: Water
Analysis Batch: 241309

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	1	20
Fluoride			4.00	4.16		mg/L		104	90 - 110	1	20
Sulfate			20.0	21.0		mg/L		105	90 - 110	2	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-162769-1 MS
Matrix: Water
Analysis Batch: 241309

Client Sample ID: FC-CCR-MW66-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1700	D2	4000	6150	D2	mg/L		111	80 - 120
Fluoride	25	E4 D2	800	866	D2	mg/L		105	80 - 120
Sulfate	12000	D2	4000	16400	D2	mg/L		103	80 - 120

Lab Sample ID: 550-162769-1 MSD
Matrix: Water
Analysis Batch: 241309

Client Sample ID: FC-CCR-MW66-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1700	D2	4000	6050	D2	mg/L		109	80 - 120	2	20
Fluoride	25	E4 D2	800	855	D2	mg/L		104	80 - 120	1	20
Sulfate	12000	D2	4000	15800	D2	mg/L		88	80 - 120	4	20

Lab Sample ID: MB 550-241310/1030
Matrix: Water
Analysis Batch: 241310

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			05/03/21 21:53	1
Fluoride	ND	E8	0.40	0.047	mg/L			05/03/21 21:53	1
Sulfate	ND	E8	2.0	0.43	mg/L			05/03/21 21:53	1

Lab Sample ID: LCS 550-241310/31
Matrix: Water
Analysis Batch: 241310

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	4.09		mg/L		102	90 - 110
Sulfate	20.0	21.1		mg/L		106	90 - 110

Lab Sample ID: LCSD 550-241310/32
Matrix: Water
Analysis Batch: 241310

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	1	20
Fluoride	4.00	4.17		mg/L		104	90 - 110	2	20
Sulfate	20.0	21.1		mg/L		105	90 - 110	0	20

Lab Sample ID: 550-162769-13 MS
Matrix: Water
Analysis Batch: 241310

Client Sample ID: FC-CCR-MW86-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1300	D2	4000	5600	D2	mg/L		108	80 - 120
Fluoride	ND	E8 D1 D5	800	829	D1	mg/L		104	80 - 120
Sulfate	8900	D2	4000	12700	D2	mg/L		96	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-162769-13 MSD
Matrix: Water
Analysis Batch: 241310

Client Sample ID: FC-CCR-MW86-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1300	D2	4000	5530	D2	mg/L		106	80 - 120	1	20
Fluoride	ND	E8 D1 D5	800	833	D1	mg/L		104	80 - 120	1	20
Sulfate	8900	D2	4000	12500	D2	mg/L		92	80 - 120	1	20

Lab Sample ID: MB 550-241874/1030
Matrix: Water
Analysis Batch: 241874

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			05/08/21 00:58	1
Fluoride	ND	E8	0.40	0.047	mg/L			05/08/21 00:58	1
Sulfate	ND	E8	2.0	0.43	mg/L			05/08/21 00:58	1

Lab Sample ID: LCS 550-241874/31
Matrix: Water
Analysis Batch: 241874

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	4.18		mg/L		105	90 - 110
Sulfate	20.0	22.0		mg/L		110	90 - 110

Lab Sample ID: LCSD 550-241874/32
Matrix: Water
Analysis Batch: 241874

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	4.20		mg/L		105	90 - 110	0	20
Sulfate	20.0	21.9		mg/L		110	90 - 110	0	20

Lab Sample ID: 550-163224-C-2 MS ^2
Matrix: Water
Analysis Batch: 241874

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	3000	E2 D2 M3	40.0	2990	D2 E2 M3	mg/L		-58	80 - 120
Fluoride	0.37	E4 D1	8.00	7.46	D1	mg/L		89	80 - 120
Sulfate	1700	E2 D2 M3	40.0	1730	D2 E2 M3	mg/L		-6	80 - 120

Lab Sample ID: 550-163224-C-2 MSD ^2
Matrix: Water
Analysis Batch: 241874

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	3000	E2 D2 M3	40.0	2980	D2 E2 M3	mg/L		-84	80 - 120	0	20
Fluoride	0.37	E4 D1	8.00	8.30	D1	mg/L		99	80 - 120	11	20
Sulfate	1700	E2 D2 M3	40.0	1720	D2 E2 M3	mg/L		-23	80 - 120	0	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 550-241879/1056
Matrix: Water
Analysis Batch: 241879

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			05/08/21 05:30	1
Fluoride	ND	E8	0.40	0.047	mg/L			05/08/21 05:30	1
Sulfate	ND	E8	2.0	0.43	mg/L			05/08/21 05:30	1

Lab Sample ID: LCS 550-241879/57
Matrix: Water
Analysis Batch: 241879

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	4.25		mg/L		106	90 - 110
Sulfate	20.0	21.8		mg/L		109	90 - 110

Lab Sample ID: LCSD 550-241879/58
Matrix: Water
Analysis Batch: 241879

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	21.3		mg/L		107	90 - 110	1	20
Fluoride	4.00	4.27		mg/L		107	90 - 110	0	20
Sulfate	20.0	21.4		mg/L		107	90 - 110	2	20

Lab Sample ID: 550-162768-A-4 MS ^50
Matrix: Water
Analysis Batch: 241879

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	440	D2	1000	1460	D2	mg/L		102	80 - 120
Fluoride	ND	E8 D1 D5	200	201	D1	mg/L		101	80 - 120
Sulfate	11000	E2 M3 D2	1000	11200	D2 E2 M3	mg/L		-12	80 - 120

Lab Sample ID: 550-162768-A-4 MSD ^50
Matrix: Water
Analysis Batch: 241879

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	440	D2	1000	1530	D2	mg/L		109	80 - 120
Fluoride	ND	E8 D1 D5	200	212	D1	mg/L		106	80 - 120
Sulfate	11000	E2 M3 D2	1000	11400	D2 E2 M3	mg/L		13	80 - 120

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-240942/1-A
Matrix: Water
Analysis Batch: 241270

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240942

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 21:19	05/04/21 01:34	1
Boron	0.0225	E4	0.050	0.0025	mg/L		04/29/21 21:19	05/04/21 01:34	1
Calcium	0.0815	E4	2.0	0.013	mg/L		04/29/21 21:19	05/04/21 01:34	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 550-240942/1-A
Matrix: Water
Analysis Batch: 241270

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240942

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	0.0825	E4	2.0	0.044	mg/L		04/29/21 21:19	05/04/21 01:34	1
Potassium	ND	E8	0.50	0.17	mg/L		04/29/21 21:19	05/04/21 01:34	1
Sodium	0.595	B1	0.50	0.031	mg/L		04/29/21 21:19	05/04/21 01:34	1

Lab Sample ID: MB 550-240942/1-A
Matrix: Water
Analysis Batch: 241405

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240942

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.00319	E4	0.050	0.0025	mg/L		04/29/21 21:19	05/04/21 20:28	1
Magnesium	ND	E8	2.0	0.044	mg/L		04/29/21 21:19	05/04/21 20:28	1

Lab Sample ID: LCS 550-240942/2-A
Matrix: Water
Analysis Batch: 241270

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240942

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	1.00	1.03		mg/L		103	85 - 115
Boron	1.00	1.00		mg/L		100	85 - 115
Calcium	21.0	21.2		mg/L		101	85 - 115
Magnesium	21.0	21.1		mg/L		101	85 - 115
Potassium	20.0	20.5		mg/L		102	85 - 115
Sodium	20.0	20.9		mg/L		104	85 - 115

Lab Sample ID: LCS 550-240942/2-A
Matrix: Water
Analysis Batch: 241405

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240942

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.975		mg/L		98	85 - 115
Magnesium	21.0	20.3		mg/L		96	85 - 115

Lab Sample ID: LCSD 550-240942/3-A
Matrix: Water
Analysis Batch: 241270

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240942

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	1.00	1.06		mg/L		106	85 - 115	3	20
Boron	1.00	1.01		mg/L		101	85 - 115	1	20
Calcium	21.0	21.8		mg/L		104	85 - 115	3	20
Magnesium	21.0	21.6		mg/L		103	85 - 115	2	20
Potassium	20.0	21.0		mg/L		105	85 - 115	3	20
Sodium	20.0	21.3		mg/L		107	85 - 115	2	20

Lab Sample ID: LCSD 550-240942/3-A
Matrix: Water
Analysis Batch: 241405

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240942

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	0.980		mg/L		98	85 - 115	0	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCSD 550-240942/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241405 — **Prep Batch: 240942**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Magnesium			21.0	20.7		mg/L		99	85 - 115	2	20

Lab Sample ID: 550-162769-13 MS — **Client Sample ID: FC-CCR-MW86-0421**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241270 — **Prep Batch: 240942**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	ND	E8	1.00	1.07		mg/L		107	70 - 130
Calcium	500	M3	21.0	501	M3	mg/L		16	70 - 130
Potassium	37		20.0	60.6		mg/L		120	70 - 130
Sodium	750	M3 B7 B3	20.0	746	M3	mg/L		-39	70 - 130

Lab Sample ID: 550-162769-13 MS — **Client Sample ID: FC-CCR-MW86-0421**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241405 — **Prep Batch: 240942**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	110	D2 M3	1.00	105	M3	mg/L		-517	70 - 130
Magnesium	2300	D2 M3	21.0	2120	M3	mg/L		-938	70 - 130

Lab Sample ID: 550-162769-13 MSD — **Client Sample ID: FC-CCR-MW86-0421**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241270 — **Prep Batch: 240942**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	ND	E8	1.00	1.07		mg/L		107	70 - 130	0	20
Calcium	500	M3	21.0	500	M3	mg/L		8	70 - 130	0	20
Potassium	37		20.0	60.3		mg/L		119	70 - 130	1	20
Sodium	750	M3 B7 B3	20.0	745	M3	mg/L		-44	70 - 130	0	20

Lab Sample ID: 550-162769-13 MSD — **Client Sample ID: FC-CCR-MW86-0421**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241405 — **Prep Batch: 240942**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	110	D2 M3	1.00	104	M3	mg/L		-691	70 - 130	2	20
Magnesium	2300	D2 M3	21.0	1970	M3	mg/L		-1631	70 - 130	7	20

Lab Sample ID: MB 280-535040/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 535416 — **Prep Batch: 535040**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	E8	0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 18:07	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 280-535040/2-A
Matrix: Water
Analysis Batch: 535416

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 535040

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium			1.00	0.979		mg/L		98	90 - 112		

Lab Sample ID: 550-162769-13 MS
Matrix: Water
Analysis Batch: 535416

Client Sample ID: FC-CCR-MW86-0421
Prep Type: Total/NA
Prep Batch: 535040

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium	0.30		1.00	1.32		mg/L		102	70 - 130		

Lab Sample ID: 550-162769-13 MSD
Matrix: Water
Analysis Batch: 535416

Client Sample ID: FC-CCR-MW86-0421
Prep Type: Total/NA
Prep Batch: 535040

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.30		1.00	1.33		mg/L		103	70 - 130	0	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-240831/1-A
Matrix: Water
Analysis Batch: 242136

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240831

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0000670	E4	0.0010	0.000043	mg/L		04/29/21 08:46	05/11/21 19:04	1
Arsenic	ND	E8	0.00050	0.00025	mg/L		04/29/21 08:46	05/11/21 19:04	1
Barium	ND	E8	0.00050	0.00026	mg/L		04/29/21 08:46	05/11/21 19:04	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		04/29/21 08:46	05/11/21 19:04	1
Chromium	ND	E8	0.0010	0.00043	mg/L		04/29/21 08:46	05/11/21 19:04	1
Cobalt	ND	E8	0.00050	0.000063	mg/L		04/29/21 08:46	05/11/21 19:04	1
Lead	ND	E8	0.00050	0.00022	mg/L		04/29/21 08:46	05/11/21 19:04	1
Molybdenum	ND	E8	0.00050	0.00020	mg/L		04/29/21 08:46	05/11/21 19:04	1
Selenium	ND	E8	0.00050	0.000074	mg/L		04/29/21 08:46	05/11/21 19:04	1

Lab Sample ID: MB 550-240831/1-A
Matrix: Water
Analysis Batch: 242185

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240831

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	0.0000210	E4	0.00010	0.000013	mg/L		04/29/21 08:46	05/12/21 11:48	1

Lab Sample ID: LCS 550-240831/2-A
Matrix: Water
Analysis Batch: 242136

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240831

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	0.102		mg/L		102	85 - 115		
Barium			0.100	0.112		mg/L		112	85 - 115		
Cadmium			0.100	0.103		mg/L		103	85 - 115		
Chromium			0.100	0.105		mg/L		105	85 - 115		

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 550-240831/2-A
Matrix: Water
Analysis Batch: 242136

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240831

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.100	0.102		mg/L		102	85 - 115
Lead	0.100	0.101		mg/L		101	85 - 115
Molybdenum	0.100	0.104		mg/L		104	85 - 115
Selenium	0.100	0.104		mg/L		104	85 - 115

Lab Sample ID: LCS 550-240831/2-A
Matrix: Water
Analysis Batch: 242185

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240831

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	0.100	0.0978		mg/L		98	85 - 115

Lab Sample ID: LCSD 550-240831/3-A
Matrix: Water
Analysis Batch: 242136

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240831

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.100	0.104		mg/L		104	85 - 115	1	20
Arsenic	0.100	0.101		mg/L		101	85 - 115	1	20
Barium	0.100	0.111		mg/L		111	85 - 115	1	20
Cadmium	0.100	0.104		mg/L		104	85 - 115	1	20
Chromium	0.100	0.106		mg/L		106	85 - 115	1	20
Cobalt	0.100	0.0997		mg/L		100	85 - 115	2	20
Lead	0.100	0.102		mg/L		102	85 - 115	2	20
Molybdenum	0.100	0.105		mg/L		105	85 - 115	1	20
Selenium	0.100	0.104		mg/L		104	85 - 115	0	20

Lab Sample ID: LCSD 550-240831/3-A
Matrix: Water
Analysis Batch: 242185

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240831

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Thallium	0.100	0.101		mg/L		101	85 - 115	3	20

Lab Sample ID: 550-162769-13 MS
Matrix: Water
Analysis Batch: 242136

Client Sample ID: FC-CCR-MW86-0421
Prep Type: Total/NA
Prep Batch: 240831

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.00028	E4 D1	0.100	0.121		mg/L		121	70 - 130
Arsenic	0.0012	E4 D1	0.100	0.124		mg/L		123	70 - 130
Barium	0.015	M1 D1	0.100	0.145		mg/L		130	70 - 130
Cadmium	0.00028	E4 D1	0.100	0.111		mg/L		111	70 - 130
Chromium	ND	E8 B3 D1	0.100	0.116		mg/L		116	70 - 130
Cobalt	0.0052	D1	0.100	0.115		mg/L		109	70 - 130
Lead	ND	E8 D1	0.100	0.106		mg/L		106	70 - 130
Molybdenum	0.0022	D1	0.100	0.125		mg/L		123	70 - 130
Selenium	0.0046	M1 D1	0.100	0.143	M1	mg/L		138	70 - 130

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: 550-162769-13 MS
Matrix: Water
Analysis Batch: 242185

Client Sample ID: FC-CCR-MW86-0421
Prep Type: Total/NA
Prep Batch: 240831

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	0.00080	D1	0.100	0.105		mg/L		104	70 - 130

Lab Sample ID: 550-162769-13 MSD
Matrix: Water
Analysis Batch: 242136

Client Sample ID: FC-CCR-MW86-0421
Prep Type: Total/NA
Prep Batch: 240831

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.00028	E4 D1	0.100	0.125		mg/L		125	70 - 130	3	20
Arsenic	0.0012	E4 D1	0.100	0.127		mg/L		126	70 - 130	2	20
Barium	0.015	M1 D1	0.100	0.156	M1	mg/L		140	70 - 130	7	20
Cadmium	0.00028	E4 D1	0.100	0.119		mg/L		119	70 - 130	7	20
Chromium	ND	E8 B3 D1	0.100	0.120		mg/L		120	70 - 130	4	20
Cobalt	0.0052	D1	0.100	0.116		mg/L		111	70 - 130	1	20
Lead	ND	E8 D1	0.100	0.105		mg/L		105	70 - 130	1	20
Molybdenum	0.0022	D1	0.100	0.132		mg/L		130	70 - 130	5	20
Selenium	0.0046	M1 D1	0.100	0.144	M1	mg/L		139	70 - 130	1	20

Lab Sample ID: 550-162769-13 MSD
Matrix: Water
Analysis Batch: 242185

Client Sample ID: FC-CCR-MW86-0421
Prep Type: Total/NA
Prep Batch: 240831

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Thallium	0.00080	D1	0.100	0.101		mg/L		101	70 - 130	3	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-241077/1-A
Matrix: Water
Analysis Batch: 241099

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 241077

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:31	04/30/21 20:38	1

Lab Sample ID: LCS 550-241077/2-A
Matrix: Water
Analysis Batch: 241099

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 241077

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.00500	0.00481		mg/L		96	85 - 115

Lab Sample ID: LCSD 550-241077/3-A
Matrix: Water
Analysis Batch: 241099

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 241077

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.00500	0.00467		mg/L		93	85 - 115	3	20

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 550-162769-13 MS
Matrix: Water
Analysis Batch: 241099

Client Sample ID: FC-CCR-MW86-0421
Prep Type: Total/NA
Prep Batch: 241077

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	ND	E8	0.00500	0.00423		mg/L		85	70 - 130

Lab Sample ID: 550-162769-13 MSD
Matrix: Water
Analysis Batch: 241099

Client Sample ID: FC-CCR-MW86-0421
Prep Type: Total/NA
Prep Batch: 241077

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND	E8	0.00500	0.00493		mg/L		99	70 - 130	15	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-240828/1
Matrix: Water
Analysis Batch: 240828

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			04/29/21 08:38	1

Lab Sample ID: LCS 550-240828/2
Matrix: Water
Analysis Batch: 240828

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 550-240828/3
Matrix: Water
Analysis Batch: 240828

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	980		mg/L		98	90 - 110	2	10

Lab Sample ID: 550-162767-A-1 DU
Matrix: Water
Analysis Batch: 240828

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	5700	D2	5570	D2	mg/L		3	10

Lab Sample ID: MB 550-241548/1
Matrix: Water
Analysis Batch: 241548

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			05/06/21 08:51	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 550-241548/2
Matrix: Water
Analysis Batch: 241548

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	1010		mg/L		101	90 - 110		

Lab Sample ID: LCSD 550-241548/3
Matrix: Water
Analysis Batch: 241548

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	1	10

Lab Sample ID: 550-162769-13 DU
Matrix: Water
Analysis Batch: 241548

Client Sample ID: FC-CCR-MW86-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	14000	H1 D2		14400	D2 H1	mg/L				1	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-241582/37
Matrix: Water
Analysis Batch: 241582

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: LCSSRM 550-241582/49
Matrix: Water
Analysis Batch: 241582

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 550-241582/61
Matrix: Water
Analysis Batch: 241582

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: 550-162768-A-10 DU
Matrix: Water
Analysis Batch: 241582

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.6	H5		7.6	H5	SU				0.3	5
Temperature	17.6	H5		17.9	H5	Degrees C				2	

Method: SM 4500 H+ B - pH (Continued)

Lab Sample ID: 550-162769-9 DU
Matrix: Water
Analysis Batch: 241582

Client Sample ID: FC-CCR-MW83-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.3	H5		7.3	H5	SU				0.3	5
Temperature	18.9	H5		18.9	H5	Degrees C				0	

Lab Sample ID: 550-162769-13 DU
Matrix: Water
Analysis Batch: 241582

Client Sample ID: FC-CCR-MW86-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.2	H5		7.3	H5	SU				0.3	5
Temperature	17.7	H5		17.7	H5	Degrees C				0	

HPLC/IC

Analysis Batch: 240915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-4	FC-CCR-MW69-0421	Total/NA	Water	300.0	
550-162769-4	FC-CCR-MW69-0421	Total/NA	Water	300.0	
MB 550-240915/2	Method Blank	Total/NA	Water	300.0	
LCS 550-240915/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-240915/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-162673-A-8 MS ^10	Matrix Spike	Total/NA	Water	300.0	
550-162673-A-8 MSD ^10	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 240916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-5	FC-CCR-MW70-0421	Total/NA	Water	300.0	
550-162769-5	FC-CCR-MW70-0421	Total/NA	Water	300.0	
MB 550-240916/1030	Method Blank	Total/NA	Water	300.0	
LCS 550-240916/32	Lab Control Sample	Total/NA	Water	300.0	
550-162769-5 MS	FC-CCR-MW70-0421	Total/NA	Water	300.0	
550-162769-5 MSD	FC-CCR-MW70-0421	Total/NA	Water	300.0	

Analysis Batch: 241309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-1	FC-CCR-MW66-0421	Total/NA	Water	300.0	
550-162769-1	FC-CCR-MW66-0421	Total/NA	Water	300.0	
550-162769-2	FC-CCR-MW67-0421	Total/NA	Water	300.0	
550-162769-2	FC-CCR-MW67-0421	Total/NA	Water	300.0	
550-162769-3	FC-CCR-MW68-0421	Total/NA	Water	300.0	
550-162769-3	FC-CCR-MW68-0421	Total/NA	Water	300.0	
MB 550-241309/2	Method Blank	Total/NA	Water	300.0	
LCS 550-241309/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-241309/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-162769-1 MS	FC-CCR-MW66-0421	Total/NA	Water	300.0	
550-162769-1 MSD	FC-CCR-MW66-0421	Total/NA	Water	300.0	

Analysis Batch: 241310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-6	FC-CCR-MW71-0421	Total/NA	Water	300.0	
550-162769-6	FC-CCR-MW71-0421	Total/NA	Water	300.0	
550-162769-11	FC-CCR-FD01-0421	Total/NA	Water	300.0	
550-162769-11	FC-CCR-FD01-0421	Total/NA	Water	300.0	
550-162769-12	FC-CCR-MW85-0421	Total/NA	Water	300.0	
550-162769-12	FC-CCR-MW85-0421	Total/NA	Water	300.0	
550-162769-13	FC-CCR-MW86-0421	Total/NA	Water	300.0	
550-162769-13	FC-CCR-MW86-0421	Total/NA	Water	300.0	
MB 550-241310/1030	Method Blank	Total/NA	Water	300.0	
LCS 550-241310/31	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-241310/32	Lab Control Sample Dup	Total/NA	Water	300.0	
550-162769-13 MS	FC-CCR-MW86-0421	Total/NA	Water	300.0	
550-162769-13 MSD	FC-CCR-MW86-0421	Total/NA	Water	300.0	

Analysis Batch: 241874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-10	FC-CCR-MW84-0421	Total/NA	Water	300.0	
550-162769-10	FC-CCR-MW84-0421	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 241874 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-241874/1030	Method Blank	Total/NA	Water	300.0	
LCS 550-241874/31	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-241874/32	Lab Control Sample Dup	Total/NA	Water	300.0	
550-163224-C-2 MS ^2	Matrix Spike	Total/NA	Water	300.0	
550-163224-C-2 MSD ^2	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 241879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-5	FC-CCR-MW70-0421	Total/NA	Water	300.0	
550-162769-6	FC-CCR-MW71-0421	Total/NA	Water	300.0	
550-162769-7	FC-CCR-MW72-0421	Total/NA	Water	300.0	
550-162769-7	FC-CCR-MW72-0421	Total/NA	Water	300.0	
550-162769-7	FC-CCR-MW72-0421	Total/NA	Water	300.0	
550-162769-8	FC-CCR-MW73-0421	Total/NA	Water	300.0	
550-162769-8	FC-CCR-MW73-0421	Total/NA	Water	300.0	
550-162769-9	FC-CCR-MW83-0421	Total/NA	Water	300.0	
550-162769-9	FC-CCR-MW83-0421	Total/NA	Water	300.0	
550-162769-14	FC-CCR-FD02-0421	Total/NA	Water	300.0	
550-162769-14	FC-CCR-FD02-0421	Total/NA	Water	300.0	
MB 550-241879/1056	Method Blank	Total/NA	Water	300.0	
LCS 550-241879/57	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-241879/58	Lab Control Sample Dup	Total/NA	Water	300.0	
550-162768-A-4 MS ^50	Matrix Spike	Total/NA	Water	300.0	
550-162768-A-4 MSD ^50	Matrix Spike	Total/NA	Water	300.0	

Metals

Prep Batch: 240831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-1	FC-CCR-MW66-0421	Total/NA	Water	200.8	
550-162769-2	FC-CCR-MW67-0421	Total/NA	Water	200.8	
550-162769-3	FC-CCR-MW68-0421	Total/NA	Water	200.8	
550-162769-4	FC-CCR-MW69-0421	Total/NA	Water	200.8	
550-162769-5	FC-CCR-MW70-0421	Total/NA	Water	200.8	
550-162769-6	FC-CCR-MW71-0421	Total/NA	Water	200.8	
550-162769-7	FC-CCR-MW72-0421	Total/NA	Water	200.8	
550-162769-8	FC-CCR-MW73-0421	Total/NA	Water	200.8	
550-162769-9	FC-CCR-MW83-0421	Total/NA	Water	200.8	
550-162769-10	FC-CCR-MW84-0421	Total/NA	Water	200.8	
550-162769-11	FC-CCR-FD01-0421	Total/NA	Water	200.8	
550-162769-12	FC-CCR-MW85-0421	Total/NA	Water	200.8	
550-162769-13	FC-CCR-MW86-0421	Total/NA	Water	200.8	
550-162769-14	FC-CCR-FD02-0421	Total/NA	Water	200.8	
MB 550-240831/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-240831/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-240831/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-162769-13 MS	FC-CCR-MW86-0421	Total/NA	Water	200.8	
550-162769-13 MSD	FC-CCR-MW86-0421	Total/NA	Water	200.8	

Metals

Prep Batch: 240942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-1	FC-CCR-MW66-0421	Total/NA	Water	200.7	
550-162769-2	FC-CCR-MW67-0421	Total/NA	Water	200.7	
550-162769-3	FC-CCR-MW68-0421	Total/NA	Water	200.7	
550-162769-4	FC-CCR-MW69-0421	Total/NA	Water	200.7	
550-162769-5	FC-CCR-MW70-0421	Total/NA	Water	200.7	
550-162769-6	FC-CCR-MW71-0421	Total/NA	Water	200.7	
550-162769-7	FC-CCR-MW72-0421	Total/NA	Water	200.7	
550-162769-8	FC-CCR-MW73-0421	Total/NA	Water	200.7	
550-162769-9	FC-CCR-MW83-0421	Total/NA	Water	200.7	
550-162769-10	FC-CCR-MW84-0421	Total/NA	Water	200.7	
550-162769-11	FC-CCR-FD01-0421	Total/NA	Water	200.7	
550-162769-12	FC-CCR-MW85-0421	Total/NA	Water	200.7	
550-162769-13	FC-CCR-MW86-0421	Total/NA	Water	200.7	
550-162769-14	FC-CCR-FD02-0421	Total/NA	Water	200.7	
MB 550-240942/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-240942/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-240942/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-162769-13 MS	FC-CCR-MW86-0421	Total/NA	Water	200.7	
550-162769-13 MSD	FC-CCR-MW86-0421	Total/NA	Water	200.7	

Prep Batch: 241077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-1	FC-CCR-MW66-0421	Total/NA	Water	245.1	
550-162769-2	FC-CCR-MW67-0421	Total/NA	Water	245.1	
550-162769-3	FC-CCR-MW68-0421	Total/NA	Water	245.1	
550-162769-4	FC-CCR-MW69-0421	Total/NA	Water	245.1	
550-162769-5	FC-CCR-MW70-0421	Total/NA	Water	245.1	
550-162769-6	FC-CCR-MW71-0421	Total/NA	Water	245.1	
550-162769-7	FC-CCR-MW72-0421	Total/NA	Water	245.1	
550-162769-8	FC-CCR-MW73-0421	Total/NA	Water	245.1	
550-162769-9	FC-CCR-MW83-0421	Total/NA	Water	245.1	
550-162769-10	FC-CCR-MW84-0421	Total/NA	Water	245.1	
550-162769-11	FC-CCR-FD01-0421	Total/NA	Water	245.1	
550-162769-12	FC-CCR-MW85-0421	Total/NA	Water	245.1	
550-162769-13	FC-CCR-MW86-0421	Total/NA	Water	245.1	
550-162769-14	FC-CCR-FD02-0421	Total/NA	Water	245.1	
MB 550-241077/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-241077/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-241077/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-162769-13 MS	FC-CCR-MW86-0421	Total/NA	Water	245.1	
550-162769-13 MSD	FC-CCR-MW86-0421	Total/NA	Water	245.1	

Analysis Batch: 241099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-1	FC-CCR-MW66-0421	Total/NA	Water	245.1	241077
550-162769-2	FC-CCR-MW67-0421	Total/NA	Water	245.1	241077
550-162769-3	FC-CCR-MW68-0421	Total/NA	Water	245.1	241077
550-162769-4	FC-CCR-MW69-0421	Total/NA	Water	245.1	241077
550-162769-5	FC-CCR-MW70-0421	Total/NA	Water	245.1	241077
550-162769-6	FC-CCR-MW71-0421	Total/NA	Water	245.1	241077
550-162769-7	FC-CCR-MW72-0421	Total/NA	Water	245.1	241077

Metals (Continued)

Analysis Batch: 241099 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-8	FC-CCR-MW73-0421	Total/NA	Water	245.1	241077
550-162769-9	FC-CCR-MW83-0421	Total/NA	Water	245.1	241077
550-162769-10	FC-CCR-MW84-0421	Total/NA	Water	245.1	241077
550-162769-11	FC-CCR-FD01-0421	Total/NA	Water	245.1	241077
550-162769-12	FC-CCR-MW85-0421	Total/NA	Water	245.1	241077
550-162769-13	FC-CCR-MW86-0421	Total/NA	Water	245.1	241077
550-162769-14	FC-CCR-FD02-0421	Total/NA	Water	245.1	241077
MB 550-241077/1-A	Method Blank	Total/NA	Water	245.1	241077
LCS 550-241077/2-A	Lab Control Sample	Total/NA	Water	245.1	241077
LCSD 550-241077/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	241077
550-162769-13 MS	FC-CCR-MW86-0421	Total/NA	Water	245.1	241077
550-162769-13 MSD	FC-CCR-MW86-0421	Total/NA	Water	245.1	241077

Analysis Batch: 241270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-1	FC-CCR-MW66-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-2	FC-CCR-MW67-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-3	FC-CCR-MW68-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-4	FC-CCR-MW69-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-5	FC-CCR-MW70-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-6	FC-CCR-MW71-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-7	FC-CCR-MW72-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-8	FC-CCR-MW73-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-9	FC-CCR-MW83-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-10	FC-CCR-MW84-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-11	FC-CCR-FD01-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-12	FC-CCR-MW85-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-13	FC-CCR-MW86-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-14	FC-CCR-FD02-0421	Total/NA	Water	200.7 Rev 4.4	240942
MB 550-240942/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	240942
LCS 550-240942/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	240942
LCSD 550-240942/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-13 MS	FC-CCR-MW86-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-13 MSD	FC-CCR-MW86-0421	Total/NA	Water	200.7 Rev 4.4	240942

Analysis Batch: 241405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-1	FC-CCR-MW66-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-2	FC-CCR-MW67-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-3	FC-CCR-MW68-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-11	FC-CCR-FD01-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-13	FC-CCR-MW86-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-14	FC-CCR-FD02-0421	Total/NA	Water	200.7 Rev 4.4	240942
MB 550-240942/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	240942
LCS 550-240942/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	240942
LCSD 550-240942/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-13 MS	FC-CCR-MW86-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-13 MSD	FC-CCR-MW86-0421	Total/NA	Water	200.7 Rev 4.4	240942

Metals

Analysis Batch: 242136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-1	FC-CCR-MW66-0421	Total/NA	Water	200.8 LL	240831
550-162769-2	FC-CCR-MW67-0421	Total/NA	Water	200.8 LL	240831
550-162769-3	FC-CCR-MW68-0421	Total/NA	Water	200.8 LL	240831
550-162769-4	FC-CCR-MW69-0421	Total/NA	Water	200.8 LL	240831
550-162769-5	FC-CCR-MW70-0421	Total/NA	Water	200.8 LL	240831
550-162769-6	FC-CCR-MW71-0421	Total/NA	Water	200.8 LL	240831
550-162769-7	FC-CCR-MW72-0421	Total/NA	Water	200.8 LL	240831
550-162769-8	FC-CCR-MW73-0421	Total/NA	Water	200.8 LL	240831
550-162769-9	FC-CCR-MW83-0421	Total/NA	Water	200.8 LL	240831
550-162769-10	FC-CCR-MW84-0421	Total/NA	Water	200.8 LL	240831
550-162769-11	FC-CCR-FD01-0421	Total/NA	Water	200.8 LL	240831
550-162769-12	FC-CCR-MW85-0421	Total/NA	Water	200.8 LL	240831
550-162769-13	FC-CCR-MW86-0421	Total/NA	Water	200.8 LL	240831
550-162769-14	FC-CCR-FD02-0421	Total/NA	Water	200.8 LL	240831
MB 550-240831/1-A	Method Blank	Total/NA	Water	200.8 LL	240831
LCS 550-240831/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	240831
LCSD 550-240831/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	240831
550-162769-13 MS	FC-CCR-MW86-0421	Total/NA	Water	200.8 LL	240831
550-162769-13 MSD	FC-CCR-MW86-0421	Total/NA	Water	200.8 LL	240831

Analysis Batch: 242185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-1	FC-CCR-MW66-0421	Total/NA	Water	200.8 LL	240831
550-162769-2	FC-CCR-MW67-0421	Total/NA	Water	200.8 LL	240831
550-162769-3	FC-CCR-MW68-0421	Total/NA	Water	200.8 LL	240831
550-162769-4	FC-CCR-MW69-0421	Total/NA	Water	200.8 LL	240831
550-162769-5	FC-CCR-MW70-0421	Total/NA	Water	200.8 LL	240831
550-162769-6	FC-CCR-MW71-0421	Total/NA	Water	200.8 LL	240831
550-162769-7	FC-CCR-MW72-0421	Total/NA	Water	200.8 LL	240831
550-162769-8	FC-CCR-MW73-0421	Total/NA	Water	200.8 LL	240831
550-162769-9	FC-CCR-MW83-0421	Total/NA	Water	200.8 LL	240831
550-162769-10	FC-CCR-MW84-0421	Total/NA	Water	200.8 LL	240831
550-162769-11	FC-CCR-FD01-0421	Total/NA	Water	200.8 LL	240831
550-162769-12	FC-CCR-MW85-0421	Total/NA	Water	200.8 LL	240831
550-162769-13	FC-CCR-MW86-0421	Total/NA	Water	200.8 LL	240831
550-162769-14	FC-CCR-FD02-0421	Total/NA	Water	200.8 LL	240831
MB 550-240831/1-A	Method Blank	Total/NA	Water	200.8 LL	240831
LCS 550-240831/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	240831
LCSD 550-240831/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	240831
550-162769-13 MS	FC-CCR-MW86-0421	Total/NA	Water	200.8 LL	240831
550-162769-13 MSD	FC-CCR-MW86-0421	Total/NA	Water	200.8 LL	240831

Analysis Batch: 242211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-12	FC-CCR-MW85-0421	Total/NA	Water	200.8 LL	240831

Prep Batch: 535040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-1	FC-CCR-MW66-0421	Total/NA	Water	200.7	
550-162769-2	FC-CCR-MW67-0421	Total/NA	Water	200.7	
550-162769-3	FC-CCR-MW68-0421	Total/NA	Water	200.7	

Metals (Continued)

Prep Batch: 535040 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-4	FC-CCR-MW69-0421	Total/NA	Water	200.7	
550-162769-5	FC-CCR-MW70-0421	Total/NA	Water	200.7	
550-162769-6	FC-CCR-MW71-0421	Total/NA	Water	200.7	
550-162769-7	FC-CCR-MW72-0421	Total/NA	Water	200.7	
550-162769-8	FC-CCR-MW73-0421	Total/NA	Water	200.7	
550-162769-9	FC-CCR-MW83-0421	Total/NA	Water	200.7	
550-162769-10	FC-CCR-MW84-0421	Total/NA	Water	200.7	
550-162769-11	FC-CCR-FD01-0421	Total/NA	Water	200.7	
550-162769-12	FC-CCR-MW85-0421	Total/NA	Water	200.7	
550-162769-13	FC-CCR-MW86-0421	Total/NA	Water	200.7	
550-162769-14	FC-CCR-FD02-0421	Total/NA	Water	200.7	
MB 280-535040/1-A	Method Blank	Total/NA	Water	200.7	
LCS 280-535040/2-A	Lab Control Sample	Total/NA	Water	200.7	
550-162769-13 MS	FC-CCR-MW86-0421	Total/NA	Water	200.7	
550-162769-13 MSD	FC-CCR-MW86-0421	Total/NA	Water	200.7	

Analysis Batch: 535416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-1	FC-CCR-MW66-0421	Total/NA	Water	200.7 Rev 4.4	535040
550-162769-2	FC-CCR-MW67-0421	Total/NA	Water	200.7 Rev 4.4	535040
550-162769-3	FC-CCR-MW68-0421	Total/NA	Water	200.7 Rev 4.4	535040
550-162769-4	FC-CCR-MW69-0421	Total/NA	Water	200.7 Rev 4.4	535040
550-162769-5	FC-CCR-MW70-0421	Total/NA	Water	200.7 Rev 4.4	535040
550-162769-6	FC-CCR-MW71-0421	Total/NA	Water	200.7 Rev 4.4	535040
550-162769-7	FC-CCR-MW72-0421	Total/NA	Water	200.7 Rev 4.4	535040
550-162769-8	FC-CCR-MW73-0421	Total/NA	Water	200.7 Rev 4.4	535040
550-162769-9	FC-CCR-MW83-0421	Total/NA	Water	200.7 Rev 4.4	535040
550-162769-10	FC-CCR-MW84-0421	Total/NA	Water	200.7 Rev 4.4	535040
550-162769-11	FC-CCR-FD01-0421	Total/NA	Water	200.7 Rev 4.4	535040
550-162769-12	FC-CCR-MW85-0421	Total/NA	Water	200.7 Rev 4.4	535040
550-162769-13	FC-CCR-MW86-0421	Total/NA	Water	200.7 Rev 4.4	535040
550-162769-14	FC-CCR-FD02-0421	Total/NA	Water	200.7 Rev 4.4	535040
MB 280-535040/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	535040
LCS 280-535040/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	535040
550-162769-13 MS	FC-CCR-MW86-0421	Total/NA	Water	200.7 Rev 4.4	535040
550-162769-13 MSD	FC-CCR-MW86-0421	Total/NA	Water	200.7 Rev 4.4	535040

General Chemistry

Analysis Batch: 240828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-3	FC-CCR-MW68-0421	Total/NA	Water	SM 2540C	
550-162769-6	FC-CCR-MW71-0421	Total/NA	Water	SM 2540C	
550-162769-7	FC-CCR-MW72-0421	Total/NA	Water	SM 2540C	
550-162769-8	FC-CCR-MW73-0421	Total/NA	Water	SM 2540C	
MB 550-240828/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-240828/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-240828/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-162767-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 241548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-1	FC-CCR-MW66-0421	Total/NA	Water	SM 2540C	
550-162769-2	FC-CCR-MW67-0421	Total/NA	Water	SM 2540C	
550-162769-4	FC-CCR-MW69-0421	Total/NA	Water	SM 2540C	
550-162769-5	FC-CCR-MW70-0421	Total/NA	Water	SM 2540C	
550-162769-9	FC-CCR-MW83-0421	Total/NA	Water	SM 2540C	
550-162769-10	FC-CCR-MW84-0421	Total/NA	Water	SM 2540C	
550-162769-11	FC-CCR-FD01-0421	Total/NA	Water	SM 2540C	
550-162769-12	FC-CCR-MW85-0421	Total/NA	Water	SM 2540C	
550-162769-13	FC-CCR-MW86-0421	Total/NA	Water	SM 2540C	
550-162769-14	FC-CCR-FD02-0421	Total/NA	Water	SM 2540C	
MB 550-241548/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-241548/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-241548/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-162769-13 DU	FC-CCR-MW86-0421	Total/NA	Water	SM 2540C	

Analysis Batch: 241582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-1	FC-CCR-MW66-0421	Total/NA	Water	SM 4500 H+ B	
550-162769-2	FC-CCR-MW67-0421	Total/NA	Water	SM 4500 H+ B	
550-162769-3	FC-CCR-MW68-0421	Total/NA	Water	SM 4500 H+ B	
550-162769-4	FC-CCR-MW69-0421	Total/NA	Water	SM 4500 H+ B	
550-162769-5	FC-CCR-MW70-0421	Total/NA	Water	SM 4500 H+ B	
550-162769-6	FC-CCR-MW71-0421	Total/NA	Water	SM 4500 H+ B	
550-162769-7	FC-CCR-MW72-0421	Total/NA	Water	SM 4500 H+ B	
550-162769-8	FC-CCR-MW73-0421	Total/NA	Water	SM 4500 H+ B	
550-162769-9	FC-CCR-MW83-0421	Total/NA	Water	SM 4500 H+ B	
550-162769-10	FC-CCR-MW84-0421	Total/NA	Water	SM 4500 H+ B	
550-162769-11	FC-CCR-FD01-0421	Total/NA	Water	SM 4500 H+ B	
550-162769-12	FC-CCR-MW85-0421	Total/NA	Water	SM 4500 H+ B	
550-162769-13	FC-CCR-MW86-0421	Total/NA	Water	SM 4500 H+ B	
550-162769-14	FC-CCR-FD02-0421	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-241582/37	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-241582/49	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-241582/61	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-162768-A-10 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	
550-162769-9 DU	FC-CCR-MW83-0421	Total/NA	Water	SM 4500 H+ B	
550-162769-13 DU	FC-CCR-MW86-0421	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162769-1
SDG: APS Four Corners Power Plant

Client Sample ID: FC-CCR-MW66-0421

Date Collected: 04/21/21 16:02
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162769-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241309	05/03/21 19:08	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241309	05/03/21 19:26	JRP	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241270	05/04/21 01:57	MGM	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	241405	05/04/21 20:51	MGM	TAL PHX
Total/NA	Prep	200.7			535040	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 18:14	LMT	TAL DEN
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242136	05/11/21 19:24	ARE	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242185	05/12/21 12:09	ARE	TAL PHX
Total/NA	Prep	245.1			241077	04/30/21 17:31	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241099	04/30/21 20:48	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	241548		YET	TAL PHX
					(Start)	05/06/21 08:51		
					(End)	05/07/21 09:20		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW67-0421

Date Collected: 04/21/21 09:41
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162769-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241309	05/03/21 20:21	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241309	05/03/21 20:40	JRP	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241270	05/04/21 02:01	MGM	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	241405	05/04/21 20:54	MGM	TAL PHX
Total/NA	Prep	200.7			535040	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 18:17	LMT	TAL DEN
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242136	05/11/21 19:27	ARE	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242185	05/12/21 12:11	ARE	TAL PHX
Total/NA	Prep	245.1			241077	04/30/21 17:31	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241099	04/30/21 20:49	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	241548		YET	TAL PHX
					(Start)	05/06/21 08:51		
					(End)	05/07/21 09:20		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW68-0421

Lab Sample ID: 550-162769-3

Date Collected: 04/22/21 07:30

Matrix: Water

Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241309	05/03/21 20:58	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241309	05/03/21 21:17	JRP	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241270	05/04/21 02:05	MGM	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	241405	05/04/21 20:58	MGM	TAL PHX
Total/NA	Prep	200.7			535040	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 18:21	LMT	TAL DEN
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242136	05/11/21 19:29	ARE	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242185	05/12/21 12:13	ARE	TAL PHX
Total/NA	Prep	245.1			241077	04/30/21 17:31	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241099	04/30/21 20:51	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
					(Start)	04/29/21 08:38		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW69-0421

Lab Sample ID: 550-162769-4

Date Collected: 04/21/21 10:38

Matrix: Water

Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	240915	04/29/21 18:52	JRP	TAL PHX
Total/NA	Analysis	300.0		200	240915	04/29/21 19:11	JRP	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241270	05/04/21 02:08	MGM	TAL PHX
Total/NA	Prep	200.7			535040	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 18:24	LMT	TAL DEN
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242136	05/11/21 19:31	ARE	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242185	05/12/21 12:15	ARE	TAL PHX
Total/NA	Prep	245.1			241077	04/30/21 17:31	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241099	04/30/21 20:52	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	241548		YET	TAL PHX
					(Start)	05/06/21 08:51		
					(End)	05/07/21 09:20		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW70-0421

Lab Sample ID: 550-162769-5

Date Collected: 04/21/21 13:54
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	240916	04/29/21 20:43	JRP	TAL PHX
Total/NA	Analysis	300.0		200	240916	04/29/21 21:01	JRP	TAL PHX
Total/NA	Analysis	300.0		100	241879	05/08/21 10:24	JRP	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241270	05/04/21 02:12	MGM	TAL PHX
Total/NA	Prep	200.7			535040	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 18:27	LMT	TAL DEN
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242136	05/11/21 19:33	ARE	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242185	05/12/21 12:23	ARE	TAL PHX
Total/NA	Prep	245.1			241077	04/30/21 17:31	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241099	04/30/21 20:54	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	241548		YET	TAL PHX
					(Start)	05/06/21 08:51		
					(End)	05/07/21 09:20		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW71-0421

Lab Sample ID: 550-162769-6

Date Collected: 04/22/21 08:32
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	241310	05/03/21 22:49	JRP	TAL PHX
Total/NA	Analysis	300.0		100	241310	05/03/21 23:07	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241879	05/08/21 10:43	JRP	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241270	05/04/21 02:16	MGM	TAL PHX
Total/NA	Prep	200.7			535040	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 18:31	LMT	TAL DEN
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242136	05/11/21 19:35	ARE	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242185	05/12/21 12:26	ARE	TAL PHX
Total/NA	Prep	245.1			241077	04/30/21 17:31	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241099	04/30/21 20:55	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
					(Start)	04/29/21 08:38		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW72-0421

Lab Sample ID: 550-162769-7

Date Collected: 04/22/21 09:22
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241879	05/08/21 11:01	JRP	TAL PHX
Total/NA	Analysis	300.0		100	241879	05/08/21 11:20	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241879	05/08/21 11:38	JRP	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241270	05/04/21 02:20	MGM	TAL PHX
Total/NA	Prep	200.7			535040	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 18:34	LMT	TAL DEN
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242136	05/11/21 19:37	ARE	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242185	05/12/21 12:28	ARE	TAL PHX
Total/NA	Prep	245.1			241077	04/30/21 17:31	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241099	04/30/21 20:57	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
					(Start)	04/29/21 08:38		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW73-0421

Lab Sample ID: 550-162769-8

Date Collected: 04/22/21 11:19
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	241879	05/08/21 11:56	JRP	TAL PHX
Total/NA	Analysis	300.0		100	241879	05/08/21 12:15	JRP	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241270	05/04/21 02:23	MGM	TAL PHX
Total/NA	Prep	200.7			535040	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 18:51	LMT	TAL DEN
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242136	05/11/21 19:39	ARE	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242185	05/12/21 12:30	ARE	TAL PHX
Total/NA	Prep	245.1			241077	04/30/21 17:31	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241099	04/30/21 20:58	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
					(Start)	04/29/21 08:38		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162769-1
SDG: APS Four Corners Power Plant

Client Sample ID: FC-CCR-MW83-0421

Date Collected: 04/21/21 12:11
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162769-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	241879	05/08/21 12:33	JRP	TAL PHX
Total/NA	Analysis	300.0		100	241879	05/08/21 12:52	JRP	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241270	05/04/21 02:27	MGM	TAL PHX
Total/NA	Prep	200.7			535040	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 18:54	LMT	TAL DEN
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242136	05/11/21 19:41	ARE	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242185	05/12/21 12:32	ARE	TAL PHX
Total/NA	Prep	245.1			241077	04/30/21 17:31	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241099	04/30/21 21:00	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	241548		YET	TAL PHX
					(Start)	05/06/21 08:51		
					(End)	05/07/21 09:20		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW84-0421

Date Collected: 04/21/21 11:27
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162769-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	241874	05/08/21 08:16	JRP	TAL PHX
Total/NA	Analysis	300.0		100	241874	05/08/21 08:43	JRP	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241270	05/04/21 02:39	MGM	TAL PHX
Total/NA	Prep	200.7			535040	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 18:58	LMT	TAL DEN
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242136	05/11/21 19:47	ARE	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242185	05/12/21 12:34	ARE	TAL PHX
Total/NA	Prep	245.1			241077	04/30/21 17:31	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241099	04/30/21 21:04	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	241548		YET	TAL PHX
					(Start)	05/06/21 08:51		
					(End)	05/07/21 09:20		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-FD01-0421

Lab Sample ID: 550-162769-11

Date Collected: 04/21/21 09:41

Matrix: Water

Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241310	05/03/21 23:25	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241310	05/03/21 23:44	JRP	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241270	05/04/21 02:42	MGM	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	241405	05/04/21 21:02	MGM	TAL PHX
Total/NA	Prep	200.7			535040	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 19:01	LMT	TAL DEN
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242136	05/11/21 19:50	ARE	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242185	05/12/21 12:36	ARE	TAL PHX
Total/NA	Prep	245.1			241077	04/30/21 17:31	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241099	04/30/21 21:06	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	241548		YET	TAL PHX
					(Start)	05/06/21 08:51		
					(End)	05/07/21 09:20		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW85-0421

Lab Sample ID: 550-162769-12

Date Collected: 04/21/21 08:59

Matrix: Water

Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241310	05/04/21 00:02	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241310	05/04/21 00:21	JRP	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241270	05/04/21 02:46	MGM	TAL PHX
Total/NA	Prep	200.7			535040	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 19:04	LMT	TAL DEN
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242136	05/11/21 19:52	ARE	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242185	05/12/21 12:38	ARE	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242211	05/12/21 15:04	ARE	TAL PHX
Total/NA	Prep	245.1			241077	04/30/21 17:31	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241099	04/30/21 21:07	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	241548		YET	TAL PHX
					(Start)	05/06/21 08:51		
					(End)	05/07/21 09:20		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162769-1
SDG: APS Four Corners Power Plant

Client Sample ID: FC-CCR-MW86-0421

Lab Sample ID: 550-162769-13

Date Collected: 04/21/21 15:20
Date Received: 04/28/21 16:44

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241310	05/04/21 00:39	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241310	05/04/21 00:57	JRP	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241270	05/04/21 01:53	MGM	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	241405	05/04/21 20:47	MGM	TAL PHX
Total/NA	Prep	200.7			535040	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 19:08	LMT	TAL DEN
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242136	05/11/21 19:14	ARE	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242185	05/12/21 12:05	ARE	TAL PHX
Total/NA	Prep	245.1			241077	04/30/21 17:31	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241099	04/30/21 20:46	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	241548		YET	TAL PHX
					(Start)	05/06/21 08:51		
					(End)	05/07/21 09:20		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-FD02-0421

Lab Sample ID: 550-162769-14

Date Collected: 04/21/21 15:20
Date Received: 04/28/21 16:44

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241879	05/08/21 06:25	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241879	05/08/21 06:44	JRP	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241270	05/04/21 02:50	MGM	TAL PHX
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	241405	05/04/21 21:06	MGM	TAL PHX
Total/NA	Prep	200.7			535040	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 19:37	LMT	TAL DEN
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242136	05/11/21 19:54	ARE	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242185	05/12/21 12:40	ARE	TAL PHX
Total/NA	Prep	245.1			241077	04/30/21 17:31	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241099	04/30/21 21:09	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	241548		YET	TAL PHX
					(Start)	05/06/21 08:51		
					(End)	05/07/21 09:20		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162769-1
SDG: APS Four Corners Power Plant

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162769-1
SDG: APS Four Corners Power Plant

Laboratory: Eurofins TestAmerica, 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	06-08-21

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 TestAmerica, Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-21
A2LA	ISO/IEC 17025	2907.01	10-31-21
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-28-22
Arizona	State	AZ0713	12-21-21
Arkansas DEQ	State	19-047-0	06-01-21
California	State	2513	01-08-22
Connecticut	State	PH-0686	11-30-22
Florida	NELAP	E87667-57	07-01-21
Georgia	State	4025-011	01-08-22
Illinois	NELAP	2000172019-1	04-30-21 *
Iowa	State	IA#370	12-02-21
Kansas	NELAP	E-10166	04-30-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-21
Minnesota	NELAP	1788752	12-31-21
Nevada	State	CO000262020-1	07-31-21
New Hampshire	NELAP	205319	04-29-22
New Jersey	NELAP	190002	06-30-21
New York	NELAP	59923	04-01-22
North Carolina (WW/SW)	State	358	12-31-21
North Dakota	State	R-034	01-08-22
Oklahoma	State	2018-006	09-01-21
Oregon	NELAP	4025-011	01-08-22
Pennsylvania	NELAP	013	07-31-21
South Carolina	State	72002001	01-08-22
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-20-18	09-30-21
US Fish & Wildlife	US Federal Programs	058448	08-01-21
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-21
Virginia	NELAP	10490	06-14-21
Washington	State	C583-19	08-03-21
West Virginia DEP	State	354	11-30-21
Wisconsin	State	999615430	08-31-21
Wyoming (UST)	A2LA	2907.01	10-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162769-1
SDG: APS Four Corners Power Plant

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
200.8 LL	Metals (ICP/MS)	EPA	TAL PHX
245.1	Mercury (CVAA)	EPA	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 4500 H+ B	pH	SM	TAL PHX
200.7	Preparation, Total Metals	EPA	TAL DEN
200.7	Preparation, Total Metals	EPA	TAL PHX
200.8	Preparation, Total Metals	EPA	TAL PHX
245.1	Preparation, Mercury	EPA	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, 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

162769

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	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:
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 (URS)	☐ 2 days			Job / SDG No.:
PO #: 100611133	☐ 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)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	Sample Specific Notes:
1	FC-CCR-MW66-0421	4/21/2021	16:02	G	W	2	N	N	X	X	X	X	X	X	Low Flow
2	FC-CCR-MW67-0421	4/21/2021	9:41	G	W	2	N	N	X	X	X	X	X	X	"
3	FC-CCR-MW68-0421	4/22/2021	7:30	G	W	2	N	N	X	X	X	X	X	X	"
4	FC-CCR-MW69-0421	4/21/2021	10:38	G	W	2	N	N	X	X	X	X	X	X	"
5	FC-CCR-MW70-0421	4/21/2021	13:54	G	W	2	N	N	X	X	X	X	X	X	"
6	FC-CCR-MW71-0421	4/22/2021	8:32	G	W	2	N	N	X	X	X	X	X	X	"
7	FC-CCR-MW72-0421	4/22/2021	9:22	G	W	2	N	N	X	X	X	X	X	X	"
8	FC-CCR-MW73-0421	4/22/2021	11:19	G	W	2	N	N	X	X	X	X	X	X	"
9	FC-CCR-MW83-0421	4/21/2021	12:11	G	W	2	N	N	X	X	X	X	X	X	"
10	FC-CCR-MW84-0421	4/21/2021	11:27	G	W	2	N	N	X	X	X	X	X	X	"
11	FC-CCR-FD01-0421	4/21/2021	9:41	G	W	2	N	N	X	X	X	X	X	X	"
									1	4	4	4	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 Cl _____ Months

550-162769 Chain of Custody

Special Instructions/QC Requirements & Comments:

Method 200.8 with collision cell

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]	Wood PLC	04-28-21/16:44			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Nicole Gerrel	Company: Eta Rux	Date/Time: 4/28/21 1644

CDS 0.3

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

1627G9

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	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:**
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 (URS)	☐ 2 days			Job / SDG No.:
PO #: 100611133	☐ 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)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	Sample Specific Notes:
12	FC-CCR-MW85-0421	4/21/2021	8:59	G	W	2	N	N	X	X	X	X	X	X	Low Flow
13	FC-CCR-MW86-0421	4/21/2021	15:20	G	W	2	N	Y	X	X	X	X	X	X	"
14	FC-CCR-FD02-0421	4/21/2021	15:20	G	W	2	N	N	X	X	X	X	X	X	"
									1	4	4	4	1	1	

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 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

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____		
Relinquished by:	Company: Weed PLC	Date/Time: 04-28-21 1614	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Nick Sherwood	Company: ETA PHX	Date/Time: 4/28/21 1644

COC 3.1

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd Suite 189
Phoenix, AZ 85040
Phone: 602-437-3340 Fax: 602-454-9303

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Baker, Ken	Carrier Tracking No(s):	COC No: 550-30782.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Baker@Eurofinset.com	State of Origin: Arizona	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Arizona		Job #: 550-162769-1
Address: 4955 Yarrow Street,	Due Date Requested: 5/11/2021			
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 #: 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, 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_TOT Lithium-ICP	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
FC-CCR-MW66-0421 (550-162769-1)	4/21/21	16:02 Arizona		Water			X	1	AZ Sample
FC-CCR-MW67-0421 (550-162769-2)	4/21/21	09:41 Arizona		Water			X	1	AZ Sample
FC-CCR-MW68-0421 (550-162769-3)	4/22/21	07:30 Arizona		Water			X	1	AZ Sample
FC-CCR-MW69-0421 (550-162769-4)	4/21/21	10:38 Arizona		Water			X	1	AZ Sample
FC-CCR-MW70-0421 (550-162769-5)	4/21/21	13:54 Arizona		Water			X	1	AZ Sample
FC-CCR-MW71-0421 (550-162769-6)	4/22/21	08:32 Arizona		Water			X	1	AZ Sample
FC-CCR-MW72-0421 (550-162769-7)	4/22/21	09:22 Arizona		Water			X	1	AZ Sample
FC-CCR-MW73-0421 (550-162769-8)	4/22/21	11:19 Arizona		Water			X	1	AZ Sample
FC-CCR-MW83-0421 (550-162769-9)	4/21/21	12:11 Arizona		Water			X	1	AZ Sample

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

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: [illegible] 05-03-21 13:45 TA PHX	Date/Time:	Company:	Received by: Fedex
Relinquished by:	Date/Time:	Company:	Received by: Date/Time: 5/4/21 950 Company: ETA 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: 0.1 Ice IR CF 0.4

Ver: 11/01/2020

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd Suite 189
Phoenix, AZ 85040
Phone: 602-437-3340 Fax: 602-454-9303

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Baker, Ken	Carrier Tracking No(s):	COC No: 550-30782.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Baker@Eurofinset.com	State of Origin: Arizona	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Arizona		Job #: 550-162769-1
Address: 4955 Yarrow Street,	Due Date Requested: 5/11/2021			
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 #: 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, 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_TOT Lithium-ICP	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
FC-CCR-MW84-0421 (550-162769-10)	4/21/21	11:27 Arizona		Water			X	1	AZ Sample
FC-CCR-FD01-0421 (550-162769-11)	4/21/21	09:41 Arizona		Water			X	1	AZ Sample
FC-CCR-MW85-0421 (550-162769-12)	4/21/21	08:59 Arizona		Water			X	1	AZ Sample
FC-CCR-MW86-0421 (550-162769-13)	4/21/21	15:20 Arizona		Water			X	3	AZ Sample
FC-CCR-FD02-0421 (550-162769-14)	4/21/21	15:20 Arizona		Water			X	1	AZ Sample

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

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: Eve 05-03-21	Date/Time: 13:45	Company: TA-PHX	Received by: Fedex	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by: [signature]	Date/Time: 5/4/2021 950	Company: ETA Pa
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: 0.1 IR11 CF+04		

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-162769-1
SDG Number: APS Four Corners Power Plant

Login Number: 162769
List Number: 1
Creator: Maycock, Lisa

List Source: Eurofins TestAmerica, 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: 550-162769-1
SDG Number: APS Four Corners Power Plant

Login Number: 162769
List Number: 2
Creator: Dubicki, Adam L

List Source: Eurofins TestAmerica, Denver
List Creation: 05/04/21 12:27 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.	False	
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	

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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: April 21, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW66-0421	0.9 ± 0.2	1.6 ± 0.3	2.5 ± 0.4

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/13/2021
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: _____

April 21, 2021 (Sample Date) 16:02 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	2.5 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	0.9 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	1.6 ± 0.3		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66475

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. (480) 897-9459

Comments: FC-CCR-MW66-0421

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

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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: April 21, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW67-0421	1.3 ± 0.2	3.1 ± 0.4	4.4 ± 0.4

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/13/2021
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: _____

April 21, 2021 (Sample Date) 9:41 (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 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	4.4 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	1.3 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	3.1 ± 0.4		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66476

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. (480) 897-9459

Comments: FC-CCR-MW67-0421

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

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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: April 22, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW68-0421	< 0.4	0.9 ± 0.3	0.9 ± 0.3

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

5/13/2021

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: _____

April 22, 2021 (Sample Date) 7:30 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	0.9 ± 0.3		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	0.9 ± 0.3		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66477

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. (480) 897-9459

Comments: FC-CCR-MW68-0421

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

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Website: www.radsafe.com
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FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: April 21, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW69-0421	0.7 ± 0.2	< 0.7	0.7 ± 0.2

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/13/2021
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: _____

April 21, 2021 (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 — 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.7		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66478

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. (480) 897-9459

Comments: FC-CCR-MW69-0421

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

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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: April 21, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW70-0421	0.8 ± 0.2	2.3 ± 0.4	3.1 ± 0.4

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/13/2021
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: _____

April 21, 2021 (Sample Date) 13:54 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	3.1 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	0.8 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	2.3 ± 0.4		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66479

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. (480) 897-9459

Comments: FC-CCR-MW70-0421

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

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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: April 22, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW71-0421	0.7 ± 0.2	< 0.7	0.7 ± 0.2
Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/13/2021
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: _____

April 22, 2021 (Sample Date) 8:32 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.7		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66480

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. (480) 897-9459

Comments: FC-CCR-MW71-0421

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

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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: April 22, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW72-0421	0.7 ± 0.2	1.5 ± 0.3	2.2 ± 0.4

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/13/2021
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: _____

April 22, 2021 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	2.2 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	1.5 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

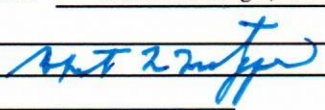
Specimen Number: RSE66481

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. (480) 897-9459

Comments: FC-CCR-MW72-0421

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

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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: April 22, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW73-0421	0.7 ± 0.2	1.1 ± 0.3	1.8 ± 0.4

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/13/2021
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: _____

April 22, 2021 (Sample Date) 11:19 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	1.8 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	1.1 ± 0.3		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66482

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. (480) 897-9459

Comments: FC-CCR-MW73-0421

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: April 21, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW83-0421	0.5 ± 0.2	< 0.7	0.5 ± 0.2
Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/13/2021 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: _____

April 21, 2021 (Sample Date) 12:11 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.7		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66483

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. (480) 897-9459

Comments: FC-CCR-MW83-0421

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: April 21, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW84-0421	< 0.4	< 0.7	< 0.7

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/13/2021
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: _____

April 21, 2021 (Sample Date) 11:27 (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 — 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	< 0.7		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.7		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66484

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. (480) 897-9459

Comments: FC-CCR-MW84-0421

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Client Information

Name:	**Natalie Chrisman/602-250-3608 Jim Edwards/928-288-1241**
Company	**Arizona Public Service**
Address	**PO Box 355, MS 4915 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-MW66-0421	4/21/2021	16:02	**GW**						X	X	X				166475	
FC-CCR-MW67-0421	4/21/2021	9:41	**GW**						X	X	X				166476	
FC-CCR-MW68-0421	4/22/2021	7:30	**GW**						X	X	X				166477	
FC-CCR-MW69-0421	4/21/2021	10:38	**GW**						X	X	X				166478	
FC-CCR-MW70-0421	4/21/2021	13:54	**GW**						X	X	X				166479	
FC-CCR-MW71-0421	4/22/2021	8:32	**GW**						X	X	X				166480	
FC-CCR-MW72-0421	4/22/2021	9:22	**GW**						X	X	X				166481	
FC-CCR-MW73-0421	4/22/2021	11:19	**GW**						X	X	X				166482	
FC-CCR-MW83-0421	4/21/2021	12:11	**GW**						X	X	X				166483	
FC-CCR-MW84-0421	4/21/2021	11:27	**GW**						X	X	X				166484	

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:

Instructions/Comments

Method HPGe

Relinquished By:	Company: Wood	Date/time: 4/23/21 12:10	Received By: Pat Flannery		Company: RSE	Date/time: 4/23/21 12:10
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: April 21, 2021
Sample Received: April 29, 2021
Analysis Completed: May 20, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW85-0421	< 0.5	1.9 ± 0.4	1.9 ± 0.4

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

5/20/2021

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: _____

April 21, 2021 (Sample Date) 8:59 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	1.9 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	1.9 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66485

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. (480) 897-9459

Comments: FC-CCR-MW85-0421

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: April 21, 2021
Sample Received: April 29, 2021
Analysis Completed: May 20, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW86-0421	< 0.6	1.6 ± 0.4	1.6 ± 0.4

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/20/2021
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: _____

April 21, 2021 (Sample Date) 15:20 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	1.6 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.6		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	1.6 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66486

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. (480) 897-9459

Comments: FC-CCR-MW86-0421

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: April 21, 2021
Sample Received: April 29, 2021
Analysis Completed: May 20, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-FD01-0421	< 0.4	2.0 ± 0.4	2.0 ± 0.4
Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/20/2021
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: _____

April 21, 2021 (Sample Date) 9:41 (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 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	2.0 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	2.0 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66487

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. (480) 897-9459

Comments: FC-CCR-FD01-0421

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: April 21, 2021
Sample Received: April 29, 2021
Analysis Completed: May 20, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-FD02-0421	0.7 ± 0.2	3.2 ± 0.5	3.9 ± 0.5
Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/20/2021
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: _____

April 21, 2021 (Sample Date) 15:20 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	3.9 ± 0.5		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	3.2 ± 0.5		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66488

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. (480) 897-9459

Comments: FC-CCR-FD02-0421

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: April 21, 2021
Sample Received: April 29, 2021
Analysis Completed: May 20, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW86-0421-MS01	< 0.4	< 0.8	< 0.8
Date of Analysis	5/6/2021	5/6/2021	5/6/2021

Robert L. Metzger, Ph.D., C.H.P. 5/20/2021
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: _____

April 21, 2021 (Sample Date) 15:20 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	5/6/2021	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/6/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/6/2021	< 0.8		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66567

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. (480) 897-9459

Comments: FC-CCR-MW86-0421-MS01

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: April 21, 2021
Sample Received: April 29, 2021
Analysis Completed: May 20, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW86-0421-SD01	< 0.4	0.8 ± 0.4	0.8 ± 0.4
Date of Analysis	5/6/2021	5/6/2021	5/6/2021

Robert L. Metzger, Ph.D., C.H.P. 5/20/2021
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: _____

April 21, 2021 (Sample Date) 15:20 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	5/6/2021	0.8 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	5/6/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	5/6/2021	0.8 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66568

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. (480) 897-9459

Comments: FC-CCR-MW86-0421-SD01

Authorized Signature: Robert L Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

* COC Revised 4-30-21

Client Information	
Name:	Natalie Chrisman/602-250-3608 Jim Edwards/928-288-1241
Company	Arizona Public Service
Address	PO Box 355, MS 4915 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-MW85-0421	4/21/2021	8:59	GW						x	x	x				66485		
FC-CCR-MW86-0421	4/21/2021	15:20	GW						x	x	x				66486		
FC-CCR-FD01-0421	4/21/2021	9:41	GW						x	x	x				66487		
FC-CCR-FD02-0421	4/21/2021	15:20	GW						x	x	x				66488		
FC-CCR-MW86-0421-MS01	4/21/21	15:20	GW						X	X	X				66567		*
FC-CCR-MW86-0421-SD01	4/21/21	15:20	GW						X	X	X				66568		*

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:

Instructions/Comments

Method HPGe

Relinquished By:	Company:	Date/time: 4/29/21 12:10	Received By: Pat Flannery		Company: RSE	Date/time: 4/29/21 12:10	
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.

w/client/forms/cofc.frm

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-174373-1
Laboratory SDG: APS Four Corners Power Plant (URS)
Client Project/Site: CCR Groundwater Monitoring

For:
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Attn: Natalie Chrisman

Rachel E. Sester

Authorized for release by:
11/30/2021 7:06:30 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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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.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.

Metals

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.
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of analyte.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
L4	The associated blank spike recovery was below 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.

General Chemistry

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
H1	Sample analysis performed 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.

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: 550-174373-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-174373-1

Comments
No additional comments.

Receipt
The samples were received on 11/16/2021 3:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 0.2º C, 0.9º C, 1.3º C, 1.5º C and 1.8º C.

Receipt Exceptions
All containers received in Denver had 75-125ml of volume.

FC-CCR-MW66-1121 (550-174373-1), FC-CCR-MW67-1121 (550-174373-2), FC-CCR-MW68-1121 (550-174373-3), FC-CCR-MW69-1121 (550-174373-4), FC-CCR-MW70-1121 (550-174373-5), FC-CCR-MW71-1121 (550-174373-6), FC-CCR-MW72-1121 (550-174373-7), FC-CCR-MW73-1121 (550-174373-8), FC-CCR-MW83-1121 (550-174373-9), FC-CCR-MW84-1121 (550-174373-10), FC-CCR-MW84-1121 (550-174373-10[MS]), FC-CCR-MW84-1121 (550-174373-10[MSD]), FC-CCR-FD01-1121 (550-174373-11), FC-CCR-MW85-1121 (550-174373-12), FC-CCR-MW86-1121 (550-174373-13) and FC-CCR-FD02-1121 (550-174373-14)

HPLC/IC
Method 300.0: The following samples were diluted for Fluoride by method EPA 300.0 due to the nature of the sample matrix: FC-CCR-MW72-1121 (550-174373-7) and (550-174257-E-1 ^50). The sample contained high concentrations of Chloride and Sulfate which exceeded the instrument's maximum column capacity. Fluoride wasn't detected in the diluted sample. As such, elevated reporting limits (RLs) have been provided and these data have been qualified with D1 and D5 flags.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 200.7 Rev 4.4: The continuing calibration blank (CCB) for analytical batch 550-259106 contained Boron 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.

Method 200.7 Rev 4.4: The continuing calibration blank (CCB) for analytical batch 550-259262 contained Boron 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.

Method 200.7 Rev 4.4: The following samples were diluted to bring the concentration of target analytes within the calibration range: FC-CCR-MW66-1121 (550-174373-1), FC-CCR-MW67-1121 (550-174373-2), FC-CCR-MW68-1121 (550-174373-3), FC-CCR-MW86-1121 (550-174373-13) and FC-CCR-FD02-1121 (550-174373-14). Elevated reporting limits (RLs) are provided.

Method 245.1: The laboratory control sample duplicate (LCSD) associated with preparation batch 550-258882 and analytical batch 550-259076 was outside acceptance criteria with a percent recovery of 84 (acceptable range 85-115). Re-extraction and/or re-analysis could not be performed due to limited sample; 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. This meets the Arizona accuracy and precision batch requirements.

Method 200.8: <EXPLANATION_REQUIRED>very low volume

FC-CCR-MW68-1121 (550-174373-3), FC-CCR-MW69-1121 (550-174373-4), FC-CCR-MW70-1121 (550-174373-5), FC-CCR-MW71-1121 (550-174373-6), FC-CCR-MW72-1121 (550-174373-7) and FC-CCR-MW83-1121 (550-174373-9)

Method 200.8: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 550-259566.

FC-CCR-MW67-1121 (550-174373-2)

Job ID: 550-174373-1 (Continued)

Laboratory: Eurofins TestAmerica, Phoenix (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method SM 2540C: Reanalysis of the following sample was performed outside of the analytical holding time for Total Dissolved Solids (TDS) due to the initial analysis not adhering to the method requirements; FC-CCR-MW68-1121 (550-174373-3) and FC-CCR-MW69-1121 (550-174373-4). Therefore, a result could not be reported and the test was re-performed. The reanalysis conformed to the method requirements and that result has been reported and qualified with an H1 flag.

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: 550-174373-1
SDG: APS Four Corners Power Plant (URS)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-174373-1	FC-CCR-MW66-1121	Water	11/12/21 16:08	11/16/21 15:15
550-174373-2	FC-CCR-MW67-1121	Water	11/12/21 08:13	11/16/21 15:15
550-174373-3	FC-CCR-MW68-1121	Water	11/11/21 16:14	11/16/21 15:15
550-174373-4	FC-CCR-MW69-1121	Water	11/11/21 15:27	11/16/21 15:15
550-174373-5	FC-CCR-MW70-1121	Water	11/12/21 14:44	11/16/21 15:15
550-174373-6	FC-CCR-MW71-1121	Water	11/12/21 12:40	11/16/21 15:15
550-174373-7	FC-CCR-MW72-1121	Water	11/12/21 13:31	11/16/21 15:15
550-174373-8	FC-CCR-MW73-1121	Water	11/13/21 08:31	11/16/21 15:15
550-174373-9	FC-CCR-MW83-1121	Water	11/12/21 10:13	11/16/21 15:15
550-174373-10	FC-CCR-MW84-1121	Water	11/12/21 09:09	11/16/21 15:15
550-174373-11	FC-CCR-FD01-1121	Water	11/12/21 09:09	11/16/21 15:15
550-174373-12	FC-CCR-MW85-1121	Water	11/12/21 11:27	11/16/21 15:15
550-174373-13	FC-CCR-MW86-1121	Water	11/12/21 15:31	11/16/21 15:15
550-174373-14	FC-CCR-FD02-1121	Water	11/12/21 15:31	11/16/21 15:15

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174373-1
SDG: APS Four Corners Power Plant (URS)

Client Sample ID: FC-CCR-MW66-1121 — Lab Sample ID: 550-174373-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1700	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	20	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	12000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.33		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	140	D2	0.10	0.0051	mg/L	2		200.7 Rev 4.4	Total/NA
Calcium	460		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00012	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Barium	0.022	B7 D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.000068	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0066	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.021	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.0019	D1	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.00089	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	18000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	10.4	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW67-1121 — Lab Sample ID: 550-174373-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2100	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	13	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	15000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.41		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	170	D2	0.10	0.0051	mg/L	2		200.7 Rev 4.4	Total/NA
Calcium	460		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.000088	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Barium	0.014		0.0050	0.0026	mg/L	1		200.8 LL	Total/NA
Cadmium	0.00021	D1	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0069	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.046	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.0040	D1	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.0013	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	21000	D2	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	9.5	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW68-1121 — Lab Sample ID: 550-174373-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1100	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	10	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	13000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.43		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	110	D2	0.10	0.0051	mg/L	2		200.7 Rev 4.4	Total/NA
Calcium	460		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.0097	E4	0.013	0.0065	mg/L	1		200.8 LL	Total/NA
Cadmium	0.000090	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0084	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0059	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.0069	D1	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.0018	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample ID: FC-CCR-MW68-1121 (Continued) — Lab Sample ID: 550-174373-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	10000	D2 H1	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	9.4	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW69-1121 — Lab Sample ID: 550-174373-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1000	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	4.9	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	6900	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.24		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	62		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	530		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00022	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Barium	0.0081		0.0025	0.0013	mg/L	1		200.8 LL	Total/NA
Cadmium	0.000074	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0023	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0061	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.17	D1	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.00032	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	5100	D2 H1	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	9.8	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW70-1121 — Lab Sample ID: 550-174373-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1300	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	1.9	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	6900	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.36		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	95		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	510		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.011		0.0050	0.0026	mg/L	1		200.8 LL	Total/NA
Cadmium	0.00010	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0032	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0050	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.16	D1	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.00020	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	9800	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.1	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	11.4	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW71-1121 — Lab Sample ID: 550-174373-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	560	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.14	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	12000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.37		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.54		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	440		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW71-1121 (Continued) — Lab Sample ID: 550-174373-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.010		0.0025	0.0013	mg/L	1		200.8 LL	Total/NA
Cadmium	0.00010	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.00013	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Selenium	0.24	D1	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.00042	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	8000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	10.9	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW72-1121 — Lab Sample ID: 550-174373-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	450	D2	400	100	mg/L	200		300.0	Total/NA
Sulfate	11000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.38		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.22		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	440		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.0085		0.0025	0.0013	mg/L	1		200.8 LL	Total/NA
Cadmium	0.000060	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0026	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.00055	D1 E4	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.087	D1	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.0010	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	14000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.1	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	11.6	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW73-1121 — Lab Sample ID: 550-174373-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	560	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.12	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	7400	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.31		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	1.6		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	460		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00017	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Barium	0.022	B7 D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.00018	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0041	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.00093	D1 E4	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.0072	D1	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.00023	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	9600	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.0	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	11.5	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW83-1121 — Lab Sample ID: 550-174373-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	120	D1	4.0	1.0	mg/L	2		300.0	Total/NA
Fluoride	1.8	D1	0.80	0.095	mg/L	2		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW83-1121 (Continued) — Lab Sample ID: 550-174373-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	4500	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.18		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	2.5		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	460		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.000096	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Barium	0.0095		0.0050	0.0026	mg/L	1		200.8 LL	Total/NA
Cadmium	0.000060	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0015	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0081	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.0020	D1	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.000042	D1 E4	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	4300	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	11.4	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW84-1121 — Lab Sample ID: 550-174373-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1300	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.12	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	10000	D2 M2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.24		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	92	M3	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	450	M3	2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00013	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Barium	0.019	B7 D1 M1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.00031	D1	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0079	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0014	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.030	D1	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.00071	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	13000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.1	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	10.1	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-FD01-1121 — Lab Sample ID: 550-174373-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1200	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.12	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	9800	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.24		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	96		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	500		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.017	B7 D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.00027	D1	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0078	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0012	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.032	D1	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.00041	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	13000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-FD01-1121 (Continued) — Lab Sample ID: 550-174373-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Temperature	8.9	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW85-1121 — Lab Sample ID: 550-174373-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	680	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.27	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	6300	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.36		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	51		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	530		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.00094	D1 E4	0.0010	0.00049	mg/L	2		200.8 LL	Total/NA
Barium	0.017	B7 D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Chromium	0.017	D1	0.0020	0.00087	mg/L	2		200.8 LL	Total/NA
Cobalt	0.00020	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0019	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.30	D1	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.00029	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	9900	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	7.9	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW86-1121 — Lab Sample ID: 550-174373-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1600	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.56	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	11000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.35		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	120	D2	0.10	0.0051	mg/L	2		200.7 Rev 4.4	Total/NA
Calcium	510		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00010	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Barium	0.017	B7 D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.00020	D1	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Chromium	0.0014	D1 E4	0.0020	0.00087	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0065	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Lead	0.00056	D1 E4	0.0010	0.00044	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0011	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.0013	D1	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.00085	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	15000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	8.8	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-FD02-1121 — Lab Sample ID: 550-174373-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1600	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.55	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	11000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.36		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	120	D2	0.10	0.0051	mg/L	2		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-FD02-1121 (Continued)

Lab Sample ID: 550-174373-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	490		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.000090	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Barium	0.017	B7 D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.00017	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Chromium	0.0014	D1 E4	0.0020	0.00087	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0063	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0011	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.0021	D1	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.00083	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	14000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	10.1	H5	0.1	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-MW66-1121

Lab Sample ID: 550-174373-1
Matrix: Water
Date Collected: 11/12/21 16:08
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1700	D2	400	100	mg/L			11/19/21 18:18	200
Fluoride	20	D1	0.80	0.095	mg/L			11/19/21 19:13	2
Sulfate	12000	D2	400	85	mg/L			11/19/21 18:18	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:52	11/18/21 21:30	1
Lithium	0.33		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 16:33	1
Boron	140	D2	0.10	0.0051	mg/L		11/16/21 20:52	11/19/21 16:54	2
Calcium	460		2.0	0.013	mg/L		11/16/21 20:52	11/18/21 21:30	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00012	D1 E4	0.0020	0.000087	mg/L		11/17/21 07:57	11/22/21 19:31	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 07:57	11/22/21 19:31	2
Barium	0.022	B7 D1	0.0010	0.00052	mg/L		11/17/21 07:57	11/22/21 19:31	2
Cadmium	0.000068	D1 E4	0.00020	0.000046	mg/L		11/17/21 07:57	11/22/21 19:31	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 07:57	11/22/21 19:31	2
Cobalt	0.0066	D1	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 19:31	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 07:57	11/22/21 19:31	2
Molybdenum	0.021	D1	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 19:31	2
Selenium	0.0019	D1	0.0010	0.00015	mg/L		11/17/21 07:57	11/22/21 19:31	2
Thallium	0.00089	D1	0.00020	0.000026	mg/L		11/17/21 07:57	11/22/21 19:31	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/22/21 16:30	11/22/21 20:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	18000	D2	100	100	mg/L			11/17/21 07:29	1
pH	7.4	H5	1.7	1.7	SU			11/23/21 14:19	1
Temperature	10.4	H5	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW67-1121

Lab Sample ID: 550-174373-2
Matrix: Water
Date Collected: 11/12/21 08:13
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2100	D2	400	100	mg/L			11/19/21 19:50	200
Fluoride	13	D1	0.80	0.095	mg/L			11/19/21 19:31	2
Sulfate	15000	D2	400	85	mg/L			11/19/21 19:50	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:52	11/18/21 21:33	1
Lithium	0.41		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 16:37	1
Boron	170	D2	0.10	0.0051	mg/L		11/16/21 20:52	11/19/21 16:57	2
Calcium	460		2.0	0.013	mg/L		11/16/21 20:52	11/18/21 21:33	1

Client Sample ID: FC-CCR-MW67-1121

Lab Sample ID: 550-174373-2

Date Collected: 11/12/21 08:13
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.000088**	**D1 E4**	0.0020	0.000087	mg/L		11/17/21 07:57	11/22/21 19:33	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 07:57	11/22/21 19:33	2
Barium	**0.014**		0.0050	0.0026	mg/L		11/29/21 16:37	11/30/21 15:55	1
Cadmium	**0.00021**	**D1**	0.00020	0.000046	mg/L		11/17/21 07:57	11/22/21 19:33	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 07:57	11/22/21 19:33	2
Cobalt	**0.0069**	**D1**	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 19:33	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 07:57	11/22/21 19:33	2
Molybdenum	**0.046**	**D1**	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 19:33	2
Selenium	**0.0040**	**D1**	0.0010	0.00015	mg/L		11/17/21 07:57	11/22/21 19:33	2
Thallium	**0.0013**	**D1**	0.00020	0.000026	mg/L		11/17/21 07:57	11/22/21 19:33	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8 L4	0.00020	0.000070	mg/L		11/17/21 13:09	11/18/21 15:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**21000**	**D2**	200	200	mg/L			11/19/21 09:20	1
pH	**7.5**	**H5**	1.7	1.7	SU			11/23/21 14:19	1
Temperature	**9.5**	**H5**	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW68-1121

Lab Sample ID: 550-174373-3

Date Collected: 11/11/21 16:14
Matrix: Water
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1100**	**D2**	400	100	mg/L			11/19/21 20:26	200
Fluoride	**10**	**D1**	0.80	0.095	mg/L			11/19/21 20:08	2
Sulfate	**13000**	**D2**	400	85	mg/L			11/19/21 20:26	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:52	11/18/21 21:35	1
Lithium	**0.43**		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 16:41	1
Boron	**110**	**D2**	0.10	0.0051	mg/L		11/16/21 20:52	11/19/21 16:59	2
Calcium	**460**		2.0	0.013	mg/L		11/16/21 20:52	11/18/21 21:35	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0020	0.000087	mg/L		11/17/21 07:57	11/22/21 19:35	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 07:57	11/22/21 19:35	2
Barium	**0.0097**	**E4**	0.013	0.0065	mg/L		11/24/21 10:56	11/29/21 15:51	1
Cadmium	**0.000090**	**D1 E4**	0.00020	0.000046	mg/L		11/17/21 07:57	11/22/21 19:35	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 07:57	11/22/21 19:35	2
Cobalt	**0.0084**	**D1**	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 19:35	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 07:57	11/22/21 19:35	2
Molybdenum	**0.0059**	**D1**	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 19:35	2
Selenium	**0.0069**	**D1**	0.0010	0.00015	mg/L		11/17/21 07:57	11/22/21 19:35	2
Thallium	**0.0018**	**D1**	0.00020	0.000026	mg/L		11/17/21 07:57	11/22/21 19:35	2

Client Sample ID: FC-CCR-MW68-1121

Lab Sample ID: 550-174373-3
Date Collected: 11/11/21 16:14
Matrix: Water
Date Received: 11/16/21 15:15

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/22/21 16:30	11/22/21 20:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**10000**	**D2 H1**	100	100	mg/L			11/19/21 09:20	1
pH	**7.3**	**H5**	1.7	1.7	SU			11/23/21 14:19	1
Temperature	**9.4**	**H5**	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW69-1121

Lab Sample ID: 550-174373-4
Date Collected: 11/11/21 15:27
Matrix: Water
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1000**	**D2**	400	100	mg/L			11/19/21 21:03	200
Fluoride	**4.9**	**D1**	0.80	0.095	mg/L			11/19/21 20:45	2
Sulfate	**6900**	**D2**	400	85	mg/L			11/19/21 21:03	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:52	11/18/21 21:38	1
Lithium	**0.24**		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 16:45	1
Boron	**62**		0.050	0.0025	mg/L		11/16/21 20:52	11/18/21 21:38	1
Calcium	**530**		2.0	0.013	mg/L		11/16/21 20:52	11/18/21 21:38	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00022**	**D1 E4**	0.0020	0.000087	mg/L		11/17/21 07:57	11/22/21 19:37	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 07:57	11/22/21 19:37	2
Barium	**0.0081**		0.0025	0.0013	mg/L		11/24/21 10:56	11/29/21 15:53	1
Cadmium	**0.000074**	**D1 E4**	0.00020	0.000046	mg/L		11/17/21 07:57	11/22/21 19:37	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 07:57	11/22/21 19:37	2
Cobalt	**0.0023**	**D1**	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 19:37	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 07:57	11/22/21 19:37	2
Molybdenum	**0.0061**	**D1**	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 19:37	2
Selenium	**0.17**	**D1**	0.0010	0.00015	mg/L		11/17/21 07:57	11/22/21 19:37	2
Thallium	**0.00032**	**D1**	0.00020	0.000026	mg/L		11/17/21 07:57	11/22/21 19:37	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/22/21 16:30	11/22/21 20:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**5100**	**D2 H1**	100	100	mg/L			11/19/21 09:20	1
pH	**7.4**	**H5**	1.7	1.7	SU			11/23/21 14:19	1
Temperature	**9.8**	**H5**	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW70-1121

Lab Sample ID: 550-174373-5
Matrix: Water
Date Collected: 11/12/21 14:44
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1300	D2	400	100	mg/L			11/19/21 21:40	200
Fluoride	1.9	D1	0.80	0.095	mg/L			11/19/21 21:22	2
Sulfate	6900	D2	400	85	mg/L			11/19/21 21:40	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:52	11/18/21 21:40	1
Lithium	0.36		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 16:49	1
Boron	95		0.050	0.0025	mg/L		11/16/21 20:52	11/18/21 21:40	1
Calcium	510		2.0	0.013	mg/L		11/16/21 20:52	11/18/21 21:40	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0020	0.000087	mg/L		11/17/21 07:57	11/22/21 19:39	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 07:57	11/22/21 19:39	2
Barium	0.011		0.0050	0.0026	mg/L		11/24/21 10:56	11/29/21 15:56	1
Cadmium	0.00010	D1 E4	0.00020	0.000046	mg/L		11/17/21 07:57	11/22/21 19:39	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 07:57	11/22/21 19:39	2
Cobalt	0.0032	D1	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 19:39	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 07:57	11/22/21 19:39	2
Molybdenum	0.0050	D1	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 19:39	2
Selenium	0.16	D1	0.0010	0.00015	mg/L		11/17/21 07:57	11/22/21 19:39	2
Thallium	0.00020	D1	0.00020	0.000026	mg/L		11/17/21 07:57	11/22/21 19:39	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8 L4	0.00020	0.000070	mg/L		11/17/21 13:09	11/18/21 15:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	9800	D2	100	100	mg/L			11/17/21 07:29	1
pH	7.1	H5	1.7	1.7	SU			11/23/21 14:19	1
Temperature	11.4	H5	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW71-1121

Lab Sample ID: 550-174373-6
Matrix: Water
Date Collected: 11/12/21 12:40
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	560	D2	400	100	mg/L			11/19/21 21:58	200
Fluoride	0.14	D1 E4	0.80	0.095	mg/L			11/19/21 22:54	2
Sulfate	12000	D2	400	85	mg/L			11/19/21 21:58	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:52	11/18/21 21:48	1
Lithium	0.37		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 16:53	1
Boron	0.54		0.050	0.0025	mg/L		11/16/21 20:52	11/22/21 17:40	1
Calcium	440		2.0	0.013	mg/L		11/16/21 20:52	11/18/21 21:48	1

Client Sample ID: FC-CCR-MW71-1121

Lab Sample ID: 550-174373-6

Date Collected: 11/12/21 12:40
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0020	0.000087	mg/L		11/17/21 07:57	11/22/21 19:42	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 07:57	11/22/21 19:42	2
Barium	**0.010**		0.0025	0.0013	mg/L		11/24/21 10:56	11/29/21 15:58	1
Cadmium	**0.00010**	**D1 E4**	0.00020	0.000046	mg/L		11/17/21 07:57	11/22/21 19:42	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 07:57	11/22/21 19:42	2
Cobalt	**0.00013**	**D1 E4**	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 19:42	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 07:57	11/22/21 19:42	2
Molybdenum	ND	D1 E8	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 19:42	2
Selenium	**0.24**	**D1**	0.0010	0.00015	mg/L		11/17/21 07:57	11/22/21 19:42	2
Thallium	**0.00042**	**D1**	0.00020	0.000026	mg/L		11/17/21 07:57	11/22/21 19:42	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8 L4	0.00020	0.000070	mg/L		11/17/21 13:09	11/18/21 15:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**8000**	**D2**	100	100	mg/L			11/19/21 09:20	1
pH	**7.4**	**H5**	1.7	1.7	SU			11/23/21 14:19	1
Temperature	**10.9**	**H5**	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW72-1121

Lab Sample ID: 550-174373-7

Date Collected: 11/12/21 13:31
Matrix: Water
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**450**	**D2**	400	100	mg/L			11/19/21 23:30	200
Fluoride	ND	D1 D5 E8	0.80	0.095	mg/L			11/19/21 23:12	2
Sulfate	**11000**	**D2**	400	85	mg/L			11/19/21 23:30	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:52	11/18/21 21:51	1
Lithium	**0.38**		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 16:57	1
Boron	**0.22**		0.050	0.0025	mg/L		11/16/21 20:52	11/22/21 17:43	1
Calcium	**440**		2.0	0.013	mg/L		11/16/21 20:52	11/18/21 21:51	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0020	0.000087	mg/L		11/17/21 07:57	11/22/21 19:44	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 07:57	11/22/21 19:44	2
Barium	**0.0085**		0.0025	0.0013	mg/L		11/24/21 10:56	11/29/21 16:00	1
Cadmium	**0.000060**	**D1 E4**	0.00020	0.000046	mg/L		11/17/21 07:57	11/22/21 19:44	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 07:57	11/22/21 19:44	2
Cobalt	**0.0026**	**D1**	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 19:44	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 07:57	11/22/21 19:44	2
Molybdenum	**0.00055**	**D1 E4**	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 19:44	2
Selenium	**0.087**	**D1**	0.0010	0.00015	mg/L		11/17/21 07:57	11/22/21 19:44	2
Thallium	**0.0010**	**D1**	0.00020	0.000026	mg/L		11/17/21 07:57	11/22/21 19:44	2

Client Sample ID: FC-CCR-MW72-1121

Lab Sample ID: 550-174373-7
Date Collected: 11/12/21 13:31
Matrix: Water
Date Received: 11/16/21 15:15

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/22/21 16:30	11/22/21 20:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	14000	D2	100	100	mg/L			11/17/21 07:29	1
pH	7.1	H5	1.7	1.7	SU			11/23/21 14:19	1
Temperature	11.6	H5	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW73-1121

Lab Sample ID: 550-174373-8
Date Collected: 11/13/21 08:31
Matrix: Water
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	560	D2	400	100	mg/L			11/20/21 00:07	200
Fluoride	0.12	D1 E4	0.80	0.095	mg/L			11/19/21 23:49	2
Sulfate	7400	D2	400	85	mg/L			11/20/21 00:07	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:52	11/18/21 21:53	1
Lithium	0.31		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 17:01	1
Boron	1.6		0.050	0.0025	mg/L		11/16/21 20:52	11/18/21 21:53	1
Calcium	460		2.0	0.013	mg/L		11/16/21 20:52	11/18/21 21:53	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00017	D1 E4	0.0020	0.000087	mg/L		11/17/21 07:57	11/22/21 19:46	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 07:57	11/22/21 19:46	2
Barium	0.022	B7 D1	0.0010	0.00052	mg/L		11/17/21 07:57	11/22/21 19:46	2
Cadmium	0.00018	D1 E4	0.00020	0.000046	mg/L		11/17/21 07:57	11/22/21 19:46	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 07:57	11/22/21 19:46	2
Cobalt	0.0041	D1	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 19:46	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 07:57	11/22/21 19:46	2
Molybdenum	0.00093	D1 E4	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 19:46	2
Selenium	0.0072	D1	0.0010	0.00015	mg/L		11/17/21 07:57	11/22/21 19:46	2
Thallium	0.00023	D1	0.00020	0.000026	mg/L		11/17/21 07:57	11/22/21 19:46	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8 L4	0.00020	0.000070	mg/L		11/17/21 13:09	11/18/21 16:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	9600	D2	100	100	mg/L			11/18/21 07:59	1
pH	7.0	H5	1.7	1.7	SU			11/23/21 14:19	1
Temperature	11.5	H5	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW83-1121

Lab Sample ID: 550-174373-9

Date Collected: 11/12/21 10:13
Matrix: Water
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	120	D1	4.0	1.0	mg/L			11/22/21 18:14	2
Fluoride	1.8	D1	0.80	0.095	mg/L			11/22/21 18:14	2
Sulfate	4500	D2	400	85	mg/L			11/22/21 18:32	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:52	11/18/21 21:56	1
Lithium	0.18		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 17:21	1
Boron	2.5		0.050	0.0025	mg/L		11/16/21 20:52	11/18/21 21:56	1
Calcium	460		2.0	0.013	mg/L		11/16/21 20:52	11/18/21 21:56	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.000096	D1 E4	0.0020	0.000087	mg/L		11/17/21 07:57	11/22/21 19:52	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 07:57	11/22/21 19:52	2
Barium	0.0095		0.0050	0.0026	mg/L		11/24/21 10:56	11/29/21 16:02	1
Cadmium	0.000060	D1 E4	0.00020	0.000046	mg/L		11/17/21 07:57	11/22/21 19:52	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 07:57	11/22/21 19:52	2
Cobalt	0.0015	D1	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 19:52	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 07:57	11/22/21 19:52	2
Molybdenum	0.0081	D1	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 19:52	2
Selenium	0.0020	D1	0.0010	0.00015	mg/L		11/17/21 07:57	11/22/21 19:52	2
Thallium	0.000042	D1 E4	0.00020	0.000026	mg/L		11/17/21 07:57	11/22/21 19:52	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/22/21 16:30	11/22/21 20:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	4300	D2	100	100	mg/L			11/18/21 07:59	1
pH	7.4	H5	1.7	1.7	SU			11/23/21 14:19	1
Temperature	11.4	H5	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW84-1121

Lab Sample ID: 550-174373-10

Date Collected: 11/12/21 09:09
Matrix: Water
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1300	D2	400	100	mg/L			11/22/21 17:18	200
Fluoride	0.12	D1 E4	0.80	0.095	mg/L			11/22/21 16:23	2
Sulfate	10000	D2 M2	400	85	mg/L			11/22/21 17:18	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:52	11/18/21 21:27	1
Lithium	0.24		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 17:25	1
Boron	92	M3	0.050	0.0025	mg/L		11/16/21 20:52	11/18/21 21:27	1
Calcium	450	M3	2.0	0.013	mg/L		11/16/21 20:52	11/18/21 21:27	1

Client Sample ID: FC-CCR-MW84-1121

Lab Sample ID: 550-174373-10

Date Collected: 11/12/21 09:09
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00013	D1 E4	0.0020	0.000087	mg/L		11/17/21 07:57	11/22/21 19:29	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 07:57	11/22/21 19:29	2
Barium	0.019	B7 D1 M1	0.0010	0.00052	mg/L		11/17/21 07:57	11/22/21 19:29	2
Cadmium	0.00031	D1	0.00020	0.000046	mg/L		11/17/21 07:57	11/22/21 19:29	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 07:57	11/22/21 19:29	2
Cobalt	0.0079	D1	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 19:29	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 07:57	11/22/21 19:29	2
Molybdenum	0.0014	D1	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 19:29	2
Selenium	0.030	D1	0.0010	0.00015	mg/L		11/17/21 07:57	11/22/21 19:29	2
Thallium	0.00071	D1	0.00020	0.000026	mg/L		11/17/21 07:57	11/22/21 19:29	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/22/21 16:30	11/22/21 20:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	13000	D2	100	100	mg/L			11/18/21 07:59	1
pH	7.1	H5	1.7	1.7	SU			11/23/21 14:19	1
Temperature	10.1	H5	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-FD01-1121

Lab Sample ID: 550-174373-11

Date Collected: 11/12/21 09:09
Matrix: Water
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1200	D2	400	100	mg/L			11/22/21 19:09	200
Fluoride	0.12	D1 E4	0.80	0.095	mg/L			11/22/21 18:50	2
Sulfate	9800	D2	400	85	mg/L			11/22/21 19:09	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:52	11/18/21 21:59	1
Lithium	0.24		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 17:41	1
Boron	96		0.050	0.0025	mg/L		11/16/21 20:52	11/18/21 21:59	1
Calcium	500		2.0	0.013	mg/L		11/16/21 20:52	11/18/21 21:59	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0020	0.000087	mg/L		11/17/21 07:57	11/22/21 19:54	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 07:57	11/22/21 19:54	2
Barium	0.017	B7 D1	0.0010	0.00052	mg/L		11/17/21 07:57	11/22/21 19:54	2
Cadmium	0.00027	D1	0.00020	0.000046	mg/L		11/17/21 07:57	11/22/21 19:54	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 07:57	11/22/21 19:54	2
Cobalt	0.0078	D1	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 19:54	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 07:57	11/22/21 19:54	2
Molybdenum	0.0012	D1	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 19:54	2
Selenium	0.032	D1	0.0010	0.00015	mg/L		11/17/21 07:57	11/22/21 19:54	2
Thallium	0.00041	D1	0.00020	0.000026	mg/L		11/17/21 07:57	11/22/21 19:54	2

Client Sample ID: FC-CCR-FD01-1121

Lab Sample ID: 550-174373-11
Date Collected: 11/12/21 09:09
Matrix: Water
Date Received: 11/16/21 15:15

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/22/21 16:30	11/22/21 20:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**13000**	**D2**	100	100	mg/L			11/18/21 07:59	1
pH	**7.2**	**H5**	1.7	1.7	SU			11/23/21 14:19	1
Temperature	**8.9**	**H5**	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW85-1121

Lab Sample ID: 550-174373-12
Date Collected: 11/12/21 11:27
Matrix: Water
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**680**	**D2**	400	100	mg/L			11/22/21 20:22	200
Fluoride	**0.27**	**D1 E4**	0.80	0.095	mg/L			11/22/21 20:04	2
Sulfate	**6300**	**D2**	400	85	mg/L			11/22/21 20:22	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:52	11/18/21 22:01	1
Lithium	**0.36**		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 17:45	1
Boron	**51**		0.050	0.0025	mg/L		11/16/21 20:52	11/18/21 22:01	1
Calcium	**530**		2.0	0.013	mg/L		11/16/21 20:52	11/18/21 22:01	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0020	0.000087	mg/L		11/17/21 07:57	11/22/21 19:56	2
Arsenic	**0.00094**	**D1 E4**	0.0010	0.00049	mg/L		11/17/21 07:57	11/22/21 19:56	2
Barium	**0.017**	**B7 D1**	0.0010	0.00052	mg/L		11/17/21 07:57	11/22/21 19:56	2
Cadmium	ND	D1 E8	0.00020	0.000046	mg/L		11/17/21 07:57	11/22/21 19:56	2
Chromium	**0.017**	**D1**	0.0020	0.00087	mg/L		11/17/21 07:57	11/22/21 19:56	2
Cobalt	**0.00020**	**D1 E4**	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 19:56	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 07:57	11/22/21 19:56	2
Molybdenum	**0.0019**	**D1**	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 19:56	2
Selenium	**0.30**	**D1**	0.0010	0.00015	mg/L		11/17/21 07:57	11/22/21 19:56	2
Thallium	**0.00029**	**D1**	0.00020	0.000026	mg/L		11/17/21 07:57	11/22/21 19:56	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/22/21 16:30	11/22/21 20:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**9900**	**D2**	100	100	mg/L			11/18/21 07:59	1
pH	**7.3**	**H5**	1.7	1.7	SU			11/23/21 14:19	1
Temperature	**7.9**	**H5**	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW86-1121

Lab Sample ID: 550-174373-13
Date Collected: 11/12/21 15:31
Matrix: Water
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1600	D2	400	100	mg/L			11/22/21 20:59	200
Fluoride	0.56	D1 E4	0.80	0.095	mg/L			11/22/21 20:41	2
Sulfate	11000	D2	400	85	mg/L			11/22/21 20:59	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:52	11/18/21 22:04	1
Lithium	0.35		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 17:50	1
Boron	120	D2	0.10	0.0051	mg/L		11/16/21 20:52	11/19/21 17:07	2
Calcium	510		2.0	0.013	mg/L		11/16/21 20:52	11/18/21 22:04	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00010	D1 E4	0.0020	0.000087	mg/L		11/17/21 07:57	11/22/21 19:58	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 07:57	11/22/21 19:58	2
Barium	0.017	B7 D1	0.0010	0.00052	mg/L		11/17/21 07:57	11/22/21 19:58	2
Cadmium	0.00020	D1	0.00020	0.000046	mg/L		11/17/21 07:57	11/22/21 19:58	2
Chromium	0.0014	D1 E4	0.0020	0.00087	mg/L		11/17/21 07:57	11/22/21 19:58	2
Cobalt	0.0065	D1	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 19:58	2
Lead	0.00056	D1 E4	0.0010	0.00044	mg/L		11/17/21 07:57	11/22/21 19:58	2
Molybdenum	0.0011	D1	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 19:58	2
Selenium	0.0013	D1	0.0010	0.00015	mg/L		11/17/21 07:57	11/22/21 19:58	2
Thallium	0.00085	D1	0.00020	0.000026	mg/L		11/17/21 07:57	11/22/21 19:58	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/22/21 16:30	11/22/21 20:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	15000	D2	100	100	mg/L			11/18/21 07:59	1
pH	7.2	H5	1.7	1.7	SU			11/23/21 14:19	1
Temperature	8.8	H5	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-FD02-1121

Lab Sample ID: 550-174373-14
Date Collected: 11/12/21 15:31
Matrix: Water
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1600	D2	400	100	mg/L			11/22/21 21:36	200
Fluoride	0.55	D1 E4	0.80	0.095	mg/L			11/22/21 21:18	2
Sulfate	11000	D2	400	85	mg/L			11/22/21 21:36	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:52	11/18/21 22:06	1
Lithium	0.36		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 17:54	1
Boron	120	D2	0.10	0.0051	mg/L		11/16/21 20:52	11/19/21 17:10	2
Calcium	490		2.0	0.013	mg/L		11/16/21 20:52	11/18/21 22:06	1

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174373-1
SDG: APS Four Corners Power Plant (URS)

Client Sample ID: FC-CCR-FD02-1121

Date Collected: 11/12/21 15:31
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174373-14

Matrix: Water

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.000090**	**D1 E4**	0.0020	0.000087	mg/L		11/17/21 07:57	11/22/21 20:00	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 07:57	11/22/21 20:00	2
Barium	**0.017**	**B7 D1**	0.0010	0.00052	mg/L		11/17/21 07:57	11/22/21 20:00	2
Cadmium	**0.00017**	**D1 E4**	0.00020	0.000046	mg/L		11/17/21 07:57	11/22/21 20:00	2
Chromium	**0.0014**	**D1 E4**	0.0020	0.00087	mg/L		11/17/21 07:57	11/22/21 20:00	2
Cobalt	**0.0063**	**D1**	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 20:00	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 07:57	11/22/21 20:00	2
Molybdenum	**0.0011**	**D1**	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 20:00	2
Selenium	**0.0021**	**D1**	0.0010	0.00015	mg/L		11/17/21 07:57	11/22/21 20:00	2
Thallium	**0.00083**	**D1**	0.00020	0.000026	mg/L		11/17/21 07:57	11/22/21 20:00	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/22/21 16:30	11/22/21 20:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**14000**	**D2**	100	100	mg/L			11/18/21 07:59	1
pH	**7.2**	**H5**	1.7	1.7	SU			11/23/21 14:19	1
Temperature	**10.1**	**H5**	0.1	0.1	Degrees C			11/23/21 14:19	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-259284/2
Matrix: Water
Analysis Batch: 259284

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/19/21 13:34	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/19/21 13:34	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/19/21 13:34	1

Lab Sample ID: LCS 550-259284/5
Matrix: Water
Analysis Batch: 259284

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	20.6		mg/L		103	90 - 110
Fluoride	4.00	4.19		mg/L		105	90 - 110
Sulfate	20.0	20.9		mg/L		104	90 - 110

Lab Sample ID: LCSD 550-259284/6
Matrix: Water
Analysis Batch: 259284

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	20.6		mg/L		103	90 - 110	0	20
Fluoride	4.00	4.19		mg/L		105	90 - 110	0	20
Sulfate	20.0	20.9		mg/L		104	90 - 110	0	20

Lab Sample ID: 550-174257-C-1 MS ^50
Matrix: Water
Analysis Batch: 259284

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	320	D2	1000	1420	D2	mg/L		109	80 - 120
Fluoride	ND	E8 D1 D5	200	211	D1	mg/L		106	80 - 120
Sulfate	1300	D2	1000	2330	D2	mg/L		103	80 - 120

Lab Sample ID: 550-174257-C-1 MSD ^50
Matrix: Water
Analysis Batch: 259284

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	320	D2	1000	1450	D2	mg/L		113	80 - 120	3	20
Fluoride	ND	E8 D1 D5	200	221	D1	mg/L		110	80 - 120	4	20
Sulfate	1300	D2	1000	2390	D2	mg/L		108	80 - 120	2	20

Lab Sample ID: MB 550-259394/2
Matrix: Water
Analysis Batch: 259394

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/22/21 12:41	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/22/21 12:41	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/22/21 12:41	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-259394/5
Matrix: Water
Analysis Batch: 259394

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		104	90 - 110		
Fluoride			4.00	4.22		mg/L		106	90 - 110		
Sulfate			20.0	20.9		mg/L		105	90 - 110		

Lab Sample ID: LCSD 550-259394/6
Matrix: Water
Analysis Batch: 259394

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	4.15		mg/L		104	90 - 110	2	20
Sulfate			20.0	20.9		mg/L		105	90 - 110	0	20

Lab Sample ID: 550-174373-10 MS
Matrix: Water
Analysis Batch: 259394

Client Sample ID: FC-CCR-MW84-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.12	E4 D1	8.00	8.30	D1	mg/L		102	80 - 120		

Lab Sample ID: 550-174373-10 MS
Matrix: Water
Analysis Batch: 259394

Client Sample ID: FC-CCR-MW84-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1300	D2	4000	5570	D2	mg/L		108	80 - 120		
Sulfate	10000	M2 D2	4000	12600	D2 M2	mg/L		67	80 - 120		

Lab Sample ID: 550-174373-10 MSD
Matrix: Water
Analysis Batch: 259394

Client Sample ID: FC-CCR-MW84-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.12	E4 D1	8.00	8.69	D1	mg/L		107	80 - 120	5	20

Lab Sample ID: 550-174373-10 MSD
Matrix: Water
Analysis Batch: 259394

Client Sample ID: FC-CCR-MW84-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1300	D2	4000	5500	D2	mg/L		106	80 - 120	1	20
Sulfate	10000	M2 D2	4000	12600	D2 M2	mg/L		67	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-258791/1-A
Matrix: Water
Analysis Batch: 259106

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258791

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.000190	E4	0.0010	0.000067	mg/L		11/16/21 20:52	11/18/21 21:14	1
Boron	0.00288	E4	0.050	0.0025	mg/L		11/16/21 20:52	11/18/21 21:14	1
Calcium	0.0246	E4	2.0	0.013	mg/L		11/16/21 20:52	11/18/21 21:14	1

Lab Sample ID: MB 550-258791/1-A
Matrix: Water
Analysis Batch: 259262

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258791

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND	E8	0.050	0.0025	mg/L		11/16/21 20:52	11/19/21 16:39	1

Lab Sample ID: MB 550-258791/1-A
Matrix: Water
Analysis Batch: 259366

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258791

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND	E8	0.050	0.0025	mg/L		11/16/21 20:52	11/22/21 17:25	1

Lab Sample ID: LCS 550-258791/2-A
Matrix: Water
Analysis Batch: 259106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258791

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	1.00	1.04		mg/L		104	85 - 115
Boron	1.00	0.960		mg/L		96	85 - 115
Calcium	21.0	20.8		mg/L		99	85 - 115

Lab Sample ID: LCS 550-258791/2-A
Matrix: Water
Analysis Batch: 259262

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258791

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.939		mg/L		94	85 - 115

Lab Sample ID: LCS 550-258791/2-A
Matrix: Water
Analysis Batch: 259366

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258791

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.952		mg/L		95	85 - 115

Lab Sample ID: LCSD 550-258791/3-A
Matrix: Water
Analysis Batch: 259106

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258791

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	1.00	1.00		mg/L		100	85 - 115	4	20
Boron	1.00	0.942		mg/L		94	85 - 115	2	20
Calcium	21.0	19.9		mg/L		95	85 - 115	5	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCSD 550-258791/3-A
Matrix: Water
Analysis Batch: 259262

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258791

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron			1.00	0.931		mg/L		93	85 - 115	1	20

Lab Sample ID: LCSD 550-258791/3-A
Matrix: Water
Analysis Batch: 259366

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258791

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron			1.00	0.938		mg/L		94	85 - 115	2	20

Lab Sample ID: 550-174373-10 MS
Matrix: Water
Analysis Batch: 259106

Client Sample ID: FC-CCR-MW84-1121
Prep Type: Total/NA
Prep Batch: 258791

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	ND	E8	1.00	1.03		mg/L		103	70 - 130
Boron	92	M3	1.00	93.9	M3	mg/L		234	70 - 130
Calcium	450	M3	21.0	486	M3	mg/L		151	70 - 130

Lab Sample ID: 550-174373-10 MSD
Matrix: Water
Analysis Batch: 259106

Client Sample ID: FC-CCR-MW84-1121
Prep Type: Total/NA
Prep Batch: 258791

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	ND	E8	1.00	1.02		mg/L		102	70 - 130	0	20
Boron	92	M3	1.00	92.1	M3	mg/L		53	70 - 130	2	20
Calcium	450	M3	21.0	481	M3	mg/L		123	70 - 130	1	20

Lab Sample ID: MB 280-558432/1-A
Matrix: Water
Analysis Batch: 558746

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 558432

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	E8	0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 16:25	1

Lab Sample ID: LCS 280-558432/2-A
Matrix: Water
Analysis Batch: 558746

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 558432

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium			1.00	1.03		mg/L		103	90 - 112

Lab Sample ID: 550-174373-10 MS
Matrix: Water
Analysis Batch: 558746

Client Sample ID: FC-CCR-MW84-1121
Prep Type: Total/NA
Prep Batch: 558432

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.24		1.00	1.38		mg/L		113	70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-174373-10 MSD
Matrix: Water
Analysis Batch: 558746

Client Sample ID: FC-CCR-MW84-1121
Prep Type: Total/NA
Prep Batch: 558432

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.24		1.00	1.39		mg/L		115	70 - 130	1	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-258800/1-A
Matrix: Water
Analysis Batch: 259360

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258800

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	E8	0.0010	0.000043	mg/L		11/17/21 07:57	11/22/21 19:19	1
Arsenic	ND	E8	0.00050	0.00025	mg/L		11/17/21 07:57	11/22/21 19:19	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		11/17/21 07:57	11/22/21 19:19	1
Chromium	ND	E8	0.0010	0.00043	mg/L		11/17/21 07:57	11/22/21 19:19	1
Cobalt	ND	E8	0.00050	0.000063	mg/L		11/17/21 07:57	11/22/21 19:19	1
Lead	ND	E8	0.00050	0.00022	mg/L		11/17/21 07:57	11/22/21 19:19	1
Molybdenum	ND	E8	0.00050	0.00020	mg/L		11/17/21 07:57	11/22/21 19:19	1
Selenium	0.0000920	E4	0.00050	0.000074	mg/L		11/17/21 07:57	11/22/21 19:19	1
Thallium	ND	E8	0.00010	0.000013	mg/L		11/17/21 07:57	11/22/21 19:19	1

Lab Sample ID: MB 550-258800/1-A
Matrix: Water
Analysis Batch: 259424

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258800

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.000794	B1	0.00050	0.00026	mg/L		11/17/21 07:57	11/23/21 13:02	1

Lab Sample ID: LCS 550-258800/2-A
Matrix: Water
Analysis Batch: 259360

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258800

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	0.0966		mg/L		97	85 - 115
Cadmium	0.100	0.101		mg/L		101	85 - 115
Chromium	0.100	0.0970		mg/L		97	85 - 115
Cobalt	0.100	0.0982		mg/L		98	85 - 115
Lead	0.100	0.0999		mg/L		100	85 - 115
Molybdenum	0.100	0.102		mg/L		102	85 - 115
Selenium	0.100	0.0914		mg/L		91	85 - 115
Thallium	0.100	0.0949		mg/L		95	85 - 115

Lab Sample ID: LCS 550-258800/2-A
Matrix: Water
Analysis Batch: 259416

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258800

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.100	0.112		mg/L		112	85 - 115

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 550-258800/3-A
Matrix: Water
Analysis Batch: 259360

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258800

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony			0.100	0.112		mg/L		112	85 - 115	10	20
Arsenic			0.100	0.106		mg/L		106	85 - 115	9	20
Cadmium			0.100	0.112		mg/L		112	85 - 115	10	20
Chromium			0.100	0.107		mg/L		107	85 - 115	10	20
Cobalt			0.100	0.107		mg/L		107	85 - 115	9	20
Lead			0.100	0.111		mg/L		111	85 - 115	11	20
Molybdenum			0.100	0.112		mg/L		112	85 - 115	9	20
Selenium			0.100	0.101		mg/L		101	85 - 115	10	20
Thallium			0.100	0.105		mg/L		105	85 - 115	10	20

Lab Sample ID: LCSD 550-258800/3-A
Matrix: Water
Analysis Batch: 259416

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258800

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium			0.100	0.115		mg/L		115	85 - 115	2	20

Lab Sample ID: 550-174373-10 MS
Matrix: Water
Analysis Batch: 259360

Client Sample ID: FC-CCR-MW84-1121
Prep Type: Total/NA
Prep Batch: 258800

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.00013	E4 D1	0.100	0.115		mg/L		115	70 - 130
Arsenic	ND	E8 D1	0.100	0.106		mg/L		106	70 - 130
Barium	0.019	D1 M1 B7	0.100	0.151	M1	mg/L		133	70 - 130
Cadmium	0.00031	D1	0.100	0.106		mg/L		106	70 - 130
Chromium	ND	E8 D1	0.100	0.102		mg/L		102	70 - 130
Cobalt	0.0079	D1	0.100	0.107		mg/L		99	70 - 130
Lead	ND	E8 D1	0.100	0.102		mg/L		102	70 - 130
Molybdenum	0.0014	D1	0.100	0.116		mg/L		115	70 - 130
Selenium	0.030	D1	0.100	0.137		mg/L		107	70 - 130
Thallium	0.00071	D1	0.100	0.0985		mg/L		98	70 - 130

Lab Sample ID: 550-174373-10 MSD
Matrix: Water
Analysis Batch: 259360

Client Sample ID: FC-CCR-MW84-1121
Prep Type: Total/NA
Prep Batch: 258800

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.00013	E4 D1	0.100	0.113		mg/L		113	70 - 130	2	20
Arsenic	ND	E8 D1	0.100	0.108		mg/L		108	70 - 130	2	20
Barium	0.019	D1 M1 B7	0.100	0.149		mg/L		130	70 - 130	2	20
Cadmium	0.00031	D1	0.100	0.107		mg/L		107	70 - 130	1	20
Chromium	ND	E8 D1	0.100	0.104		mg/L		104	70 - 130	2	20
Cobalt	0.0079	D1	0.100	0.109		mg/L		101	70 - 130	1	20
Lead	ND	E8 D1	0.100	0.0978		mg/L		98	70 - 130	4	20
Molybdenum	0.0014	D1	0.100	0.113		mg/L		112	70 - 130	3	20
Selenium	0.030	D1	0.100	0.138		mg/L		109	70 - 130	1	20
Thallium	0.00071	D1	0.100	0.0946		mg/L		94	70 - 130	4	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 550-259566/1-A
Matrix: Water
Analysis Batch: 259844

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259566

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND	E8	0.00050	0.00026	mg/L		11/24/21 10:56	11/29/21 15:43	1

Lab Sample ID: LCS 550-259566/2-A
Matrix: Water
Analysis Batch: 259844

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259566

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.100	0.105		mg/L		105	85 - 115

Lab Sample ID: LCSD 550-259566/3-A
Matrix: Water
Analysis Batch: 259844

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259566

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.100	0.108		mg/L		108	85 - 115	2	20

Lab Sample ID: MB 550-259848/1-A
Matrix: Water
Analysis Batch: 259969

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259848

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.000419	E4	0.00050	0.00026	mg/L		11/29/21 16:37	11/30/21 15:43	1

Lab Sample ID: LCS 550-259848/2-A
Matrix: Water
Analysis Batch: 259969

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259848

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.100	0.107		mg/L		107	85 - 115

Lab Sample ID: LCSD 550-259848/3-A
Matrix: Water
Analysis Batch: 259969

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259848

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.100	0.109		mg/L		109	85 - 115	2	20

Lab Sample ID: 550-174795-E-1-A MS
Matrix: Water
Analysis Batch: 259969

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 259848

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.040		0.100	0.154		mg/L		114	70 - 130

Lab Sample ID: 550-174795-E-1-B MSD
Matrix: Water
Analysis Batch: 259969

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 259848

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.040		0.100	0.151		mg/L		111	70 - 130	2	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-258882/1-A
Matrix: Water
Analysis Batch: 259076

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258882

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/17/21 13:09	11/18/21 14:55	1

Lab Sample ID: LCS 550-258882/2-A
Matrix: Water
Analysis Batch: 259076

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258882

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.00500	0.00426		mg/L		85	85 - 115

Lab Sample ID: LCSD 550-258882/3-A
Matrix: Water
Analysis Batch: 259076

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258882

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.00500	0.00419	L4	mg/L		84	85 - 115	2	20

Lab Sample ID: MB 550-259314/1-A
Matrix: Water
Analysis Batch: 259420

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259314

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/22/21 16:30	11/22/21 20:18	1

Lab Sample ID: LCS 550-259314/2-A
Matrix: Water
Analysis Batch: 259420

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259314

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.00500	0.00493		mg/L		99	85 - 115

Lab Sample ID: LCSD 550-259314/3-A
Matrix: Water
Analysis Batch: 259420

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259314

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.00500	0.00484		mg/L		97	85 - 115	2	20

Lab Sample ID: 550-174373-10 MS
Matrix: Water
Analysis Batch: 259420

Client Sample ID: FC-CCR-MW84-1121
Prep Type: Total/NA
Prep Batch: 259314

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	ND	E8	0.00500	0.00447		mg/L		89	70 - 130

Lab Sample ID: 550-174373-10 MSD
Matrix: Water
Analysis Batch: 259420

Client Sample ID: FC-CCR-MW84-1121
Prep Type: Total/NA
Prep Batch: 259314

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND	E8	0.00500	0.00455		mg/L		91	70 - 130	2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-258799/1
Matrix: Water
Analysis Batch: 258799

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			11/17/21 07:29	1

Lab Sample ID: LCS 550-258799/2
Matrix: Water
Analysis Batch: 258799

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 550-258799/3
Matrix: Water
Analysis Batch: 258799

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	954		mg/L		95	90 - 110	7	10

Lab Sample ID: 550-174177-B-2 DU
Matrix: Water
Analysis Batch: 258799

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	NC		1340		mg/L		NC	10

Lab Sample ID: 550-174193-M-1 DU
Matrix: Water
Analysis Batch: 258799

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	NC		3040	D2	mg/L		NC	10

Lab Sample ID: MB 550-258958/1
Matrix: Water
Analysis Batch: 258958

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			11/18/21 07:59	1

Lab Sample ID: LCS 550-258958/2
Matrix: Water
Analysis Batch: 258958

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 550-258958/3
Matrix: Water
Analysis Batch: 258958

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	986		mg/L		99	90 - 110	4	10

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: 550-174373-12 DU
Matrix: Water
Analysis Batch: 258958

Client Sample ID: FC-CCR-MW85-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	9900	D2		9220	D2	mg/L				7	10

Lab Sample ID: MB 550-259113/1
Matrix: Water
Analysis Batch: 259113

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			11/19/21 09:20	1

Lab Sample ID: LCS 550-259113/2
Matrix: Water
Analysis Batch: 259113

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	1100		mg/L		110	90 - 110		

Lab Sample ID: LCSD 550-259113/3
Matrix: Water
Analysis Batch: 259113

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	1100		mg/L		110	90 - 110	1	10

Lab Sample ID: 550-174373-3 DU
Matrix: Water
Analysis Batch: 259113

Client Sample ID: FC-CCR-MW68-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	10000	H1 D2		10100	D2	mg/L				1	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-259646/12
Matrix: Water
Analysis Batch: 259646

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		100.3	98.5 - 101.5		

Lab Sample ID: LCSSRM 550-259646/23
Matrix: Water
Analysis Batch: 259646

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		

Method: SM 4500 H+ B - pH (Continued)

Lab Sample ID: LCSSRM 550-259646/34
Matrix: Water
Analysis Batch: 259646

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 550-259646/42
Matrix: Water
Analysis Batch: 259646

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		100.3	98.5 - 101.5		

Lab Sample ID: 550-174373-4 DU
Matrix: Water
Analysis Batch: 259646

Client Sample ID: FC-CCR-MW69-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.4	H5		7.4	H5	SU				0.1	5
Temperature	9.8	H5		10.0	H5	Degrees C				2	

Lab Sample ID: 550-174373-13 DU
Matrix: Water
Analysis Batch: 259646

Client Sample ID: FC-CCR-MW86-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.2	H5		7.2	H5	SU				0.1	5
Temperature	8.8	H5		9.8	H5	Degrees C				11	

Lab Sample ID: 550-174490-A-1 DU
Matrix: Water
Analysis Batch: 259646

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.7	H5		7.7	H5	SU				0.1	5
Temperature	11.1	H5		11.2	H5	Degrees C				0.9	

HPLC/IC

Analysis Batch: 259284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-1	FC-CCR-MW66-1121	Total/NA	Water	300.0	
550-174373-1	FC-CCR-MW66-1121	Total/NA	Water	300.0	
550-174373-2	FC-CCR-MW67-1121	Total/NA	Water	300.0	
550-174373-2	FC-CCR-MW67-1121	Total/NA	Water	300.0	
550-174373-3	FC-CCR-MW68-1121	Total/NA	Water	300.0	
550-174373-3	FC-CCR-MW68-1121	Total/NA	Water	300.0	
550-174373-4	FC-CCR-MW69-1121	Total/NA	Water	300.0	
550-174373-4	FC-CCR-MW69-1121	Total/NA	Water	300.0	
550-174373-5	FC-CCR-MW70-1121	Total/NA	Water	300.0	
550-174373-5	FC-CCR-MW70-1121	Total/NA	Water	300.0	
550-174373-6	FC-CCR-MW71-1121	Total/NA	Water	300.0	
550-174373-6	FC-CCR-MW71-1121	Total/NA	Water	300.0	
550-174373-7	FC-CCR-MW72-1121	Total/NA	Water	300.0	
550-174373-7	FC-CCR-MW72-1121	Total/NA	Water	300.0	
550-174373-8	FC-CCR-MW73-1121	Total/NA	Water	300.0	
550-174373-8	FC-CCR-MW73-1121	Total/NA	Water	300.0	
MB 550-259284/2	Method Blank	Total/NA	Water	300.0	
LCS 550-259284/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-259284/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174257-C-1 MS ^50	Matrix Spike	Total/NA	Water	300.0	
550-174257-C-1 MSD ^50	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 259394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-9	FC-CCR-MW83-1121	Total/NA	Water	300.0	
550-174373-9	FC-CCR-MW83-1121	Total/NA	Water	300.0	
550-174373-10	FC-CCR-MW84-1121	Total/NA	Water	300.0	
550-174373-10	FC-CCR-MW84-1121	Total/NA	Water	300.0	
550-174373-11	FC-CCR-FD01-1121	Total/NA	Water	300.0	
550-174373-11	FC-CCR-FD01-1121	Total/NA	Water	300.0	
550-174373-12	FC-CCR-MW85-1121	Total/NA	Water	300.0	
550-174373-12	FC-CCR-MW85-1121	Total/NA	Water	300.0	
550-174373-13	FC-CCR-MW86-1121	Total/NA	Water	300.0	
550-174373-13	FC-CCR-MW86-1121	Total/NA	Water	300.0	
550-174373-14	FC-CCR-FD02-1121	Total/NA	Water	300.0	
550-174373-14	FC-CCR-FD02-1121	Total/NA	Water	300.0	
MB 550-259394/2	Method Blank	Total/NA	Water	300.0	
LCS 550-259394/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-259394/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174373-10 MS	FC-CCR-MW84-1121	Total/NA	Water	300.0	
550-174373-10 MS	FC-CCR-MW84-1121	Total/NA	Water	300.0	
550-174373-10 MSD	FC-CCR-MW84-1121	Total/NA	Water	300.0	
550-174373-10 MSD	FC-CCR-MW84-1121	Total/NA	Water	300.0	

Metals

Prep Batch: 258791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-1	FC-CCR-MW66-1121	Total/NA	Water	200.7	
550-174373-2	FC-CCR-MW67-1121	Total/NA	Water	200.7	
550-174373-3	FC-CCR-MW68-1121	Total/NA	Water	200.7	

Metals (Continued)

Prep Batch: 258791 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-4	FC-CCR-MW69-1121	Total/NA	Water	200.7	
550-174373-5	FC-CCR-MW70-1121	Total/NA	Water	200.7	
550-174373-6	FC-CCR-MW71-1121	Total/NA	Water	200.7	
550-174373-7	FC-CCR-MW72-1121	Total/NA	Water	200.7	
550-174373-8	FC-CCR-MW73-1121	Total/NA	Water	200.7	
550-174373-9	FC-CCR-MW83-1121	Total/NA	Water	200.7	
550-174373-10	FC-CCR-MW84-1121	Total/NA	Water	200.7	
550-174373-11	FC-CCR-FD01-1121	Total/NA	Water	200.7	
550-174373-12	FC-CCR-MW85-1121	Total/NA	Water	200.7	
550-174373-13	FC-CCR-MW86-1121	Total/NA	Water	200.7	
550-174373-14	FC-CCR-FD02-1121	Total/NA	Water	200.7	
MB 550-258791/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-258791/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-258791/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-174373-10 MS	FC-CCR-MW84-1121	Total/NA	Water	200.7	
550-174373-10 MSD	FC-CCR-MW84-1121	Total/NA	Water	200.7	

Prep Batch: 258800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-1	FC-CCR-MW66-1121	Total/NA	Water	200.8	
550-174373-2	FC-CCR-MW67-1121	Total/NA	Water	200.8	
550-174373-3	FC-CCR-MW68-1121	Total/NA	Water	200.8	
550-174373-4	FC-CCR-MW69-1121	Total/NA	Water	200.8	
550-174373-5	FC-CCR-MW70-1121	Total/NA	Water	200.8	
550-174373-6	FC-CCR-MW71-1121	Total/NA	Water	200.8	
550-174373-7	FC-CCR-MW72-1121	Total/NA	Water	200.8	
550-174373-8	FC-CCR-MW73-1121	Total/NA	Water	200.8	
550-174373-9	FC-CCR-MW83-1121	Total/NA	Water	200.8	
550-174373-10	FC-CCR-MW84-1121	Total/NA	Water	200.8	
550-174373-11	FC-CCR-FD01-1121	Total/NA	Water	200.8	
550-174373-12	FC-CCR-MW85-1121	Total/NA	Water	200.8	
550-174373-13	FC-CCR-MW86-1121	Total/NA	Water	200.8	
550-174373-14	FC-CCR-FD02-1121	Total/NA	Water	200.8	
MB 550-258800/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-258800/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-258800/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-174373-10 MS	FC-CCR-MW84-1121	Total/NA	Water	200.8	
550-174373-10 MSD	FC-CCR-MW84-1121	Total/NA	Water	200.8	

Prep Batch: 258882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-2	FC-CCR-MW67-1121	Total/NA	Water	245.1	
550-174373-5	FC-CCR-MW70-1121	Total/NA	Water	245.1	
550-174373-6	FC-CCR-MW71-1121	Total/NA	Water	245.1	
550-174373-8	FC-CCR-MW73-1121	Total/NA	Water	245.1	
MB 550-258882/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-258882/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-258882/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	

Metals

Analysis Batch: 259076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-2	FC-CCR-MW67-1121	Total/NA	Water	245.1	258882
550-174373-5	FC-CCR-MW70-1121	Total/NA	Water	245.1	258882
550-174373-6	FC-CCR-MW71-1121	Total/NA	Water	245.1	258882
550-174373-8	FC-CCR-MW73-1121	Total/NA	Water	245.1	258882
MB 550-258882/1-A	Method Blank	Total/NA	Water	245.1	258882
LCS 550-258882/2-A	Lab Control Sample	Total/NA	Water	245.1	258882
LCSD 550-258882/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	258882

Analysis Batch: 259106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-1	FC-CCR-MW66-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-2	FC-CCR-MW67-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-3	FC-CCR-MW68-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-4	FC-CCR-MW69-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-5	FC-CCR-MW70-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-6	FC-CCR-MW71-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-7	FC-CCR-MW72-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-8	FC-CCR-MW73-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-9	FC-CCR-MW83-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-10	FC-CCR-MW84-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-11	FC-CCR-FD01-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-12	FC-CCR-MW85-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-13	FC-CCR-MW86-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-14	FC-CCR-FD02-1121	Total/NA	Water	200.7 Rev 4.4	258791
MB 550-258791/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	258791
LCS 550-258791/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	258791
LCSD 550-258791/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-10 MS	FC-CCR-MW84-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-10 MSD	FC-CCR-MW84-1121	Total/NA	Water	200.7 Rev 4.4	258791

Analysis Batch: 259262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-1	FC-CCR-MW66-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-2	FC-CCR-MW67-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-3	FC-CCR-MW68-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-13	FC-CCR-MW86-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-14	FC-CCR-FD02-1121	Total/NA	Water	200.7 Rev 4.4	258791
MB 550-258791/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	258791
LCS 550-258791/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	258791
LCSD 550-258791/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	258791

Prep Batch: 259314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-1	FC-CCR-MW66-1121	Total/NA	Water	245.1	
550-174373-3	FC-CCR-MW68-1121	Total/NA	Water	245.1	
550-174373-4	FC-CCR-MW69-1121	Total/NA	Water	245.1	
550-174373-7	FC-CCR-MW72-1121	Total/NA	Water	245.1	
550-174373-9	FC-CCR-MW83-1121	Total/NA	Water	245.1	
550-174373-10	FC-CCR-MW84-1121	Total/NA	Water	245.1	
550-174373-11	FC-CCR-FD01-1121	Total/NA	Water	245.1	
550-174373-12	FC-CCR-MW85-1121	Total/NA	Water	245.1	

Metals (Continued)

Prep Batch: 259314 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-13	FC-CCR-MW86-1121	Total/NA	Water	245.1	
550-174373-14	FC-CCR-FD02-1121	Total/NA	Water	245.1	
MB 550-259314/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-259314/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-259314/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-174373-10 MS	FC-CCR-MW84-1121	Total/NA	Water	245.1	
550-174373-10 MSD	FC-CCR-MW84-1121	Total/NA	Water	245.1	

Analysis Batch: 259360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-1	FC-CCR-MW66-1121	Total/NA	Water	200.8 LL	258800
550-174373-2	FC-CCR-MW67-1121	Total/NA	Water	200.8 LL	258800
550-174373-3	FC-CCR-MW68-1121	Total/NA	Water	200.8 LL	258800
550-174373-4	FC-CCR-MW69-1121	Total/NA	Water	200.8 LL	258800
550-174373-5	FC-CCR-MW70-1121	Total/NA	Water	200.8 LL	258800
550-174373-6	FC-CCR-MW71-1121	Total/NA	Water	200.8 LL	258800
550-174373-7	FC-CCR-MW72-1121	Total/NA	Water	200.8 LL	258800
550-174373-8	FC-CCR-MW73-1121	Total/NA	Water	200.8 LL	258800
550-174373-9	FC-CCR-MW83-1121	Total/NA	Water	200.8 LL	258800
550-174373-10	FC-CCR-MW84-1121	Total/NA	Water	200.8 LL	258800
550-174373-11	FC-CCR-FD01-1121	Total/NA	Water	200.8 LL	258800
550-174373-12	FC-CCR-MW85-1121	Total/NA	Water	200.8 LL	258800
550-174373-13	FC-CCR-MW86-1121	Total/NA	Water	200.8 LL	258800
550-174373-14	FC-CCR-FD02-1121	Total/NA	Water	200.8 LL	258800
MB 550-258800/1-A	Method Blank	Total/NA	Water	200.8 LL	258800
LCS 550-258800/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	258800
LCSD 550-258800/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	258800
550-174373-10 MS	FC-CCR-MW84-1121	Total/NA	Water	200.8 LL	258800
550-174373-10 MSD	FC-CCR-MW84-1121	Total/NA	Water	200.8 LL	258800

Analysis Batch: 259366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-6	FC-CCR-MW71-1121	Total/NA	Water	200.7 Rev 4.4	258791
550-174373-7	FC-CCR-MW72-1121	Total/NA	Water	200.7 Rev 4.4	258791
MB 550-258791/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	258791
LCS 550-258791/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	258791
LCSD 550-258791/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	258791

Analysis Batch: 259416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 550-258800/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	258800
LCSD 550-258800/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	258800

Analysis Batch: 259420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-1	FC-CCR-MW66-1121	Total/NA	Water	245.1	259314
550-174373-3	FC-CCR-MW68-1121	Total/NA	Water	245.1	259314
550-174373-4	FC-CCR-MW69-1121	Total/NA	Water	245.1	259314
550-174373-7	FC-CCR-MW72-1121	Total/NA	Water	245.1	259314
550-174373-9	FC-CCR-MW83-1121	Total/NA	Water	245.1	259314
550-174373-10	FC-CCR-MW84-1121	Total/NA	Water	245.1	259314

Metals (Continued)

Analysis Batch: 259420 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-11	FC-CCR-FD01-1121	Total/NA	Water	245.1	259314
550-174373-12	FC-CCR-MW85-1121	Total/NA	Water	245.1	259314
550-174373-13	FC-CCR-MW86-1121	Total/NA	Water	245.1	259314
550-174373-14	FC-CCR-FD02-1121	Total/NA	Water	245.1	259314
MB 550-259314/1-A	Method Blank	Total/NA	Water	245.1	259314
LCS 550-259314/2-A	Lab Control Sample	Total/NA	Water	245.1	259314
LCSD 550-259314/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	259314
550-174373-10 MS	FC-CCR-MW84-1121	Total/NA	Water	245.1	259314
550-174373-10 MSD	FC-CCR-MW84-1121	Total/NA	Water	245.1	259314

Analysis Batch: 259424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-258800/1-A	Method Blank	Total/NA	Water	200.8 LL	258800

Prep Batch: 259566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-3	FC-CCR-MW68-1121	Total/NA	Water	200.8	
550-174373-4	FC-CCR-MW69-1121	Total/NA	Water	200.8	
550-174373-5	FC-CCR-MW70-1121	Total/NA	Water	200.8	
550-174373-6	FC-CCR-MW71-1121	Total/NA	Water	200.8	
550-174373-7	FC-CCR-MW72-1121	Total/NA	Water	200.8	
550-174373-9	FC-CCR-MW83-1121	Total/NA	Water	200.8	
MB 550-259566/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-259566/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-259566/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	

Analysis Batch: 259844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-3	FC-CCR-MW68-1121	Total/NA	Water	200.8 LL	259566
550-174373-4	FC-CCR-MW69-1121	Total/NA	Water	200.8 LL	259566
550-174373-5	FC-CCR-MW70-1121	Total/NA	Water	200.8 LL	259566
550-174373-6	FC-CCR-MW71-1121	Total/NA	Water	200.8 LL	259566
550-174373-7	FC-CCR-MW72-1121	Total/NA	Water	200.8 LL	259566
550-174373-9	FC-CCR-MW83-1121	Total/NA	Water	200.8 LL	259566
MB 550-259566/1-A	Method Blank	Total/NA	Water	200.8 LL	259566
LCS 550-259566/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	259566
LCSD 550-259566/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	259566

Prep Batch: 259848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-2	FC-CCR-MW67-1121	Total/NA	Water	200.8	
MB 550-259848/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-259848/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-259848/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-174795-E-1-A MS	Matrix Spike	Total/NA	Water	200.8	
550-174795-E-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	

Analysis Batch: 259969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-2	FC-CCR-MW67-1121	Total/NA	Water	200.8 LL	259848
MB 550-259848/1-A	Method Blank	Total/NA	Water	200.8 LL	259848

Metals (Continued)

Analysis Batch: 259969 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 550-259848/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	259848
LCSD 550-259848/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	259848
550-174795-E-1-A MS	Matrix Spike	Total/NA	Water	200.8 LL	259848
550-174795-E-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	259848

Prep Batch: 558432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-1	FC-CCR-MW66-1121	Total/NA	Water	200.7	
550-174373-2	FC-CCR-MW67-1121	Total/NA	Water	200.7	
550-174373-3	FC-CCR-MW68-1121	Total/NA	Water	200.7	
550-174373-4	FC-CCR-MW69-1121	Total/NA	Water	200.7	
550-174373-5	FC-CCR-MW70-1121	Total/NA	Water	200.7	
550-174373-6	FC-CCR-MW71-1121	Total/NA	Water	200.7	
550-174373-7	FC-CCR-MW72-1121	Total/NA	Water	200.7	
550-174373-8	FC-CCR-MW73-1121	Total/NA	Water	200.7	
550-174373-9	FC-CCR-MW83-1121	Total/NA	Water	200.7	
550-174373-10	FC-CCR-MW84-1121	Total/NA	Water	200.7	
550-174373-11	FC-CCR-FD01-1121	Total/NA	Water	200.7	
550-174373-12	FC-CCR-MW85-1121	Total/NA	Water	200.7	
550-174373-13	FC-CCR-MW86-1121	Total/NA	Water	200.7	
550-174373-14	FC-CCR-FD02-1121	Total/NA	Water	200.7	
MB 280-558432/1-A	Method Blank	Total/NA	Water	200.7	
LCS 280-558432/2-A	Lab Control Sample	Total/NA	Water	200.7	
550-174373-10 MS	FC-CCR-MW84-1121	Total/NA	Water	200.7	
550-174373-10 MSD	FC-CCR-MW84-1121	Total/NA	Water	200.7	

Analysis Batch: 558746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-1	FC-CCR-MW66-1121	Total/NA	Water	200.7 Rev 4.4	558432
550-174373-2	FC-CCR-MW67-1121	Total/NA	Water	200.7 Rev 4.4	558432
550-174373-3	FC-CCR-MW68-1121	Total/NA	Water	200.7 Rev 4.4	558432
550-174373-4	FC-CCR-MW69-1121	Total/NA	Water	200.7 Rev 4.4	558432
550-174373-5	FC-CCR-MW70-1121	Total/NA	Water	200.7 Rev 4.4	558432
550-174373-6	FC-CCR-MW71-1121	Total/NA	Water	200.7 Rev 4.4	558432
550-174373-7	FC-CCR-MW72-1121	Total/NA	Water	200.7 Rev 4.4	558432
550-174373-8	FC-CCR-MW73-1121	Total/NA	Water	200.7 Rev 4.4	558432
550-174373-9	FC-CCR-MW83-1121	Total/NA	Water	200.7 Rev 4.4	558432
550-174373-10	FC-CCR-MW84-1121	Total/NA	Water	200.7 Rev 4.4	558432
550-174373-11	FC-CCR-FD01-1121	Total/NA	Water	200.7 Rev 4.4	558432
550-174373-12	FC-CCR-MW85-1121	Total/NA	Water	200.7 Rev 4.4	558432
550-174373-13	FC-CCR-MW86-1121	Total/NA	Water	200.7 Rev 4.4	558432
550-174373-14	FC-CCR-FD02-1121	Total/NA	Water	200.7 Rev 4.4	558432
MB 280-558432/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	558432
LCS 280-558432/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	558432
550-174373-10 MS	FC-CCR-MW84-1121	Total/NA	Water	200.7 Rev 4.4	558432
550-174373-10 MSD	FC-CCR-MW84-1121	Total/NA	Water	200.7 Rev 4.4	558432

General Chemistry

Analysis Batch: 258799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-1	FC-CCR-MW66-1121	Total/NA	Water	SM 2540C	
550-174373-5	FC-CCR-MW70-1121	Total/NA	Water	SM 2540C	
550-174373-7	FC-CCR-MW72-1121	Total/NA	Water	SM 2540C	
MB 550-258799/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-258799/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-258799/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-174177-B-2 DU	Duplicate	Total/NA	Water	SM 2540C	
550-174193-M-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 258958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-8	FC-CCR-MW73-1121	Total/NA	Water	SM 2540C	
550-174373-9	FC-CCR-MW83-1121	Total/NA	Water	SM 2540C	
550-174373-10	FC-CCR-MW84-1121	Total/NA	Water	SM 2540C	
550-174373-11	FC-CCR-FD01-1121	Total/NA	Water	SM 2540C	
550-174373-12	FC-CCR-MW85-1121	Total/NA	Water	SM 2540C	
550-174373-13	FC-CCR-MW86-1121	Total/NA	Water	SM 2540C	
550-174373-14	FC-CCR-FD02-1121	Total/NA	Water	SM 2540C	
MB 550-258958/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-258958/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-258958/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-174373-12 DU	FC-CCR-MW85-1121	Total/NA	Water	SM 2540C	

Analysis Batch: 259113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-2	FC-CCR-MW67-1121	Total/NA	Water	SM 2540C	
550-174373-3	FC-CCR-MW68-1121	Total/NA	Water	SM 2540C	
550-174373-4	FC-CCR-MW69-1121	Total/NA	Water	SM 2540C	
550-174373-6	FC-CCR-MW71-1121	Total/NA	Water	SM 2540C	
MB 550-259113/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-259113/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-259113/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-174373-3 DU	FC-CCR-MW68-1121	Total/NA	Water	SM 2540C	

Analysis Batch: 259646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-1	FC-CCR-MW66-1121	Total/NA	Water	SM 4500 H+ B	
550-174373-2	FC-CCR-MW67-1121	Total/NA	Water	SM 4500 H+ B	
550-174373-3	FC-CCR-MW68-1121	Total/NA	Water	SM 4500 H+ B	
550-174373-4	FC-CCR-MW69-1121	Total/NA	Water	SM 4500 H+ B	
550-174373-5	FC-CCR-MW70-1121	Total/NA	Water	SM 4500 H+ B	
550-174373-6	FC-CCR-MW71-1121	Total/NA	Water	SM 4500 H+ B	
550-174373-7	FC-CCR-MW72-1121	Total/NA	Water	SM 4500 H+ B	
550-174373-8	FC-CCR-MW73-1121	Total/NA	Water	SM 4500 H+ B	
550-174373-9	FC-CCR-MW83-1121	Total/NA	Water	SM 4500 H+ B	
550-174373-10	FC-CCR-MW84-1121	Total/NA	Water	SM 4500 H+ B	
550-174373-11	FC-CCR-FD01-1121	Total/NA	Water	SM 4500 H+ B	
550-174373-12	FC-CCR-MW85-1121	Total/NA	Water	SM 4500 H+ B	
550-174373-13	FC-CCR-MW86-1121	Total/NA	Water	SM 4500 H+ B	
550-174373-14	FC-CCR-FD02-1121	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259646/12	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 259646 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSSRM 550-259646/23	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259646/34	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259646/42	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-174373-4 DU	FC-CCR-MW69-1121	Total/NA	Water	SM 4500 H+ B	
550-174373-13 DU	FC-CCR-MW86-1121	Total/NA	Water	SM 4500 H+ B	
550-174490-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: 550-174373-1
SDG: APS Four Corners Power Plant (URS)

Client Sample ID: FC-CCR-MW66-1121

Date Collected: 11/12/21 16:08
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174373-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	259284	11/19/21 18:18	JNW	TAL PHX
Total/NA	Analysis	300.0		2	259284	11/19/21 19:13	JNW	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259106	11/18/21 21:30	MGM	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	259262	11/19/21 16:54	MGM	TAL PHX
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 16:33	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 19:31	ARE	TAL PHX
Total/NA	Prep	245.1			259314	11/22/21 16:30	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259420	11/22/21 20:33	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	258799		EJR	TAL PHX
					(Start)	11/17/21 07:29		
					(End)	11/18/21 12:00		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-MW67-1121

Date Collected: 11/12/21 08:13
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174373-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259284	11/19/21 19:31	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259284	11/19/21 19:50	JNW	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259106	11/18/21 21:33	MGM	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	259262	11/19/21 16:57	MGM	TAL PHX
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 16:37	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 19:33	ARE	TAL PHX
Total/NA	Prep	200.8			259848	11/29/21 16:37	ARE	TAL PHX
Total/NA	Analysis	200.8 LL		1	259969	11/30/21 15:55	ARE	TAL PHX
Total/NA	Prep	245.1			258882	11/17/21 13:09	CXK	TAL PHX
Total/NA	Analysis	245.1		1	259076	11/18/21 15:15	CXK	TAL PHX
Total/NA	Analysis	SM 2540C		1	259113		EJR	TAL PHX
					(Start)	11/19/21 09:20		
					(End)	11/23/21 18:00		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-MW68-1121

Date Collected: 11/11/21 16:14
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174373-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259284	11/19/21 20:08	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259284	11/19/21 20:26	JNW	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259106	11/18/21 21:35	MGM	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	259262	11/19/21 16:59	MGM	TAL PHX
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 16:41	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 19:35	ARE	TAL PHX
Total/NA	Prep	200.8			259566	11/24/21 10:56	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	259844	11/29/21 15:51	ARE	TAL PHX
Total/NA	Prep	245.1			259314	11/22/21 16:30	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259420	11/22/21 20:35	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	259113		EJR	TAL PHX
					(Start)	11/19/21 09:20		
					(End)	11/23/21 18:00		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-MW69-1121

Date Collected: 11/11/21 15:27
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174373-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259284	11/19/21 20:45	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259284	11/19/21 21:03	JNW	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259106	11/18/21 21:38	MGM	TAL PHX
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 16:45	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 19:37	ARE	TAL PHX
Total/NA	Prep	200.8			259566	11/24/21 10:56	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	259844	11/29/21 15:53	ARE	TAL PHX
Total/NA	Prep	245.1			259314	11/22/21 16:30	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259420	11/22/21 20:36	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	259113		EJR	TAL PHX
					(Start)	11/19/21 09:20		
					(End)	11/23/21 18:00		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174373-1
SDG: APS Four Corners Power Plant (URS)

Client Sample ID: FC-CCR-MW70-1121

Date Collected: 11/12/21 14:44
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174373-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259284	11/19/21 21:22	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259284	11/19/21 21:40	JNW	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259106	11/18/21 21:40	MGM	TAL PHX
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 16:49	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 19:39	ARE	TAL PHX
Total/NA	Prep	200.8			259566	11/24/21 10:56	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	259844	11/29/21 15:56	ARE	TAL PHX
Total/NA	Prep	245.1			258882	11/17/21 13:09	CXK	TAL PHX
Total/NA	Analysis	245.1		1	259076	11/18/21 15:20	CXK	TAL PHX
Total/NA	Analysis	SM 2540C		1	258799		EJR	TAL PHX
					(Start)	11/17/21 07:29		
					(End)	11/18/21 12:00		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-MW71-1121

Date Collected: 11/12/21 12:40
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174373-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	259284	11/19/21 21:58	JNW	TAL PHX
Total/NA	Analysis	300.0		2	259284	11/19/21 22:54	JNW	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259106	11/18/21 21:48	MGM	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259366	11/22/21 17:40	MGM	TAL PHX
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 16:53	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 19:42	ARE	TAL PHX
Total/NA	Prep	200.8			259566	11/24/21 10:56	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	259844	11/29/21 15:58	ARE	TAL PHX
Total/NA	Prep	245.1			258882	11/17/21 13:09	CXK	TAL PHX
Total/NA	Analysis	245.1		1	259076	11/18/21 15:22	CXK	TAL PHX
Total/NA	Analysis	SM 2540C		1	259113		EJR	TAL PHX
					(Start)	11/19/21 09:20		
					(End)	11/23/21 18:00		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-MW72-1121

Lab Sample ID: 550-174373-7

Date Collected: 11/12/21 13:31

Matrix: Water

Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259284	11/19/21 23:12	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259284	11/19/21 23:30	JNW	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259106	11/18/21 21:51	MGM	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259366	11/22/21 17:43	MGM	TAL PHX
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 16:57	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 19:44	ARE	TAL PHX
Total/NA	Prep	200.8			259566	11/24/21 10:56	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	259844	11/29/21 16:00	ARE	TAL PHX
Total/NA	Prep	245.1			259314	11/22/21 16:30	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259420	11/22/21 20:38	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	258799		EJR	TAL PHX
					(Start)	11/17/21 07:29		
					(End)	11/18/21 12:00		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-MW73-1121

Lab Sample ID: 550-174373-8

Date Collected: 11/13/21 08:31

Matrix: Water

Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259284	11/19/21 23:49	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259284	11/20/21 00:07	JNW	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259106	11/18/21 21:53	MGM	TAL PHX
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 17:01	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 19:46	ARE	TAL PHX
Total/NA	Prep	245.1			258882	11/17/21 13:09	CXK	TAL PHX
Total/NA	Analysis	245.1		1	259076	11/18/21 16:13	CXK	TAL PHX
Total/NA	Analysis	SM 2540C		1	258958		YET	TAL PHX
					(Start)	11/18/21 07:59		
					(End)	11/19/21 12:20		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-MW83-1121

Lab Sample ID: 550-174373-9

Date Collected: 11/12/21 10:13

Matrix: Water

Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259394	11/22/21 18:14	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259394	11/22/21 18:32	JNW	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259106	11/18/21 21:56	MGM	TAL PHX
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 17:21	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 19:52	ARE	TAL PHX
Total/NA	Prep	200.8			259566	11/24/21 10:56	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	259844	11/29/21 16:02	ARE	TAL PHX
Total/NA	Prep	245.1			259314	11/22/21 16:30	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259420	11/22/21 20:41	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	258958		YET	TAL PHX
					(Start)	11/18/21 07:59		
					(End)	11/19/21 12:20		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-MW84-1121

Lab Sample ID: 550-174373-10

Date Collected: 11/12/21 09:09

Matrix: Water

Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259394	11/22/21 16:23	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259394	11/22/21 17:18	JNW	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259106	11/18/21 21:27	MGM	TAL PHX
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 17:25	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 19:29	ARE	TAL PHX
Total/NA	Prep	245.1			259314	11/22/21 16:30	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259420	11/22/21 20:31	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	258958		YET	TAL PHX
					(Start)	11/18/21 07:59		
					(End)	11/19/21 12:20		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-FD01-1121

Lab Sample ID: 550-174373-11

Date Collected: 11/12/21 09:09

Matrix: Water

Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259394	11/22/21 18:50	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259394	11/22/21 19:09	JNW	TAL PHX

Client Sample ID: FC-CCR-FD01-1121

Lab Sample ID: 550-174373-11

Date Collected: 11/12/21 09:09
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259106	11/18/21 21:59	MGM	TAL PHX
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 17:41	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 19:54	ARE	TAL PHX
Total/NA	Prep	245.1			259314	11/22/21 16:30	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259420	11/22/21 20:43	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	258958		YET	TAL PHX
						(Start) 11/18/21 07:59		
						(End) 11/19/21 12:20		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-MW85-1121

Lab Sample ID: 550-174373-12

Date Collected: 11/12/21 11:27
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259394	11/22/21 20:04	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259394	11/22/21 20:22	JNW	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259106	11/18/21 22:01	MGM	TAL PHX
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 17:45	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 19:56	ARE	TAL PHX
Total/NA	Prep	245.1			259314	11/22/21 16:30	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259420	11/22/21 20:44	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	258958		YET	TAL PHX
						(Start) 11/18/21 07:59		
						(End) 11/19/21 12:20		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-MW86-1121

Lab Sample ID: 550-174373-13

Date Collected: 11/12/21 15:31
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259394	11/22/21 20:41	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259394	11/22/21 20:59	JNW	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259106	11/18/21 22:04	MGM	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	259262	11/19/21 17:07	MGM	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174373-1
SDG: APS Four Corners Power Plant (URS)

Client Sample ID: FC-CCR-MW86-1121

Date Collected: 11/12/21 15:31
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174373-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 17:50	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 19:58	ARE	TAL PHX
Total/NA	Prep	245.1			259314	11/22/21 16:30	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259420	11/22/21 20:47	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	258958		YET	TAL PHX
					(Start)	11/18/21 07:59		
					(End)	11/19/21 12:20		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-FD02-1121

Date Collected: 11/12/21 15:31
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174373-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259394	11/22/21 21:18	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259394	11/22/21 21:36	JNW	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259106	11/18/21 22:06	MGM	TAL PHX
Total/NA	Prep	200.7			258791	11/16/21 20:52	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	259262	11/19/21 17:10	MGM	TAL PHX
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 17:54	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 20:00	ARE	TAL PHX
Total/NA	Prep	245.1			259314	11/22/21 16:30	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259420	11/22/21 20:48	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	258958		YET	TAL PHX
					(Start)	11/18/21 07:59		
					(End)	11/19/21 12:20		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174373-1
SDG: APS Four Corners Power Plant (URS)

Laboratory: Eurofins TestAmerica, 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	06-10-22

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 TestAmerica, Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	11-30-21
A2LA	ISO/IEC 17025	2907.01	11-30-21
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-28-22
Arizona	State	AZ0713	12-19-21
Arkansas DEQ	State	19-047-0	06-01-21 *
California	State	2513	01-08-22
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-22
Georgia	State	4025-011	01-08-22
Illinois	NELAP	2000172019-1	04-30-22
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	04-30-22
Kentucky (WW)	State	KY98047	12-31-21
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-22
Minnesota	NELAP	1788752	12-31-21
Nevada	State	CO000262020-1	07-31-22
New Hampshire	NELAP	205319	04-29-22
New Jersey	NELAP	190002	07-01-22
New York	NELAP	59923	04-01-22
North Carolina (WW/SW)	State	358	12-31-21
North Dakota	State	R-034	01-08-22
Oklahoma	State	2018-006	08-31-22
Oregon	NELAP	4025-011	01-08-22
Pennsylvania	NELAP	013	07-31-22
South Carolina	State	72002001	01-08-22
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-21 *
Virginia	NELAP	10490	06-14-22
Washington	State	C583-19	08-03-22
West Virginia DEP	State	354	11-30-21
Wisconsin	State	999615430	08-31-22
Wyoming (UST)	A2LA	2907.01	11-30-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174373-1
SDG: APS Four Corners Power Plant (URS)

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
200.8 LL	Metals (ICP/MS)	EPA	TAL PHX
245.1	Mercury (CVAA)	EPA	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 4500 H+ B	pH	SM	TAL PHX
200.7	Preparation, Total Metals	EPA	TAL DEN
200.7	Preparation, Total Metals	EPA	TAL PHX
200.8	Preparation, Total Metals	EPA	TAL PHX
245.1	Preparation, Mercury	EPA	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, 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

174373

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

11/30/2021

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	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:
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 (URS)	☐ 2 days			Job / SDG No.:
PO #: 100613442	☐ 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)	P 300.0 (Cl, F, SO4)	P 200.7 - Totals (B, Ca, Be, Li)	P 200.8 - Totals (Sb, As, Ba, , Cr, Pb, Mo, Se, Tl)	00-HB (pH)	30C (TDS)	P 245.1 - Totals (Hg)	Sample Specific Notes:
1	FC-CCR-MW66-1121	11/12/2021	16:08	G	W	2	N		X	X	X	X	X	X	Low Flow
2	FC-CCR-MW67-1121	11/12/2021	8:13	G	W	2	N		X	X	X	X	X	X	"
3	FC-CCR-MW68-1121	11/11/2021	16:14	G	W	2	N		X	X	X	X	X	X	"
4	FC-CCR-MW69-1121	11/11/2021	15:27	G	W	2	N		X	X	X	X	X	X	"
5	FC-CCR-MW70-1121	11/12/2021	14:44	G	W	2	N		X	X	X	X	X	X	"
6	FC-CCR-MW71-1121	11/12/2021	12:40	G	W	2	N		X	X	X	X	X	X	"
7	FC-CCR-MW72-1121	11/12/2021	13:31	G	W	2	N		X	X	X	X	X	X	"
8	FC-CCR-MW73-1121	11/13/2021	8:31	G	W	2	N		X	X	X	X	X	X	"
9	FC-CCR-MW83-1121	11/12/2021	10:13	G	W	2	N		X	X	X	X	X	X	"
10	FC-CCR-MW84-1121	11/12/2021	9:09	G	W	2	N		X	X	X	X	X	X	"
11	FC-CCR-FD01-1121	11/12/2021	9:09	G	W	2	N		X	X	X	X	X	X	"
									1	4	4	1	1	4	

550-174373 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

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____		
Relinquished by:	Company: Wood	Date/Time: 11/16/21 07:48	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: E-TA Phx	Date/Time: 11-16-21 15:15

0.2°C 1.8°C 0.9°C 1.5°C 1.3°C

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

174373

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

11/30/2021

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	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:
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 (URS)	☐ 2 days			Job / SDG No.:
PO #: 100613442	☐ 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)	PA (Cl, F, SO4)	PA - Totals (B, Ca, Be, Li)	PA - Totals (Sb, As, Ba, Pb, Mo, Se, Tl)	M 4 B (pH)	M 2 (TDS)	PA - Totals (Hg)	Sample Specific Notes:
12	FC-CCR-MW85-1121	11/12/2021	11:27	G	W	2	N	N	X	X	X	X	X	X	Low Flow
13	FC-CCR-MW86-1121	11/12/2021	15:31	G	W	2	N	N	X	X	X	X	X	X	"
14	FC-CCR-FD02-1121	11/12/2021	15:31	G	W	2	N	N	X	X	X	X	X	X	"
15	FC-CCR-MW84-1121-MS	11/12/2021	9:09	G	W	2	N	N	X	X	X	X	X	X	"
16	FC-CCR-MW84-1121-SD	11/12/2021	9:09	G	W	2	N	N	X	X	X	X	X	X	"
									1	4	4	1	1	4	

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

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]	Wood	11/16/21 07:48			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: E-TA Phx	Date/Time: 11-16-21 15:15

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

0.2°C 1.8°C 0.9°C 1.5°C 1.3°C CDO-ice

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd Suite 189
Phoenix, AZ 85040
Phone: 602-437-3340 Fax: 602-454-9303

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Baker, Ken	Carrier Tracking No(s):	COC No: 550-32385.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Baker@Eurofinset.com	State of Origin: Arizona	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Arizona		Job #: 550-174373-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 11/30/2021			
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 #: 55009706			
Site: Arizona Public Service	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	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_TOT Lithium-ICP	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
FC-CCR-MW66-1121 (550-174373-1)	11/12/21	16:08 Arizona		Water			X	1	AZ Sample
FC-CCR-MW67-1121 (550-174373-2)	11/12/21	08:13 Arizona		Water			X	1	AZ Sample
FC-CCR-MW68-1121 (550-174373-3)	11/11/21	16:14 Arizona		Water			X	1	AZ Sample
FC-CCR-MW69-1121 (550-174373-4)	11/11/21	15:27 Arizona		Water			X	1	AZ Sample
FC-CCR-MW70-1121 (550-174373-5)	11/12/21	14:44 Arizona		Water			X	1	AZ Sample
FC-CCR-MW71-1121 (550-174373-6)	11/12/21	12:40 Arizona		Water			X	1	AZ Sample
FC-CCR-MW72-1121 (550-174373-7)	11/12/21	13:31 Arizona		Water			X	1	AZ Sample
FC-CCR-MW73-1121 (550-174373-8)	11/13/21	08:31 Arizona		Water			X	1	AZ Sample
FC-CCR-MW83-1121 (550-174373-9)	11/12/21	10:13 Arizona		Water			X	1	AZ Sample

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

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
Nicole Grund	11/17/21 1400	ETA PHX	FED EX		
Relinquished by: FedEx	Date/Time:	Company	Received by:	Date/Time: 11/18/2021 1030	Company ETA PHX
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 175491	Cooler Temperature(s) °C and Other Remarks: 2.1 IR 11+1.0

Ver: 06/08/2021

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd Suite 189
Phoenix, AZ 85040
Phone: 602-437-3340 Fax: 602-454-9303

Chain of Custody Record

eurofins

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Baker, Ken	Carrier Tracking No(s):	COC No: 550-32385.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Baker@Eurofinset.com	State of Origin: Arizona	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Arizona		Job #: 550-174373-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 11/30/2021			
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 #: 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, 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_TOT Lithium-ICP	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
FC-CCR-MW84-1121 (550-174373-10)	11/12/21	09:09 Arizona		Water			X	1	AZ Sample
FC-CCR-MW84-1121 (550-174373-10MS)	11/12/21	09:09 Arizona	MS	Water			X	1	AZ Sample
FC-CCR-MW84-1121 (550-174373-10MSD)	11/12/21	09:09 Arizona	MSD	Water			X	1	AZ Sample
FC-CCR-FD01-1121 (550-174373-11)	11/12/21	09:09 Arizona		Water			X	1	AZ Sample
FC-CCR-MW85-1121 (550-174373-12)	11/12/21	11:27 Arizona		Water			X	1	AZ Sample
FC-CCR-MW86-1121 (550-174373-13)	11/12/21	15:31 Arizona		Water			X	1	AZ Sample
FC-CCR-FD02-1121 (550-174373-14)	11/12/21	15:31 Arizona		Water			X	1	AZ Sample

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

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: Nicole [signature]	Date/Time: 11/17/21 1400	Company: EPA PILX	Received by: FED EX	Date/Time:	Company
Relinquished by: FedEx	Date/Time:	Company	Received by: [signature]	Date/Time: 11/18/2021 1030	Company: EJA RLM
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 IR# 11 +1.0		

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-174373-1
SDG Number: APS Four Corners Power Plant (URS)

Login Number: 174373
List Number: 1
Creator: Maycock, Lisa

List Source: Eurofins TestAmerica, 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: 550-174373-1
SDG Number: APS Four Corners Power Plant (URS)

Login Number: 174373
List Number: 2
Creator: Rystrom, Joshua R

List Source: Eurofins TestAmerica, Denver
List Creation: 11/18/21 05:14 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.	False	Limited volume received.
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	

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, 2021
Sample Received: November 22, 2021
Analysis Completed: December 09, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW66-1121	1.1 ± 0.2	0.9 ± 0.3	2.0 ± 0.4

Date of Analysis	11/24/2021	11/24/2021	11/24/2021

12/9/2021

Alex Myers, Ph.D. 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, 2021 (Sample Date) 16:08 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	2.0 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	1.1 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	0.9 ± 0.3		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67816

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. (480) 897-9459

Comments: FC-CCR-MW66,1121

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

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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, 2021
Sample Received: November 22, 2021
Analysis Completed: December 09, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW67-1121	1.1 ± 0.2	2.7 ± 0.4	3.8 ± 0.4
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D.

12/9/2021
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, 2021 (Sample Date) 8:13 (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

☐ 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	3.8 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	1.1 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	2.7 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67817

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. (480) 897-9459

Comments: FC-CCR-MW67-1121

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

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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 11, 2021
Sample Received: November 22, 2021
Analysis Completed: December 09, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW68-1121	0.7 ± 0.2	0.8 ± 0.3	1.5 ± 0.4
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/9/2021
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 11, 2021 (Sample Date) 16:14 (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

☐ 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	1.5 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	0.8 ± 0.3		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67818

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. (480) 897-9459

Comments: FC-CCR-MW68-1121

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

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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 11, 2021
Sample Received: November 22, 2021
Analysis Completed: December 09, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW69-1121	1.0 ± 0.2	0.9 ± 0.3	1.9 ± 0.4
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/9/2021
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 11, 2021 (Sample Date) 15:27 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	1.9 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	1.0 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	0.9 ± 0.3		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67819

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. (480) 897-9459

Comments: FC-CCR-MW69-1121

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

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Website: www.radsafe.com

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FAX (480) 892-5446

Radiochemical Activity in Water (pCi/L)

Arizona Public Service
400 N. 5th Street
Phoenix, AZ 85004

Sampling Date: November 12, 2021
Sample Received: November 22, 2021
Analysis Completed: December 09, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW70-1121	0.4 ± 0.2	1.1 ± 0.3	1.5 ± 0.4
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/9/2021
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, 2021 (Sample Date) 14:44 (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

☐ 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	1.5 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.4 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	1.1 ± 0.3		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67820

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. (480) 897-9459

Comments: FC-CCR-MW70-1121

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

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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, 2021
Sample Received: November 22, 2021
Analysis Completed: December 09, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW71-1121	0.5 ± 0.2	< 0.6	0.5 ± 0.2
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/9/2021
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, 2021 (Sample Date) 12:40 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	< 0.6		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67821

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. (480) 897-9459

Comments: FC-CCR-MW71-1121

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 12, 2021
Sample Received: November 22, 2021
Analysis Completed: December 09, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW72-1121	1.3 ± 0.2	2.4 ± 0.4	3.7 ± 0.4
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/9/2021
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, 2021 (Sample Date) 13:31 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	3.7 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	1.3 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	2.4 ± 0.4		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67822

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. (480) 897-9459

Comments: FC-CCR-MW72-1121

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

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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, 2021
Sample Received: November 22, 2021
Analysis Completed: December 09, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW73-1121	1.0 ± 0.2	1.8 ± 0.3	2.8 ± 0.4
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/9/2021
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, 2021 (Sample Date) 8:31 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	2.8 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	1.0 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	1.8 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67823

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. (480) 897-9459

Comments: FC-CCR-MW73-1121

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 12, 2021
Sample Received: November 22, 2021
Analysis Completed: December 09, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW83-1121	0.7 ± 0.2	< 0.6	0.7 ± 0.2

Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/9/2021
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, 2021 (Sample Date) 10:13 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	< 0.6		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67824

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. (480) 897-9459

Comments: FC-CCR-MW83-1121

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 12, 2021
Sample Received: November 22, 2021
Analysis Completed: December 09, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW84-1121	1.4 ± 0.2	0.7 ± 0.3	2.1 ± 0.4
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/9/2021
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, 2021 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	2.1 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	1.4 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	0.7 ± 0.3		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67825

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. (480) 897-9459

Comments: FC-CCR-MW84-1121

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 12, 2021
Sample Received: November 22, 2021
Analysis Completed: December 09, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW85-1121	0.5 ± 0.2	1.4 ± 0.3	1.9 ± 0.4
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/9/2021
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, 2021 (Sample Date) 11:27 (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 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	1.9 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	1.4 ± 0.3		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67826

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. (480) 897-9459

Comments: FC-CCR-MW85-1121

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 12, 2021
Sample Received: November 22, 2021
Analysis Completed: December 09, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW86-1121	0.5 ± 0.2	< 0.6	0.5 ± 0.2
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D.

12/9/2021
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, 2021 (Sample Date) 15:31 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	< 0.6		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67827

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. (480) 897-9459

Comments: FC-CCR-MW86-1121

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 12, 2021
Sample Received: November 22, 2021
Analysis Completed: December 09, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-FD01-1121	1.2 ± 0.2	1.1 ± 0.3	2.3 ± 0.4

Date of Analysis	11/24/2021	11/24/2021	11/24/2021

12/9/2021

Alex Myers, Ph.D. 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, 2021 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	2.3 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	1.2 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	1.1 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

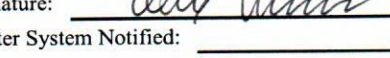
Specimen Number: RSE67828

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. (480) 897-9459

Comments: FC-CCR-FD01-1121

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 12, 2021
Sample Received: November 22, 2021
Analysis Completed: December 09, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-FD02-1121	0.5 ± 0.2	1.4 ± 0.3	1.9 ± 0.4
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/9/2021
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, 2021 (Sample Date) 15:31 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	1.9 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	1.4 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67829

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. (480) 897-9459

Comments: FC-CCR-FD02-1121

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 12, 2021
Sample Received: November 22, 2021
Analysis Completed: December 09, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW84-1121-MS	1.6 ± 0.2	1.7 ± 0.3	3.3 ± 0.4
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/9/2021
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, 2021 (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

☐ 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	3.3 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	1.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	1.7 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67830

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. (480) 897-9459

Comments: FC-CCR-MW84-1121-MS

Authorized Signature: Ally Thom

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, 2021
Sample Received: November 22, 2021
Analysis Completed: December 09, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW84-1121-SD	1.1 ± 0.2	1.4 ± 0.3	2.5 ± 0.4
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/9/2021
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, 2021 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	2.5 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	1.1 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	1.4 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67831

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. (480) 897-9459

Comments: FC-CCR-MW84-1121-SD

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Client Information

Name:	Natalie Chrisman/602-250-3608 Jim Edwards/928-288-1241
Company	Arizona Public Service
Address	PO Box 355, MS 4915 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-MW66-1121	11/12/2021	16:08	GW						X	X	X						67816
FC-CCR-MW67-1121	11/12/2021	8:13	GW						X	X	X						67817
FC-CCR-MW68-1121	11/11/2021	16:14	GW						X	X	X						67818
FC-CCR-MW69-1121	11/11/2021	15:27	GW						X	X	X						67819
FC-CCR-MW70-1121	11/12/2021	14:44	GW						X	X	X						67820
FC-CCR-MW71-1121	11/12/2021	12:40	GW						X	X	X						67821
FC-CCR-MW72-1121	11/12/2021	13:31	GW						X	X	X						67822
FC-CCR-MW73-1121	11/13/2021	8:31	GW						X	X	X						67823
FC-CCR-MW83-1121	11/12/2021	10:13	GW						X	X	X						67824
FC-CCR-MW84-1121	11/12/2021	9:09	GW						X	X	X						67825

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO#: 100611133

Instructions/Comments
Method HPGe

Relinquished By:	Company:	Date/time: 11/22/21 09:58	Received By: Pat Flannery		Company: RSE	Date/time: 11/22/21 9:58
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:	Natalie Chrisman/602-250-3608 Jim Edwards/928-288-1241
Company	Arizona Public Service
Address	PO Box 355, MS 4915 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-MW85-1121	11/12/2021	11:27	GW						X	X	X						67826
FC-CCR-MW86-1121	11/12/2021	15:31	GW						X	X	X						67827
FC-CCR-FD01-1121	11/12/2021	9:09	GW						X	X	X						67828
FC-CCR-FD02-1121	11/12/2021	15:31	GW						X	X	X						67829
FC-CCR-MW84-1121-MS	11/12/2021	9:09	GW						X	X	X						67830
FC-CCR-MW84-1121-SD	11/12/2021	9:09	GW						X	X	X						67831

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO#: 100611133

Instructions/Comments
Method HPGe

Relinquished By:	Company:	Date/time: 11/22/21 09:58	Received By: Pat Flannery		Company: RSE	Date/time: 11-22-21 9:58
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

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-162768-1
Laboratory SDG: APS Four Corners Power Plant
Client Project/Site: CCR Groundwater Monitoring

For:
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Attn: Jim Edwards

Authorized for release by:
5/12/2021 7:47:40 AM

Ken Baker, Project Manager II
(602)659-7624
Ken.Baker@Eurofinset.com

LINKS

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Visit us at:
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162768-1
SDG: APS Four Corners Power Plant

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of analyte.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target 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.
N1	See case narrative.

Metals

Qualifier	Qualifier Description
B1	Target analyte detected in method blank at or above the method reporting limit.
B3	Target analyte detected in calibration blank at or above the method reporting limit.
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of analyte.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target 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.

General Chemistry

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
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.

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: 550-162768-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-162768-1

Comments
No additional comments.

Receipt
The samples were received on 4/28/2021 4:44 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 was 1.8º C.

HPLC/IC
Method 300.0: The following sample was diluted for Fluoride due to the nature of the sample matrix: (550-162769-A-5 ^200). An elevated reporting limit (RL) has been provided.

Method 300.0: The results for the laboratory control sample duplicate (LCSD) associated with analytical batch 550-240916 for Anions by method EPA 300.0 could not be reported due to an instrument loading error. The auto-sampler mis-injected the sample vial during the loading procedure; as such, no results could be be reported for the associated LCSD. The results for the batch laboratory control sample and matrix spike / matrix spike duplicate (MS/MSD) samples met method acceptance criteria and may be used to verify batch accuracy and precision. Therefore, the following data results have been reported and qualified with N1 flags.

FC-CCR-MW74-0421 (550-162768-7), FC-CCR-MW76-0421 (550-162768-9), FC-CCR-MW87-0421 (550-162768-10), (LCS 550-240916/32), (550-162769-A-5 ^2), (550-162769-A-5 ^200), (550-162769-A-5 MS ^200) and (550-162769-A-5 MSD ^200)

Method 300.0: The method blank for 550-241309 contained Sulfate above the method detection limit (MDL). This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-analysis of samples was not performed.

Method 300.0: The continuing calibration blank (CCB) for analytical batch 550-241309 contained Sulfate above the method detection limit (MDL). This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-analysis of samples was not performed.

Method 300.0: The following sample was diluted for Fluoride due to the nature of the sample matrix: FC-CCR-MW49A-0421 (550-162768-4). This analyte was not detected in the diluted sample. Elevated reporting limits (RLs) have been provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 200.7 Rev 4.4: The following sample was diluted to bring the concentration of target analytes within the calibration range: FC-CCR-FD04-0421 (550-162768-11). Elevated reporting limits (RLs) are provided.

Method 200.8 LL: The continuing calibration blank (CCB) for analytical batch 550-241599 contained Selenium 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.

Method 200.8 LL: The continuing calibration blank (CCB) for analytical batch 550-242064 contained Selenium 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.

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: 550-162768-1
SDG: APS Four Corners Power Plant

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-162768-1	FC-CCR-MW07-0421	Water	04/27/21 14:09	04/28/21 16:44	
550-162768-2	FC-CCR-MW08-0421	Water	04/27/21 12:58	04/28/21 16:44	
550-162768-3	FC-CCR-MW40R-0421	Water	04/26/21 10:22	04/28/21 16:44	
550-162768-4	FC-CCR-MW49A-0421	Water	04/27/21 15:16	04/28/21 16:44	
550-162768-5	FC-CCR-MW52-0421	Water	04/23/21 14:54	04/28/21 16:44	
550-162768-6	FC-CCR-MW61-0421	Water	04/23/21 15:34	04/28/21 16:44	
550-162768-7	FC-CCR-MW74-0421	Water	04/23/21 13:45	04/28/21 16:44	
550-162768-8	FC-CCR-MW75-0421	Water	04/23/21 16:14	04/28/21 16:44	
550-162768-9	FC-CCR-MW76-0421	Water	04/26/21 16:37	04/28/21 16:44	
550-162768-10	FC-CCR-MW87-0421	Water	04/27/21 09:17	04/28/21 16:44	
550-162768-11	FC-CCR-FD04-0421	Water	04/27/21 14:09	04/28/21 16:44	

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162768-1
SDG: APS Four Corners Power Plant

Client Sample ID: FC-CCR-MW07-0421 — Lab Sample ID: 550-162768-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	340	D2 E4	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.25	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	5700	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.87		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	8.6		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	470		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00021	E4	0.0010	0.000043	mg/L	1		200.8 LL	Total/NA
Arsenic	0.0013		0.00050	0.00025	mg/L	1		200.8 LL	Total/NA
Barium	0.019		0.00050	0.00026	mg/L	1		200.8 LL	Total/NA
Chromium	0.00073	E4	0.0010	0.00043	mg/L	1		200.8 LL	Total/NA
Cobalt	0.000094	E4	0.00050	0.000063	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0022		0.00050	0.00020	mg/L	1		200.8 LL	Total/NA
Selenium	0.027	B3	0.00050	0.000074	mg/L	1		200.8 LL	Total/NA
Thallium	0.000048	E4	0.00010	0.000013	mg/L	1		200.8 LL	Total/NA
Total Dissolved Solids	8900	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	15.1	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW08-0421 — Lab Sample ID: 550-162768-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	860	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.42	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	9400	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	1.1		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	20		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	450		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	920		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	44	B1	0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2600	D2	2.5	0.15	mg/L	5		200.7 Rev 4.4	Total/NA
Antimony	0.00027	E4	0.0010	0.000043	mg/L	1		200.8 LL	Total/NA
Arsenic	0.0015		0.00050	0.00025	mg/L	1		200.8 LL	Total/NA
Barium	0.011		0.00050	0.00026	mg/L	1		200.8 LL	Total/NA
Cadmium	0.000026	E4	0.00010	0.000023	mg/L	1		200.8 LL	Total/NA
Cobalt	0.0012		0.00050	0.000063	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.017		0.00050	0.00020	mg/L	1		200.8 LL	Total/NA
Selenium	0.0010		0.00050	0.000074	mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	570		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	570		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	14000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	14.8	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW40R-0421 — Lab Sample ID: 550-162768-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2900	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.28	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	18000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	1.9		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	9.0		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	440		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample ID: FC-CCR-MW40R-0421 (Continued) — Lab Sample ID: 550-162768-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	10		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	2000	D2	10	0.22	mg/L	5		200.7 Rev 4.4	Total/NA
Manganese	3.0		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	97	B1	0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	5600	D2	5.0	0.31	mg/L	10		200.7 Rev 4.4	Total/NA
Antimony	0.00016	E4	0.0010	0.000043	mg/L	1		200.8 LL	Total/NA
Arsenic	0.0030		0.00050	0.00025	mg/L	1		200.8 LL	Total/NA
Barium	0.019		0.00050	0.00026	mg/L	1		200.8 LL	Total/NA
Chromium	0.012		0.0010	0.00043	mg/L	1		200.8 LL	Total/NA
Cobalt	0.012		0.00050	0.000063	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.062		0.00050	0.00020	mg/L	1		200.8 LL	Total/NA
Selenium	0.0016		0.00050	0.000074	mg/L	1		200.8 LL	Total/NA
Thallium	0.000095	E4	0.00010	0.000013	mg/L	1		200.8 LL	Total/NA
Total Dissolved Solids	27000	D2	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.0	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	14.3	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW49A-0421 — Lab Sample ID: 550-162768-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	440	D2	100	26	mg/L	50		300.0	Total/NA
Fluoride	0.47	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	14000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.90		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	5.2		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	420		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00023	E4	0.0010	0.000043	mg/L	1		200.8 LL	Total/NA
Arsenic	0.0020		0.00050	0.00025	mg/L	1		200.8 LL	Total/NA
Barium	0.023		0.00050	0.00026	mg/L	1		200.8 LL	Total/NA
Chromium	0.00082	E4	0.0010	0.00043	mg/L	1		200.8 LL	Total/NA
Cobalt	0.00089		0.00050	0.000063	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.051		0.00050	0.00020	mg/L	1		200.8 LL	Total/NA
Selenium	0.0022		0.00050	0.000074	mg/L	1		200.8 LL	Total/NA
Thallium	0.0011		0.00010	0.000013	mg/L	1		200.8 LL	Total/NA
Total Dissolved Solids	19000	D2	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	14.1	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW52-0421 — Lab Sample ID: 550-162768-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	7.6		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.089		0.00050	0.000063	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0026		0.00050	0.00020	mg/L	1		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW61-0421 — Lab Sample ID: 550-162768-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	330	D2	100	26	mg/L	50		300.0	Total/NA
Fluoride	1.1	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	3600	D2	100	21	mg/L	50		300.0	Total/NA
Lithium	0.42		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW61-0421 (Continued) — Lab Sample ID: 550-162768-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	40		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	520		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	130		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	23	B1	0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1000	D2	1.0	0.061	mg/L	2		200.7 Rev 4.4	Total/NA
Antimony	0.00032	E4	0.0010	0.000043	mg/L	1		200.8 LL	Total/NA
Arsenic	0.0016		0.00050	0.00025	mg/L	1		200.8 LL	Total/NA
Barium	0.017		0.00050	0.00026	mg/L	1		200.8 LL	Total/NA
Cadmium	0.00082		0.00010	0.000023	mg/L	1		200.8 LL	Total/NA
Cobalt	0.023		0.00050	0.000063	mg/L	1		200.8 LL	Total/NA
Lead	0.00084		0.00050	0.00022	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.10		0.00050	0.00020	mg/L	1		200.8 LL	Total/NA
Selenium	0.00097		0.00050	0.000074	mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	97		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	72		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	26		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Alkalinity, Phenolphthalein	13		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6500	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	8.7	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	14.1	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW74-0421 — Lab Sample ID: 550-162768-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	850	D2 N1	400	100	mg/L	200		300.0	Total/NA
Fluoride	1.5	D1 N1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	22000	D2	1000	210	mg/L	500		300.0	Total/NA
Lithium	0.90		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	2.0		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	460		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00028	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Arsenic	0.0035	D1	0.0010	0.00049	mg/L	2		200.8 LL	Total/NA
Barium	0.015	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.00019	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Chromium	0.0050	D1	0.0020	0.00087	mg/L	2		200.8 LL	Total/NA
Cobalt	0.00056	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.021	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.12	B3 D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00023	D1 E4	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Total Dissolved Solids	31000	D2	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	14.3	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW75-0421 — Lab Sample ID: 550-162768-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	290	D2	100	26	mg/L	50		300.0	Total/NA
Fluoride	1.0	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	4400	D2	100	21	mg/L	50		300.0	Total/NA
Lithium	0.44		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	24		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	460		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW75-0421 (Continued) — Lab Sample ID: 550-162768-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	240		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	25	B1	0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1300	D2	1.0	0.061	mg/L	2		200.7 Rev 4.4	Total/NA
Antimony	0.00020	E4	0.0010	0.000043	mg/L	1		200.8 LL	Total/NA
Arsenic	0.0016		0.00050	0.00025	mg/L	1		200.8 LL	Total/NA
Barium	0.020		0.00050	0.00026	mg/L	1		200.8 LL	Total/NA
Cadmium	0.0018		0.00010	0.000023	mg/L	1		200.8 LL	Total/NA
Cobalt	0.045		0.00050	0.000063	mg/L	1		200.8 LL	Total/NA
Lead	0.0029		0.00050	0.00022	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.18		0.00050	0.00020	mg/L	1		200.8 LL	Total/NA
Selenium	0.0037		0.00050	0.000074	mg/L	1		200.8 LL	Total/NA
Thallium	0.000088	E4	0.00010	0.000013	mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	100		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	100		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6500	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	8.4	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	14.5	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW76-0421 — Lab Sample ID: 550-162768-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	480	D2 N1	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.44	D1 E4 N1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	3400	D2	200	43	mg/L	100		300.0	Total/NA
Lithium	0.63		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	41		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	470		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	200		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	29	B1	0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1200	D2	1.0	0.061	mg/L	2		200.7 Rev 4.4	Total/NA
Antimony	0.00039	E4	0.0010	0.000043	mg/L	1		200.8 LL	Total/NA
Arsenic	0.0018		0.00050	0.00025	mg/L	1		200.8 LL	Total/NA
Barium	0.021		0.00050	0.00026	mg/L	1		200.8 LL	Total/NA
Cadmium	0.000041	E4	0.00010	0.000023	mg/L	1		200.8 LL	Total/NA
Chromium	0.0017		0.0010	0.00043	mg/L	1		200.8 LL	Total/NA
Cobalt	0.015		0.00050	0.000063	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.095		0.00050	0.00020	mg/L	1		200.8 LL	Total/NA
Selenium	0.0036		0.00050	0.000074	mg/L	1		200.8 LL	Total/NA
Thallium	0.000018	E4	0.00010	0.000013	mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	270		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	270		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	16.6	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW87-0421 — Lab Sample ID: 550-162768-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2700	D2 N1	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.42	D1 E4 N1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	25000	D2	1000	210	mg/L	500		300.0	Total/NA
Lithium	1.8		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW87-0421 (Continued)

Lab Sample ID: 550-162768-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1.4		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	490		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.56		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	2300	D2	20	0.44	mg/L	10		200.7 Rev 4.4	Total/NA
Manganese	0.58		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	130	B1	0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	9600	D2	10	0.61	mg/L	20		200.7 Rev 4.4	Total/NA
Antimony	0.0014	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Arsenic	0.0024	D1	0.0010	0.00049	mg/L	2		200.8 LL	Total/NA
Barium	0.014	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.00011	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0081	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.056	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.011	D2	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00016	D1 E4	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Alkalinity as CaCO3	900		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	900		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	34000	D2	1000	1000	mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	17.6	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-FD04-0421

Lab Sample ID: 550-162768-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	320	D2 E4	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.26	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	5700	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.86		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	8.6		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	470		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.11		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	560		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.022		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	42		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1500	D2	2.5	0.15	mg/L	5		200.7 Rev 4.4	Total/NA
Antimony	0.00020	E4	0.0010	0.000043	mg/L	1		200.8 LL	Total/NA
Arsenic	0.0018		0.00050	0.00025	mg/L	1		200.8 LL	Total/NA
Barium	0.017		0.00050	0.00026	mg/L	1		200.8 LL	Total/NA
Chromium	0.00055	E4	0.0010	0.00043	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0022		0.00050	0.00020	mg/L	1		200.8 LL	Total/NA
Selenium	0.025	B3	0.00050	0.000074	mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	480		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	480		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	8900	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	17.0	H5	0.1	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-MW07-0421

Lab Sample ID: 550-162768-1
Date Collected: 04/27/21 14:09
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	340	D2 E4	400	100	mg/L			04/29/21 17:20	200
Fluoride	0.25	D1 E4	0.80	0.095	mg/L			04/29/21 17:02	2
Sulfate	5700	D2	400	85	mg/L			04/29/21 17:20	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:18	05/03/21 19:58	1
Lithium	0.87		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 20:24	1
Boron	8.6		0.050	0.0025	mg/L		04/29/21 19:18	05/03/21 19:58	1
Calcium	470		2.0	0.013	mg/L		04/29/21 19:18	05/03/21 19:58	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00021	E4	0.0010	0.000043	mg/L		04/28/21 20:48	05/05/21 18:32	1
Arsenic	0.0013		0.00050	0.00025	mg/L		04/28/21 20:48	05/05/21 18:32	1
Barium	0.019		0.00050	0.00026	mg/L		04/28/21 20:48	05/05/21 18:32	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		04/28/21 20:48	05/05/21 18:32	1
Chromium	0.00073	E4	0.0010	0.00043	mg/L		04/28/21 20:48	05/10/21 19:21	1
Cobalt	0.000094	E4	0.00050	0.000063	mg/L		04/28/21 20:48	05/05/21 18:32	1
Lead	ND	E8	0.00050	0.00022	mg/L		04/28/21 20:48	05/05/21 18:32	1
Molybdenum	0.0022		0.00050	0.00020	mg/L		04/28/21 20:48	05/05/21 18:32	1
Selenium	0.027	B3	0.00050	0.000074	mg/L		04/28/21 20:48	05/05/21 18:32	1
Thallium	0.000048	E4	0.00010	0.000013	mg/L		04/28/21 20:48	05/05/21 18:32	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:04	04/30/21 20:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	8900	D2	100	100	mg/L			04/29/21 08:40	1
pH	7.6	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	15.1	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW08-0421

Lab Sample ID: 550-162768-2
Date Collected: 04/27/21 12:58
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	860	D2	400	100	mg/L			04/29/21 17:57	200
Fluoride	0.42	D1 E4	0.80	0.095	mg/L			04/29/21 17:39	2
Sulfate	9400	D2	400	85	mg/L			04/29/21 17:57	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:18	05/03/21 20:02	1
Lithium	1.1		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 20:27	1
Boron	20		0.050	0.0025	mg/L		04/29/21 19:18	05/03/21 20:02	1
Calcium	450		2.0	0.013	mg/L		04/29/21 19:18	05/03/21 20:02	1
Magnesium	920		2.0	0.044	mg/L		04/29/21 19:18	05/03/21 20:02	1

Client Sample ID: FC-CCR-MW08-0421

Lab Sample ID: 550-162768-2
Matrix: Water
Date Collected: 04/27/21 12:58
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	44	B1	0.50	0.17	mg/L		04/29/21 19:18	05/03/21 20:02	1
Sodium	2600	D2	2.5	0.15	mg/L		04/29/21 19:18	05/04/21 16:45	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00027	E4	0.0010	0.000043	mg/L		04/28/21 20:48	05/05/21 18:34	1
Arsenic	0.0015		0.00050	0.00025	mg/L		04/28/21 20:48	05/05/21 18:34	1
Barium	0.011		0.00050	0.00026	mg/L		04/28/21 20:48	05/05/21 18:34	1
Cadmium	0.000026	E4	0.00010	0.000023	mg/L		04/28/21 20:48	05/05/21 18:34	1
Chromium	ND	E8	0.0010	0.00043	mg/L		04/28/21 20:48	05/10/21 19:23	1
Cobalt	0.0012		0.00050	0.000063	mg/L		04/28/21 20:48	05/05/21 18:34	1
Lead	ND	E8	0.00050	0.00022	mg/L		04/28/21 20:48	05/05/21 18:34	1
Molybdenum	0.017		0.00050	0.00020	mg/L		04/28/21 20:48	05/05/21 18:34	1
Selenium	0.0010		0.00050	0.000074	mg/L		04/28/21 20:48	05/11/21 16:20	1
Thallium	ND	E8	0.00010	0.000013	mg/L		04/28/21 20:48	05/05/21 18:34	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:04	04/30/21 20:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	570		6.0	6.0	mg/L			04/29/21 17:40	1
Bicarbonate Alkalinity as CaCO3	570		6.0	6.0	mg/L			04/29/21 17:40	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 17:40	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			04/29/21 17:40	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 17:40	1
Total Dissolved Solids	14000	D2	100	100	mg/L			04/29/21 08:40	1
pH	7.3	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	14.8	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW40R-0421

Lab Sample ID: 550-162768-3
Matrix: Water
Date Collected: 04/26/21 10:22
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2900	D2	400	100	mg/L			04/29/21 18:34	200
Fluoride	0.28	D1 E4	0.80	0.095	mg/L			04/29/21 18:15	2
Sulfate	18000	D2	400	85	mg/L			04/29/21 18:34	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:18	05/03/21 20:06	1
Lithium	1.9		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 20:31	1
Boron	9.0		0.050	0.0025	mg/L		04/29/21 19:18	05/03/21 20:06	1
Calcium	440		2.0	0.013	mg/L		04/29/21 19:18	05/03/21 20:06	1
Iron	10		0.10	0.010	mg/L		04/29/21 19:18	05/03/21 20:06	1
Magnesium	2000	D2	10	0.22	mg/L		04/29/21 19:18	05/04/21 16:49	5
Manganese	3.0		0.010	0.00019	mg/L		04/29/21 19:18	05/03/21 20:06	1
Potassium	97	B1	0.50	0.17	mg/L		04/29/21 19:18	05/03/21 20:06	1

Client Sample ID: FC-CCR-MW40R-0421

Lab Sample ID: 550-162768-3
Matrix: Water
Date Collected: 04/26/21 10:22
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	5600	D2	5.0	0.31	mg/L		04/29/21 19:18	05/05/21 22:35	10

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00016	E4	0.0010	0.000043	mg/L		04/28/21 20:48	05/05/21 18:36	1
Arsenic	0.0030		0.00050	0.00025	mg/L		04/28/21 20:48	05/05/21 18:36	1
Barium	0.019		0.00050	0.00026	mg/L		04/28/21 20:48	05/05/21 18:36	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		04/28/21 20:48	05/05/21 18:36	1
Chromium	0.012		0.0010	0.00043	mg/L		04/28/21 20:48	05/10/21 19:25	1
Cobalt	0.012		0.00050	0.000063	mg/L		04/28/21 20:48	05/05/21 18:36	1
Lead	ND	E8	0.00050	0.00022	mg/L		04/28/21 20:48	05/05/21 18:36	1
Molybdenum	0.062		0.00050	0.00020	mg/L		04/28/21 20:48	05/05/21 18:36	1
Selenium	0.0016		0.00050	0.000074	mg/L		04/28/21 20:48	05/11/21 16:22	1
Thallium	0.000095	E4	0.00010	0.000013	mg/L		04/28/21 20:48	05/05/21 18:36	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:04	04/30/21 20:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	27000	D2	200	200	mg/L			04/29/21 08:38	1
pH	7.0	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	14.3	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW49A-0421

Lab Sample ID: 550-162768-4
Matrix: Water
Date Collected: 04/27/21 15:16
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	440	D2	100	26	mg/L			05/08/21 07:57	50
Fluoride	0.47	D1 E4	0.80	0.095	mg/L			05/08/21 07:02	2
Sulfate	14000	D2	400	85	mg/L			05/08/21 08:16	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:18	05/03/21 20:10	1
Lithium	0.90		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 20:34	1
Boron	5.2		0.050	0.0025	mg/L		04/29/21 19:18	05/03/21 20:10	1
Calcium	420		2.0	0.013	mg/L		04/29/21 19:18	05/03/21 20:10	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00023	E4	0.0010	0.000043	mg/L		04/28/21 20:48	05/05/21 18:38	1
Arsenic	0.0020		0.00050	0.00025	mg/L		04/28/21 20:48	05/05/21 18:38	1
Barium	0.023		0.00050	0.00026	mg/L		04/28/21 20:48	05/05/21 18:38	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		04/28/21 20:48	05/05/21 18:38	1
Chromium	0.00082	E4	0.0010	0.00043	mg/L		04/28/21 20:48	05/10/21 19:27	1
Cobalt	0.00089		0.00050	0.000063	mg/L		04/28/21 20:48	05/05/21 18:38	1
Lead	ND	E8	0.00050	0.00022	mg/L		04/28/21 20:48	05/05/21 18:38	1

Client Sample ID: FC-CCR-MW49A-0421

Lab Sample ID: 550-162768-4
Date Collected: 04/27/21 15:16
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	0.051		0.00050	0.00020	mg/L		04/28/21 20:48	05/05/21 18:38	1
Selenium	0.0022		0.00050	0.000074	mg/L		04/28/21 20:48	05/11/21 16:24	1
Thallium	0.0011		0.00010	0.000013	mg/L		04/28/21 20:48	05/05/21 18:38	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:04	04/30/21 20:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	19000	D2	200	200	mg/L			04/29/21 08:40	1
pH	7.5	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	14.1	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW52-0421

Lab Sample ID: 550-162768-5
Date Collected: 04/23/21 14:54
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	7.6		0.050	0.0025	mg/L		04/29/21 19:18	05/03/21 20:13	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.089		0.00050	0.000063	mg/L		04/28/21 20:48	05/05/21 18:44	1
Molybdenum	0.0026		0.00050	0.00020	mg/L		04/28/21 20:48	05/05/21 18:44	1

Client Sample ID: FC-CCR-MW61-0421

Lab Sample ID: 550-162768-6
Date Collected: 04/23/21 15:34
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	330	D2	100	26	mg/L			05/03/21 16:22	50
Fluoride	1.1	D1	0.80	0.095	mg/L			05/03/21 16:04	2
Sulfate	3600	D2	100	21	mg/L			05/03/21 16:22	50

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:18	05/03/21 20:25	1
Lithium	0.42		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 20:51	1
Boron	40		0.050	0.0025	mg/L		04/29/21 19:18	05/03/21 20:25	1
Calcium	520		2.0	0.013	mg/L		04/29/21 19:18	05/03/21 20:25	1
Magnesium	130		2.0	0.044	mg/L		04/29/21 19:18	05/03/21 20:25	1
Potassium	23	B1	0.50	0.17	mg/L		04/29/21 19:18	05/03/21 20:25	1
Sodium	1000	D2	1.0	0.061	mg/L		04/29/21 19:18	05/04/21 16:56	2

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00032	E4	0.0010	0.000043	mg/L		04/28/21 20:48	05/05/21 18:46	1
Arsenic	0.0016		0.00050	0.00025	mg/L		04/28/21 20:48	05/05/21 18:46	1
Barium	0.017		0.00050	0.00026	mg/L		04/28/21 20:48	05/05/21 18:46	1

Client Sample ID: FC-CCR-MW61-0421

Lab Sample ID: 550-162768-6
Date Collected: 04/23/21 15:34
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	**0.00082**		0.00010	0.000023	mg/L		04/28/21 20:48	05/05/21 18:46	1
Chromium	ND	E8	0.0010	0.00043	mg/L		04/28/21 20:48	05/10/21 19:33	1
Cobalt	**0.023**		0.00050	0.000063	mg/L		04/28/21 20:48	05/05/21 18:46	1
Lead	**0.00084**		0.00050	0.00022	mg/L		04/28/21 20:48	05/05/21 18:46	1
Molybdenum	**0.10**		0.00050	0.00020	mg/L		04/28/21 20:48	05/05/21 18:46	1
Selenium	**0.00097**		0.00050	0.000074	mg/L		04/28/21 20:48	05/11/21 16:26	1
Thallium	ND	E8	0.00010	0.000013	mg/L		04/28/21 20:48	05/05/21 18:46	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:04	04/30/21 20:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**97**		6.0	6.0	mg/L			04/29/21 17:48	1
Bicarbonate Alkalinity as CaCO3	**72**		6.0	6.0	mg/L			04/29/21 17:48	1
Carbonate Alkalinity as CaCO3	**26**		6.0	6.0	mg/L			04/29/21 17:48	1
Alkalinity, Phenolphthalein	**13**		6.0	6.0	mg/L			04/29/21 17:48	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 17:48	1
Total Dissolved Solids	**6500**	**D2**	100	100	mg/L			04/29/21 08:38	1
pH	**8.7**	**H5**	1.7	1.7	SU			05/05/21 17:02	1
Temperature	**14.1**	**H5**	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW74-0421

Lab Sample ID: 550-162768-7
Date Collected: 04/23/21 13:45
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**850**	**D2 N1**	400	100	mg/L			04/30/21 11:58	200
Fluoride	**1.5**	**D1 N1**	0.80	0.095	mg/L			04/30/21 11:40	2
Sulfate	**22000**	**D2**	1000	210	mg/L			05/08/21 08:34	500

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:18	05/03/21 20:28	1
Lithium	**0.90**		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 20:54	1
Boron	**2.0**		0.050	0.0025	mg/L		04/29/21 19:18	05/03/21 20:28	1
Calcium	**460**		2.0	0.013	mg/L		04/29/21 19:18	05/03/21 20:28	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00028**	**D1 E4**	0.0020	0.000087	mg/L		04/28/21 20:48	05/10/21 19:35	2
Arsenic	**0.0035**	**D1**	0.0010	0.00049	mg/L		04/28/21 20:48	05/10/21 19:35	2
Barium	**0.015**	**D1**	0.0010	0.00052	mg/L		04/28/21 20:48	05/10/21 19:35	2
Cadmium	**0.00019**	**D1 E4**	0.00020	0.000046	mg/L		04/28/21 20:48	05/10/21 19:35	2
Chromium	**0.0050**	**D1**	0.0020	0.00087	mg/L		04/28/21 20:48	05/10/21 19:35	2
Cobalt	**0.00056**	**D1 E4**	0.0010	0.00013	mg/L		04/28/21 20:48	05/10/21 19:35	2
Lead	ND	D1 E8	0.0020	0.00088	mg/L		04/28/21 20:48	05/11/21 14:45	4
Molybdenum	**0.021**	**D1**	0.0010	0.00040	mg/L		04/28/21 20:48	05/10/21 19:35	2
Selenium	**0.12**	**B3 D1**	0.0020	0.00030	mg/L		04/28/21 20:48	05/11/21 14:45	4

Client Sample ID: FC-CCR-MW74-0421

Lab Sample ID: 550-162768-7
Matrix: Water
Date Collected: 04/23/21 13:45
Date Received: 04/28/21 16:44

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	0.00023	D1 E4	0.00040	0.000053	mg/L		04/28/21 20:48	05/11/21 14:45	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:04	04/30/21 20:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	31000	D2	200	200	mg/L			04/29/21 08:38	1
pH	7.7	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	14.3	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW75-0421

Lab Sample ID: 550-162768-8
Matrix: Water
Date Collected: 04/23/21 16:14
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	290	D2	100	26	mg/L			05/03/21 17:17	50
Fluoride	1.0	D1	0.80	0.095	mg/L			05/03/21 16:59	2
Sulfate	4400	D2	100	21	mg/L			05/03/21 17:17	50

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:18	05/03/21 20:32	1
Lithium	0.44		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 20:57	1
Boron	24		0.050	0.0025	mg/L		04/29/21 19:18	05/03/21 20:32	1
Calcium	460		2.0	0.013	mg/L		04/29/21 19:18	05/03/21 20:32	1
Magnesium	240		2.0	0.044	mg/L		04/29/21 19:18	05/03/21 20:32	1
Potassium	25	B1	0.50	0.17	mg/L		04/29/21 19:18	05/03/21 20:32	1
Sodium	1300	D2	1.0	0.061	mg/L		04/29/21 19:18	05/04/21 17:00	2

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00020	E4	0.0010	0.000043	mg/L		04/28/21 20:48	05/05/21 18:50	1
Arsenic	0.0016		0.00050	0.00025	mg/L		04/28/21 20:48	05/05/21 18:50	1
Barium	0.020		0.00050	0.00026	mg/L		04/28/21 20:48	05/05/21 18:50	1
Cadmium	0.0018		0.00010	0.000023	mg/L		04/28/21 20:48	05/05/21 18:50	1
Chromium	ND	E8	0.0010	0.00043	mg/L		04/28/21 20:48	05/10/21 19:37	1
Cobalt	0.045		0.00050	0.000063	mg/L		04/28/21 20:48	05/05/21 18:50	1
Lead	0.0029		0.00050	0.00022	mg/L		04/28/21 20:48	05/05/21 18:50	1
Molybdenum	0.18		0.00050	0.00020	mg/L		04/28/21 20:48	05/05/21 18:50	1
Selenium	0.0037		0.00050	0.000074	mg/L		04/28/21 20:48	05/11/21 16:29	1
Thallium	0.000088	E4	0.00010	0.000013	mg/L		04/28/21 20:48	05/05/21 18:50	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:04	04/30/21 20:17	1

Client Sample ID: FC-CCR-MW75-0421

Lab Sample ID: 550-162768-8
Date Collected: 04/23/21 16:14
Matrix: Water
Date Received: 04/28/21 16:44

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**100**		6.0	6.0	mg/L			04/29/21 17:56	1
Bicarbonate Alkalinity as CaCO3	**100**		6.0	6.0	mg/L			04/29/21 17:56	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 17:56	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			04/29/21 17:56	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 17:56	1
Total Dissolved Solids	**6500**	**D2**	100	100	mg/L			04/29/21 08:38	1
pH	**8.4**	**H5**	1.7	1.7	SU			05/05/21 17:02	1
Temperature	**14.5**	**H5**	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW76-0421

Lab Sample ID: 550-162768-9
Date Collected: 04/26/21 16:37
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**480**	**D2 N1**	400	100	mg/L			04/30/21 12:35	200
Fluoride	**0.44**	**D1 E4 N1**	0.80	0.095	mg/L			04/30/21 12:17	2
Sulfate	**3400**	**D2**	200	43	mg/L			05/08/21 08:52	100

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:18	05/03/21 20:36	1
Lithium	**0.63**		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 21:01	1
Boron	**41**		0.050	0.0025	mg/L		04/29/21 19:18	05/03/21 20:36	1
Calcium	**470**		2.0	0.013	mg/L		04/29/21 19:18	05/03/21 20:36	1
Magnesium	**200**		2.0	0.044	mg/L		04/29/21 19:18	05/03/21 20:36	1
Potassium	**29**	**B1**	0.50	0.17	mg/L		04/29/21 19:18	05/03/21 20:36	1
Sodium	**1200**	**D2**	1.0	0.061	mg/L		04/29/21 19:18	05/04/21 17:04	2

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00039**	**E4**	0.0010	0.000043	mg/L		04/28/21 20:48	05/05/21 18:52	1
Arsenic	**0.0018**		0.00050	0.00025	mg/L		04/28/21 20:48	05/05/21 18:52	1
Barium	**0.021**		0.00050	0.00026	mg/L		04/28/21 20:48	05/05/21 18:52	1
Cadmium	**0.000041**	**E4**	0.00010	0.000023	mg/L		04/28/21 20:48	05/05/21 18:52	1
Chromium	**0.0017**		0.0010	0.00043	mg/L		04/28/21 20:48	05/10/21 19:39	1
Cobalt	**0.015**		0.00050	0.000063	mg/L		04/28/21 20:48	05/05/21 18:52	1
Lead	ND	E8	0.00050	0.00022	mg/L		04/28/21 20:48	05/05/21 18:52	1
Molybdenum	**0.095**		0.00050	0.00020	mg/L		04/28/21 20:48	05/05/21 18:52	1
Selenium	**0.0036**		0.00050	0.000074	mg/L		04/28/21 20:48	05/11/21 16:31	1
Thallium	**0.000018**	**E4**	0.00010	0.000013	mg/L		04/28/21 20:48	05/05/21 18:52	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:04	04/30/21 20:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**270**		6.0	6.0	mg/L			04/29/21 18:05	1
Bicarbonate Alkalinity as CaCO3	**270**		6.0	6.0	mg/L			04/29/21 18:05	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 18:05	1

Client Sample ID: FC-CCR-MW76-0421

Lab Sample ID: 550-162768-9
Date Collected: 04/26/21 16:37
Matrix: Water
Date Received: 04/28/21 16:44

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			04/29/21 18:05	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 18:05	1
Total Dissolved Solids	**6000**	**D2**	100	100	mg/L			04/29/21 08:38	1
pH	**7.3**	**H5**	1.7	1.7	SU			05/05/21 17:02	1
Temperature	**16.6**	**H5**	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW87-0421

Lab Sample ID: 550-162768-10
Date Collected: 04/27/21 09:17
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2700**	**D2 N1**	400	100	mg/L			04/30/21 13:12	200
Fluoride	**0.42**	**D1 E4 N1**	0.80	0.095	mg/L			04/30/21 12:53	2
Sulfate	**25000**	**D2**	1000	210	mg/L			05/08/21 09:11	500

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:18	05/03/21 20:40	1
Lithium	**1.8**		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 21:04	1
Boron	**1.4**		0.050	0.0025	mg/L		04/29/21 19:18	05/03/21 20:40	1
Calcium	**490**		2.0	0.013	mg/L		04/29/21 19:18	05/03/21 20:40	1
Iron	**0.56**		0.10	0.010	mg/L		04/29/21 19:18	05/03/21 20:40	1
Magnesium	**2300**	**D2**	20	0.44	mg/L		04/29/21 19:18	05/04/21 17:08	10
Manganese	**0.58**		0.010	0.00019	mg/L		04/29/21 19:18	05/03/21 20:40	1
Potassium	**130**	**B1**	0.50	0.17	mg/L		04/29/21 19:18	05/03/21 20:40	1
Sodium	**9600**	**D2**	10	0.61	mg/L		04/29/21 19:18	05/05/21 22:38	20

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.0014**	**D1 E4**	0.0020	0.000087	mg/L		04/28/21 20:48	05/10/21 19:41	2
Arsenic	**0.0024**	**D1**	0.0010	0.00049	mg/L		04/28/21 20:48	05/10/21 19:41	2
Barium	**0.014**	**D1**	0.0010	0.00052	mg/L		04/28/21 20:48	05/10/21 19:41	2
Cadmium	**0.00011**	**D1 E4**	0.00020	0.000046	mg/L		04/28/21 20:48	05/10/21 19:41	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		04/28/21 20:48	05/10/21 19:41	2
Cobalt	**0.0081**	**D1**	0.0010	0.00013	mg/L		04/28/21 20:48	05/10/21 19:41	2
Lead	ND	D1 E8	0.0020	0.00088	mg/L		04/28/21 20:48	05/11/21 14:51	4
Molybdenum	**0.056**	**D1**	0.0010	0.00040	mg/L		04/28/21 20:48	05/10/21 19:41	2
Selenium	**0.011**	**D2**	0.0020	0.00030	mg/L		04/28/21 20:48	05/11/21 16:33	4
Thallium	**0.00016**	**D1 E4**	0.00040	0.000053	mg/L		04/28/21 20:48	05/11/21 14:51	4

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:04	04/30/21 20:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**900**		6.0	6.0	mg/L			05/02/21 13:20	1
Bicarbonate Alkalinity as CaCO3	**900**		6.0	6.0	mg/L			05/02/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1

Client Sample ID: FC-CCR-MW87-0421

Lab Sample ID: 550-162768-10
Date Collected: 04/27/21 09:17
Matrix: Water
Date Received: 04/28/21 16:44

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Total Dissolved Solids	**34000**	**D2**	1000	1000	mg/L			04/29/21 08:40	1
pH	**7.6**	**H5**	1.7	1.7	SU			05/05/21 17:02	1
Temperature	**17.6**	**H5**	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-FD04-0421

Lab Sample ID: 550-162768-11
Date Collected: 04/27/21 14:09
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**320**	**D2 E4**	400	100	mg/L			05/03/21 18:49	200
Fluoride	**0.26**	**D1 E4**	0.80	0.095	mg/L			05/03/21 18:31	2
Sulfate	**5700**	**D2**	400	85	mg/L			05/03/21 18:49	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/30/21 06:37	05/04/21 04:39	1
Lithium	**0.86**		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 21:07	1
Boron	**8.6**		0.050	0.0025	mg/L		04/30/21 06:37	05/04/21 04:39	1
Calcium	**470**		2.0	0.013	mg/L		04/30/21 06:37	05/04/21 04:39	1
Iron	**0.11**		0.10	0.010	mg/L		04/30/21 06:37	05/04/21 04:39	1
Magnesium	**560**		2.0	0.044	mg/L		04/30/21 06:37	05/04/21 04:39	1
Manganese	**0.022**		0.010	0.00019	mg/L		04/30/21 06:37	05/04/21 04:39	1
Potassium	**42**		0.50	0.17	mg/L		04/30/21 06:37	05/04/21 04:39	1
Sodium	**1500**	**D2**	2.5	0.15	mg/L		04/30/21 06:37	05/04/21 21:40	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00020**	**E4**	0.0010	0.000043	mg/L		04/28/21 20:48	05/05/21 18:57	1
Arsenic	**0.0018**		0.00050	0.00025	mg/L		04/28/21 20:48	05/05/21 18:57	1
Barium	**0.017**		0.00050	0.00026	mg/L		04/28/21 20:48	05/05/21 18:57	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		04/28/21 20:48	05/05/21 18:57	1
Chromium	**0.00055**	**E4**	0.0010	0.00043	mg/L		04/28/21 20:48	05/10/21 19:44	1
Cobalt	ND	E8	0.00050	0.000063	mg/L		04/28/21 20:48	05/05/21 18:57	1
Lead	ND	E8	0.00050	0.00022	mg/L		04/28/21 20:48	05/05/21 18:57	1
Molybdenum	**0.0022**		0.00050	0.00020	mg/L		04/28/21 20:48	05/05/21 18:57	1
Selenium	**0.025**	**B3**	0.00050	0.000074	mg/L		04/28/21 20:48	05/05/21 18:57	1
Thallium	ND	E8	0.00010	0.000013	mg/L		04/28/21 20:48	05/05/21 18:57	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:04	04/30/21 20:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**480**		6.0	6.0	mg/L			04/29/21 18:59	1
Bicarbonate Alkalinity as CaCO3	**480**		6.0	6.0	mg/L			04/29/21 18:59	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 18:59	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			04/29/21 18:59	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 18:59	1

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162768-1
SDG: APS Four Corners Power Plant

Client Sample ID: FC-CCR-FD04-0421
Date Collected: 04/27/21 14:09
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162768-11
Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	8900	D2	100	100	mg/L			04/29/21 08:40	1
pH	7.6	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	17.0	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-240915/2
Matrix: Water
Analysis Batch: 240915

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			04/29/21 11:12	1
Fluoride	ND	E8	0.40	0.047	mg/L			04/29/21 11:12	1
Sulfate	ND	E8	2.0	0.43	mg/L			04/29/21 11:12	1

Lab Sample ID: LCS 550-240915/5
Matrix: Water
Analysis Batch: 240915

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	20.9		mg/L		105	90 - 110
Fluoride	4.00	4.15		mg/L		104	90 - 110
Sulfate	20.0	20.8		mg/L		104	90 - 110

Lab Sample ID: LCSD 550-240915/6
Matrix: Water
Analysis Batch: 240915

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		106	90 - 110	1	20
Fluoride	4.00	4.19		mg/L		105	90 - 110	1	20
Sulfate	20.0	21.0		mg/L		105	90 - 110	1	20

Lab Sample ID: 550-162673-A-8 MS ^10
Matrix: Water
Analysis Batch: 240915

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	250	D2	200	477	D2	mg/L		112	80 - 120
Fluoride	3.4	E4 D1	40.0	45.9	D1	mg/L		106	80 - 120
Sulfate	330	D2	200	551	D2	mg/L		110	80 - 120

Lab Sample ID: 550-162673-A-8 MSD ^10
Matrix: Water
Analysis Batch: 240915

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	250	D2	200	469	D2	mg/L		108	80 - 120	2	20
Fluoride	3.4	E4 D1	40.0	44.4	D1	mg/L		103	80 - 120	3	20
Sulfate	330	D2	200	542	D2	mg/L		106	80 - 120	2	20

Lab Sample ID: MB 550-240916/1030
Matrix: Water
Analysis Batch: 240916

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			04/29/21 19:47	1
Fluoride	ND	E8	0.40	0.047	mg/L			04/29/21 19:47	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-240916/32
Matrix: Water
Analysis Batch: 240916

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	21.3	N1	mg/L		107	90 - 110		
Fluoride			4.00	4.25	N1	mg/L		106	90 - 110		

Lab Sample ID: 550-162769-A-5 MS ^200
Matrix: Water
Analysis Batch: 240916

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	N1 D2	4000	5380	D2 N1	mg/L		107	80 - 120
Fluoride	ND	E8 N1 D1 D5	800	829	D1 N1	mg/L		104	80 - 120

Lab Sample ID: 550-162769-A-5 MSD ^200
Matrix: Water
Analysis Batch: 240916

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	N1 D2	4000	5460	D2 N1	mg/L		108	80 - 120	1	20
Fluoride	ND	E8 N1 D1 D5	800	836	D1 N1	mg/L		104	80 - 120	1	20

Lab Sample ID: MB 550-241309/2
Matrix: Water
Analysis Batch: 241309

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			05/03/21 13:18	1
Fluoride	ND	E8	0.40	0.047	mg/L			05/03/21 13:18	1
Sulfate	0.990	E4	2.0	0.43	mg/L			05/03/21 13:18	1

Lab Sample ID: LCS 550-241309/5
Matrix: Water
Analysis Batch: 241309

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	4.13		mg/L		103	90 - 110		
Sulfate			20.0	20.7		mg/L		103	90 - 110		

Lab Sample ID: LCSD 550-241309/6
Matrix: Water
Analysis Batch: 241309

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	1	20
Fluoride			4.00	4.16		mg/L		104	90 - 110	1	20
Sulfate			20.0	21.0		mg/L		105	90 - 110	2	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-162769-A-1 MS ^200
Matrix: Water
Analysis Batch: 241309

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	1700	D2	4000	6150	D2	mg/L		111	80 - 120		
Fluoride	25	E4 D2	800	866	D2	mg/L		105	80 - 120		
Sulfate	12000	D2	4000	16400	D2	mg/L		103	80 - 120		

Lab Sample ID: 550-162769-A-1 MSD ^200
Matrix: Water
Analysis Batch: 241309

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	1700	D2	4000	6050	D2	mg/L		109	80 - 120	2	20
Fluoride	25	E4 D2	800	855	D2	mg/L		104	80 - 120	1	20
Sulfate	12000	D2	4000	15800	D2	mg/L		88	80 - 120	4	20

Lab Sample ID: MB 550-241879/1056
Matrix: Water
Analysis Batch: 241879

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			05/08/21 05:30	1
Fluoride	ND	E8	0.40	0.047	mg/L			05/08/21 05:30	1
Sulfate	ND	E8	2.0	0.43	mg/L			05/08/21 05:30	1

Lab Sample ID: LCS 550-241879/57
Matrix: Water
Analysis Batch: 241879

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	4.25		mg/L		106	90 - 110		
Sulfate	20.0	21.8		mg/L		109	90 - 110		

Lab Sample ID: LCSD 550-241879/58
Matrix: Water
Analysis Batch: 241879

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	21.3		mg/L		107	90 - 110	1	20
Fluoride	4.00	4.27		mg/L		107	90 - 110	0	20
Sulfate	20.0	21.4		mg/L		107	90 - 110	2	20

Lab Sample ID: 550-162768-4 MS
Matrix: Water
Analysis Batch: 241879

Client Sample ID: FC-CCR-MW49A-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	440	D2	1000	1460	D2	mg/L		102	80 - 120		
Fluoride	ND	E8 D1 D5	200	201	D1	mg/L		101	80 - 120		
Sulfate	11000	E2 M3 D2	1000	11200	D2 E2 M3	mg/L		-12	80 - 120		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-162768-4 MS
Matrix: Water
Analysis Batch: 241879

Client Sample ID: FC-CCR-MW49A-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	440	D2	1000	1530	D2	mg/L		109	80 - 120
Fluoride	ND	E8 D1 D5	200	212	D1	mg/L		106	80 - 120
Sulfate	11000	E2 M3 D2	1000	11400	D2 E2 M3	mg/L		13	80 - 120

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-240933/1-A
Matrix: Water
Analysis Batch: 241266

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240933

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:18	05/03/21 19:21	1
Boron	0.00845	E4	0.050	0.0025	mg/L		04/29/21 19:18	05/03/21 19:21	1
Calcium	0.0418	E4	2.0	0.013	mg/L		04/29/21 19:18	05/03/21 19:21	1
Iron	ND	E8	0.10	0.010	mg/L		04/29/21 19:18	05/03/21 19:21	1
Magnesium	0.337	E4	2.0	0.044	mg/L		04/29/21 19:18	05/03/21 19:21	1
Manganese	0.000280	E4	0.010	0.00019	mg/L		04/29/21 19:18	05/03/21 19:21	1
Potassium	0.796	B1	0.50	0.17	mg/L		04/29/21 19:18	05/03/21 19:21	1
Sodium	1.32	B1	0.50	0.031	mg/L		04/29/21 19:18	05/03/21 19:21	1

Lab Sample ID: MB 550-240933/1-A
Matrix: Water
Analysis Batch: 241401

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240933

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND	E8	0.50	0.031	mg/L		04/29/21 19:18	05/04/21 16:41	1

Lab Sample ID: LCS 550-240933/2-A
Matrix: Water
Analysis Batch: 241266

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240933

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	1.00	0.934		mg/L		93	85 - 115
Boron	1.00	0.942		mg/L		94	85 - 115
Calcium	21.0	19.5		mg/L		93	85 - 115
Iron	1.00	0.881		mg/L		88	85 - 115
Magnesium	21.0	19.7		mg/L		94	85 - 115
Manganese	1.00	0.980		mg/L		98	85 - 115
Potassium	20.0	19.0		mg/L		95	85 - 115
Sodium	20.0	19.4		mg/L		97	85 - 115

Lab Sample ID: LCSD 550-240933/3-A
Matrix: Water
Analysis Batch: 241266

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240933

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	10	20
Boron	1.00	0.955		mg/L		95	85 - 115	1	20
Calcium	21.0	21.3		mg/L		101	85 - 115	9	20
Iron	1.00	0.968		mg/L		97	85 - 115	9	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCSD 550-240933/3-A
Matrix: Water
Analysis Batch: 241266

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240933

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Magnesium			21.0	21.6		mg/L		103	85 - 115	9	20
Manganese			1.00	0.993		mg/L		99	85 - 115	1	20
Potassium			20.0	20.3		mg/L		102	85 - 115	7	20
Sodium			20.0	20.8		mg/L		104	85 - 115	7	20

Lab Sample ID: 550-162829-D-1-A MS
Matrix: Water
Analysis Batch: 241266

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 240933

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Beryllium	0.00036	E4	1.00	1.04		mg/L		104	70 - 130		
Boron	0.21		1.00	1.19		mg/L		99	70 - 130		
Calcium	33		21.0	53.7		mg/L		99	70 - 130		
Iron	0.043	E4	1.00	1.02		mg/L		98	70 - 130		
Magnesium	0.36	E4	21.0	22.2		mg/L		104	70 - 130		
Manganese	0.0033	E4	1.00	1.00		mg/L		100	70 - 130		
Potassium	12	B1	20.0	32.7		mg/L		106	70 - 130		
Sodium	580	B1 M3	20.0	584	M3	mg/L		17	70 - 130		

Lab Sample ID: 550-162829-D-1-B MSD
Matrix: Water
Analysis Batch: 241266

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 240933

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	0.00036	E4	1.00	1.07		mg/L		107	70 - 130	2	20
Boron	0.21		1.00	1.20		mg/L		99	70 - 130	0	20
Calcium	33		21.0	55.6		mg/L		108	70 - 130	4	20
Iron	0.043	E4	1.00	1.04		mg/L		100	70 - 130	2	20
Magnesium	0.36	E4	21.0	22.6		mg/L		106	70 - 130	2	20
Manganese	0.0033	E4	1.00	1.01		mg/L		101	70 - 130	0	20
Potassium	12	B1	20.0	33.6		mg/L		110	70 - 130	3	20
Sodium	580	B1 M3	20.0	611	M3	mg/L		153	70 - 130	5	20

Lab Sample ID: MB 550-240976/1-A
Matrix: Water
Analysis Batch: 241274

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240976

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/30/21 06:37	05/04/21 03:24	1
Boron	0.0203	E4	0.050	0.0025	mg/L		04/30/21 06:37	05/04/21 03:24	1
Calcium	0.0624	E4	2.0	0.013	mg/L		04/30/21 06:37	05/04/21 03:24	1
Iron	ND	E8	0.10	0.010	mg/L		04/30/21 06:37	05/04/21 03:24	1
Magnesium	0.129	E4	2.0	0.044	mg/L		04/30/21 06:37	05/04/21 03:24	1
Manganese	0.000360	E4	0.010	0.00019	mg/L		04/30/21 06:37	05/04/21 03:24	1
Potassium	ND	E8	0.50	0.17	mg/L		04/30/21 06:37	05/04/21 03:24	1
Sodium	0.433	E4	0.50	0.031	mg/L		04/30/21 06:37	05/04/21 03:24	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 550-240976/2-A
Matrix: Water
Analysis Batch: 241274

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240976

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	1.00	1.07		mg/L		107	85 - 115
Boron	1.00	1.03		mg/L		103	85 - 115
Calcium	21.0	22.0		mg/L		105	85 - 115
Iron	1.00	0.992		mg/L		99	85 - 115
Magnesium	21.0	21.9		mg/L		104	85 - 115
Manganese	1.00	1.04		mg/L		104	85 - 115
Potassium	20.0	21.4		mg/L		107	85 - 115
Sodium	20.0	21.5		mg/L		108	85 - 115

Lab Sample ID: LCSD 550-240976/3-A
Matrix: Water
Analysis Batch: 241274

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240976

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	1.00	1.07		mg/L		107	85 - 115	1	20
Boron	1.00	1.04		mg/L		104	85 - 115	0	20
Calcium	21.0	22.1		mg/L		105	85 - 115	0	20
Iron	1.00	0.993		mg/L		99	85 - 115	0	20
Magnesium	21.0	21.9		mg/L		104	85 - 115	0	20
Manganese	1.00	1.05		mg/L		105	85 - 115	0	20
Potassium	20.0	21.5		mg/L		107	85 - 115	1	20
Sodium	20.0	21.7		mg/L		109	85 - 115	1	20

Lab Sample ID: 550-162775-I-27-A MS
Matrix: Water
Analysis Batch: 241274

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 240976

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.00062	E4	1.00	1.17		mg/L		117	70 - 130
Boron	1.8		1.00	2.85		mg/L		102	70 - 130
Calcium	290	M3	21.0	300	M3	mg/L		66	70 - 130
Iron	0.10		1.00	1.16		mg/L		106	70 - 130
Magnesium	150	M3	21.0	166	M3	mg/L		90	70 - 130
Manganese	0.91		1.00	1.93		mg/L		103	70 - 130
Potassium	28		20.0	53.5		mg/L		129	70 - 130

Lab Sample ID: 550-162775-I-27-A MS ^2
Matrix: Water
Analysis Batch: 241406

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 240976

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	990	M3	20.0	999	M3	mg/L		21	70 - 130

Lab Sample ID: 550-162775-I-27-B MSD
Matrix: Water
Analysis Batch: 241274

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 240976

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	0.00062	E4	1.00	1.13		mg/L		113	70 - 130	3	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-162775-I-27-B MSD
Matrix: Water
Analysis Batch: 241274

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 240976

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.8		1.00	2.80		mg/L		97	70 - 130	2	20
Calcium	290	M3	21.0	288	M3	mg/L		9	70 - 130	4	20
Iron	0.10		1.00	1.12		mg/L		102	70 - 130	3	20
Magnesium	150	M3	21.0	159	M3	mg/L		59	70 - 130	4	20
Manganese	0.91		1.00	1.89		mg/L		98	70 - 130	2	20
Potassium	28		20.0	51.6		mg/L		119	70 - 130	4	20

Lab Sample ID: 550-162775-I-27-B MSD ^2
Matrix: Water
Analysis Batch: 241406

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 240976

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sodium	990	M3	20.0	978	M3	mg/L		-80	70 - 130	2	20

Lab Sample ID: MB 280-535039/1-A
Matrix: Water
Analysis Batch: 535416

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 535039

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	E8	0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 20:04	1

Lab Sample ID: LCS 280-535039/2-A
Matrix: Water
Analysis Batch: 535416

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 535039

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	1.00	0.977		mg/L		98	90 - 112

Lab Sample ID: 550-162771-C-4-B MS
Matrix: Water
Analysis Batch: 535416

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 535039

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.76		1.00	1.82		mg/L		107	70 - 130

Lab Sample ID: 550-162771-C-4-C MSD
Matrix: Water
Analysis Batch: 535416

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 535039

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.76		1.00	1.84		mg/L		109	70 - 130	1	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-240779/1-A
Matrix: Water
Analysis Batch: 241599

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.000166	E4	0.0010	0.000043	mg/L		04/28/21 20:48	05/05/21 18:09	1

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 550-240779/1-A
Matrix: Water
Analysis Batch: 241599

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000457	E4	0.00050	0.00025	mg/L		04/28/21 20:48	05/05/21 18:09	1
Barium	0.000370	E4	0.00050	0.00026	mg/L		04/28/21 20:48	05/05/21 18:09	1
Cadmium	0.0000900	E4	0.00010	0.000023	mg/L		04/28/21 20:48	05/05/21 18:09	1
Cobalt	ND	E8	0.00050	0.000063	mg/L		04/28/21 20:48	05/05/21 18:09	1
Lead	ND	E8	0.00050	0.00022	mg/L		04/28/21 20:48	05/05/21 18:09	1
Molybdenum	ND	E8	0.00050	0.00020	mg/L		04/28/21 20:48	05/05/21 18:09	1
Selenium	0.000295	E4	0.00050	0.000074	mg/L		04/28/21 20:48	05/05/21 18:09	1
Thallium	0.0000900	E4	0.00010	0.000013	mg/L		04/28/21 20:48	05/05/21 18:09	1

Lab Sample ID: MB 550-240779/1-A
Matrix: Water
Analysis Batch: 242002

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND	E8	0.0010	0.00043	mg/L		04/28/21 20:48	05/10/21 18:58	1

Lab Sample ID: LCS 550-240779/2-A
Matrix: Water
Analysis Batch: 241599

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.0991		mg/L		99	85 - 115
Arsenic	0.100	0.0987		mg/L		99	85 - 115
Barium	0.100	0.115		mg/L		115	85 - 115
Cadmium	0.100	0.0969		mg/L		97	85 - 115
Cobalt	0.100	0.0931		mg/L		93	85 - 115
Lead	0.100	0.0956		mg/L		96	85 - 115
Molybdenum	0.100	0.0958		mg/L		96	85 - 115
Selenium	0.100	0.103		mg/L		103	85 - 115
Thallium	0.100	0.0940		mg/L		94	85 - 115

Lab Sample ID: LCS 550-240779/2-A
Matrix: Water
Analysis Batch: 242002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.100	0.111		mg/L		111	85 - 115

Lab Sample ID: LCSD 550-240779/3-A
Matrix: Water
Analysis Batch: 241599

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240779

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.100	0.0989		mg/L		99	85 - 115	0	20
Arsenic	0.100	0.0974		mg/L		97	85 - 115	1	20
Barium	0.100	0.114		mg/L		114	85 - 115	2	20
Cadmium	0.100	0.0976		mg/L		98	85 - 115	1	20
Cobalt	0.100	0.0928		mg/L		93	85 - 115	0	20
Lead	0.100	0.0944		mg/L		94	85 - 115	1	20
Molybdenum	0.100	0.0962		mg/L		96	85 - 115	0	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 550-240779/3-A
Matrix: Water
Analysis Batch: 241599

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240779

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium			0.100	0.102		mg/L		102	85 - 115	0	20
Thallium			0.100	0.0932		mg/L		93	85 - 115	1	20

Lab Sample ID: LCSD 550-240779/3-A
Matrix: Water
Analysis Batch: 242002

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240779

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium			0.100	0.112		mg/L		112	85 - 115	0	20

Lab Sample ID: 550-162712-B-1-A MS T
Matrix: Water
Analysis Batch: 241599

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 240779

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.00032	E4	0.100	0.102		mg/L		101	70 - 130
Arsenic	0.0026		0.100	0.103		mg/L		100	70 - 130
Barium	0.037		0.100	0.153		mg/L		116	70 - 130
Cadmium	0.000026	E4	0.100	0.0970		mg/L		97	70 - 130
Cobalt	ND	E8	0.100	0.0906		mg/L		91	70 - 130
Lead	0.00072		0.100	0.0940		mg/L		93	70 - 130
Molybdenum	0.016		0.100	0.118		mg/L		102	70 - 130
Selenium	0.00076		0.100	0.105		mg/L		105	70 - 130
Thallium	0.000093	E4	0.100	0.0919		mg/L		92	70 - 130

Lab Sample ID: 550-162712-B-1-A MS T
Matrix: Water
Analysis Batch: 242002

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 240779

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.00048	E4	0.100	0.110		mg/L		110	70 - 130

Lab Sample ID: 550-162712-B-1-B MSD T
Matrix: Water
Analysis Batch: 241599

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 240779

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.00032	E4	0.100	0.105		mg/L		105	70 - 130	4	20
Arsenic	0.0026		0.100	0.105		mg/L		102	70 - 130	2	20
Barium	0.037		0.100	0.161		mg/L		124	70 - 130	5	20
Cadmium	0.000026	E4	0.100	0.0995		mg/L		99	70 - 130	3	20
Cobalt	ND	E8	0.100	0.0916		mg/L		92	70 - 130	1	20
Lead	0.00072		0.100	0.0976		mg/L		97	70 - 130	4	20
Molybdenum	0.016		0.100	0.120		mg/L		104	70 - 130	2	20
Selenium	0.00076		0.100	0.107		mg/L		106	70 - 130	1	20
Thallium	0.000093	E4	0.100	0.0947		mg/L		95	70 - 130	3	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: 550-162712-B-1-B MSD T — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 242002 — **Prep Batch: 240779**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	0.00048	E4	0.100	0.112		mg/L		112	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-241075/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241093 — **Prep Batch: 241075**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000060	mg/L		04/30/21 17:04	04/30/21 19:44	1

Lab Sample ID: LCS 550-241075/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241093 — **Prep Batch: 241075**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.00500	0.00532		mg/L		106	85 - 115

Lab Sample ID: LCSD 550-241075/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241093 — **Prep Batch: 241075**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.00500	0.00509		mg/L		102	85 - 115	4	20

Lab Sample ID: 550-162835-A-5-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241093 — **Prep Batch: 241075**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	ND	E8	0.00500	0.00471		mg/L		94	70 - 130

Lab Sample ID: 550-162835-A-5-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241093 — **Prep Batch: 241075**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND	E8	0.00500	0.00426		mg/L		85	70 - 130	10	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-240994/34 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 240994

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 16:25	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 16:25	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 16:25	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			04/29/21 16:25	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MB 550-240994/34
Matrix: Water
Analysis Batch: 240994

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 16:25	1

Lab Sample ID: LCS 550-240994/33
Matrix: Water
Analysis Batch: 240994

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	259		mg/L		104	90 - 110

Lab Sample ID: LCSD 550-240994/46
Matrix: Water
Analysis Batch: 240994

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	260		mg/L		104	90 - 110	0	20

Lab Sample ID: 550-162729-W-1 DU
Matrix: Water
Analysis Batch: 240994

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	130		135		mg/L		0.6	20
Bicarbonate Alkalinity as CaCO3	130		135		mg/L		0.6	20
Carbonate Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20
Alkalinity, Phenolphthalein	ND	E8	ND	E8	mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20

Lab Sample ID: MB 550-241118/1
Matrix: Water
Analysis Batch: 241118

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1

Lab Sample ID: LCS 550-241118/2
Matrix: Water
Analysis Batch: 241118

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	248		mg/L		99	90 - 110

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCSD 550-241118/3
Matrix: Water
Analysis Batch: 241118

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	248		mg/L		99	90 - 110	0	20

Lab Sample ID: 550-162673-E-2 DU
Matrix: Water
Analysis Batch: 241119

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	750			750		mg/L				0	20
Bicarbonate Alkalinity as CaCO3	750			750		mg/L				0	20
Carbonate Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20
Alkalinity, Phenolphthalein	ND	E8		ND	E8	mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-240828/1
Matrix: Water
Analysis Batch: 240828

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			04/29/21 08:38	1

Lab Sample ID: LCS 550-240828/2
Matrix: Water
Analysis Batch: 240828

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 550-240828/3
Matrix: Water
Analysis Batch: 240828

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	980		mg/L		98	90 - 110	2	10

Lab Sample ID: 550-162767-A-1 DU
Matrix: Water
Analysis Batch: 240828

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	5700	D2		5570	D2	mg/L				3	10

Lab Sample ID: 550-162768-8 DU
Matrix: Water
Analysis Batch: 240828

Client Sample ID: FC-CCR-MW75-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	6500	D2		6650	D2	mg/L				3	10

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 550-240829/1
Matrix: Water
Analysis Batch: 240829

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			04/29/21 08:40	1

Lab Sample ID: LCS 550-240829/2
Matrix: Water
Analysis Batch: 240829

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	1010		mg/L		101	90 - 110		

Lab Sample ID: LCSD 550-240829/3
Matrix: Water
Analysis Batch: 240829

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	984		mg/L		98	90 - 110	3	10

Lab Sample ID: 550-162768-1 DU
Matrix: Water
Analysis Batch: 240829

Client Sample ID: FC-CCR-MW07-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	8900	D2		8710	D2	mg/L				2	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-241582/25
Matrix: Water
Analysis Batch: 241582

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 550-241582/37
Matrix: Water
Analysis Batch: 241582

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: LCSSRM 550-241582/49
Matrix: Water
Analysis Batch: 241582

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		

Method: SM 4500 H+ B - pH (Continued)

Lab Sample ID: 550-162704-H-1 DU
Matrix: Water
Analysis Batch: 241582

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.7	H5		7.7	H5	SU				1	5
Temperature	16.6	H5		16.8	H5	Degrees C				1	

Lab Sample ID: 550-162768-10 DU
Matrix: Water
Analysis Batch: 241582

Client Sample ID: FC-CCR-MW87-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.6	H5		7.6	H5	SU				0.3	5
Temperature	17.6	H5		17.9	H5	Degrees C				2	

HPLC/IC

Analysis Batch: 240915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-1	FC-CCR-MW07-0421	Total/NA	Water	300.0	
550-162768-1	FC-CCR-MW07-0421	Total/NA	Water	300.0	
550-162768-2	FC-CCR-MW08-0421	Total/NA	Water	300.0	
550-162768-2	FC-CCR-MW08-0421	Total/NA	Water	300.0	
550-162768-3	FC-CCR-MW40R-0421	Total/NA	Water	300.0	
550-162768-3	FC-CCR-MW40R-0421	Total/NA	Water	300.0	
MB 550-240915/2	Method Blank	Total/NA	Water	300.0	
LCS 550-240915/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-240915/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-162673-A-8 MS ^10	Matrix Spike	Total/NA	Water	300.0	
550-162673-A-8 MSD ^10	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 240916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-7	FC-CCR-MW74-0421	Total/NA	Water	300.0	
550-162768-7	FC-CCR-MW74-0421	Total/NA	Water	300.0	
550-162768-9	FC-CCR-MW76-0421	Total/NA	Water	300.0	
550-162768-9	FC-CCR-MW76-0421	Total/NA	Water	300.0	
550-162768-10	FC-CCR-MW87-0421	Total/NA	Water	300.0	
550-162768-10	FC-CCR-MW87-0421	Total/NA	Water	300.0	
MB 550-240916/1030	Method Blank	Total/NA	Water	300.0	
LCS 550-240916/32	Lab Control Sample	Total/NA	Water	300.0	
550-162769-A-5 MS ^200	Matrix Spike	Total/NA	Water	300.0	
550-162769-A-5 MSD ^200	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 241309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-6	FC-CCR-MW61-0421	Total/NA	Water	300.0	
550-162768-6	FC-CCR-MW61-0421	Total/NA	Water	300.0	
550-162768-8	FC-CCR-MW75-0421	Total/NA	Water	300.0	
550-162768-8	FC-CCR-MW75-0421	Total/NA	Water	300.0	
550-162768-11	FC-CCR-FD04-0421	Total/NA	Water	300.0	
550-162768-11	FC-CCR-FD04-0421	Total/NA	Water	300.0	
MB 550-241309/2	Method Blank	Total/NA	Water	300.0	
LCS 550-241309/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-241309/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-162769-A-1 MS ^200	Matrix Spike	Total/NA	Water	300.0	
550-162769-A-1 MSD ^200	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 241879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-4	FC-CCR-MW49A-0421	Total/NA	Water	300.0	
550-162768-4	FC-CCR-MW49A-0421	Total/NA	Water	300.0	
550-162768-4	FC-CCR-MW49A-0421	Total/NA	Water	300.0	
550-162768-7	FC-CCR-MW74-0421	Total/NA	Water	300.0	
550-162768-9	FC-CCR-MW76-0421	Total/NA	Water	300.0	
550-162768-10	FC-CCR-MW87-0421	Total/NA	Water	300.0	
MB 550-241879/1056	Method Blank	Total/NA	Water	300.0	
LCS 550-241879/57	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-241879/58	Lab Control Sample Dup	Total/NA	Water	300.0	
550-162768-4 MS	FC-CCR-MW49A-0421	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 241879 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-4 MS	FC-CCR-MW49A-0421	Total/NA	Water	300.0	

Metals

Prep Batch: 240779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-1	FC-CCR-MW07-0421	Total/NA	Water	200.8	
550-162768-2	FC-CCR-MW08-0421	Total/NA	Water	200.8	
550-162768-3	FC-CCR-MW40R-0421	Total/NA	Water	200.8	
550-162768-4	FC-CCR-MW49A-0421	Total/NA	Water	200.8	
550-162768-5	FC-CCR-MW52-0421	Total/NA	Water	200.8	
550-162768-6	FC-CCR-MW61-0421	Total/NA	Water	200.8	
550-162768-7	FC-CCR-MW74-0421	Total/NA	Water	200.8	
550-162768-8	FC-CCR-MW75-0421	Total/NA	Water	200.8	
550-162768-9	FC-CCR-MW76-0421	Total/NA	Water	200.8	
550-162768-10	FC-CCR-MW87-0421	Total/NA	Water	200.8	
550-162768-11	FC-CCR-FD04-0421	Total/NA	Water	200.8	
MB 550-240779/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-240779/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-240779/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-162712-B-1-A MS T	Matrix Spike	Total/NA	Water	200.8	
550-162712-B-1-B MSD T	Matrix Spike Duplicate	Total/NA	Water	200.8	

Prep Batch: 240933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-1	FC-CCR-MW07-0421	Total/NA	Water	200.7	
550-162768-2	FC-CCR-MW08-0421	Total/NA	Water	200.7	
550-162768-3	FC-CCR-MW40R-0421	Total/NA	Water	200.7	
550-162768-4	FC-CCR-MW49A-0421	Total/NA	Water	200.7	
550-162768-5	FC-CCR-MW52-0421	Total/NA	Water	200.7	
550-162768-6	FC-CCR-MW61-0421	Total/NA	Water	200.7	
550-162768-7	FC-CCR-MW74-0421	Total/NA	Water	200.7	
550-162768-8	FC-CCR-MW75-0421	Total/NA	Water	200.7	
550-162768-9	FC-CCR-MW76-0421	Total/NA	Water	200.7	
550-162768-10	FC-CCR-MW87-0421	Total/NA	Water	200.7	
MB 550-240933/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-240933/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-240933/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-162829-D-1-A MS	Matrix Spike	Total/NA	Water	200.7	
550-162829-D-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Prep Batch: 240976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-11	FC-CCR-FD04-0421	Total/NA	Water	200.7	
MB 550-240976/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-240976/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-240976/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-162775-I-27-A MS	Matrix Spike	Total/NA	Water	200.7	
550-162775-I-27-A MS ^2	Matrix Spike	Total/NA	Water	200.7	
550-162775-I-27-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
550-162775-I-27-B MSD ^2	Matrix Spike Duplicate	Total/NA	Water	200.7	

Metals

Prep Batch: 241075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-1	FC-CCR-MW07-0421	Total/NA	Water	245.1	
550-162768-2	FC-CCR-MW08-0421	Total/NA	Water	245.1	
550-162768-3	FC-CCR-MW40R-0421	Total/NA	Water	245.1	
550-162768-4	FC-CCR-MW49A-0421	Total/NA	Water	245.1	
550-162768-6	FC-CCR-MW61-0421	Total/NA	Water	245.1	
550-162768-7	FC-CCR-MW74-0421	Total/NA	Water	245.1	
550-162768-8	FC-CCR-MW75-0421	Total/NA	Water	245.1	
550-162768-9	FC-CCR-MW76-0421	Total/NA	Water	245.1	
550-162768-10	FC-CCR-MW87-0421	Total/NA	Water	245.1	
550-162768-11	FC-CCR-FD04-0421	Total/NA	Water	245.1	
MB 550-241075/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-241075/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-241075/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-162835-A-5-B MS	Matrix Spike	Total/NA	Water	245.1	
550-162835-A-5-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 241093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-1	FC-CCR-MW07-0421	Total/NA	Water	245.1	241075
550-162768-2	FC-CCR-MW08-0421	Total/NA	Water	245.1	241075
550-162768-3	FC-CCR-MW40R-0421	Total/NA	Water	245.1	241075
550-162768-4	FC-CCR-MW49A-0421	Total/NA	Water	245.1	241075
550-162768-6	FC-CCR-MW61-0421	Total/NA	Water	245.1	241075
550-162768-7	FC-CCR-MW74-0421	Total/NA	Water	245.1	241075
550-162768-8	FC-CCR-MW75-0421	Total/NA	Water	245.1	241075
550-162768-9	FC-CCR-MW76-0421	Total/NA	Water	245.1	241075
550-162768-10	FC-CCR-MW87-0421	Total/NA	Water	245.1	241075
550-162768-11	FC-CCR-FD04-0421	Total/NA	Water	245.1	241075
MB 550-241075/1-A	Method Blank	Total/NA	Water	245.1	241075
LCS 550-241075/2-A	Lab Control Sample	Total/NA	Water	245.1	241075
LCSD 550-241075/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	241075
550-162835-A-5-B MS	Matrix Spike	Total/NA	Water	245.1	241075
550-162835-A-5-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	241075

Analysis Batch: 241266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-1	FC-CCR-MW07-0421	Total/NA	Water	200.7 Rev 4.4	240933
550-162768-2	FC-CCR-MW08-0421	Total/NA	Water	200.7 Rev 4.4	240933
550-162768-3	FC-CCR-MW40R-0421	Total/NA	Water	200.7 Rev 4.4	240933
550-162768-4	FC-CCR-MW49A-0421	Total/NA	Water	200.7 Rev 4.4	240933
550-162768-5	FC-CCR-MW52-0421	Total/NA	Water	200.7 Rev 4.4	240933
550-162768-6	FC-CCR-MW61-0421	Total/NA	Water	200.7 Rev 4.4	240933
550-162768-7	FC-CCR-MW74-0421	Total/NA	Water	200.7 Rev 4.4	240933
550-162768-8	FC-CCR-MW75-0421	Total/NA	Water	200.7 Rev 4.4	240933
550-162768-9	FC-CCR-MW76-0421	Total/NA	Water	200.7 Rev 4.4	240933
550-162768-10	FC-CCR-MW87-0421	Total/NA	Water	200.7 Rev 4.4	240933
MB 550-240933/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	240933
LCS 550-240933/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	240933
LCSD 550-240933/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	240933
550-162829-D-1-A MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	240933
550-162829-D-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	240933

Metals

Analysis Batch: 241274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-11	FC-CCR-FD04-0421	Total/NA	Water	200.7 Rev 4.4	240976
MB 550-240976/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	240976
LCS 550-240976/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	240976
LCSD 550-240976/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	240976
550-162775-I-27-A MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	240976
550-162775-I-27-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	240976

Analysis Batch: 241401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-2	FC-CCR-MW08-0421	Total/NA	Water	200.7 Rev 4.4	240933
550-162768-3	FC-CCR-MW40R-0421	Total/NA	Water	200.7 Rev 4.4	240933
550-162768-6	FC-CCR-MW61-0421	Total/NA	Water	200.7 Rev 4.4	240933
550-162768-8	FC-CCR-MW75-0421	Total/NA	Water	200.7 Rev 4.4	240933
550-162768-9	FC-CCR-MW76-0421	Total/NA	Water	200.7 Rev 4.4	240933
550-162768-10	FC-CCR-MW87-0421	Total/NA	Water	200.7 Rev 4.4	240933
MB 550-240933/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	240933

Analysis Batch: 241406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-11	FC-CCR-FD04-0421	Total/NA	Water	200.7 Rev 4.4	240976
550-162775-I-27-A MS ^2	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	240976
550-162775-I-27-B MSD ^2	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	240976

Analysis Batch: 241532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-3	FC-CCR-MW40R-0421	Total/NA	Water	200.7 Rev 4.4	240933
550-162768-10	FC-CCR-MW87-0421	Total/NA	Water	200.7 Rev 4.4	240933

Analysis Batch: 241599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-1	FC-CCR-MW07-0421	Total/NA	Water	200.8 LL	240779
550-162768-2	FC-CCR-MW08-0421	Total/NA	Water	200.8 LL	240779
550-162768-3	FC-CCR-MW40R-0421	Total/NA	Water	200.8 LL	240779
550-162768-4	FC-CCR-MW49A-0421	Total/NA	Water	200.8 LL	240779
550-162768-5	FC-CCR-MW52-0421	Total/NA	Water	200.8 LL	240779
550-162768-6	FC-CCR-MW61-0421	Total/NA	Water	200.8 LL	240779
550-162768-8	FC-CCR-MW75-0421	Total/NA	Water	200.8 LL	240779
550-162768-9	FC-CCR-MW76-0421	Total/NA	Water	200.8 LL	240779
550-162768-11	FC-CCR-FD04-0421	Total/NA	Water	200.8 LL	240779
MB 550-240779/1-A	Method Blank	Total/NA	Water	200.8 LL	240779
LCS 550-240779/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	240779
LCSD 550-240779/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	240779
550-162712-B-1-A MS T	Matrix Spike	Total/NA	Water	200.8 LL	240779
550-162712-B-1-B MSD T	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	240779

Analysis Batch: 242002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-1	FC-CCR-MW07-0421	Total/NA	Water	200.8 LL	240779
550-162768-2	FC-CCR-MW08-0421	Total/NA	Water	200.8 LL	240779
550-162768-3	FC-CCR-MW40R-0421	Total/NA	Water	200.8 LL	240779
550-162768-4	FC-CCR-MW49A-0421	Total/NA	Water	200.8 LL	240779

Metals (Continued)

Analysis Batch: 242002 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-6	FC-CCR-MW61-0421	Total/NA	Water	200.8 LL	240779
550-162768-7	FC-CCR-MW74-0421	Total/NA	Water	200.8 LL	240779
550-162768-8	FC-CCR-MW75-0421	Total/NA	Water	200.8 LL	240779
550-162768-9	FC-CCR-MW76-0421	Total/NA	Water	200.8 LL	240779
550-162768-10	FC-CCR-MW87-0421	Total/NA	Water	200.8 LL	240779
550-162768-11	FC-CCR-FD04-0421	Total/NA	Water	200.8 LL	240779
MB 550-240779/1-A	Method Blank	Total/NA	Water	200.8 LL	240779
LCS 550-240779/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	240779
LCSD 550-240779/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	240779
550-162712-B-1-A MS T	Matrix Spike	Total/NA	Water	200.8 LL	240779
550-162712-B-1-B MSD T	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	240779

Analysis Batch: 242064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-7	FC-CCR-MW74-0421	Total/NA	Water	200.8 LL	240779
550-162768-10	FC-CCR-MW87-0421	Total/NA	Water	200.8 LL	240779

Analysis Batch: 242083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-2	FC-CCR-MW08-0421	Total/NA	Water	200.8 LL	240779
550-162768-3	FC-CCR-MW40R-0421	Total/NA	Water	200.8 LL	240779
550-162768-4	FC-CCR-MW49A-0421	Total/NA	Water	200.8 LL	240779
550-162768-6	FC-CCR-MW61-0421	Total/NA	Water	200.8 LL	240779
550-162768-8	FC-CCR-MW75-0421	Total/NA	Water	200.8 LL	240779
550-162768-9	FC-CCR-MW76-0421	Total/NA	Water	200.8 LL	240779
550-162768-10	FC-CCR-MW87-0421	Total/NA	Water	200.8 LL	240779

Prep Batch: 535039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-1	FC-CCR-MW07-0421	Total/NA	Water	200.7	
550-162768-2	FC-CCR-MW08-0421	Total/NA	Water	200.7	
550-162768-3	FC-CCR-MW40R-0421	Total/NA	Water	200.7	
550-162768-4	FC-CCR-MW49A-0421	Total/NA	Water	200.7	
550-162768-6	FC-CCR-MW61-0421	Total/NA	Water	200.7	
550-162768-7	FC-CCR-MW74-0421	Total/NA	Water	200.7	
550-162768-8	FC-CCR-MW75-0421	Total/NA	Water	200.7	
550-162768-9	FC-CCR-MW76-0421	Total/NA	Water	200.7	
550-162768-10	FC-CCR-MW87-0421	Total/NA	Water	200.7	
550-162768-11	FC-CCR-FD04-0421	Total/NA	Water	200.7	
MB 280-535039/1-A	Method Blank	Total/NA	Water	200.7	
LCS 280-535039/2-A	Lab Control Sample	Total/NA	Water	200.7	
550-162771-C-4-B MS	Matrix Spike	Total/NA	Water	200.7	
550-162771-C-4-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Analysis Batch: 535416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-1	FC-CCR-MW07-0421	Total/NA	Water	200.7 Rev 4.4	535039
550-162768-2	FC-CCR-MW08-0421	Total/NA	Water	200.7 Rev 4.4	535039
550-162768-3	FC-CCR-MW40R-0421	Total/NA	Water	200.7 Rev 4.4	535039
550-162768-4	FC-CCR-MW49A-0421	Total/NA	Water	200.7 Rev 4.4	535039
550-162768-6	FC-CCR-MW61-0421	Total/NA	Water	200.7 Rev 4.4	535039

Metals (Continued)

Analysis Batch: 535416 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-7	FC-CCR-MW74-0421	Total/NA	Water	200.7 Rev 4.4	535039
550-162768-8	FC-CCR-MW75-0421	Total/NA	Water	200.7 Rev 4.4	535039
550-162768-9	FC-CCR-MW76-0421	Total/NA	Water	200.7 Rev 4.4	535039
550-162768-10	FC-CCR-MW87-0421	Total/NA	Water	200.7 Rev 4.4	535039
550-162768-11	FC-CCR-FD04-0421	Total/NA	Water	200.7 Rev 4.4	535039
MB 280-535039/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	535039
LCS 280-535039/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	535039
550-162771-C-4-B MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	535039
550-162771-C-4-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	535039

General Chemistry

Analysis Batch: 240828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-3	FC-CCR-MW40R-0421	Total/NA	Water	SM 2540C	
550-162768-6	FC-CCR-MW61-0421	Total/NA	Water	SM 2540C	
550-162768-7	FC-CCR-MW74-0421	Total/NA	Water	SM 2540C	
550-162768-8	FC-CCR-MW75-0421	Total/NA	Water	SM 2540C	
550-162768-9	FC-CCR-MW76-0421	Total/NA	Water	SM 2540C	
MB 550-240828/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-240828/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-240828/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-162767-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	
550-162768-8 DU	FC-CCR-MW75-0421	Total/NA	Water	SM 2540C	

Analysis Batch: 240829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-1	FC-CCR-MW07-0421	Total/NA	Water	SM 2540C	
550-162768-2	FC-CCR-MW08-0421	Total/NA	Water	SM 2540C	
550-162768-4	FC-CCR-MW49A-0421	Total/NA	Water	SM 2540C	
550-162768-10	FC-CCR-MW87-0421	Total/NA	Water	SM 2540C	
550-162768-11	FC-CCR-FD04-0421	Total/NA	Water	SM 2540C	
MB 550-240829/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-240829/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-240829/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-162768-1 DU	FC-CCR-MW07-0421	Total/NA	Water	SM 2540C	

Analysis Batch: 240994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-2	FC-CCR-MW08-0421	Total/NA	Water	SM 2320B	
550-162768-6	FC-CCR-MW61-0421	Total/NA	Water	SM 2320B	
550-162768-8	FC-CCR-MW75-0421	Total/NA	Water	SM 2320B	
550-162768-9	FC-CCR-MW76-0421	Total/NA	Water	SM 2320B	
550-162768-11	FC-CCR-FD04-0421	Total/NA	Water	SM 2320B	
MB 550-240994/34	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-240994/33	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-240994/46	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-162729-W-1 DU	Duplicate	Total/NA	Water	SM 2320B	

General Chemistry

Analysis Batch: 241118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-241118/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-241118/2	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-241118/3	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 241119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-10	FC-CCR-MW87-0421	Total/NA	Water	SM 2320B	
550-162673-E-2 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 241582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162768-1	FC-CCR-MW07-0421	Total/NA	Water	SM 4500 H+ B	
550-162768-2	FC-CCR-MW08-0421	Total/NA	Water	SM 4500 H+ B	
550-162768-3	FC-CCR-MW40R-0421	Total/NA	Water	SM 4500 H+ B	
550-162768-4	FC-CCR-MW49A-0421	Total/NA	Water	SM 4500 H+ B	
550-162768-6	FC-CCR-MW61-0421	Total/NA	Water	SM 4500 H+ B	
550-162768-7	FC-CCR-MW74-0421	Total/NA	Water	SM 4500 H+ B	
550-162768-8	FC-CCR-MW75-0421	Total/NA	Water	SM 4500 H+ B	
550-162768-9	FC-CCR-MW76-0421	Total/NA	Water	SM 4500 H+ B	
550-162768-10	FC-CCR-MW87-0421	Total/NA	Water	SM 4500 H+ B	
550-162768-11	FC-CCR-FD04-0421	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-241582/25	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-241582/37	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-241582/49	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-162704-H-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	
550-162768-10 DU	FC-CCR-MW87-0421	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162768-1
SDG: APS Four Corners Power Plant

Client Sample ID: FC-CCR-MW07-0421

Date Collected: 04/27/21 14:09
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162768-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	240915	04/29/21 17:02	JRP	TAL PHX
Total/NA	Analysis	300.0		200	240915	04/29/21 17:20	JRP	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241266	05/03/21 19:58	MGM	TAL PHX
Total/NA	Prep	200.7			535039	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 20:24	LMT	TAL DEN
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	241599	05/05/21 18:32	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242002	05/10/21 19:21	ARE	TAL PHX
Total/NA	Prep	245.1			241075	04/30/21 17:04	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241093	04/30/21 20:03	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	240829		YET	TAL PHX
					(Start)	04/29/21 08:40		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW08-0421

Date Collected: 04/27/21 12:58
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162768-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	240915	04/29/21 17:39	JRP	TAL PHX
Total/NA	Analysis	300.0		200	240915	04/29/21 17:57	JRP	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241266	05/03/21 20:02	MGM	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	241401	05/04/21 16:45	MGM	TAL PHX
Total/NA	Prep	200.7			535039	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 20:27	LMT	TAL DEN
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	241599	05/05/21 18:34	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242002	05/10/21 19:23	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242083	05/11/21 16:20	ARE	TAL PHX
Total/NA	Prep	245.1			241075	04/30/21 17:04	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241093	04/30/21 20:05	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	240994	04/29/21 17:40	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	240829		YET	TAL PHX
					(Start)	04/29/21 08:40		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW40R-0421

Lab Sample ID: 550-162768-3

Date Collected: 04/26/21 10:22

Matrix: Water

Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	240915	04/29/21 18:15	JRP	TAL PHX
Total/NA	Analysis	300.0		200	240915	04/29/21 18:34	JRP	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241266	05/03/21 20:06	MGM	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	241401	05/04/21 16:49	MGM	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	241532	05/05/21 22:35	MGM	TAL PHX
Total/NA	Prep	200.7			535039	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 20:31	LMT	TAL DEN
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	241599	05/05/21 18:36	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242002	05/10/21 19:25	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242083	05/11/21 16:22	ARE	TAL PHX
Total/NA	Prep	245.1			241075	04/30/21 17:04	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241093	04/30/21 20:11	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
					(Start)	04/29/21 08:38		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW49A-0421

Lab Sample ID: 550-162768-4

Date Collected: 04/27/21 15:16

Matrix: Water

Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241879	05/08/21 07:02	JRP	TAL PHX
Total/NA	Analysis	300.0		50	241879	05/08/21 07:57	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241879	05/08/21 08:16	JRP	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241266	05/03/21 20:10	MGM	TAL PHX
Total/NA	Prep	200.7			535039	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 20:34	LMT	TAL DEN
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	241599	05/05/21 18:38	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242002	05/10/21 19:27	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242083	05/11/21 16:24	ARE	TAL PHX
Total/NA	Prep	245.1			241075	04/30/21 17:04	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241093	04/30/21 20:13	SRR	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162768-1
SDG: APS Four Corners Power Plant

Client Sample ID: FC-CCR-MW49A-0421

Lab Sample ID: 550-162768-4
Matrix: Water
Date Collected: 04/27/21 15:16
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	240829		YET	TAL PHX
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW52-0421

Lab Sample ID: 550-162768-5
Matrix: Water
Date Collected: 04/23/21 14:54
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241266	05/03/21 20:13	MGM	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	241599	05/05/21 18:44	ARE	TAL PHX

Client Sample ID: FC-CCR-MW61-0421

Lab Sample ID: 550-162768-6
Matrix: Water
Date Collected: 04/23/21 15:34
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241309	05/03/21 16:04	JRP	TAL PHX
Total/NA	Analysis	300.0		50	241309	05/03/21 16:22	JRP	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241266	05/03/21 20:25	MGM	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	241401	05/04/21 16:56	MGM	TAL PHX
Total/NA	Prep	200.7			535039	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 20:51	LMT	TAL DEN
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	241599	05/05/21 18:46	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242002	05/10/21 19:33	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242083	05/11/21 16:26	ARE	TAL PHX
Total/NA	Prep	245.1			241075	04/30/21 17:04	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241093	04/30/21 20:14	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	240994	04/29/21 17:48	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
					(Start)	04/29/21 08:38		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW74-0421

Lab Sample ID: 550-162768-7

Date Collected: 04/23/21 13:45
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	240916	04/30/21 11:40	JRP	TAL PHX
Total/NA	Analysis	300.0		200	240916	04/30/21 11:58	JRP	TAL PHX
Total/NA	Analysis	300.0		500	241879	05/08/21 08:34	JRP	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241266	05/03/21 20:28	MGM	TAL PHX
Total/NA	Prep	200.7			535039	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 20:54	LMT	TAL DEN
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		2	242002	05/10/21 19:35	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242064	05/11/21 14:45	ARE	TAL PHX
Total/NA	Prep	245.1			241075	04/30/21 17:04	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241093	04/30/21 20:16	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
					(Start)	04/29/21 08:38		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW75-0421

Lab Sample ID: 550-162768-8

Date Collected: 04/23/21 16:14
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241309	05/03/21 16:59	JRP	TAL PHX
Total/NA	Analysis	300.0		50	241309	05/03/21 17:17	JRP	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241266	05/03/21 20:32	MGM	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	241401	05/04/21 17:00	MGM	TAL PHX
Total/NA	Prep	200.7			535039	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 20:57	LMT	TAL DEN
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	241599	05/05/21 18:50	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242002	05/10/21 19:37	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242083	05/11/21 16:29	ARE	TAL PHX
Total/NA	Prep	245.1			241075	04/30/21 17:04	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241093	04/30/21 20:17	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	240994	04/29/21 17:56	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
					(Start)	04/29/21 08:38		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW76-0421

Lab Sample ID: 550-162768-9

Date Collected: 04/26/21 16:37
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	240916	04/30/21 12:17	JRP	TAL PHX
Total/NA	Analysis	300.0		200	240916	04/30/21 12:35	JRP	TAL PHX
Total/NA	Analysis	300.0		100	241879	05/08/21 08:52	JRP	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241266	05/03/21 20:36	MGM	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	241401	05/04/21 17:04	MGM	TAL PHX
Total/NA	Prep	200.7			535039	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 21:01	LMT	TAL DEN
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	241599	05/05/21 18:52	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242002	05/10/21 19:39	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242083	05/11/21 16:31	ARE	TAL PHX
Total/NA	Prep	245.1			241075	04/30/21 17:04	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241093	04/30/21 20:19	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	240994	04/29/21 18:05	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
					(Start)	04/29/21 08:38		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW87-0421

Lab Sample ID: 550-162768-10

Date Collected: 04/27/21 09:17
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	240916	04/30/21 12:53	JRP	TAL PHX
Total/NA	Analysis	300.0		200	240916	04/30/21 13:12	JRP	TAL PHX
Total/NA	Analysis	300.0		500	241879	05/08/21 09:11	JRP	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241266	05/03/21 20:40	MGM	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	241401	05/04/21 17:08	MGM	TAL PHX
Total/NA	Prep	200.7			240933	04/29/21 19:18	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		20	241532	05/05/21 22:38	MGM	TAL PHX
Total/NA	Prep	200.7			535039	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 21:04	LMT	TAL DEN
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		2	242002	05/10/21 19:41	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242064	05/11/21 14:51	ARE	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162768-1
SDG: APS Four Corners Power Plant

Client Sample ID: FC-CCR-MW87-0421

Lab Sample ID: 550-162768-10

Date Collected: 04/27/21 09:17

Matrix: Water

Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242083	05/11/21 16:33	ARE	TAL PHX
Total/NA	Prep	245.1			241075	04/30/21 17:04	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241093	04/30/21 20:20	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	241119	05/02/21 13:20	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	240829		YET	TAL PHX
						(Start) 04/29/21 08:40		
						(End) 04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-FD04-0421

Lab Sample ID: 550-162768-11

Date Collected: 04/27/21 14:09

Matrix: Water

Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241309	05/03/21 18:31	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241309	05/03/21 18:49	JRP	TAL PHX
Total/NA	Prep	200.7			240976	04/30/21 06:37	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241274	05/04/21 04:39	MGM	TAL PHX
Total/NA	Prep	200.7			240976	04/30/21 06:37	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	241406	05/04/21 21:40	MGM	TAL PHX
Total/NA	Prep	200.7			535039	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 21:07	LMT	TAL DEN
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	241599	05/05/21 18:57	ARE	TAL PHX
Total/NA	Prep	200.8			240779	04/28/21 20:48	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	242002	05/10/21 19:44	ARE	TAL PHX
Total/NA	Prep	245.1			241075	04/30/21 17:04	SRR	TAL PHX
Total/NA	Analysis	245.1		1	241093	04/30/21 20:22	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	240994	04/29/21 18:59	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	240829		YET	TAL PHX
						(Start) 04/29/21 08:40		
						(End) 04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162768-1
SDG: APS Four Corners Power Plant

Laboratory: Eurofins TestAmerica, 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	06-08-21

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 2320B		Water	Alkalinity, Phenolphthalein
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins TestAmerica, Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-21
A2LA	ISO/IEC 17025	2907.01	10-31-21
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-28-22
Arizona	State	AZ0713	12-21-21
Arkansas DEQ	State	19-047-0	06-01-21
California	State	2513	01-08-22
Connecticut	State	PH-0686	11-30-22
Florida	NELAP	E87667-57	07-01-21
Georgia	State	4025-011	01-08-22
Illinois	NELAP	2000172019-1	04-30-21 *
Iowa	State	IA#370	12-02-21
Kansas	NELAP	E-10166	04-30-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-21
Minnesota	NELAP	1788752	12-31-21
Nevada	State	CO000262020-1	07-31-21
New Hampshire	NELAP	205319	04-29-22
New Jersey	NELAP	190002	06-30-21
New York	NELAP	59923	04-01-22
North Carolina (WW/SW)	State	358	12-31-21
North Dakota	State	R-034	01-08-22
Oklahoma	State	2018-006	09-01-21
Oregon	NELAP	4025-011	01-08-22
Pennsylvania	NELAP	013	07-31-21
South Carolina	State	72002001	01-08-22
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-20-18	09-30-21
US Fish & Wildlife	US Federal Programs	058448	08-01-21
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-21
Virginia	NELAP	10490	06-14-21
Washington	State	C583-19	08-03-21
West Virginia DEP	State	354	11-30-21
Wisconsin	State	999615430	08-31-21
Wyoming (UST)	A2LA	2907.01	10-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162768-1
SDG: APS Four Corners Power Plant

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
200.8 LL	Metals (ICP/MS)	EPA	TAL PHX
245.1	Mercury (CVAA)	EPA	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 4500 H+ B	pH	SM	TAL PHX
200.7	Preparation, Total Metals	EPA	TAL DEN
200.7	Preparation, Total Metals	EPA	TAL PHX
200.8	Preparation, Total Metals	EPA	TAL PHX
245.1	Preparation, Mercury	EPA	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, 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

162748

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

5/12/2021

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	**Natalie Chrisman**	**Jim Edwards / (928) 288-1241**	**Date:**
Arizona Public Service	**602-250-3608**	**Lab Contact: Ken Baker**	**Carrier:**
PO Box 355, MS 4915	**Analysis Turnaround Time**		
Fruitland, NM 87416	☐ CALENDAR DAYS ☑ WORKING DAYS		
Phone	TAT if different from Below _____		
FAX	☑ 2 weeks		
Project Name: CCR Groundwater Monitoring	☐ 1 week		
Site: APS Four Corners Power Plant (Multiunit)	☐ 2 days		
PO #: 100611133	☐ 1 day		

COC No: 1 of 2 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)	EPA 200.7 - Totals (B, Ca, Be, Li)	EPA 200.7 - Totals (B, Ca, Be, Li, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be, Li, K, Mg, Na, Mn, Fe)	EPA 200.8 - Totals (Co, Mo)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 245.1 - Totals (Hg)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 2320B (CO3 Alkalinity as CaCO3, HCO3 Alkalinity as	Sample Specific Notes:
1	FC-CCR-MW07-0421	4/27/2021	14:09	G	W	2	N	N	X		X				X	X	X	X		Low Flow
2	FC-CCR-MW08-0421	4/27/2021	12:58	G	W	2	N	N	X			X			X	X	X	X	X	"
3	FC-CCR-MW40R-0421	4/26/2021	10:22	G	W	2	N	N	X				X		X	X	X	X		"
4	FC-CCR-MW49A-0421	4/27/2021	15:16	G	W	2	N	N	X		X				X	X	X	X		"
5	FC-CCR-MW52-0421	4/23/2021	14:54	G	W	1	N	N		X				X						"
6	FC-CCR-MW61-0421	4/23/2021	15:34	G	W	2	N	N	X			X			X	X	X	X	X	"
7	FC-CCR-MW74-0421	4/23/2021	13:45	G	W	2	N	N	X		X				X	X	X	X		"
8	FC-CCR-MW75-0421	4/23/2021	16:14	G	W	2	N	N	X			X			X	X	X	X	X	"
9	FC-CCR-MW76-0421	4/26/2021	16:37	G	W	2	N	N	X			X			X	X	X	X	X	"
10	FC-CCR-MW87-0421	4/27/2021	9:17	G	W	2	N	N	X				X		X	X	X	X	X	"
11	FC-CCR-FD04-0421	4/27/2021	14:09	G	W	2	N	N	X				X		X	X	X	X	X	"
									1		4	4	4	4	4	1	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 f... may be assessed if samples are retained longer than 1 month)

☐ Return to Client ... for _____ Months

550-162768 Chain of Custody

Special Instructions/QC Requirements & Comments:

Method 200.8 with collision cell

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]	Wood PLC	4-28-21/16:44			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Nicole Gerrel	Company: ETA PHX	Date/Time: 4/28/21 1644

CDO 1.8

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd Suite 189
Phoenix, AZ 85040
Phone: 602-437-3340 Fax: 602-454-9303

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Baker, Ken	Carrier Tracking No(s):	COC No: 550-30782.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Baker@Eurofinset.com	State of Origin: Arizona	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Arizona		Job #: 550-162768-1
Address: 4955 Yarrow Street,	Due Date Requested: 5/11/2021			
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 #: 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, 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_TOT Lithium-ICP	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
FC-CCR-MW07-0421 (550-162768-1)	4/27/21	14:09 Arizona		Water			X	1	AZ Sample
FC-CCR-MW08-0421 (550-162768-2)	4/27/21	12:58 Arizona		Water			X	1	AZ Sample
FC-CCR-MW40R-0421 (550-162768-3)	4/26/21	10:22 Arizona		Water			X	1	AZ Sample
FC-CCR-MW49A-0421 (550-162768-4)	4/27/21	15:16 Arizona		Water			X	1	AZ Sample
FC-CCR-MW61-0421 (550-162768-6)	4/23/21	15:34 Arizona		Water			X	1	AZ Sample
FC-CCR-MW74-0421 (550-162768-7)	4/23/21	13:45 Arizona		Water			X	1	AZ Sample
FC-CCR-MW75-0421 (550-162768-8)	4/23/21	16:14 Arizona		Water			X	1	AZ Sample
FC-CCR-MW76-0421 (550-162768-9)	4/26/21	16:37 Arizona		Water			X	1	AZ Sample
FC-CCR-MW87-0421 (550-162768-10)	4/27/21	09:17 Arizona		Water			X	1	AZ Sample

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

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: 05-03-21	Date:	Time:	Method of Shipment:		
Relinquished by: Eneo 5-03-21 ES	Date/Time: 13:45	Company: TA-PHX	Received by: Fedex	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by: [signature]	Date/Time: 5/4/2021 950	Company: ETA Den
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: CFTO Y TKN 6.1		

Ver: 11/01/2020

4625 East Cotton Ctr Blvd Suite 189
Phoenix, AZ 85040
Phone: 602-437-3340 Fax: 602-454-9303

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Baker, Ken	Carrier Tracking No(s):	COC No: 550-30782.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Baker@Eurofinset.com	State of Origin: Arizona	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Arizona		Job #: 550-162768-1
Address: 4955 Yarrow Street,	Due Date Requested: 5/11/2021			
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 #: 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, 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_TOT Lithium-ICP	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
FC-CCR-FD04-0421 (550-162768-11)	4/27/21	14:09 Arizona		Water			X	1	AZ Sample

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

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: Eve 05-03-21 13:45 TA-Phx	Date/Time:	Company	Received by: Fedex
Relinquished by:	Date/Time:	Company	Received by: 5/4/2021 950 ETAPH
Relinquished by:	Date/Time:	Company	Received by:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.1 IR 11 CF 0.4

Ver: 11/01/2020

5/12/2021

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-162768-1
SDG Number: APS Four Corners Power Plant

Login Number: 162768
List Number: 1
Creator: Maycock, Lisa

List Source: Eurofins TestAmerica, 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: 550-162768-1
SDG Number: APS Four Corners Power Plant

Login Number: 162768
List Number: 2
Creator: Dubicki, Adam L

List Source: Eurofins TestAmerica, Denver
List Creation: 05/04/21 12:27 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.	False	
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	

Radiation Safety Engineering, Inc.

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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: April 27, 2021
Sample Received: April 29, 2021
Analysis Completed: May 11, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW07-0421	< 0.4	2.4 ± 0.4	2.4 ± 0.4

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

5/11/2021

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: _____

April 27, 2021 (Sample Date) 14:09 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	2.4 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	2.4 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66489

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. (480) 897-9459

Comments: FC-CCR-MW07-0421

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

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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: April 27, 2021
Sample Received: April 29, 2021
Analysis Completed: May 11, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW08-0421	< 0.5	< 0.8	< 0.8
Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/11/2021
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: _____

April 27, 2021 (Sample Date) 12:58 (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 — 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66490

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. (480) 897-9459

Comments: FC-CCR-MW08-0421

Authorized Signature: About 2 Mutype

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

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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: April 26, 2021
Sample Received: April 29, 2021
Analysis Completed: May 11, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW40R-0421	< 0.4	2.2 ± 0.4	2.2 ± 0.4

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

5/11/2021

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: _____

April 26, 2021 (Sample Date) 10:22 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	2.2 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	2.2 ± 0.4		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66491

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. (480) 897-9459

Comments: FC-CCR-MW40R-0421

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

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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: April 27, 2021
Sample Received: April 29, 2021
Analysis Completed: May 11, 2021

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-0421	< 0.5	< 0.8	< 0.8

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/11/2021
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: _____

April 27, 2021 (Sample Date) 15:16 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66492

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. (480) 897-9459

Comments: FC-CCR-MW49A-0421

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

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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: April 23, 2021
Sample Received: April 29, 2021
Analysis Completed: May 11, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW61-0421	< 0.5	< 0.8	< 0.8

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

5/11/2021

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: _____

April 23, 2021 (Sample Date) 15:34 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66493

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. (480) 897-9459

Comments: FC-CCR-MW61-0421

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: April 23, 2021
Sample Received: April 29, 2021
Analysis Completed: May 11, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW74-0421	< 0.5	< 0.8	< 0.8
Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/11/2021 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: _____

April 23, 2021 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66494

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. (480) 897-9459

Comments: FC-CCR-MW74-0421

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: April 23, 2021
Sample Received: April 29, 2021
Analysis Completed: May 11, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW75-0421	< 0.5	< 0.8	< 0.8

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/11/2021
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: _____

April 23, 2021 (Sample Date) 16:14 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66495

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. (480) 897-9459

Comments: FC-CCR-MW75-0421

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: April 26, 2021
Sample Received: April 29, 2021
Analysis Completed: May 11, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW76-0421	< 0.5	< 0.8	< 0.8

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/11/2021
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: _____

April 26, 2021 (Sample Date) 16:37 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.5		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66496

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. (480) 897-9459

Comments: FC-CCR-MW76-0421

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: April 27, 2021
Sample Received: April 29, 2021
Analysis Completed: May 11, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW87-0421	1.0 ± 0.2	3.2 ± 0.5	4.2 ± 0.5
Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/11/2021 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: _____

April 27, 2021 (Sample Date) 9:17 (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

☐ 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	4.2 ± 0.5		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	1.0 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	3.2 ± 0.5		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

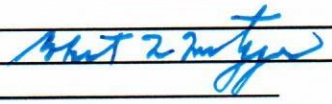
Specimen Number: RSE66497

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. (480) 897-9459

Comments: FC-CCR-MW87-0421

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: April 27, 2021
Sample Received: April 29, 2021
Analysis Completed: May 11, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-FD04-0421	< 0.4	0.9 ± 0.4	0.9 ± 0.4

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

5/11/2021

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: _____

April 27, 2021 (Sample Date) 14:09 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	0.9 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	0.9 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66498

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. (480) 897-9459

Comments: FC-CCR-FD04-0421

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Client Information

Name:	**Natalie Chrisman/602-250-3608** **Jim Edwards/928-288-1241**
Company	**Arizona Public Service**
Address	**PO Box 355, MS 4915** **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-MW07-0421	4/27/2021	14:09	**GW**						X	X	X				6664	89
FC-CCR-MW08-0421	4/27/2021	12:58	**GW**						X	X	X				6664	90 PF
FC-CCR-MW40R-0421	4/26/2021	10:22	**GW**						X	X	X				6664	91
FC-CCR-MW49A-0421	4/27/2021	15:16	**GW**						X	X	X				6664	92
FC-CCR-MW61-0421	4/23/2021	15:34	**GW**						X	X	X				6664	93
FC-CCR-MW74-0421	4/23/2021	13:45	**GW**						X	X	X				6664	94
FC-CCR-MW75-0421	4/23/2021	16:14	**GW**						X	X	X				6664	95
FC-CCR-MW76-0421	4/26/2021	16:37	**GW**						X	X	X				6664	96
FC-CCR-MW87-0421	4/27/2021	9:17	**GW**						X	X	X				6664	97
FC-CCR-FD04-0421	4/27/2021	14:09	**GW**						X	X	X				6664	98

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:

Instructions/Comments

Method HPGe

Relinquished By:	Company: Wood	Date/time: 4/29/21 12:10	Received By: Pat Flanery	Company: RSE	Date/time: 4.29.21	
Relinquished By:	Company:	Date/time:	Received By:	Company:	Date/time: 12:10	
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 America

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-174640-1
Laboratory SDG: APS Four Corners Power Plant (Multiunit)
Client Project/Site: CCR Groundwater Monitoring

For:
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Attn: Natalie Chrisman

Rachel E. Sester

Authorized for release by:
12/7/2021 5:18:18 PM

Rachel Sester, Project Manager I
(602)659-7615
Rachel.Sester@Eurofinset.com

LINKS

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Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174640-1
SDG: APS Four Corners Power Plant (Multiunit)

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of analyte.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target 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.

Metals

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of analyte.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target 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.

General Chemistry

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
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.
R8	Sample RPD exceeded the method acceptance limit.

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: 550-174640-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-174640-1

Comments
No additional comments.

Receipt
The samples were received on 11/20/2021 10:16 AM. 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 0.4º C, 1.0º C, 1.4º C and 3.2º C.

Receipt Exceptions
All containers received for Denver workshare are filled at 200 mL of 250 mL.

FC-CCR-MW07-1121 (550-174640-1), FC-CCR-MW08-1121 (550-174640-2), FC-CCR-MW87-1121 (550-174640-3) and FC-CCR-FD04-1121 (550-174640-4)

HPLC/IC
Method 300.0: The following sample was diluted for Fluoride by method EPA 300.0 due to the nature of the sample matrix: (550-174641-A-28 ^2). The sample contained high concentrations of Chloride and Sulfate which exceeded the instrument's maximum column capacity. Fluoride was not detected in the diluted sample. As such, elevated reporting limits (RLs) have been provided and the data has been qualified with D1 and D5 flags.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 200.7 Rev 4.4: The following sample was diluted to bring the concentration of target analytes within the calibration range: FC-CCR-MW08-1121 (550-174640-2). Elevated reporting limits (RLs) are provided.

Method 200.7 Rev 4.4: The following samples were diluted due to the nature of the sample matrix: FC-CCR-MW87-1121 (550-174640-3) and FC-CCR-FD04-1121 (550-174640-4). Elevated reporting limits (RLs) are provided.

Method 200.7 Rev 4.4: The following samples were diluted due to the nature of the sample matrix: FC-CCR-MW87-1121 (550-174640-3) and FC-CCR-FD04-1121 (550-174640-4). Elevated reporting limits (RLs) are provided.

Method 200.7 Rev 4.4: The following samples were diluted to bring the concentration of target analytes within the calibration range: FC-CCR-MW87-1121 (550-174640-3) and FC-CCR-FD04-1121 (550-174640-4). Elevated reporting limits (RLs) are provided.

Method 200.7 Rev 4.4: The following samples were diluted to bring the concentration of target analytes within the calibration range: FC-CCR-MW87-1121 (550-174640-3) and FC-CCR-FD04-1121 (550-174640-4). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method SM 4500 H+ B: The pH by method by SM 4500H+B for the following samples were outside the instrument calibration range of 1.68 to 12.45: (550-174507-B-3) and (550-174507-B-3 DU). Sample result exceeded the high end of the calibration range. Results reported above the highest calibration standard have less certainty (i.e., are estimated). Therefore, data has been reported as greater than 12.45 and qualified with an N1 flag.

Method SM 2320B: The sample duplicate (DU) precision for the following sample associated with analytical batch 550-259778 was outside control limits for Alkalinity: (550-174392-A-2) and (550-174392-A-2 DU). Non-homogeneity of the sample matrix was suspected. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision met acceptance criteria.

Method SM 2540C: The sample duplicate (DU) precision for analytical batch 550-259595 was outside control limits for TDS. Sample non-homogeneity was suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Job ID: 550-174640-1 (Continued)

Laboratory: Eurofins TestAmerica, Phoenix (Continued)

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: 550-174640-1
SDG: APS Four Corners Power Plant (Multiunit)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-174640-1	FC-CCR-MW07-1121	Water	11/18/21 12:51	11/20/21 10:16
550-174640-2	FC-CCR-MW08-1121	Water	11/18/21 11:54	11/20/21 10:16
550-174640-3	FC-CCR-MW87-1121	Water	11/17/21 12:56	11/20/21 10:16
550-174640-4	FC-CCR-FD04-1121	Water	11/17/21 12:56	11/20/21 10:16

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174640-1
SDG: APS Four Corners Power Plant (Multiunit)

Client Sample ID: FC-CCR-MW07-1121 — Lab Sample ID: 550-174640-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	850	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.25	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	7200	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	1.0		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	8.1		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	390		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00031	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Barium	0.015		0.00050	0.00026	mg/L	1		200.8 LL	Total/NA
Cadmium	0.00012	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Chromium	0.0011	D1 E4	0.0020	0.00087	mg/L	2		200.8 LL	Total/NA
Cobalt	0.00055	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0061	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.0031		0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.00034		0.00010	0.000013	mg/L	1		200.8 LL	Total/NA
Total Dissolved Solids	9500	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	12.0	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW08-1121 — Lab Sample ID: 550-174640-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	970	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.56	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	11000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	1.2		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	18	M3	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	420	M3	2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	910	M3	2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	35		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2800	D2	2.5	0.15	mg/L	5		200.7 Rev 4.4	Total/NA
Antimony	0.00033	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Barium	0.0097		0.00050	0.00026	mg/L	1		200.8 LL	Total/NA
Cadmium	0.0012	D1	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.00062	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.018	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.00050	E4	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.00014		0.00010	0.000013	mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	490		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	490		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	14000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	11.9	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW87-1121 — Lab Sample ID: 550-174640-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4100	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.17	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	34000	D2	2000	430	mg/L	1000		300.0	Total/NA
Lithium	2.7		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	1.6	D1	0.10	0.0051	mg/L	2		200.7 Rev 4.4	Total/NA
Calcium	520	D1	4.0	0.026	mg/L	2		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample ID: FC-CCR-MW87-1121 (Continued) — Lab Sample ID: 550-174640-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1.6	D1	0.20	0.020	mg/L	2		200.7 Rev 4.4	Total/NA
Magnesium	3500	D2	10	0.22	mg/L	5		200.7 Rev 4.4	Total/NA
Manganese	0.43	D1	0.020	0.00038	mg/L	2		200.7 Rev 4.4	Total/NA
Potassium	130	D1	1.0	0.34	mg/L	2		200.7 Rev 4.4	Total/NA
Sodium	14000	D2	10	0.61	mg/L	20		200.7 Rev 4.4	Total/NA
Antimony	0.0016	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Arsenic	0.0024	D1	0.0010	0.00049	mg/L	2		200.8 LL	Total/NA
Barium	0.014	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.00017	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Chromium	0.0021	D1	0.0020	0.00087	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0078	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Lead	0.00080		0.00050	0.00022	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.065	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.029	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00016		0.00010	0.000013	mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	1200		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	1200		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	40000	D2	1000	1000	mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	11.9	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-FD04-1121 — Lab Sample ID: 550-174640-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4100	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.16	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	34000	D2	2000	430	mg/L	1000		300.0	Total/NA
Lithium	2.7		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	1.6	D1	0.10	0.0051	mg/L	2		200.7 Rev 4.4	Total/NA
Calcium	520	D1	4.0	0.026	mg/L	2		200.7 Rev 4.4	Total/NA
Iron	1.5	D1	0.20	0.020	mg/L	2		200.7 Rev 4.4	Total/NA
Magnesium	3500	D2	10	0.22	mg/L	5		200.7 Rev 4.4	Total/NA
Manganese	0.43	D1	0.020	0.00038	mg/L	2		200.7 Rev 4.4	Total/NA
Potassium	130	D1	1.0	0.34	mg/L	2		200.7 Rev 4.4	Total/NA
Sodium	13000	D2	10	0.61	mg/L	20		200.7 Rev 4.4	Total/NA
Antimony	0.0016	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Arsenic	0.0032	D1	0.0010	0.00049	mg/L	2		200.8 LL	Total/NA
Barium	0.014	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.00017	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Chromium	0.0023	D1	0.0020	0.00087	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0082	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Lead	0.00081		0.00050	0.00022	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.067	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.027	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00016		0.00010	0.000013	mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	1100		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	1100		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	40000	D2	1000	1000	mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	12.3	H5	0.1	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-MW07-1121

Lab Sample ID: 550-174640-1
Date Collected: 11/18/21 12:51
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	850	D2	400	100	mg/L			11/23/21 03:07	200
Fluoride	0.25	D1 E4	0.80	0.095	mg/L			11/23/21 02:49	2
Sulfate	7200	D2	400	85	mg/L			11/23/21 03:07	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/22/21 10:18	11/23/21 19:04	1
Lithium	1.0		0.020	0.0091	mg/L		11/26/21 06:11	11/26/21 14:02	1
Boron	8.1		0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 19:04	1
Calcium	390		2.0	0.013	mg/L		11/22/21 10:18	11/23/21 19:04	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00031	D1 E4	0.0020	0.000087	mg/L		11/22/21 08:34	11/29/21 17:52	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/22/21 08:34	11/29/21 17:52	2
Barium	0.015		0.00050	0.00026	mg/L		11/22/21 08:34	11/23/21 16:47	1
Cadmium	0.00012	D1 E4	0.00020	0.000046	mg/L		11/22/21 08:34	11/29/21 17:52	2
Chromium	0.0011	D1 E4	0.0020	0.00087	mg/L		11/22/21 08:34	11/29/21 17:52	2
Cobalt	0.00055	D1 E4	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 17:52	2
Lead	ND	E8	0.00050	0.00022	mg/L		11/22/21 08:34	11/23/21 16:47	1
Molybdenum	0.0061	D1	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 17:52	2
Selenium	0.0031		0.0010	0.00015	mg/L		11/22/21 08:34	12/01/21 18:38	2
Thallium	0.00034		0.00010	0.000013	mg/L		11/22/21 08:34	11/23/21 16:47	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/29/21 16:25	11/29/21 21:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	9500	D2	100	100	mg/L			11/24/21 13:30	1
pH	7.5	H5	1.7	1.7	SU			11/23/21 14:19	1
Temperature	12.0	H5	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW08-1121

Lab Sample ID: 550-174640-2
Date Collected: 11/18/21 11:54
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	970	D2	400	100	mg/L			11/23/21 04:21	200
Fluoride	0.56	D1 E4	0.80	0.095	mg/L			11/23/21 04:02	2
Sulfate	11000	D2	400	85	mg/L			11/23/21 04:21	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/22/21 10:18	11/23/21 19:01	1
Lithium	1.2		0.020	0.0091	mg/L		11/26/21 06:11	11/26/21 14:35	1
Boron	18	M3	0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 19:01	1
Calcium	420	M3	2.0	0.013	mg/L		11/22/21 10:18	11/23/21 19:01	1
Magnesium	910	M3	2.0	0.044	mg/L		11/22/21 10:18	11/23/21 19:01	1

Client Sample ID: FC-CCR-MW08-1121

Lab Sample ID: 550-174640-2
Matrix: Water
Date Collected: 11/18/21 11:54
Date Received: 11/20/21 10:16

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	35		0.50	0.17	mg/L		11/22/21 10:18	11/23/21 19:01	1
Sodium	2800	D2	2.5	0.15	mg/L		11/22/21 10:18	11/24/21 21:31	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00033	D1 E4	0.0020	0.000087	mg/L		11/22/21 08:34	11/29/21 17:54	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/22/21 08:34	11/29/21 17:54	2
Barium	0.0097		0.00050	0.00026	mg/L		11/22/21 08:34	11/23/21 16:49	1
Cadmium	0.0012	D1	0.00020	0.000046	mg/L		11/22/21 08:34	11/29/21 17:54	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/22/21 08:34	11/29/21 17:54	2
Cobalt	0.00062	D1 E4	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 17:54	2
Lead	ND	E8	0.00050	0.00022	mg/L		11/22/21 08:34	11/23/21 16:49	1
Molybdenum	0.018	D1	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 17:54	2
Selenium	0.00050	E4	0.0010	0.00015	mg/L		11/22/21 08:34	12/01/21 18:46	2
Thallium	0.00014		0.00010	0.000013	mg/L		11/22/21 08:34	11/23/21 16:49	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/29/21 16:25	11/29/21 21:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	490		6.0	6.0	mg/L			11/22/21 09:02	1
Bicarbonate Alkalinity as CaCO3	490		6.0	6.0	mg/L			11/22/21 09:02	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 09:02	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/22/21 09:02	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 09:02	1
Total Dissolved Solids	14000	D2	100	100	mg/L			11/24/21 13:30	1
pH	7.5	H5	1.7	1.7	SU			11/23/21 14:19	1
Temperature	11.9	H5	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW87-1121

Lab Sample ID: 550-174640-3
Matrix: Water
Date Collected: 11/17/21 12:56
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4100	D2	400	100	mg/L			11/23/21 04:58	200
Fluoride	0.17	D1 E4	0.80	0.095	mg/L			11/23/21 04:39	2
Sulfate	34000	D2	2000	430	mg/L			11/24/21 21:00	1000

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	D1 E8	0.0020	0.00013	mg/L		11/22/21 10:18	11/24/21 21:33	2
Lithium	2.7		0.020	0.0091	mg/L		11/26/21 06:11	11/26/21 14:39	1
Boron	1.6	D1	0.10	0.0051	mg/L		11/22/21 10:18	11/24/21 21:33	2
Calcium	520	D1	4.0	0.026	mg/L		11/22/21 10:18	11/24/21 21:33	2
Iron	1.6	D1	0.20	0.020	mg/L		11/22/21 10:18	11/26/21 17:38	2
Magnesium	3500	D2	10	0.22	mg/L		11/22/21 10:18	11/26/21 17:36	5
Manganese	0.43	D1	0.020	0.00038	mg/L		11/22/21 10:18	11/24/21 21:33	2
Potassium	130	D1	1.0	0.34	mg/L		11/22/21 10:18	11/24/21 21:33	2

Client Sample ID: FC-CCR-MW87-1121

Lab Sample ID: 550-174640-3
Date Collected: 11/17/21 12:56
Matrix: Water
Date Received: 11/20/21 10:16

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	14000	D2	10	0.61	mg/L		11/22/21 10:18	11/29/21 14:48	20

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0016	D1 E4	0.0020	0.000087	mg/L		11/22/21 08:34	11/29/21 17:56	2
Arsenic	0.0024	D1	0.0010	0.00049	mg/L		11/22/21 08:34	11/29/21 17:56	2
Barium	0.014	D1	0.0010	0.00052	mg/L		11/22/21 08:34	11/29/21 17:56	2
Cadmium	0.00017	D1 E4	0.00020	0.000046	mg/L		11/22/21 08:34	11/29/21 17:56	2
Chromium	0.0021	D1	0.0020	0.00087	mg/L		11/22/21 08:34	11/29/21 17:56	2
Cobalt	0.0078	D1	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 17:56	2
Lead	0.00080		0.00050	0.00022	mg/L		11/22/21 08:34	11/23/21 16:51	1
Molybdenum	0.065	D1	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 17:56	2
Selenium	0.029	D1	0.0020	0.00030	mg/L		11/22/21 08:34	12/02/21 11:08	4
Thallium	0.00016		0.00010	0.000013	mg/L		11/22/21 08:34	11/23/21 16:51	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/29/21 16:25	11/29/21 21:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	1200		6.0	6.0	mg/L			11/28/21 13:20	1
Bicarbonate Alkalinity as CaCO3	1200		6.0	6.0	mg/L			11/28/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Total Dissolved Solids	40000	D2	1000	1000	mg/L			11/23/21 18:27	1
pH	7.7	H5	1.7	1.7	SU			11/23/21 14:19	1
Temperature	11.9	H5	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-FD04-1121

Lab Sample ID: 550-174640-4
Date Collected: 11/17/21 12:56
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4100	D2	400	100	mg/L			11/23/21 05:35	200
Fluoride	0.16	D1 E4	0.80	0.095	mg/L			11/23/21 05:16	2
Sulfate	34000	D2	2000	430	mg/L			11/24/21 21:28	1000

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	D1 E8	0.0020	0.00013	mg/L		11/22/21 10:18	11/24/21 21:36	2
Lithium	2.7		0.020	0.0091	mg/L		11/26/21 06:11	11/26/21 14:43	1
Boron	1.6	D1	0.10	0.0051	mg/L		11/22/21 10:18	11/24/21 21:36	2
Calcium	520	D1	4.0	0.026	mg/L		11/22/21 10:18	11/24/21 21:36	2
Iron	1.5	D1	0.20	0.020	mg/L		11/22/21 10:18	11/26/21 17:46	2
Magnesium	3500	D2	10	0.22	mg/L		11/22/21 10:18	11/26/21 17:43	5
Manganese	0.43	D1	0.020	0.00038	mg/L		11/22/21 10:18	11/24/21 21:36	2
Potassium	130	D1	1.0	0.34	mg/L		11/22/21 10:18	11/24/21 21:36	2
Sodium	13000	D2	10	0.61	mg/L		11/22/21 10:18	11/29/21 14:51	20

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174640-1
SDG: APS Four Corners Power Plant (Multiunit)

Client Sample ID: FC-CCR-FD04-1121

Date Collected: 11/17/21 12:56
Date Received: 11/20/21 10:16

Lab Sample ID: 550-174640-4

Matrix: Water

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0016	D1 E4	0.0020	0.000087	mg/L		11/22/21 08:34	11/29/21 17:58	2
Arsenic	0.0032	D1	0.0010	0.00049	mg/L		11/22/21 08:34	11/29/21 17:58	2
Barium	0.014	D1	0.0010	0.00052	mg/L		11/22/21 08:34	11/29/21 17:58	2
Cadmium	0.00017	D1 E4	0.00020	0.000046	mg/L		11/22/21 08:34	11/29/21 17:58	2
Chromium	0.0023	D1	0.0020	0.00087	mg/L		11/22/21 08:34	11/29/21 17:58	2
Cobalt	0.0082	D1	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 17:58	2
Lead	0.00081		0.00050	0.00022	mg/L		11/22/21 08:34	11/23/21 16:53	1
Molybdenum	0.067	D1	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 17:58	2
Selenium	0.027	D1	0.0020	0.00030	mg/L		11/22/21 08:34	12/02/21 11:10	4
Thallium	0.00016		0.00010	0.000013	mg/L		11/22/21 08:34	11/23/21 16:53	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/29/21 16:25	11/29/21 21:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	1100		6.0	6.0	mg/L			11/28/21 13:20	1
Bicarbonate Alkalinity as CaCO3	1100		6.0	6.0	mg/L			11/28/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Total Dissolved Solids	40000	D2	1000	1000	mg/L			11/23/21 18:27	1
pH	7.7	H5	1.7	1.7	SU			11/23/21 14:19	1
Temperature	12.3	H5	0.1	0.1	Degrees C			11/23/21 14:19	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-259395/1030
Matrix: Water
Analysis Batch: 259395

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/22/21 23:26	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/22/21 23:26	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/22/21 23:26	1

Lab Sample ID: LCS 550-259395/31
Matrix: Water
Analysis Batch: 259395

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	4.28		mg/L		107	90 - 110		
Sulfate			20.0	21.3		mg/L		106	90 - 110		

Lab Sample ID: LCSD 550-259395/32
Matrix: Water
Analysis Batch: 259395

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	4.28		mg/L		107	90 - 110	0	20
Sulfate			20.0	21.2		mg/L		106	90 - 110	0	20

Lab Sample ID: 550-174641-A-28 MS ^2
Matrix: Water
Analysis Batch: 259395

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	E8 D1 D5	8.00	8.11	D1	mg/L		101	80 - 120		

Lab Sample ID: 550-174641-A-28 MS ^200
Matrix: Water
Analysis Batch: 259395

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	1700	D2	4000	6280	D2	mg/L		115	80 - 120		
Sulfate	25000	E2 D2 M3	4000	28800	D2 E2 M3	mg/L		92	80 - 120		

Lab Sample ID: 550-174641-A-28 MSD ^2
Matrix: Water
Analysis Batch: 259395

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	E8 D1 D5	8.00	8.25	D1	mg/L		103	80 - 120	2	20

Lab Sample ID: 550-174641-A-28 MSD ^200
Matrix: Water
Analysis Batch: 259395

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	1700	D2	4000	6100	D2	mg/L		110	80 - 120	3	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-174641-A-28 MSD ^200
Matrix: Water
Analysis Batch: 259395

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
Sulfate	25000	E2 D2 M3	4000	26800	D2 E2 M3	mg/L		42	80 - 120	7	20

Lab Sample ID: MB 550-259638/2
Matrix: Water
Analysis Batch: 259638

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/24/21 12:10	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/24/21 12:10	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/24/21 12:10	1

Lab Sample ID: LCS 550-259638/5
Matrix: Water
Analysis Batch: 259638

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	19.8		mg/L		99	90 - 110
Fluoride	4.00	3.92		mg/L		98	90 - 110
Sulfate	20.0	19.3		mg/L		97	90 - 110

Lab Sample ID: LCSD 550-259638/6
Matrix: Water
Analysis Batch: 259638

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	19.8		mg/L		99	90 - 110	0	20
Fluoride	4.00	3.97		mg/L		99	90 - 110	1	20
Sulfate	20.0	19.3		mg/L		97	90 - 110	0	20

Lab Sample ID: 550-174801-A-1 MS
Matrix: Water
Analysis Batch: 259638

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		20.0	51.2		mg/L		111	80 - 120
Fluoride	1.7		4.00	6.02		mg/L		107	80 - 120
Sulfate	210	E2 M3	20.0	223	E2 M3	mg/L		55	80 - 120

Lab Sample ID: 550-174801-A-1 MSD
Matrix: Water
Analysis Batch: 259638

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		20.0	51.4		mg/L		112	80 - 120	0	20
Fluoride	1.7		4.00	6.09		mg/L		109	80 - 120	1	20
Sulfate	210	E2 M3	20.0	223	E2 M3	mg/L		55	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-259281/1-A
Matrix: Water
Analysis Batch: 259537

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259281

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.000100	E4	0.0010	0.000067	mg/L		11/22/21 10:18	11/23/21 18:48	1
Boron	0.00414	E4	0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 18:48	1
Calcium	ND	E8	2.0	0.013	mg/L		11/22/21 10:18	11/23/21 18:48	1
Iron	ND	E8	0.10	0.010	mg/L		11/22/21 10:18	11/23/21 18:48	1
Magnesium	ND	E8	2.0	0.044	mg/L		11/22/21 10:18	11/23/21 18:48	1
Manganese	0.000460	E4	0.010	0.00019	mg/L		11/22/21 10:18	11/23/21 18:48	1
Potassium	ND	E8	0.50	0.17	mg/L		11/22/21 10:18	11/23/21 18:48	1
Sodium	ND	E8	0.50	0.031	mg/L		11/22/21 10:18	11/23/21 18:48	1

Lab Sample ID: LCS 550-259281/2-A
Matrix: Water
Analysis Batch: 259537

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259281

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	0.964		mg/L		96	85 - 115
Calcium	21.0	20.8		mg/L		99	85 - 115
Iron	1.00	0.988		mg/L		99	85 - 115
Magnesium	21.0	21.2		mg/L		101	85 - 115
Manganese	1.00	0.973		mg/L		97	85 - 115
Potassium	20.0	19.7		mg/L		99	85 - 115
Sodium	20.0	19.6		mg/L		98	85 - 115

Lab Sample ID: LCSD 550-259281/3-A
Matrix: Water
Analysis Batch: 259537

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259281

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	1.00	0.992		mg/L		99	85 - 115	1	20
Boron	1.00	0.950		mg/L		95	85 - 115	1	20
Calcium	21.0	20.7		mg/L		99	85 - 115	0	20
Iron	1.00	0.989		mg/L		99	85 - 115	0	20
Magnesium	21.0	21.2		mg/L		101	85 - 115	0	20
Manganese	1.00	0.967		mg/L		97	85 - 115	1	20
Potassium	20.0	19.7		mg/L		99	85 - 115	0	20
Sodium	20.0	19.6		mg/L		98	85 - 115	0	20

Lab Sample ID: 550-174640-2 MS
Matrix: Water
Analysis Batch: 259537

Client Sample ID: FC-CCR-MW08-1121
Prep Type: Total/NA
Prep Batch: 259281

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	ND	E8	1.00	0.989		mg/L		99	70 - 130
Boron	18	M3	1.00	18.2	M3	mg/L		28	70 - 130
Calcium	420	M3	21.0	432	M3	mg/L		39	70 - 130
Iron	0.11		1.00	1.09		mg/L		99	70 - 130
Magnesium	910	M3	21.0	904	M3	mg/L		-13	70 - 130
Manganese	0.16		1.00	1.01		mg/L		86	70 - 130
Potassium	35		20.0	55.8		mg/L		103	70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-174640-2 MS
Matrix: Water
Analysis Batch: 259664

Client Sample ID: FC-CCR-MW08-1121
Prep Type: Total/NA
Prep Batch: 259281

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	2700	E2 M3	20.0	2720	M3	mg/L		-71	70 - 130

Lab Sample ID: 550-174640-2 MSD
Matrix: Water
Analysis Batch: 259537

Client Sample ID: FC-CCR-MW08-1121
Prep Type: Total/NA
Prep Batch: 259281

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	ND	E8	1.00	0.995		mg/L		99	70 - 130	1	20
Boron	18	M3	1.00	18.1	M3	mg/L		20	70 - 130	0	20
Calcium	420	M3	21.0	429	M3	mg/L		23	70 - 130	1	20
Iron	0.11		1.00	1.09		mg/L		99	70 - 130	0	20
Magnesium	910	M3	21.0	896	M3	mg/L		-53	70 - 130	1	20
Manganese	0.16		1.00	1.03		mg/L		87	70 - 130	1	20
Potassium	35		20.0	56.2		mg/L		105	70 - 130	1	20

Lab Sample ID: 550-174640-2 MSD
Matrix: Water
Analysis Batch: 259664

Client Sample ID: FC-CCR-MW08-1121
Prep Type: Total/NA
Prep Batch: 259281

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sodium	2700	E2 M3	20.0	2590	M3	mg/L		-695	70 - 130	5	20

Lab Sample ID: MB 280-558608/1-A
Matrix: Water
Analysis Batch: 558879

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 558608

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	E8	0.020	0.0091	mg/L		11/26/21 06:11	11/26/21 13:54	1

Lab Sample ID: LCS 280-558608/2-A
Matrix: Water
Analysis Batch: 558879

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 558608

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	1.00	1.01		mg/L		101	90 - 112

Lab Sample ID: 550-174640-1 MS
Matrix: Water
Analysis Batch: 558879

Client Sample ID: FC-CCR-MW07-1121
Prep Type: Total/NA
Prep Batch: 558608

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	1.0		1.00	2.08		mg/L		107	70 - 130

Lab Sample ID: 550-174640-1 MSD
Matrix: Water
Analysis Batch: 558879

Client Sample ID: FC-CCR-MW07-1121
Prep Type: Total/NA
Prep Batch: 558608

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	1.0		1.00	2.12		mg/L		112	70 - 130	2	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-259250/1-A
Matrix: Water
Analysis Batch: 259514

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259250

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.000280	E4	0.00050	0.00026	mg/L		11/22/21 08:34	11/23/21 16:37	1
Lead	ND	E8	0.00050	0.00022	mg/L		11/22/21 08:34	11/23/21 16:37	1
Thallium	ND	E8	0.00010	0.000013	mg/L		11/22/21 08:34	11/23/21 16:37	1

Lab Sample ID: MB 550-259250/1-A
Matrix: Water
Analysis Batch: 259885

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259250

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0000510	E4	0.0010	0.000043	mg/L		11/22/21 08:34	11/29/21 17:41	1
Arsenic	ND	E8	0.00050	0.00025	mg/L		11/22/21 08:34	11/29/21 17:41	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		11/22/21 08:34	11/29/21 17:41	1
Chromium	ND	E8	0.0010	0.00043	mg/L		11/22/21 08:34	11/29/21 17:41	1
Cobalt	ND	E8	0.00050	0.000063	mg/L		11/22/21 08:34	11/29/21 17:41	1
Molybdenum	ND	E8	0.00050	0.00020	mg/L		11/22/21 08:34	11/29/21 17:41	1

Lab Sample ID: MB 550-259250/1-A
Matrix: Water
Analysis Batch: 260108

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259250

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND	E8	0.00050	0.000074	mg/L		11/22/21 08:34	12/01/21 17:19	1

Lab Sample ID: LCS 550-259250/2-A
Matrix: Water
Analysis Batch: 259514

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259250

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.100	0.106		mg/L		106	85 - 115
Lead	0.100	0.0974		mg/L		97	85 - 115
Thallium	0.100	0.0947		mg/L		95	85 - 115

Lab Sample ID: LCS 550-259250/2-A
Matrix: Water
Analysis Batch: 259885

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259250

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.101		mg/L		101	85 - 115
Arsenic	0.100	0.101		mg/L		101	85 - 115
Cadmium	0.100	0.101		mg/L		101	85 - 115
Chromium	0.100	0.101		mg/L		101	85 - 115
Cobalt	0.100	0.101		mg/L		101	85 - 115
Molybdenum	0.100	0.101		mg/L		101	85 - 115

Lab Sample ID: LCS 550-259250/2-A
Matrix: Water
Analysis Batch: 260108

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259250

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	0.100	0.0952		mg/L		95	85 - 115

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: LCSD 550-259250/3-A
Matrix: Water
Analysis Batch: 259514

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259250

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium			0.100	0.109		mg/L		109	85 - 115	2	20
Lead			0.100	0.0942		mg/L		94	85 - 115	3	20
Thallium			0.100	0.0928		mg/L		93	85 - 115	2	20

Lab Sample ID: LCSD 550-259250/3-A
Matrix: Water
Analysis Batch: 259885

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259250

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony			0.100	0.102		mg/L		102	85 - 115	1	20
Arsenic			0.100	0.101		mg/L		101	85 - 115	0	20
Cadmium			0.100	0.102		mg/L		102	85 - 115	1	20
Chromium			0.100	0.102		mg/L		102	85 - 115	1	20
Cobalt			0.100	0.103		mg/L		103	85 - 115	2	20
Molybdenum			0.100	0.100		mg/L		100	85 - 115	1	20

Lab Sample ID: LCSD 550-259250/3-A
Matrix: Water
Analysis Batch: 260108

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259250

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium			0.100	0.0964		mg/L					

Lab Sample ID: 550-174640-1 MS
Matrix: Water
Analysis Batch: 259514

Client Sample ID: FC-CCR-MW07-1121
Prep Type: Total/NA
Prep Batch: 259250

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Barium	0.015		0.100	0.123		mg/L		108	70 - 130		
Lead	ND	E8	0.100	0.0876		mg/L		88	70 - 130		
Thallium	0.00034		0.100	0.0845		mg/L		84	70 - 130		

Lab Sample ID: 550-174640-1 MS
Matrix: Water
Analysis Batch: 259885

Client Sample ID: FC-CCR-MW07-1121
Prep Type: Total/NA
Prep Batch: 259250

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony	0.00031	E4 D1	0.100	0.111		mg/L		111	70 - 130		
Arsenic	ND	E8 D1	0.100	0.111		mg/L		111	70 - 130		
Cadmium	0.00012	E4 D1	0.100	0.103		mg/L		103	70 - 130		
Chromium	0.0011	E4 D1	0.100	0.106		mg/L		105	70 - 130		
Cobalt	0.00055	E4 D1	0.100	0.105		mg/L		104	70 - 130		
Molybdenum	0.0061	D1	0.100	0.117		mg/L		111	70 - 130		

Lab Sample ID: 550-174640-1 MS
Matrix: Water
Analysis Batch: 260110

Client Sample ID: FC-CCR-MW07-1121
Prep Type: Total/NA
Prep Batch: 259250

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Selenium	0.0031		0.100	0.114		mg/L		110	70 - 130		

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: 550-174640-1 MSD — **Client Sample ID: FC-CCR-MW07-1121**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 259514 — **Prep Batch: 259250**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.015		0.100	0.121		mg/L		107	70 - 130	1	20
Lead	ND	E8	0.100	0.0852		mg/L		85	70 - 130	3	20
Thallium	0.00034		0.100	0.0818		mg/L		81	70 - 130	3	20

Lab Sample ID: 550-174640-1 MSD — **Client Sample ID: FC-CCR-MW07-1121**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 259885 — **Prep Batch: 259250**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.00031	E4 D1	0.100	0.112		mg/L		112	70 - 130	1	20
Arsenic	ND	E8 D1	0.100	0.110		mg/L		110	70 - 130	1	20
Cadmium	0.00012	E4 D1	0.100	0.106		mg/L		106	70 - 130	2	20
Chromium	0.0011	E4 D1	0.100	0.106		mg/L		105	70 - 130	0	20
Cobalt	0.00055	E4 D1	0.100	0.104		mg/L		103	70 - 130	1	20
Molybdenum	0.0061	D1	0.100	0.118		mg/L		112	70 - 130	1	20

Lab Sample ID: 550-174640-1 MSD — **Client Sample ID: FC-CCR-MW07-1121**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 260110 — **Prep Batch: 259250**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium	0.0031		0.100	0.104		mg/L		101	70 - 130	9	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-259845/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 259870 — **Prep Batch: 259845**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/29/21 16:25	11/29/21 21:22	1

Lab Sample ID: LCS 550-259845/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 259870 — **Prep Batch: 259845**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hg			0.00500	0.00484		mg/L		97	85 - 115		

Lab Sample ID: LCSD 550-259845/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 259870 — **Prep Batch: 259845**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg			0.00500	0.00466		mg/L		93	85 - 115	4	20

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 550-174801-C-1-G MS
Matrix: Water
Analysis Batch: 259870

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 259845

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	ND	E8	0.00500	0.00454		mg/L		91	70 - 130

Lab Sample ID: 550-174801-C-1-H MSD
Matrix: Water
Analysis Batch: 259870

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 259845

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND	E8	0.00500	0.00468		mg/L		94	70 - 130	3	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-259292/35
Matrix: Water
Analysis Batch: 259292

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1

Lab Sample ID: LCS 550-259292/34
Matrix: Water
Analysis Batch: 259292

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	234		mg/L		94	90 - 110

Lab Sample ID: LCSD 550-259292/47
Matrix: Water
Analysis Batch: 259292

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	2	20

Lab Sample ID: 550-174394-A-1 DU
Matrix: Water
Analysis Batch: 259292

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	ND	E8	ND	E8	mg/L		NC	20
Bicarbonate Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20
Carbonate Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20
Alkalinity, Phenolphthalein	ND	E8	ND	E8	mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MB 550-259777/1
Matrix: Water
Analysis Batch: 259777

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1

Lab Sample ID: LCS 550-259777/2
Matrix: Water
Analysis Batch: 259777

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	226		mg/L		90	90 - 110

Lab Sample ID: LCSD 550-259777/8
Matrix: Water
Analysis Batch: 259777

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	246		mg/L		98	90 - 110	8	20

Lab Sample ID: 550-174492-K-13 DU
Matrix: Water
Analysis Batch: 259777

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	730		758		mg/L		3	20
Bicarbonate Alkalinity as CaCO3	730		758		mg/L		3	20
Carbonate Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20
Alkalinity, Phenolphthalein	ND	E8	ND	E8	mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20

Lab Sample ID: 550-174392-A-2 DU
Matrix: Water
Analysis Batch: 259778

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	950	R8	750	R8	mg/L		24	20
Bicarbonate Alkalinity as CaCO3	950	R8	750	R8	mg/L		24	20
Carbonate Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20
Alkalinity, Phenolphthalein	ND	E8	ND	E8	mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-259495/1
Matrix: Water
Analysis Batch: 259495

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			11/23/21 18:27	1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: LCS 550-259495/2
Matrix: Water
Analysis Batch: 259495

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	970		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-259495/3
Matrix: Water
Analysis Batch: 259495

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	922		mg/L		92	90 - 110	5	10

Lab Sample ID: 550-174471-C-7 DU
Matrix: Water
Analysis Batch: 259495

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	5200	D2		5120	D2	mg/L				3	10

Lab Sample ID: MB 550-259595/1
Matrix: Water
Analysis Batch: 259595

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			11/24/21 13:30	1

Lab Sample ID: LCS 550-259595/2
Matrix: Water
Analysis Batch: 259595

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	938		mg/L		94	90 - 110		

Lab Sample ID: LCSD 550-259595/3
Matrix: Water
Analysis Batch: 259595

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	926		mg/L		93	90 - 110	0	10

Lab Sample ID: 550-174626-A-1 DU
Matrix: Water
Analysis Batch: 259595

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	R8		1220	R8	mg/L				11	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-259646/64
Matrix: Water
Analysis Batch: 259646

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 550-259646/75
Matrix: Water
Analysis Batch: 259646

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		100.3	98.5 - 101.5		

Lab Sample ID: 550-174640-1 DU
Matrix: Water
Analysis Batch: 259646

Client Sample ID: FC-CCR-MW07-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.5	H5		7.5	H5	SU				0.1	5
Temperature	12.0	H5		12.3	H5	Degrees C				2	

HPLC/IC

Analysis Batch: 259395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-1	FC-CCR-MW07-1121	Total/NA	Water	300.0	
550-174640-1	FC-CCR-MW07-1121	Total/NA	Water	300.0	
550-174640-2	FC-CCR-MW08-1121	Total/NA	Water	300.0	
550-174640-2	FC-CCR-MW08-1121	Total/NA	Water	300.0	
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	300.0	
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	300.0	
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	300.0	
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	300.0	
MB 550-259395/1030	Method Blank	Total/NA	Water	300.0	
LCS 550-259395/31	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-259395/32	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174641-A-28 MS ^2	Matrix Spike	Total/NA	Water	300.0	
550-174641-A-28 MS ^200	Matrix Spike	Total/NA	Water	300.0	
550-174641-A-28 MSD ^2	Matrix Spike Duplicate	Total/NA	Water	300.0	
550-174641-A-28 MSD ^200	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 259638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	300.0	
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	300.0	
MB 550-259638/2	Method Blank	Total/NA	Water	300.0	
LCS 550-259638/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-259638/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174801-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-174801-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 259250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-1	FC-CCR-MW07-1121	Total/NA	Water	200.8	
550-174640-2	FC-CCR-MW08-1121	Total/NA	Water	200.8	
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	200.8	
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	200.8	
MB 550-259250/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-259250/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-259250/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-174640-1 MS	FC-CCR-MW07-1121	Total/NA	Water	200.8	
550-174640-1 MSD	FC-CCR-MW07-1121	Total/NA	Water	200.8	

Prep Batch: 259281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-1	FC-CCR-MW07-1121	Total/NA	Water	200.7	
550-174640-2	FC-CCR-MW08-1121	Total/NA	Water	200.7	
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	200.7	
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	200.7	
MB 550-259281/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-259281/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-259281/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-174640-2 MS	FC-CCR-MW08-1121	Total/NA	Water	200.7	
550-174640-2 MSD	FC-CCR-MW08-1121	Total/NA	Water	200.7	

Metals

Analysis Batch: 259514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-1	FC-CCR-MW07-1121	Total/NA	Water	200.8 LL	259250
550-174640-2	FC-CCR-MW08-1121	Total/NA	Water	200.8 LL	259250
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	200.8 LL	259250
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	200.8 LL	259250
MB 550-259250/1-A	Method Blank	Total/NA	Water	200.8 LL	259250
LCS 550-259250/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	259250
LCSD 550-259250/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	259250
550-174640-1 MS	FC-CCR-MW07-1121	Total/NA	Water	200.8 LL	259250
550-174640-1 MSD	FC-CCR-MW07-1121	Total/NA	Water	200.8 LL	259250

Analysis Batch: 259537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-1	FC-CCR-MW07-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174640-2	FC-CCR-MW08-1121	Total/NA	Water	200.7 Rev 4.4	259281
MB 550-259281/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	259281
LCS 550-259281/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	259281
LCSD 550-259281/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	259281
550-174640-2 MS	FC-CCR-MW08-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174640-2 MSD	FC-CCR-MW08-1121	Total/NA	Water	200.7 Rev 4.4	259281

Analysis Batch: 259664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-2	FC-CCR-MW08-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174640-2 MS	FC-CCR-MW08-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174640-2 MSD	FC-CCR-MW08-1121	Total/NA	Water	200.7 Rev 4.4	259281

Analysis Batch: 259794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	200.7 Rev 4.4	259281

Prep Batch: 259845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-1	FC-CCR-MW07-1121	Total/NA	Water	245.1	
550-174640-2	FC-CCR-MW08-1121	Total/NA	Water	245.1	
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	245.1	
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	245.1	
MB 550-259845/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-259845/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-259845/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-174801-C-1-G MS	Matrix Spike	Total/NA	Water	245.1	
550-174801-C-1-H MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 259851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	200.7 Rev 4.4	259281

Metals

Analysis Batch: 259870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-1	FC-CCR-MW07-1121	Total/NA	Water	245.1	259845
550-174640-2	FC-CCR-MW08-1121	Total/NA	Water	245.1	259845
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	245.1	259845
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	245.1	259845
MB 550-259845/1-A	Method Blank	Total/NA	Water	245.1	259845
LCS 550-259845/2-A	Lab Control Sample	Total/NA	Water	245.1	259845
LCSD 550-259845/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	259845
550-174801-C-1-G MS	Matrix Spike	Total/NA	Water	245.1	259845
550-174801-C-1-H MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	259845

Analysis Batch: 259885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-1	FC-CCR-MW07-1121	Total/NA	Water	200.8 LL	259250
550-174640-2	FC-CCR-MW08-1121	Total/NA	Water	200.8 LL	259250
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	200.8 LL	259250
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	200.8 LL	259250
MB 550-259250/1-A	Method Blank	Total/NA	Water	200.8 LL	259250
LCS 550-259250/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	259250
LCSD 550-259250/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	259250
550-174640-1 MS	FC-CCR-MW07-1121	Total/NA	Water	200.8 LL	259250
550-174640-1 MSD	FC-CCR-MW07-1121	Total/NA	Water	200.8 LL	259250

Analysis Batch: 260108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-259250/1-A	Method Blank	Total/NA	Water	200.8 LL	259250
LCS 550-259250/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	259250
LCSD 550-259250/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	259250

Analysis Batch: 260110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-1	FC-CCR-MW07-1121	Total/NA	Water	200.8 LL	259250
550-174640-2	FC-CCR-MW08-1121	Total/NA	Water	200.8 LL	259250
550-174640-1 MS	FC-CCR-MW07-1121	Total/NA	Water	200.8 LL	259250
550-174640-1 MSD	FC-CCR-MW07-1121	Total/NA	Water	200.8 LL	259250

Analysis Batch: 260164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	200.8 LL	259250
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	200.8 LL	259250

Prep Batch: 558608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-1	FC-CCR-MW07-1121	Total/NA	Water	200.7	
550-174640-2	FC-CCR-MW08-1121	Total/NA	Water	200.7	
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	200.7	
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	200.7	
MB 280-558608/1-A	Method Blank	Total/NA	Water	200.7	
LCS 280-558608/2-A	Lab Control Sample	Total/NA	Water	200.7	
550-174640-1 MS	FC-CCR-MW07-1121	Total/NA	Water	200.7	
550-174640-1 MSD	FC-CCR-MW07-1121	Total/NA	Water	200.7	

Metals

Analysis Batch: 558879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-1	FC-CCR-MW07-1121	Total/NA	Water	200.7 Rev 4.4	558608
550-174640-2	FC-CCR-MW08-1121	Total/NA	Water	200.7 Rev 4.4	558608
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	200.7 Rev 4.4	558608
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	200.7 Rev 4.4	558608
MB 280-558608/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	558608
LCS 280-558608/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	558608
550-174640-1 MS	FC-CCR-MW07-1121	Total/NA	Water	200.7 Rev 4.4	558608
550-174640-1 MSD	FC-CCR-MW07-1121	Total/NA	Water	200.7 Rev 4.4	558608

General Chemistry

Analysis Batch: 259292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-2	FC-CCR-MW08-1121	Total/NA	Water	SM 2320B	
MB 550-259292/35	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-259292/34	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-259292/47	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-174394-A-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 259495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	SM 2540C	
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	SM 2540C	
MB 550-259495/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-259495/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-259495/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-174471-C-7 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 259595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-1	FC-CCR-MW07-1121	Total/NA	Water	SM 2540C	
550-174640-2	FC-CCR-MW08-1121	Total/NA	Water	SM 2540C	
MB 550-259595/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-259595/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-259595/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-174626-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 259646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-1	FC-CCR-MW07-1121	Total/NA	Water	SM 4500 H+ B	
550-174640-2	FC-CCR-MW08-1121	Total/NA	Water	SM 4500 H+ B	
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	SM 4500 H+ B	
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259646/64	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259646/75	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-174640-1 DU	FC-CCR-MW07-1121	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 259777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-259777/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-259777/2	Lab Control Sample	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 259777 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 550-259777/8	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-174492-K-13 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 259778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-3	FC-CCR-MW87-1121	Total/NA	Water	SM 2320B	
550-174640-4	FC-CCR-FD04-1121	Total/NA	Water	SM 2320B	
550-174392-A-2 DU	Duplicate	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174640-1
SDG: APS Four Corners Power Plant (Multiunit)

Client Sample ID: FC-CCR-MW07-1121

Lab Sample ID: 550-174640-1

Date Collected: 11/18/21 12:51
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259395	11/23/21 02:49	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259395	11/23/21 03:07	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259537	11/23/21 19:04	MGM	TAL PHX
Total/NA	Prep	200.7			558608	11/26/21 06:11	CJB	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558879	11/26/21 14:02	MAB	TAL DEN
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	259514	11/23/21 16:47	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 17:52	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	260110	12/01/21 18:38	ARE	TAL PHX
Total/NA	Prep	245.1			259845	11/29/21 16:25	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259870	11/29/21 21:39	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	259595		EJR	TAL PHX
					(Start)	11/24/21 13:30		
					(End)	11/30/21 12:55		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-MW08-1121

Lab Sample ID: 550-174640-2

Date Collected: 11/18/21 11:54
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259395	11/23/21 04:02	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259395	11/23/21 04:21	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259537	11/23/21 19:01	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	259664	11/24/21 21:31	MGM	TAL PHX
Total/NA	Prep	200.7			558608	11/26/21 06:11	CJB	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558879	11/26/21 14:35	MAB	TAL DEN
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	259514	11/23/21 16:49	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 17:54	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	260110	12/01/21 18:46	ARE	TAL PHX
Total/NA	Prep	245.1			259845	11/29/21 16:25	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259870	11/29/21 21:41	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259292	11/22/21 09:02	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259595		EJR	TAL PHX
					(Start)	11/24/21 13:30		
					(End)	11/30/21 12:55		

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174640-1
SDG: APS Four Corners Power Plant (Multiunit)

Client Sample ID: FC-CCR-MW08-1121

Lab Sample ID: 550-174640-2
Date Collected: 11/18/21 11:54
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-MW87-1121

Lab Sample ID: 550-174640-3
Date Collected: 11/17/21 12:56
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259395	11/23/21 04:39	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259395	11/23/21 04:58	JNW	TAL PHX
Total/NA	Analysis	300.0		1000	259638	11/24/21 21:00	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	259664	11/24/21 21:33	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	259794	11/26/21 17:36	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	259794	11/26/21 17:38	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		20	259851	11/29/21 14:48	MGM	TAL PHX
Total/NA	Prep	200.7			558608	11/26/21 06:11	CJB	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558879	11/26/21 14:39	MAB	TAL DEN
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	259514	11/23/21 16:51	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 17:56	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	260164	12/02/21 11:08	ARE	TAL PHX
Total/NA	Prep	245.1			259845	11/29/21 16:25	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259870	11/29/21 21:43	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259778	11/28/21 13:20	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259495		EJR	TAL PHX
					(Start)	11/23/21 18:27		
					(End)	11/30/21 11:00		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-FD04-1121

Lab Sample ID: 550-174640-4
Date Collected: 11/17/21 12:56
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259395	11/23/21 05:16	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259395	11/23/21 05:35	JNW	TAL PHX
Total/NA	Analysis	300.0		1000	259638	11/24/21 21:28	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	259664	11/24/21 21:36	MGM	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174640-1
SDG: APS Four Corners Power Plant (Multiunit)

Client Sample ID: FC-CCR-FD04-1121

Date Collected: 11/17/21 12:56
Date Received: 11/20/21 10:16

Lab Sample ID: 550-174640-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	259794	11/26/21 17:43	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	259794	11/26/21 17:46	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		20	259851	11/29/21 14:51	MGM	TAL PHX
Total/NA	Prep	200.7			558608	11/26/21 06:11	CJB	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558879	11/26/21 14:43	MAB	TAL DEN
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	259514	11/23/21 16:53	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 17:58	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	260164	12/02/21 11:10	ARE	TAL PHX
Total/NA	Prep	245.1			259845	11/29/21 16:25	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259870	11/29/21 21:45	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259778	11/28/21 13:20	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259495		EJR	TAL PHX
					(Start)	11/23/21 18:27		
					(End)	11/30/21 11:00		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174640-1
SDG: APS Four Corners Power Plant (Multiunit)

Laboratory: Eurofins TestAmerica, 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	06-10-22

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 2320B		Water	Alkalinity, Phenolphthalein
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins TestAmerica, Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	11-30-21
A2LA	ISO/IEC 17025	2907.01	11-30-21
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-28-22
Arizona	State	AZ0713	12-19-21
Arkansas DEQ	State	19-047-0	06-01-21 *
California	State	2513	01-08-22
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-22
Georgia	State	4025-011	01-08-22
Illinois	NELAP	2000172019-1	04-30-22
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	04-30-22
Kentucky (WW)	State	KY98047	12-31-21
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-22
Minnesota	NELAP	1788752	12-31-21
Nevada	State	CO000262020-1	07-31-22
New Hampshire	NELAP	205319	04-29-22
New Jersey	NELAP	190002	07-01-22
New York	NELAP	59923	04-01-22
North Carolina (WW/SW)	State	358	12-31-21
North Dakota	State	R-034	01-08-22
Oklahoma	State	2018-006	08-31-22
Oregon	NELAP	4025-011	01-08-22
Pennsylvania	NELAP	013	07-31-22
South Carolina	State	72002001	01-08-22
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-22
Virginia	NELAP	10490	06-14-22
Washington	State	C583-19	08-03-22
West Virginia DEP	State	354	11-30-21
Wisconsin	State	999615430	08-31-22
Wyoming (UST)	A2LA	2907.01	11-30-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174640-1
SDG: APS Four Corners Power Plant (Multiunit)

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
200.8 LL	Metals (ICP/MS)	EPA	TAL PHX
245.1	Mercury (CVAA)	EPA	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 4500 H+ B	pH	SM	TAL PHX
200.7	Preparation, Total Metals	EPA	TAL DEN
200.7	Preparation, Total Metals	EPA	TAL PHX
200.8	Preparation, Total Metals	EPA	TAL PHX
245.1	Preparation, Mercury	EPA	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, 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

174640

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	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:
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 #: 100613442	☐ 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 30[redacted] F, SO4)	EPA 20[redacted]tals (B)	EPA 20[redacted]tals (B, Ca, Be, Li)	EPA 20[redacted]tals (B, Ca, Be, Li, K, Mg,	EPA 20[redacted]tals (B, Ca, Be, Li, K, Mg, Fe)	EPA 20[redacted]tals (Sb, As, Ba, Cd, Co[redacted], Mo, Se, Tl)	EPA 20[redacted]tals (Co, Mo)	EPA 24[redacted]tals (Hg)	[redacted]	[redacted]	[redacted] (CO3 Alkalinity as CaCO3, HCO3 Alkalinity as CaCO3)	Sample Specific Notes:
-01	FC-CCR-MW07-1121	11/18/2021	12:51	G	W	2	N		X		X			X		X	X	X		Low Flow
-02	FC-CCR-MW08-1121	11/18/2021	11:54	G	W	2	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	4	4	4	4	1	1	1	

550-174640 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

(1.4°C, 0.4°C, 3.2°C, 1.0°C) Edu

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: ______ Corr'd: ______ Therm ID No.: ______		
Relinquished by: [signature]	Company: Wood	Date/Time: 11/20/21 10:16	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TAPHX	Date/Time: 11-20-21 1016

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

174640

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	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:
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 #: 100613442	☐ 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 7 (SO4)	EPA 7 Totals (B)	EPA 7 Totals (B, Ca, Be, Li)	EPA 7 Totals (B, Ca, Be, Li, K, Mg, Na)	EPA 7 Totals (B, Ca, Be, Li, K, Mg, Na, Fe)	EPA 200.8 Totals (Sb, As, Ba, Cd, Co, Cr, Mo, Se, Tl)	EPA 200.8 Totals (Co, Mo)	EPA 245.1 - Totals (Hg)	EM 4 (pH)	EM 2 (DS)	EM 2 Carbonate as CaCO3, HCO3 Alkalinity as CaCO3	Sample Specific Notes:
FC-CCR-MW87-1121	11/17/2021	12:56	G	W	2	N	N	X				X	X		X	X	X	X	Low Flow
FC-CCR-FD04-1121	11/17/2021	12:56	G	W	2	N	N	X				X	X		X	X	X	X	"
								1	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

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]	Wood	11/20/21 10:16			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd Suite 189
Phoenix, AZ 85040
Phone: 602-437-3340 Fax: 602-454-9303

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Baker, Ken	Carrier Tracking No(s):	COC No: 550-32425.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Baker@Eurofinset.com	State of Origin: Arizona	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Arizona		Job #: 550-174640-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 12/6/2021			
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 #: 55009706			
Site: Arizona Public Service	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	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_TOT Total Lithium	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
FC-CCR-MW07-1121 (550-174640-1)	11/18/21	12:51 Arizona		Water			X	1	AZ Sample
FC-CCR-MW08-1121 (550-174640-2)	11/18/21	11:54 Arizona		Water			X	1	AZ Sample
FC-CCR-MW87-1121 (550-174640-3)	11/17/21	12:56 Arizona		Water			X	1	AZ Sample
FC-CCR-FD04-1121 (550-174640-4)	11/17/21	12:56 Arizona		Water			X	1	AZ Sample

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

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	Nicole Arend	11/23/21 1400	EMA ONY	FED EX		
2	FedEx				11/23/21 1030	TAL PEN
3						

Custody Seals Intact:	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
☒ Yes ☐ No	1754972	0.9 IR9 -0.1 CF

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-174640-1
SDG Number: APS Four Corners Power Plant (Multiunit)

Login Number: 174640
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins TestAmerica, 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: 550-174640-1
SDG Number: APS Four Corners Power Plant (Multiunit)

Login Number: 174640
List Number: 2
Creator: Lee, Jerry

List Source: Eurofins TestAmerica, Denver
List Creation: 11/23/21 01:45 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.	False	
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

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-174372-1
Laboratory SDG: APS Four Corners Power Plant (Multiunit)
Client Project/Site: CCR Groundwater Monitoring

For:
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Attn: Natalie Chrisman

Rachel E. Sester

Authorized for release by:
11/30/2021 1:49:56 PM

Rachel Sester, Project Manager I
(602)659-7615
Rachel.Sester@Eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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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.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Metals

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.
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of analyte.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
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.

General Chemistry

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
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.

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: 550-174372-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-174372-1

Comments
No additional comments.

Receipt
The samples were received on 11/16/2021 3:15 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 0.2º C and 1.8º C.

Receipt Exceptions
All sample containers received in Denver have 75-125ml of volume.

FC-CCR-MW49A-1121 (550-174372-1), FC-CCR-MW52-1121 (550-174372-2), FC-CCR-MW61-1121 (550-174372-3), FC-CCR-MW75-1121 (550-174372-4) and FC-CCR-FD03-1121 (550-174372-5)

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method 200.7 Rev 4.4: The following samples were diluted to bring the concentration of target analytes within the calibration range: FC-CCR-MW61-1121 (550-174372-3) and FC-CCR-MW75-1121 (550-174372-4). Elevated reporting limits (RLs) are provided.

Method 200.8: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 550-259566.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174372-1
SDG: APS Four Corners Power Plant (Multiunit)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-174372-1	FC-CCR-MW49A-1121	Water	11/15/21 08:43	11/16/21 15:15
550-174372-2	FC-CCR-MW52-1121	Water	11/13/21 09:23	11/16/21 15:15
550-174372-3	FC-CCR-MW61-1121	Water	11/13/21 10:35	11/16/21 15:15
550-174372-4	FC-CCR-MW75-1121	Water	11/13/21 11:23	11/16/21 15:15
550-174372-5	FC-CCR-FD03-1121	Water	11/13/21 09:23	11/16/21 15:15

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174372-1
SDG: APS Four Corners Power Plant (Multiunit)

Client Sample ID: FC-CCR-MW49A-1121 — Lab Sample ID: 550-174372-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	510	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.51	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	16000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	1.0		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	5.0		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	440		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.00018	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Barium	0.025	B7 D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.00027	D1	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Chromium	0.0038	D1	0.0020	0.00087	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0014	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.049	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.0024	D1	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.0014	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	20000	D2	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	9.1	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW52-1121 — Lab Sample ID: 550-174372-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.65		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	11		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	450		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.12	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0031	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW61-1121 — Lab Sample ID: 550-174372-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	420	D2	100	26	mg/L	50		300.0	Total/NA
Fluoride	1.1		0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	4000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.48		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	41		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	520		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	140		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	21		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1100	D2	1.0	0.061	mg/L	2		200.7 Rev 4.4	Total/NA
Antimony	0.00026	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Barium	0.020	B7 D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.0012	D1	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.028	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Lead	0.0013	D1	0.0010	0.00044	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.11	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.0020	D1	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.00022	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	91		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	59		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	32		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Alkalinity, Phenolphthalein	16		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	4500	D2	100	100	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW61-1121 (Continued) — Lab Sample ID: 550-174372-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	8.3	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	9.3	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW75-1121 — Lab Sample ID: 550-174372-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	360	D2	100	26	mg/L	50		300.0	Total/NA
Fluoride	1.0	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	5100	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.47		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	24		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	440		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	240		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	22		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1300	D2	1.0	0.061	mg/L	2		200.7 Rev 4.4	Total/NA
Antimony	0.00013	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Barium	0.028	B7 D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.0020	D1	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.054	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Lead	0.0036	D1	0.0010	0.00044	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.20	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.0042	D1	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.00024	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	98		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	98		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6200	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	8.3	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	7.6	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-FD03-1121 — Lab Sample ID: 550-174372-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.65		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	9.7		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	420		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.12	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0031	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW49A-1121

Lab Sample ID: 550-174372-1
Date Collected: 11/15/21 08:43
Matrix: Water
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	510	D2	400	100	mg/L			11/19/21 05:42	200
Fluoride	0.51	D1 E4	0.80	0.095	mg/L			11/19/21 05:24	2
Sulfate	16000	D2	400	85	mg/L			11/19/21 05:42	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:47	11/17/21 16:11	1
Lithium	1.0		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 18:14	1
Boron	5.0		0.050	0.0025	mg/L		11/16/21 20:47	11/17/21 16:11	1
Calcium	440		2.0	0.013	mg/L		11/16/21 20:47	11/18/21 20:28	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00018	D1 E4	0.0020	0.000087	mg/L		11/17/21 07:57	11/22/21 20:02	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 07:57	11/22/21 20:02	2
Barium	0.025	B7 D1	0.0010	0.00052	mg/L		11/17/21 07:57	11/22/21 20:02	2
Cadmium	0.00027	D1	0.00020	0.000046	mg/L		11/17/21 07:57	11/22/21 20:02	2
Chromium	0.0038	D1	0.0020	0.00087	mg/L		11/17/21 07:57	11/22/21 20:02	2
Cobalt	0.0014	D1	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 20:02	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 07:57	11/22/21 20:02	2
Molybdenum	0.049	D1	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 20:02	2
Selenium	0.0024	D1	0.0010	0.00015	mg/L		11/17/21 07:57	11/22/21 20:02	2
Thallium	0.0014	D1	0.00020	0.000026	mg/L		11/17/21 07:57	11/22/21 20:02	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/22/21 16:30	11/22/21 20:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	20000	D2	200	200	mg/L			11/19/21 09:20	1
pH	7.4	H5	1.7	1.7	SU			11/20/21 09:45	1
Temperature	9.1	H5	0.1	0.1	Degrees C			11/20/21 09:45	1

Client Sample ID: FC-CCR-MW52-1121

Lab Sample ID: 550-174372-2
Date Collected: 11/13/21 09:23
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:47	11/17/21 16:14	1
Lithium	0.65		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 18:18	1
Boron	11		0.050	0.0025	mg/L		11/16/21 20:47	11/17/21 16:14	1
Calcium	450		2.0	0.013	mg/L		11/16/21 20:47	11/18/21 20:30	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.12	D1	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 20:04	2
Molybdenum	0.0031	D1	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 20:04	2

Client Sample ID: FC-CCR-MW61-1121

Lab Sample ID: 550-174372-3
Date Collected: 11/13/21 10:35
Matrix: Water
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	420	D2	100	26	mg/L			11/19/21 16:46	50
Fluoride	1.1		0.80	0.095	mg/L			11/19/21 06:00	2
Sulfate	4000	D2	400	85	mg/L			11/19/21 06:19	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:47	11/17/21 16:16	1
Lithium	0.48		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 18:22	1
Boron	41		0.050	0.0025	mg/L		11/16/21 20:47	11/17/21 16:16	1
Calcium	520		2.0	0.013	mg/L		11/16/21 20:47	11/18/21 20:35	1
Magnesium	140		2.0	0.044	mg/L		11/16/21 20:47	11/17/21 16:16	1
Potassium	21		0.50	0.17	mg/L		11/16/21 20:47	11/17/21 16:16	1
Sodium	1100	D2	1.0	0.061	mg/L		11/16/21 20:47	11/18/21 20:33	2

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00026	D1 E4	0.0020	0.000087	mg/L		11/17/21 07:57	11/22/21 20:07	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 07:57	11/22/21 20:07	2
Barium	0.020	B7 D1	0.0010	0.00052	mg/L		11/17/21 07:57	11/22/21 20:07	2
Cadmium	0.0012	D1	0.00020	0.000046	mg/L		11/17/21 07:57	11/22/21 20:07	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 07:57	11/22/21 20:07	2
Cobalt	0.028	D1	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 20:07	2
Lead	0.0013	D1	0.0010	0.00044	mg/L		11/17/21 07:57	11/22/21 20:07	2
Molybdenum	0.11	D1	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 20:07	2
Selenium	0.0020	D1	0.0010	0.00015	mg/L		11/17/21 07:57	11/22/21 20:07	2
Thallium	0.00022	D1	0.00020	0.000026	mg/L		11/17/21 07:57	11/22/21 20:07	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/22/21 16:30	11/22/21 20:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	91		6.0	6.0	mg/L			11/21/21 15:35	1
Bicarbonate Alkalinity as CaCO3	59		6.0	6.0	mg/L			11/21/21 15:35	1
Carbonate Alkalinity as CaCO3	32		6.0	6.0	mg/L			11/21/21 15:35	1
Alkalinity, Phenolphthalein	16		6.0	6.0	mg/L			11/21/21 15:35	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 15:35	1
Total Dissolved Solids	4500	D2	100	100	mg/L			11/18/21 07:59	1
pH	8.3	H5	1.7	1.7	SU			11/20/21 09:45	1
Temperature	9.3	H5	0.1	0.1	Degrees C			11/20/21 09:45	1

Client Sample ID: FC-CCR-MW75-1121

Lab Sample ID: 550-174372-4
Date Collected: 11/13/21 11:23
Matrix: Water
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	360	D2	100	26	mg/L			11/19/21 17:04	50
Fluoride	1.0	D1	0.80	0.095	mg/L			11/19/21 07:14	2
Sulfate	5100	D2	400	85	mg/L			11/19/21 07:32	200

Client Sample ID: FC-CCR-MW75-1121

Lab Sample ID: 550-174372-4

Date Collected: 11/13/21 11:23
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:47	11/17/21 16:19	1
Lithium	**0.47**		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 18:26	1
Boron	**24**		0.050	0.0025	mg/L		11/16/21 20:47	11/17/21 16:19	1
Calcium	**440**		2.0	0.013	mg/L		11/16/21 20:47	11/18/21 20:41	1
Magnesium	**240**		2.0	0.044	mg/L		11/16/21 20:47	11/17/21 16:19	1
Potassium	**22**		0.50	0.17	mg/L		11/16/21 20:47	11/17/21 16:19	1
Sodium	**1300**	**D2**	1.0	0.061	mg/L		11/16/21 20:47	11/18/21 20:38	2

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00013**	**D1 E4**	0.0020	0.000087	mg/L		11/17/21 07:57	11/22/21 20:09	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 07:57	11/22/21 20:09	2
Barium	**0.028**	**B7 D1**	0.0010	0.00052	mg/L		11/17/21 07:57	11/22/21 20:09	2
Cadmium	**0.0020**	**D1**	0.00020	0.000046	mg/L		11/17/21 07:57	11/22/21 20:09	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/17/21 07:57	11/22/21 20:09	2
Cobalt	**0.054**	**D1**	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 20:09	2
Lead	**0.0036**	**D1**	0.0010	0.00044	mg/L		11/17/21 07:57	11/22/21 20:09	2
Molybdenum	**0.20**	**D1**	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 20:09	2
Selenium	**0.0042**	**D1**	0.0010	0.00015	mg/L		11/17/21 07:57	11/22/21 20:09	2
Thallium	**0.00024**	**D1**	0.00020	0.000026	mg/L		11/17/21 07:57	11/22/21 20:09	2

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/22/21 16:30	11/22/21 20:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**98**		6.0	6.0	mg/L			11/21/21 15:43	1
Bicarbonate Alkalinity as CaCO3	**98**		6.0	6.0	mg/L			11/21/21 15:43	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 15:43	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/21/21 15:43	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 15:43	1
Total Dissolved Solids	**6200**	**D2**	100	100	mg/L			11/18/21 07:59	1
pH	**8.3**	**H5**	1.7	1.7	SU			11/23/21 14:19	1
Temperature	**7.6**	**H5**	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-FD03-1121

Lab Sample ID: 550-174372-5

Date Collected: 11/13/21 09:23
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/16/21 20:47	11/17/21 16:22	1
Lithium	**0.65**		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 18:30	1
Boron	**9.7**		0.050	0.0025	mg/L		11/16/21 20:47	11/17/21 16:22	1
Calcium	**420**		2.0	0.013	mg/L		11/16/21 20:47	11/18/21 20:43	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	**0.12**	**D1**	0.0010	0.00013	mg/L		11/17/21 07:57	11/22/21 20:11	2
Molybdenum	**0.0031**	**D1**	0.0010	0.00040	mg/L		11/17/21 07:57	11/22/21 20:11	2

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-259156/1034
Matrix: Water
Analysis Batch: 259156

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/18/21 22:57	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/18/21 22:57	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/18/21 22:57	1

Lab Sample ID: LCS 550-259156/35
Matrix: Water
Analysis Batch: 259156

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	4.26		mg/L		106	90 - 110
Sulfate	20.0	21.2		mg/L		106	90 - 110

Lab Sample ID: LCSD 550-259156/36
Matrix: Water
Analysis Batch: 259156

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	4.27		mg/L		107	90 - 110	0	20
Sulfate	20.0	21.3		mg/L		106	90 - 110	0	20

Lab Sample ID: 550-174484-A-1 MS
Matrix: Water
Analysis Batch: 259156

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	17		20.0	38.8		mg/L		110	80 - 120
Fluoride	0.48		4.00	4.87		mg/L		110	80 - 120
Sulfate	23		20.0	44.2		mg/L		107	80 - 120

Lab Sample ID: 550-174484-A-1 MSD
Matrix: Water
Analysis Batch: 259156

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	17		20.0	39.1		mg/L		111	80 - 120	1	20
Fluoride	0.48		4.00	4.93		mg/L		111	80 - 120	1	20
Sulfate	23		20.0	44.6		mg/L		109	80 - 120	1	20

Lab Sample ID: MB 550-259284/2
Matrix: Water
Analysis Batch: 259284

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/19/21 13:34	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/19/21 13:34	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/19/21 13:34	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-259284/5
Matrix: Water
Analysis Batch: 259284

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	20.6		mg/L		103	90 - 110		
Fluoride			4.00	4.19		mg/L		105	90 - 110		
Sulfate			20.0	20.9		mg/L		104	90 - 110		

Lab Sample ID: LCSD 550-259284/6
Matrix: Water
Analysis Batch: 259284

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	20.6		mg/L		103	90 - 110	0	20
Fluoride			4.00	4.19		mg/L		105	90 - 110	0	20
Sulfate			20.0	20.9		mg/L		104	90 - 110	0	20

Lab Sample ID: 550-174257-C-1 MS ^50
Matrix: Water
Analysis Batch: 259284

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	320	D2	1000	1420	D2	mg/L		109	80 - 120		
Sulfate	1300	D2	1000	2330	D2	mg/L		103	80 - 120		

Lab Sample ID: 550-174257-C-1 MSD ^50
Matrix: Water
Analysis Batch: 259284

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	320	D2	1000	1450	D2	mg/L		113	80 - 120	3	20
Sulfate	1300	D2	1000	2390	D2	mg/L		108	80 - 120	2	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-258788/1-A
Matrix: Water
Analysis Batch: 258921

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258788

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.000150	E4	0.0010	0.000067	mg/L		11/16/21 20:47	11/17/21 15:53	1
Boron	0.00278	E4	0.050	0.0025	mg/L		11/16/21 20:47	11/17/21 15:53	1
Magnesium	ND	E8	2.0	0.044	mg/L		11/16/21 20:47	11/17/21 15:53	1
Potassium	ND	E8	0.50	0.17	mg/L		11/16/21 20:47	11/17/21 15:53	1
Sodium	0.140	E4	0.50	0.031	mg/L		11/16/21 20:47	11/17/21 15:53	1

Lab Sample ID: MB 550-258788/1-A
Matrix: Water
Analysis Batch: 259048

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258788

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND	E8	2.0	0.013	mg/L		11/16/21 20:47	11/18/21 14:48	1
Sodium	ND	E8	0.50	0.031	mg/L		11/16/21 20:47	11/18/21 14:48	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 550-258788/2-A
Matrix: Water
Analysis Batch: 258921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258788

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	1.00	0.993		mg/L		99	85 - 115
Boron	1.00	0.977		mg/L		98	85 - 115
Magnesium	21.0	21.2		mg/L		101	85 - 115
Potassium	20.0	19.4		mg/L		97	85 - 115
Sodium	20.0	19.8		mg/L		99	85 - 115

Lab Sample ID: LCS 550-258788/2-A
Matrix: Water
Analysis Batch: 259048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258788

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	21.0	20.6		mg/L		98	85 - 115
Sodium	20.0	20.3		mg/L		101	85 - 115

Lab Sample ID: LCSD 550-258788/3-A
Matrix: Water
Analysis Batch: 258921

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258788

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	1.00	1.00		mg/L		100	85 - 115	1	20
Boron	1.00	0.972		mg/L		97	85 - 115	1	20
Magnesium	21.0	21.2		mg/L		101	85 - 115	0	20
Potassium	20.0	19.4		mg/L		97	85 - 115	0	20
Sodium	20.0	19.7		mg/L		99	85 - 115	0	20

Lab Sample ID: LCSD 550-258788/3-A
Matrix: Water
Analysis Batch: 259048

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258788

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	21.0	21.1		mg/L		101	85 - 115	2	20
Sodium	20.0	20.4		mg/L		102	85 - 115	0	20

Lab Sample ID: 550-174316-A-1-A MS
Matrix: Water
Analysis Batch: 258921

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 258788

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.00032	E4	1.00	1.03		mg/L		103	70 - 130
Boron	0.16		1.00	1.13		mg/L		97	70 - 130
Magnesium	24		21.0	43.8		mg/L		95	70 - 130
Potassium	6.6		20.0	26.4		mg/L		99	70 - 130
Sodium	440	M3	20.0	435	M3	mg/L		-0.8	70 - 130

Lab Sample ID: 550-174316-A-1-A MS
Matrix: Water
Analysis Batch: 259048

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 258788

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	68		21.0	83.6		mg/L		76	70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-174316-A-1-A MS
Matrix: Water
Analysis Batch: 259048

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 258788

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	440	M3	20.0	436	M3	mg/L		-17	70 - 130

Lab Sample ID: 550-174316-A-1-B MSD
Matrix: Water
Analysis Batch: 258921

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 258788

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	0.00032	E4	1.00	1.07		mg/L		107	70 - 130	4	20
Boron	0.16		1.00	1.15		mg/L		99	70 - 130	2	20
Magnesium	24		21.0	46.0		mg/L		106	70 - 130	5	20
Potassium	6.6		20.0	27.2		mg/L		103	70 - 130	3	20
Sodium	440	M3	20.0	446	M3	mg/L		51	70 - 130	2	20

Lab Sample ID: 550-174316-A-1-B MSD
Matrix: Water
Analysis Batch: 259048

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 258788

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	68		21.0	88.2		mg/L		98	70 - 130	5	20
Sodium	440	M3	20.0	451	M3	mg/L		61	70 - 130	4	20

Lab Sample ID: MB 280-558432/1-A
Matrix: Water
Analysis Batch: 558746

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 558432

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	E8	0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 16:25	1

Lab Sample ID: LCS 280-558432/2-A
Matrix: Water
Analysis Batch: 558746

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 558432

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	1.00	1.03		mg/L		103	90 - 112

Lab Sample ID: 550-174373-F-10-B MS
Matrix: Water
Analysis Batch: 558746

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 558432

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.24		1.00	1.38		mg/L		113	70 - 130

Lab Sample ID: 550-174373-F-10-C MSD
Matrix: Water
Analysis Batch: 558746

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 558432

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.24		1.00	1.39		mg/L		115	70 - 130	1	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-258800/1-A
Matrix: Water
Analysis Batch: 259360

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258800

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	E8	0.0010	0.000043	mg/L		11/17/21 07:57	11/22/21 19:19	1
Arsenic	ND	E8	0.00050	0.00025	mg/L		11/17/21 07:57	11/22/21 19:19	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		11/17/21 07:57	11/22/21 19:19	1
Chromium	ND	E8	0.0010	0.00043	mg/L		11/17/21 07:57	11/22/21 19:19	1
Cobalt	ND	E8	0.00050	0.000063	mg/L		11/17/21 07:57	11/22/21 19:19	1
Lead	ND	E8	0.00050	0.00022	mg/L		11/17/21 07:57	11/22/21 19:19	1
Molybdenum	ND	E8	0.00050	0.00020	mg/L		11/17/21 07:57	11/22/21 19:19	1
Selenium	0.0000920	E4	0.00050	0.000074	mg/L		11/17/21 07:57	11/22/21 19:19	1
Thallium	ND	E8	0.00010	0.000013	mg/L		11/17/21 07:57	11/22/21 19:19	1

Lab Sample ID: MB 550-258800/1-A
Matrix: Water
Analysis Batch: 259424

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258800

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.000794	B1	0.00050	0.00026	mg/L		11/17/21 07:57	11/23/21 13:02	1

Lab Sample ID: LCS 550-258800/2-A
Matrix: Water
Analysis Batch: 259360

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258800

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	0.0966		mg/L		97	85 - 115
Cadmium	0.100	0.101		mg/L		101	85 - 115
Chromium	0.100	0.0970		mg/L		97	85 - 115
Cobalt	0.100	0.0982		mg/L		98	85 - 115
Lead	0.100	0.0999		mg/L		100	85 - 115
Molybdenum	0.100	0.102		mg/L		102	85 - 115
Selenium	0.100	0.0914		mg/L		91	85 - 115
Thallium	0.100	0.0949		mg/L		95	85 - 115

Lab Sample ID: LCS 550-258800/2-A
Matrix: Water
Analysis Batch: 259416

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258800

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.100	0.112		mg/L		112	85 - 115

Lab Sample ID: LCSD 550-258800/3-A
Matrix: Water
Analysis Batch: 259360

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258800

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.100	0.112		mg/L		112	85 - 115	10	20
Arsenic	0.100	0.106		mg/L		106	85 - 115	9	20
Cadmium	0.100	0.112		mg/L		112	85 - 115	10	20
Chromium	0.100	0.107		mg/L		107	85 - 115	10	20
Cobalt	0.100	0.107		mg/L		107	85 - 115	9	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 550-258800/3-A
Matrix: Water
Analysis Batch: 259360

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258800

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead			0.100	0.111		mg/L		111	85 - 115	11	20
Molybdenum			0.100	0.112		mg/L		112	85 - 115	9	20
Selenium			0.100	0.101		mg/L		101	85 - 115	10	20
Thallium			0.100	0.105		mg/L		105	85 - 115	10	20

Lab Sample ID: LCSD 550-258800/3-A
Matrix: Water
Analysis Batch: 259416

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258800

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium			0.100	0.115		mg/L		115	85 - 115	2	20

Lab Sample ID: 550-174373-D-10-A MS ^2
Matrix: Water
Analysis Batch: 259360

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 258800

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.00013	E4 D1	0.100	0.115		mg/L		115	70 - 130
Arsenic	ND	E8 D1	0.100	0.106		mg/L		106	70 - 130
Barium	0.019	D1 M1 B1 L3	0.100	0.151	M1	mg/L		133	70 - 130
Cadmium	0.00031	D1	0.100	0.106		mg/L		106	70 - 130
Chromium	ND	E8 D1	0.100	0.102		mg/L		102	70 - 130
Cobalt	0.0079	D1	0.100	0.107		mg/L		99	70 - 130
Lead	ND	E8 D1	0.100	0.102		mg/L		102	70 - 130
Molybdenum	0.0014	D1	0.100	0.116		mg/L		115	70 - 130
Selenium	0.030	D1	0.100	0.137		mg/L		107	70 - 130
Thallium	0.00071	D1	0.100	0.0985		mg/L		98	70 - 130

Lab Sample ID: 550-174373-D-10-B MSD ^2
Matrix: Water
Analysis Batch: 259360

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 258800

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.00013	E4 D1	0.100	0.113		mg/L		113	70 - 130	2	20
Arsenic	ND	E8 D1	0.100	0.108		mg/L		108	70 - 130	2	20
Barium	0.019	D1 M1 B1 L3	0.100	0.149		mg/L		130	70 - 130	2	20
Cadmium	0.00031	D1	0.100	0.107		mg/L		107	70 - 130	1	20
Chromium	ND	E8 D1	0.100	0.104		mg/L		104	70 - 130	2	20
Cobalt	0.0079	D1	0.100	0.109		mg/L		101	70 - 130	1	20
Lead	ND	E8 D1	0.100	0.0978		mg/L		98	70 - 130	4	20
Molybdenum	0.0014	D1	0.100	0.113		mg/L		112	70 - 130	3	20
Selenium	0.030	D1	0.100	0.138		mg/L		109	70 - 130	1	20
Thallium	0.00071	D1	0.100	0.0946		mg/L		94	70 - 130	4	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 550-259314/1-A
Matrix: Water
Analysis Batch: 259420

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259314

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	ND	E8	0.00020	0.000070	mg/L		11/22/21 16:30	11/22/21 20:18	1

Lab Sample ID: LCS 550-259314/2-A
Matrix: Water
Analysis Batch: 259420

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259314

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	0.00500	0.00493		mg/L		99	85 - 115

Lab Sample ID: LCSD 550-259314/3-A
Matrix: Water
Analysis Batch: 259420

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259314

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	0.00500	0.00484		mg/L		97	85 - 115	2	20

Lab Sample ID: 550-174373-D-10-G MS
Matrix: Water
Analysis Batch: 259420

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 259314

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hg	ND	E8	0.00500	0.00447		mg/L		89	70 - 130

Lab Sample ID: 550-174373-D-10-H MSD
Matrix: Water
Analysis Batch: 259420

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 259314

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hg	ND	E8	0.00500	0.00455		mg/L		91	70 - 130	2	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-259292/7
Matrix: Water
Analysis Batch: 259292

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 13:24	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 13:24	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 13:24	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/21/21 13:24	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 13:24	1

Lab Sample ID: LCS 550-259292/6
Matrix: Water
Analysis Batch: 259292

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	235		mg/L		94	90 - 110

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCSD 550-259292/20
Matrix: Water
Analysis Batch: 259292

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	235		mg/L		94	90 - 110	0	20

Lab Sample ID: 550-174441-C-1 DU
Matrix: Water
Analysis Batch: 259292

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	190			193		mg/L				0.1	20
Bicarbonate Alkalinity as CaCO3	190			193		mg/L				0.1	20
Carbonate Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20
Alkalinity, Phenolphthalein	ND	E8		ND	E8	mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-258958/1
Matrix: Water
Analysis Batch: 258958

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			11/18/21 07:59	1

Lab Sample ID: LCS 550-258958/2
Matrix: Water
Analysis Batch: 258958

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 550-258958/3
Matrix: Water
Analysis Batch: 258958

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	986		mg/L		99	90 - 110	4	10

Lab Sample ID: 550-174373-A-12 DU
Matrix: Water
Analysis Batch: 258958

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	9900	D2		9220	D2	mg/L				7	10

Lab Sample ID: MB 550-259113/1
Matrix: Water
Analysis Batch: 259113

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			11/19/21 09:20	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 550-259113/2
Matrix: Water
Analysis Batch: 259113

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	1100		mg/L		110	90 - 110		

Lab Sample ID: LCSD 550-259113/3
Matrix: Water
Analysis Batch: 259113

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	1100		mg/L		110	90 - 110	1	10

Lab Sample ID: 550-174373-A-3 DU
Matrix: Water
Analysis Batch: 259113

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	10000	D2		10100	D2	mg/L				1	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-259220/1
Matrix: Water
Analysis Batch: 259220

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: LCSSRM 550-259220/13
Matrix: Water
Analysis Batch: 259220

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		100.1	98.5 - 101.5		

Lab Sample ID: 550-174118-A-2 DU
Matrix: Water
Analysis Batch: 259220

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	8.7	H5		8.7	H5	SU				0.1	5
Temperature	7.0	H5		7.5	H5	Degrees C				7	

Lab Sample ID: LCSSRM 550-259646/1
Matrix: Water
Analysis Batch: 259646

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		

Method: SM 4500 H+ B - pH (Continued)

Lab Sample ID: LCSSRM 550-259646/12
Matrix: Water
Analysis Batch: 259646

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		100.3	98.5 - 101.5		

Lab Sample ID: 550-174372-4 DU
Matrix: Water
Analysis Batch: 259646

Client Sample ID: FC-CCR-MW75-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	8.3	H5		8.3	H5	SU				0	5
Temperature	7.6	H5		8.4	H5	Degrees C				10	

HPLC/IC

Analysis Batch: 259156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174372-1	FC-CCR-MW49A-1121	Total/NA	Water	300.0	
550-174372-1	FC-CCR-MW49A-1121	Total/NA	Water	300.0	
550-174372-3	FC-CCR-MW61-1121	Total/NA	Water	300.0	
550-174372-3	FC-CCR-MW61-1121	Total/NA	Water	300.0	
550-174372-4	FC-CCR-MW75-1121	Total/NA	Water	300.0	
550-174372-4	FC-CCR-MW75-1121	Total/NA	Water	300.0	
MB 550-259156/1034	Method Blank	Total/NA	Water	300.0	
LCS 550-259156/35	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-259156/36	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174484-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-174484-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 259284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174372-3	FC-CCR-MW61-1121	Total/NA	Water	300.0	
550-174372-4	FC-CCR-MW75-1121	Total/NA	Water	300.0	
MB 550-259284/2	Method Blank	Total/NA	Water	300.0	
LCS 550-259284/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-259284/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174257-C-1 MS ^50	Matrix Spike	Total/NA	Water	300.0	
550-174257-C-1 MSD ^50	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 258788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174372-1	FC-CCR-MW49A-1121	Total/NA	Water	200.7	
550-174372-2	FC-CCR-MW52-1121	Total/NA	Water	200.7	
550-174372-3	FC-CCR-MW61-1121	Total/NA	Water	200.7	
550-174372-4	FC-CCR-MW75-1121	Total/NA	Water	200.7	
550-174372-5	FC-CCR-FD03-1121	Total/NA	Water	200.7	
MB 550-258788/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-258788/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-258788/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-174316-A-1-A MS	Matrix Spike	Total/NA	Water	200.7	
550-174316-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Prep Batch: 258800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174372-1	FC-CCR-MW49A-1121	Total/NA	Water	200.8	
550-174372-2	FC-CCR-MW52-1121	Total/NA	Water	200.8	
550-174372-3	FC-CCR-MW61-1121	Total/NA	Water	200.8	
550-174372-4	FC-CCR-MW75-1121	Total/NA	Water	200.8	
550-174372-5	FC-CCR-FD03-1121	Total/NA	Water	200.8	
MB 550-258800/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-258800/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-258800/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-174373-D-10-A MS ^2	Matrix Spike	Total/NA	Water	200.8	
550-174373-D-10-B MSD ^2	Matrix Spike Duplicate	Total/NA	Water	200.8	

Metals

Analysis Batch: 258921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174372-1	FC-CCR-MW49A-1121	Total/NA	Water	200.7 Rev 4.4	258788
550-174372-2	FC-CCR-MW52-1121	Total/NA	Water	200.7 Rev 4.4	258788
550-174372-3	FC-CCR-MW61-1121	Total/NA	Water	200.7 Rev 4.4	258788
550-174372-4	FC-CCR-MW75-1121	Total/NA	Water	200.7 Rev 4.4	258788
550-174372-5	FC-CCR-FD03-1121	Total/NA	Water	200.7 Rev 4.4	258788
MB 550-258788/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	258788
LCS 550-258788/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	258788
LCSD 550-258788/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	258788
550-174316-A-1-A MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	258788
550-174316-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	258788

Analysis Batch: 259048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-258788/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	258788
LCS 550-258788/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	258788
LCSD 550-258788/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	258788
550-174316-A-1-A MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	258788
550-174316-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	258788

Analysis Batch: 259103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174372-1	FC-CCR-MW49A-1121	Total/NA	Water	200.7 Rev 4.4	258788
550-174372-2	FC-CCR-MW52-1121	Total/NA	Water	200.7 Rev 4.4	258788
550-174372-3	FC-CCR-MW61-1121	Total/NA	Water	200.7 Rev 4.4	258788
550-174372-3	FC-CCR-MW61-1121	Total/NA	Water	200.7 Rev 4.4	258788
550-174372-4	FC-CCR-MW75-1121	Total/NA	Water	200.7 Rev 4.4	258788
550-174372-4	FC-CCR-MW75-1121	Total/NA	Water	200.7 Rev 4.4	258788
550-174372-5	FC-CCR-FD03-1121	Total/NA	Water	200.7 Rev 4.4	258788

Prep Batch: 259314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174372-1	FC-CCR-MW49A-1121	Total/NA	Water	245.1	
550-174372-3	FC-CCR-MW61-1121	Total/NA	Water	245.1	
550-174372-4	FC-CCR-MW75-1121	Total/NA	Water	245.1	
MB 550-259314/1-A	Method Blank	Total/NA	Water	245.1	
LCS 550-259314/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 550-259314/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
550-174373-D-10-G MS	Matrix Spike	Total/NA	Water	245.1	
550-174373-D-10-H MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	

Analysis Batch: 259360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174372-1	FC-CCR-MW49A-1121	Total/NA	Water	200.8 LL	258800
550-174372-2	FC-CCR-MW52-1121	Total/NA	Water	200.8 LL	258800
550-174372-3	FC-CCR-MW61-1121	Total/NA	Water	200.8 LL	258800
550-174372-4	FC-CCR-MW75-1121	Total/NA	Water	200.8 LL	258800
550-174372-5	FC-CCR-FD03-1121	Total/NA	Water	200.8 LL	258800
MB 550-258800/1-A	Method Blank	Total/NA	Water	200.8 LL	258800
LCS 550-258800/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	258800
LCSD 550-258800/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	258800
550-174373-D-10-A MS ^2	Matrix Spike	Total/NA	Water	200.8 LL	258800

Metals (Continued)

Analysis Batch: 259360 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174373-D-10-B MSD ^2	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	258800

Analysis Batch: 259416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 550-258800/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	258800
LCSD 550-258800/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	258800

Analysis Batch: 259420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174372-1	FC-CCR-MW49A-1121	Total/NA	Water	245.1	259314
550-174372-3	FC-CCR-MW61-1121	Total/NA	Water	245.1	259314
550-174372-4	FC-CCR-MW75-1121	Total/NA	Water	245.1	259314
MB 550-259314/1-A	Method Blank	Total/NA	Water	245.1	259314
LCS 550-259314/2-A	Lab Control Sample	Total/NA	Water	245.1	259314
LCSD 550-259314/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	259314
550-174373-D-10-G MS	Matrix Spike	Total/NA	Water	245.1	259314
550-174373-D-10-H MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	259314

Analysis Batch: 259424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-258800/1-A	Method Blank	Total/NA	Water	200.8 LL	258800

Prep Batch: 558432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174372-1	FC-CCR-MW49A-1121	Total/NA	Water	200.7	
550-174372-2	FC-CCR-MW52-1121	Total/NA	Water	200.7	
550-174372-3	FC-CCR-MW61-1121	Total/NA	Water	200.7	
550-174372-4	FC-CCR-MW75-1121	Total/NA	Water	200.7	
550-174372-5	FC-CCR-FD03-1121	Total/NA	Water	200.7	
MB 280-558432/1-A	Method Blank	Total/NA	Water	200.7	
LCS 280-558432/2-A	Lab Control Sample	Total/NA	Water	200.7	
550-174373-F-10-B MS	Matrix Spike	Total/NA	Water	200.7	
550-174373-F-10-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Analysis Batch: 558746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174372-1	FC-CCR-MW49A-1121	Total/NA	Water	200.7 Rev 4.4	558432
550-174372-2	FC-CCR-MW52-1121	Total/NA	Water	200.7 Rev 4.4	558432
550-174372-3	FC-CCR-MW61-1121	Total/NA	Water	200.7 Rev 4.4	558432
550-174372-4	FC-CCR-MW75-1121	Total/NA	Water	200.7 Rev 4.4	558432
550-174372-5	FC-CCR-FD03-1121	Total/NA	Water	200.7 Rev 4.4	558432
MB 280-558432/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	558432
LCS 280-558432/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	558432
550-174373-F-10-B MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	558432
550-174373-F-10-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	558432

General Chemistry

Analysis Batch: 258958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174372-3	FC-CCR-MW61-1121	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 258958 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174372-4	FC-CCR-MW75-1121	Total/NA	Water	SM 2540C	
MB 550-258958/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-258958/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-258958/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-174373-A-12 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 259113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174372-1	FC-CCR-MW49A-1121	Total/NA	Water	SM 2540C	
MB 550-259113/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-259113/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-259113/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-174373-A-3 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 259220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174372-1	FC-CCR-MW49A-1121	Total/NA	Water	SM 4500 H+ B	
550-174372-3	FC-CCR-MW61-1121	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259220/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259220/13	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-174118-A-2 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 259292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174372-3	FC-CCR-MW61-1121	Total/NA	Water	SM 2320B	
550-174372-4	FC-CCR-MW75-1121	Total/NA	Water	SM 2320B	
MB 550-259292/7	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-259292/6	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-259292/20	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-174441-C-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 259646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174372-4	FC-CCR-MW75-1121	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259646/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259646/12	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-174372-4 DU	FC-CCR-MW75-1121	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174372-1
SDG: APS Four Corners Power Plant (Multiunit)

Client Sample ID: FC-CCR-MW49A-1121

Lab Sample ID: 550-174372-1
Matrix: Water
Date Collected: 11/15/21 08:43
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259156	11/19/21 05:24	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259156	11/19/21 05:42	JNW	TAL PHX
Total/NA	Prep	200.7			258788	11/16/21 20:47	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	258921	11/17/21 16:11	MGM	TAL PHX
Total/NA	Prep	200.7			258788	11/16/21 20:47	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259103	11/18/21 20:28	MGM	TAL PHX
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 18:14	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 20:02	ARE	TAL PHX
Total/NA	Prep	245.1			259314	11/22/21 16:30	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259420	11/22/21 20:55	SRR	TAL PHX
Total/NA	Analysis	SM 2540C		1	259113		EJR	TAL PHX
					(Start)	11/19/21 09:20		
					(End)	11/23/21 18:00		
Total/NA	Analysis	SM 4500 H+ B		1	259220	11/20/21 09:45	CRK	TAL PHX

Client Sample ID: FC-CCR-MW52-1121

Lab Sample ID: 550-174372-2
Matrix: Water
Date Collected: 11/13/21 09:23
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258788	11/16/21 20:47	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	258921	11/17/21 16:14	MGM	TAL PHX
Total/NA	Prep	200.7			258788	11/16/21 20:47	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259103	11/18/21 20:30	MGM	TAL PHX
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 18:18	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 20:04	ARE	TAL PHX

Client Sample ID: FC-CCR-MW61-1121

Lab Sample ID: 550-174372-3
Matrix: Water
Date Collected: 11/13/21 10:35
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259156	11/19/21 06:00	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259156	11/19/21 06:19	JNW	TAL PHX
Total/NA	Analysis	300.0		50	259284	11/19/21 16:46	JNW	TAL PHX
Total/NA	Prep	200.7			258788	11/16/21 20:47	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	258921	11/17/21 16:16	MGM	TAL PHX
Total/NA	Prep	200.7			258788	11/16/21 20:47	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	259103	11/18/21 20:33	MGM	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174372-1
SDG: APS Four Corners Power Plant (Multiunit)

Client Sample ID: FC-CCR-MW61-1121

Lab Sample ID: 550-174372-3

Date Collected: 11/13/21 10:35
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258788	11/16/21 20:47	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259103	11/18/21 20:35	MGM	TAL PHX
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 18:22	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 20:07	ARE	TAL PHX
Total/NA	Prep	245.1			259314	11/22/21 16:30	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259420	11/22/21 20:56	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259292	11/21/21 15:35	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	258958		YET	TAL PHX
					(Start)	11/18/21 07:59		
					(End)	11/19/21 12:20		
Total/NA	Analysis	SM 4500 H+ B		1	259220	11/20/21 09:45	CRK	TAL PHX

Client Sample ID: FC-CCR-MW75-1121

Lab Sample ID: 550-174372-4

Date Collected: 11/13/21 11:23
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259156	11/19/21 07:14	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259156	11/19/21 07:32	JNW	TAL PHX
Total/NA	Analysis	300.0		50	259284	11/19/21 17:04	JNW	TAL PHX
Total/NA	Prep	200.7			258788	11/16/21 20:47	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	258921	11/17/21 16:19	MGM	TAL PHX
Total/NA	Prep	200.7			258788	11/16/21 20:47	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	259103	11/18/21 20:38	MGM	TAL PHX
Total/NA	Prep	200.7			258788	11/16/21 20:47	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259103	11/18/21 20:41	MGM	TAL PHX
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 18:26	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 20:09	ARE	TAL PHX
Total/NA	Prep	245.1			259314	11/22/21 16:30	SRR	TAL PHX
Total/NA	Analysis	245.1		1	259420	11/22/21 20:59	SRR	TAL PHX
Total/NA	Analysis	SM 2320B		1	259292	11/21/21 15:43	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	258958		YET	TAL PHX
					(Start)	11/18/21 07:59		
					(End)	11/19/21 12:20		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174372-1
SDG: APS Four Corners Power Plant (Multiunit)

Client Sample ID: FC-CCR-FD03-1121

Date Collected: 11/13/21 09:23
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174372-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258788	11/16/21 20:47	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	258921	11/17/21 16:22	MGM	TAL PHX
Total/NA	Prep	200.7			258788	11/16/21 20:47	CXK	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259103	11/18/21 20:43	MGM	TAL PHX
Total/NA	Prep	200.7			558432	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 18:30	MAB	TAL DEN
Total/NA	Prep	200.8			258800	11/17/21 07:57	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259360	11/22/21 20:11	ARE	TAL PHX

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174372-1
SDG: APS Four Corners Power Plant (Multiunit)

Laboratory: Eurofins TestAmerica, 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	06-10-22

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 2320B		Water	Alkalinity, Phenolphthalein
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins TestAmerica, Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	11-30-21
A2LA	ISO/IEC 17025	2907.01	11-30-21
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-28-22
Arizona	State	AZ0713	12-19-21
Arkansas DEQ	State	19-047-0	06-01-21 *
California	State	2513	01-08-22
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-22
Georgia	State	4025-011	01-08-22
Illinois	NELAP	2000172019-1	04-30-22
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	04-30-22
Kentucky (WW)	State	KY98047	12-31-21
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-22
Minnesota	NELAP	1788752	12-31-21
Nevada	State	CO000262020-1	07-31-22
New Hampshire	NELAP	205319	04-29-22
New Jersey	NELAP	190002	07-01-22
New York	NELAP	59923	04-01-22
North Carolina (WW/SW)	State	358	12-31-21
North Dakota	State	R-034	01-08-22
Oklahoma	State	2018-006	08-31-22
Oregon	NELAP	4025-011	01-08-22
Pennsylvania	NELAP	013	07-31-22
South Carolina	State	72002001	01-08-22
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-21 *
Virginia	NELAP	10490	06-14-22
Washington	State	C583-19	08-03-22
West Virginia DEP	State	354	11-30-21
Wisconsin	State	999615430	08-31-22
Wyoming (UST)	A2LA	2907.01	11-30-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174372-1
SDG: APS Four Corners Power Plant (Multiunit)

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
200.8 LL	Metals (ICP/MS)	EPA	TAL PHX
245.1	Mercury (CVAA)	EPA	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 4500 H+ B	pH	SM	TAL PHX
200.7	Preparation, Total Metals	EPA	TAL DEN
200.7	Preparation, Total Metals	EPA	TAL PHX
200.8	Preparation, Total Metals	EPA	TAL PHX
245.1	Preparation, Mercury	EPA	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, 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

174372

Chain of Custody Record

550-174372 Chain of Custody

TestAmerica LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

11/30/2021

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Carrier:	COC No.
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker		1 of 2 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 #: 100613442	☐ 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)	A 300 (Cl, F, SO4)	A 2[illegible] - Totals (B)	EPA 20[illegible] - Totals (B, Ca, Be, Li)	EPA 20[illegible] - Totals (B, Ca, Be, Li, K, Mg,	EPA 20[illegible] - Totals (B, Ca, Be, Li, K, Mg, Mn, Fe)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)					Sample Specific Notes:
[redacted]			G	W	2	N		X		X			X		X	X	X	Low Flow
[redacted]			G	W	2	N		X			X		X		X	X	X	X	"
			G	W	2	N		X				X	X		X	X	X	"
			G	W	2	N		X		X			X		X	X	X	"
FC-CCR-MW49A-1121	11/15/2021	8:43	G	W	2	N		X		X			X		X	X	X	-01 "
[redacted]			G	W	2	N		X		X			X		X	X	X	"
[redacted]			G	W	2	N		X		X			X		X	X	X	"
FC-CCR-MW52-1121	11/13/2021	9:23	G	W	1	Y			X					X				-02 "
FC-CCR-MW61-1121	11/13/2021	10:35	G	W	2	N		X			X		X		X	X	X	X -03 "
			G	W	2	N		X		X			X		X	X	X	-04 " AG
FC-CCR-MW75-1121	11/13/2021	11:23	G	W	2	N		X			X		X		X	X	X	X -05 -04 11/16/21
[redacted]			G	W	2	N		X			X		X		X	X	X	X "
FC-CCR-FD03-1121	11/13/2021	9:23	G	W	1	N			X					X				-06 -05 "
								1	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

0.2 / 1.8

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]	Wood	11/16/21 07:48			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			[signature]	TA-PHX	11/16/21 15:15

PC

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

174372

Chain of Custody Record

TestAmerica — THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

Client Contact			
Arizona Public Service	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:
PO Box 355, MS 4915	602-250-3608	Lab Contact: Ken Baker	Carrier:
Fruitland, NM 87416	Analysis Turnaround Time		
Phone	☐ CALENDAR DAYS ☑ WORKING DAYS		
FAX	TAT if different from Below ______		
Project Name: CCR Groundwater Monitoring	☑ 2 weeks		
Site: APS Four Corners Power Plant (Multiunit)	☐ 1 week		
PO #: 100613442	☐ 2 days		
	☐ 1 day		

COC No: 2 of 2 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)	[redacted]												Sample Specific Notes:
~~FC-CCR-MW07-1121~~			G	W	2	N	N	X				X		X		X	X		X	Low Flow
~~FC-CCR-FD04-1121~~			G	W	2	N	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	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

0.2 | 1.8°C

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: ______ Corr'd: ______ Therm ID No.: ______		
Relinquished by: [signature]	Company: Wood	Date/Time: 11/16/21 07:48	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TA-PHX	Date/Time: 11/16/21 15:15

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd Suite 189
Phoenix, AZ 85040
Phone: 602-437-3340 Fax: 602-454-9303

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Baker, Ken	Carrier Tracking No(s):	COC No: 550-32385.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Baker@Eurofinset.com	State of Origin: Arizona	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Arizona		Job #: 550-174372-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 11/30/2021			
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 #: 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, 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_TOT Lithium-ICP	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
FC-CCR-MW49A-1121 (550-174372-1)	11/15/21	08:43 Arizona		Water			X	1	AZ Sample
FC-CCR-MW52-1121 (550-174372-2)	11/13/21	09:23 Arizona		Water			X	1	AZ Sample
FC-CCR-MW61-1121 (550-174372-3)	11/13/21	10:35 Arizona		Water			X	1	AZ Sample
FC-CCR-MW75-1121 (550-174372-4)	11/13/21	11:23 Arizona		Water			X	1	AZ Sample
FC-CCR-FD03-1121 (550-174372-5)	11/13/21	09:23 Arizona		Water			X	1	AZ Sample

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

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
Nick Sund	11/17/21 1400	EMA PHX	FED EX		
Relinquished by: FedEx	Date/Time:	Company	Received by:	Date/Time: 11/18/2021 1030	Company ETA PHX
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 1754911	Cooler Temperature(s) °C and Other Remarks: 2.1 BR# 11 +1.0

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-174372-1
SDG Number: APS Four Corners Power Plant (Multiunit)

Login Number: 174372
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins TestAmerica, 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: 550-174372-1
SDG Number: APS Four Corners Power Plant (Multiunit)

Login Number: 174372
List Number: 2
Creator: Rystrom, Joshua R

List Source: Eurofins TestAmerica, Denver
List Creation: 11/18/21 05:14 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.	False	Limited volume received.
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	

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 18, 2021
Sample Received: November 22, 2021
Analysis Completed: December 15, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW07-1121	< 0.3	1.6 ± 0.3	1.6 ± 0.3

Date of Analysis	11/24/2021	11/24/2021	11/24/2021

12/15/2021

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 18, 2021 (Sample Date) 12:51 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	1.6 ± 0.3		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	< 0.3		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	1.6 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67832

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. (480) 897-9459

Comments: FC-CCR-MW07-1121

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 18, 2021
Sample Received: November 22, 2021
Analysis Completed: December 15, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW08-1121	0.4 ± 0.1	0.9 ± 0.3	1.3 ± 0.3

Date of Analysis	11/24/2021	11/24/2021	11/24/2021

12/15/2021

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 18, 2021 (Sample Date) 11:54 (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

☐ 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	1.3 ± 0.3		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.4 ± 0.1		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	0.9 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67833

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. (480) 897-9459

Comments: FC-CCR-MW08-1121

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, 2021
Sample Received: November 22, 2021
Analysis Completed: December 15, 2021

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-1121	< 0.3	1.3 ± 0.3	1.3 ± 0.3

Date of Analysis	11/24/2021	11/24/2021	11/24/2021

12/15/2021

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, 2021 (Sample Date) 8:43 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	1.3 ± 0.3		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	< 0.3		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	1.3 ± 0.3		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67834

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. (480) 897-9459

Comments: FC-CCR-MW49A-1121

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 13, 2021
Sample Received: November 22, 2021
Analysis Completed: December 15, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW61-1121	0.6 ± 0.2	< 0.6	0.6 ± 0.2

Date of Analysis	11/24/2021	11/24/2021	11/24/2021

12/15/2021

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 13, 2021 (Sample Date) 10:35 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	< 0.6		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67835

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. (480) 897-9459

Comments: FC-CCR-MW61-1121

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 13, 2021
Sample Received: November 22, 2021
Analysis Completed: December 15, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW75-1121	< 0.3	0.8 ± 0.3	0.8 ± 0.3

Date of Analysis	11/24/2021	11/24/2021	11/24/2021

12/15/2021

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 13, 2021 (Sample Date) 11:23 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	0.8 ± 0.3		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	< 0.3		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	0.8 ± 0.3		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67836

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. (480) 897-9459

Comments: FC-CCR-MW75-1121

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 17, 2021
Sample Received: November 22, 2021
Analysis Completed: December 15, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW87-1121	0.6 ± 0.2	< 0.7	0.6 ± 0.2

Date of Analysis	11/24/2021	11/24/2021	11/24/2021

12/15/2021

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 17, 2021 (Sample Date) 12:56 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	< 0.7		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67837

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. (480) 897-9459

Comments: FC-CCR-MW87-1121

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 17, 2021
Sample Received: November 22, 2021
Analysis Completed: December 15, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-FD04-1121	0.7 ± 0.2	< 0.7	0.7 ± 0.2

Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Robert L. Metzger, Ph.D., C.H.P. 12/15/2021
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 17, 2021 (Sample Date) 12:56 (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

☐ 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	< 0.7		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

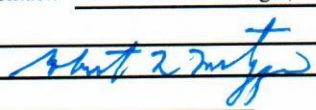
Specimen Number: RSE67838

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. (480) 897-9459

Comments: FC-CCR-FD04-1121

Authorized Signature: 

Date Public Water System Notified: _____

DWAR 6: 11/2007

Client Information

Name:	Natalie Chrisman/602-250-3608 Jim Edwards/928-288-1241
Company	Arizona Public Service
Address	PO Box 355, MS 4915 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-MW07-1121	11/18/2021	12:51	GW						X	X	X						67832
FC-CCR-MW08-1121	11/18/2021	11:54	GW						X	X	X						67833
FC-CCR-MW49A-1121	11/15/2021	8:43	GW						X	X	X						67834
FC-CCR-MW61-1121	11/13/2021	10:35	GW						X	X	X						67835
FC-CCR-MW75-1121	11/13/2021	11:23	GW						X	X	X						67836

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO#: 100611133

Instructions/Comments
Method HPGe

Relinquished By:	Company: Wood	Date/time: 11/22/21 09:58	Received By: Pat Flannery	Company: RSE	Date/time: 11.22.21 9:58
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:	Natalie Chrisman/602-250-3608 Jim Edwards/928-288-1241
Company	Arizona Public Service
Address	PO Box 355, MS 4915 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-MW87-1121	11/17/2021	12:56	GW						X	X	X					67837
FC-CCR-FD04-1121	11/17/2021	12:56	GW						X	X	X					67838

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO#: 100611133

Instructions/Comments
Method HPGe

Relinquished By:	Company:	Date/time: 11/22/21 09:58	Received By:		Company: RSE	Date/time: 11-22-21 9:58
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

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-162771-1
Laboratory SDG: APS Four Corners Power plant
Client Project/Site: CCR Groundwater Monitoring

For:
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Attn: Jim Edwards

Authorized for release by:
5/12/2021 3:44:48 PM

Ken Baker, Project Manager II
(602)659-7624
Ken.Baker@Eurofinset.com

LINKS

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Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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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.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
L3	The associated blank spike recovery was above 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.

Metals

Qualifier	Qualifier Description
B3	Target analyte detected in calibration 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.
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of analyte.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
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.

General Chemistry

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
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.

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: 550-162771-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-162771-1

Comments
No additional comments.

Receipt
The samples were received on 4/28/2021 4:44 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 0.3º C and 1.8º C.

HPLC/IC
Method 300.0: Spike compounds were inadvertently omitted during the preparation process for the matrix spike/matrix spike duplicate (MS/MSD) for Anions by method EPA 300.0; therefore, matrix spike recoveries are unavailable for 550-241950. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) met acceptance criteria.

Method 300.0: The laboratory control sample (LCS) associated with 550-241876 was outside acceptance criteria for Chloride. Re-analysis could not be performed; therefore, the data have been reported. The results for the associated laboratory control sample duplicate (LCSD) and matrix spike/matrix spike duplicate (MS/MSD) samples were within acceptance limits and may be used to evaluate matrix performance. As such, data have been reported and qualified with L3 flags.

Method 300.0: The following sample was diluted for Fluoride due to the nature of the sample matrix: FC-CCR-DMX03-0421 (550-162771-2). An elevated reporting limit (RL) has been provided.

Method 300.0: The following sample was diluted for Fluoride due to the nature of the sample matrix: FC-CCR-MW15-0421 (550-162771-9). An elevated reporting limit (RL) has been provided.

Method 300.0: The following sample was diluted for Fluoride due to the nature of the sample matrix: FC-CCR-MW18-0421 (550-162771-13). An elevated reporting limit (RL) has been provided.

Method 300.0: The following samples were diluted for Fluoride due to the nature of the sample matrix: FC-CCR-MW23R-0421 (550-162771-16) and FC-CCR-MW56-0421 (550-162771-21). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 200.7 Rev 4.4: The continuing calibration blank (CCB) for analytical batch 550-241269 contained Boron 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.

Method 200.7 Rev 4.4: The following sample was diluted due to the nature of the sample matrix: FC-CCR-MW21-0421 (550-162771-15). Elevated reporting limits (RLs) are provided.

Method 200.7 Rev 4.4: The following samples were diluted to bring the concentration of target analytes within the calibration range: FC-CCR-DMX03-0421 (550-162771-2), FC-CCR-DMX04-0421 (550-162771-3), FC-CCR-DMX06-0421 (550-162771-4), FC-CCR-MW05-0421 (550-162771-7), FC-CCR-MW06-0421 (550-162771-8), FC-CCR-MW15-0421 (550-162771-9), FC-CCR-MW16-0421 (550-162771-10), FC-CCR-MW17R-0421 (550-162771-12), FC-CCR-MW18-0421 (550-162771-13), FC-CCR-MW19-0421 (550-162771-14), FC-CCR-MW23R-0421 (550-162771-16), FC-CCR-MW24-0421 (550-162771-17), FC-CCR-MW36R-0421 (550-162771-19) and FC-CCR-MW384R-0421 (550-162771-20). Elevated reporting limits (RLs) are provided.

Method 200.7 Rev 4.4: The following sample was diluted to bring the concentration of target analytes within the calibration range: FC-CCR-MW56-0421 (550-162771-21). Elevated reporting limits (RLs) are provided.

Method 200.8 LL: The continuing calibration blank (CCB) for analytical batch 550-242137 contained Chromium 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.

Job ID: 550-162771-1 (Continued)

Laboratory: Eurofins TestAmerica, Phoenix (Continued)

Method 200.8 LL: The continuing calibration blank (CCB) for analytical batch 550-242138 contained Chromium 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.

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: 550-162771-1
SDG: APS Four Corners Power plant

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-162771-1	FC-CCR-DMX01-0421	Water	04/25/21 10:04	04/28/21 16:44	
550-162771-2	FC-CCR-DMX03-0421	Water	04/25/21 13:45	04/28/21 16:44	
550-162771-3	FC-CCR-DMX04-0421	Water	04/25/21 15:24	04/28/21 16:44	
550-162771-4	FC-CCR-DMX06-0421	Water	04/27/21 10:12	04/28/21 16:44	
550-162771-5	FC-CCR-MW01-0421	Water	04/24/21 10:03	04/28/21 16:44	
550-162771-6	FC-CCR-MW03-0421	Water	04/24/21 10:46	04/28/21 16:44	
550-162771-7	FC-CCR-MW05-0421	Water	04/25/21 14:37	04/28/21 16:44	
550-162771-8	FC-CCR-MW06-0421	Water	04/26/21 14:44	04/28/21 16:44	
550-162771-9	FC-CCR-MW15-0421	Water	04/27/21 10:56	04/28/21 16:44	
550-162771-10	FC-CCR-MW16-0421	Water	04/27/21 11:43	04/28/21 16:44	
550-162771-11	FC-CCR-FD03-0421	Water	04/24/21 10:03	04/28/21 16:44	
550-162771-12	FC-CCR-MW17R-0421	Water	04/25/21 16:53	04/28/21 16:44	
550-162771-13	FC-CCR-MW18-0421	Water	04/25/21 16:18	04/28/21 16:44	
550-162771-14	FC-CCR-MW19-0421	Water	04/25/21 10:53	04/28/21 16:44	
550-162771-15	FC-CCR-MW21-0421	Water	04/24/21 11:36	04/28/21 16:44	
550-162771-16	FC-CCR-MW23R-0421	Water	04/25/21 12:06	04/28/21 16:44	
550-162771-17	FC-CCR-MW24-0421	Water	04/26/21 13:50	04/28/21 16:44	
550-162771-18	FC-CCR-MW30-0421	Water	04/25/21 09:24	04/28/21 16:44	
550-162771-19	FC-CCR-MW36R-0421	Water	04/25/21 13:00	04/28/21 16:44	
550-162771-20	FC-CCR-MW384R-0421	Water	04/27/21 07:36	04/28/21 16:44	
550-162771-21	FC-CCR-MW56-0421	Water	04/26/21 11:41	04/28/21 16:44	
550-162771-22	FC-CCR-FD05-0421	Water	04/25/21 10:53	04/28/21 16:44	
550-162771-23	FC-CCR-MW57-0421	Water	04/27/21 08:26	04/28/21 16:44	
550-162771-24	FC-CCR-MW60-0421	Water	04/24/21 09:30	04/28/21 16:44	
550-162771-25	FC-CCR-MW77S-0421	Water	04/24/21 13:51	04/28/21 16:44	
550-162771-26	FC-CCR-MW78S-0421	Water	04/24/21 14:57	04/28/21 16:44	
550-162771-27	FC-CCR-MW79S-0421	Water	04/24/21 16:29	04/28/21 16:44	
550-162771-28	FC-CCR-MW81-0421	Water	04/24/21 15:38	04/28/21 16:44	
550-162771-29	FC-CCR-FD061-0421	Water	04/24/21 15:38	04/28/21 16:44	
550-162771-30	FC-CCR-SUMP1-0421	Water	04/23/21 08:01	04/28/21 16:44	
550-162771-31	FC-CCR-SUMP2-0421	Water	04/23/21 09:38	04/28/21 16:44	
550-162771-32	FC-CCR-SUMP3-0421	Water	04/23/21 09:10	04/28/21 16:44	
550-162771-33	FC-CCR-SUMP7-0421	Water	04/23/21 10:17	04/28/21 16:44	
550-162771-34	FC-CCR-SUMP8-0421	Water	04/23/21 09:55	04/28/21 16:44	
550-162771-35	FC-CCR-SUMP9-0421	Water	04/23/21 10:27	04/28/21 16:44	
550-162771-36	FC-CCR-SUMP10-0421	Water	04/23/21 10:35	04/28/21 16:44	
550-162771-37	FC-CCR-SUMP11-0421	Water	04/23/21 10:42	04/28/21 16:44	
550-162771-38	FC-CCR-SUMP12-0421	Water	04/23/21 10:51	04/28/21 16:44	
550-162771-39	FC-CCR-SUMP13-0421	Water	04/23/21 11:01	04/28/21 16:44	
550-162771-40	FC-CCR-SUMP14-0421	Water	04/23/21 11:10	04/28/21 16:44	
550-162771-41	FC-CCR-SUMP15-0421	Water	04/23/21 11:08	04/28/21 16:44	
550-162771-42	FC-CCR-SUMP16-0421	Water	04/23/21 11:29	04/28/21 16:44	
550-162771-43	FC-CCR-SUMP17-0421	Water	04/23/21 11:36	04/28/21 16:44	
550-162771-44	FC-CCR-SUMP18-0421	Water	04/23/21 11:46	04/28/21 16:44	

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162771-1
SDG: APS Four Corners Power plant

Client Sample ID: FC-CCR-DMX01-0421 — Lab Sample ID: 550-162771-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	89		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.00089	D1 E4	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.014	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-DMX03-0421 — Lab Sample ID: 550-162771-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1100	D2 L3	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.17	E4	0.40	0.047	mg/L	1		300.0	Total/NA
Sulfate	13000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	1.2		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.92		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	470		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.44		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	2000	D2	10	0.22	mg/L	5		200.7 Rev 4.4	Total/NA
Manganese	0.30		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	72		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	3100	D2	2.5	0.15	mg/L	5		200.7 Rev 4.4	Total/NA
Antimony	0.00033	D1 E4	0.0040	0.00017	mg/L	4		200.8 LL	Total/NA
Barium	0.018	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00012	D1 E4	0.00040	0.000092	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0015	D1 E4	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Lead	0.0022	D1	0.0020	0.00088	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0011	D1 E4	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.012	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00048	D1	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Alkalinity as CaCO3	750		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	750		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	20000	D2	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	6.1	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-DMX04-0421 — Lab Sample ID: 550-162771-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	660	D2 L3	200	52	mg/L	100		300.0	Total/NA
Fluoride	0.89		0.40	0.047	mg/L	1		300.0	Total/NA
Sulfate	8500	D2	200	43	mg/L	100		300.0	Total/NA
Lithium	0.66		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	2.7		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	440		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.12		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	840		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.32		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	47		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2800	D2	2.5	0.15	mg/L	5		200.7 Rev 4.4	Total/NA
Antimony	0.00039	D1 E4	0.0040	0.00017	mg/L	4		200.8 LL	Total/NA
Barium	0.0078	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00020	D1 E4	0.00040	0.000092	mg/L	4		200.8 LL	Total/NA
Cobalt	0.00058	D1 E4	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Lead	0.0019	D1 E4	0.0020	0.00088	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.010	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample ID: FC-CCR-DMX04-0421 (Continued) — Lab Sample ID: 550-162771-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.016	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00028	D1 E4	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Alkalinity as CaCO3	410		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	410		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	14000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	6.4	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-DMX06-0421 — Lab Sample ID: 550-162771-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	630	D2 L3	200	52	mg/L	100		300.0	Total/NA
Fluoride	0.36	E4	0.40	0.047	mg/L	1		300.0	Total/NA
Sulfate	6900	D2	200	43	mg/L	100		300.0	Total/NA
Lithium	0.76		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	6.5		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	410		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.10		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	610		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.76		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	46		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2300	D2	2.5	0.15	mg/L	5		200.7 Rev 4.4	Total/NA
Antimony	0.00017	D1 E4	0.0040	0.00017	mg/L	4		200.8 LL	Total/NA
Barium	0.013	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00022	D1 E4	0.00040	0.000092	mg/L	4		200.8 LL	Total/NA
Cobalt	0.00046	D1 E4	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Lead	0.0018	D1 E4	0.0020	0.00088	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0032	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.0029	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.000080	D1 E4	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Alkalinity as CaCO3	430		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	430		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	12000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	6.9	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW01-0421 — Lab Sample ID: 550-162771-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	56		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.066	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.031	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW03-0421 — Lab Sample ID: 550-162771-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	7.8		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.00054	D1 E4	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0022	D1	0.0020	0.00081	mg/L	4		200.8 LL	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: 550-162771-1
SDG: APS Four Corners Power plant

Client Sample ID: FC-CCR-MW05-0421 — Lab Sample ID: 550-162771-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4400	D2 L3	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.52	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	15000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	2.2		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	1.2		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	510		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.26		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	1500	D2	4.0	0.089	mg/L	2		200.7 Rev 4.4	Total/NA
Manganese	1.6		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	100		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	6500	D2	5.0	0.31	mg/L	10		200.7 Rev 4.4	Total/NA
Cobalt	0.0094	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0024	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Alkalinity as CaCO3	900		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	900		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	26000	D2	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	5.9	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW06-0421 — Lab Sample ID: 550-162771-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2500	D2	1000	260	mg/L	500		300.0	Total/NA
Fluoride	0.58	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	20000	D2	1000	210	mg/L	500		300.0	Total/NA
Lithium	2.1		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	5.8		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	490		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	4.7		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	1600	D2	4.0	0.089	mg/L	2		200.7 Rev 4.4	Total/NA
Manganese	4.1		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	100		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	7400	D2	5.0	0.31	mg/L	10		200.7 Rev 4.4	Total/NA
Antimony	0.00022	D1 E4	0.0040	0.00017	mg/L	4		200.8 LL	Total/NA
Arsenic	0.0014	D1 E4	0.0020	0.00099	mg/L	4		200.8 LL	Total/NA
Barium	0.028	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0086	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Lead	0.0019	D1 E4	0.0020	0.00088	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0036	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.0043	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Alkalinity as CaCO3	710		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	710		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	29000	D2	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	6.2	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW15-0421 — Lab Sample ID: 550-162771-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1000	D2 M2	200	52	mg/L	100		300.0	Total/NA
Fluoride	0.27	E4	0.40	0.047	mg/L	1		300.0	Total/NA
Sulfate	6400	D2 M2	200	43	mg/L	100		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW15-0421 (Continued) — Lab Sample ID: 550-162771-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.96		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	7.8		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	470		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.17		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	710		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.0		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	47		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2100	D2	2.5	0.15	mg/L	5		200.7 Rev 4.4	Total/NA
Barium	0.021	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0017	D1 E4	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Lead	0.0019	D1 E4	0.0020	0.00088	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0016	D1 E4	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.0037	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00010	D1 E4	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Alkalinity as CaCO3	700		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	700		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	11000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	5.8	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW16-0421 — Lab Sample ID: 550-162771-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	780	D2	200	52	mg/L	100		300.0	Total/NA
Fluoride	0.19	E4	0.40	0.047	mg/L	1		300.0	Total/NA
Sulfate	11000	D2	200	43	mg/L	100		300.0	Total/NA
Lithium	1.3		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	7.9		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	420		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	1400	D2	4.0	0.089	mg/L	2		200.7 Rev 4.4	Total/NA
Potassium	58		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	3100	D2	2.5	0.15	mg/L	5		200.7 Rev 4.4	Total/NA
Barium	0.022	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00020	D1 E4	0.00040	0.000092	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0071	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Lead	0.0021	D1	0.0020	0.00088	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.00088	D1 E4	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.033	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00051	D1	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Alkalinity as CaCO3	650		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	650		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	18000	D2	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	6.2	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-FD03-0421 — Lab Sample ID: 550-162771-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	56		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.070	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.034	D1	0.0020	0.00081	mg/L	4		200.8 LL	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: 550-162771-1
SDG: APS Four Corners Power plant

Client Sample ID: FC-CCR-MW17R-0421 — Lab Sample ID: 550-162771-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	390	D2	200	52	mg/L	100		300.0	Total/NA
Fluoride	0.45		0.40	0.047	mg/L	1		300.0	Total/NA
Sulfate	4000	D2	200	43	mg/L	100		300.0	Total/NA
Lithium	0.42		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	36		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	470		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.094	E4	0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	290		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.83		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	22		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1100	D2	1.0	0.061	mg/L	2		200.7 Rev 4.4	Total/NA
Antimony	0.00027	D1 E4	0.0040	0.00017	mg/L	4		200.8 LL	Total/NA
Barium	0.019	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cadmium	0.0017	D1	0.00040	0.000092	mg/L	4		200.8 LL	Total/NA
Cobalt	0.066	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Lead	0.0043	D1	0.0020	0.00088	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0014	D1 E4	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.0012	D1 E4	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00028	D1 E4	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Alkalinity as CaCO3	140		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	140		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6200	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	6.6	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW18-0421 — Lab Sample ID: 550-162771-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4800	D2	400	100	mg/L	200		300.0	Total/NA
Sulfate	16000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	2.2		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	1.3		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	510		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.41		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	1100	D2	4.0	0.089	mg/L	2		200.7 Rev 4.4	Total/NA
Manganese	2.6		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	110		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	7100	D2	5.0	0.31	mg/L	10		200.7 Rev 4.4	Total/NA
Cobalt	0.012	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0023	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Alkalinity as CaCO3	900		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	900		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	5900	D2	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	6.6	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW19-0421 — Lab Sample ID: 550-162771-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2.0		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.00052		0.00050	0.000063	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0030		0.00050	0.00020	mg/L	1		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162771-1
SDG: APS Four Corners Power plant

Client Sample ID: FC-CCR-MW21-0421 — Lab Sample ID: 550-162771-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	4.5	D1	0.10	0.0051	mg/L	2		200.7 Rev 4.4	Total/NA
Cobalt	0.0052	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0029	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW23R-0421 — Lab Sample ID: 550-162771-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	730	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.27	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	8700	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.91		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	15		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	480		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.18		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	1100	D2	4.0	0.089	mg/L	2		200.7 Rev 4.4	Total/NA
Manganese	0.038		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	41		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1700	D2	2.5	0.15	mg/L	5		200.7 Rev 4.4	Total/NA
Cobalt	0.00092	D1 E4	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0052	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Alkalinity as CaCO3	490		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	490		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	13000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	6.9	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW24-0421 — Lab Sample ID: 550-162771-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5600	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.66	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	14000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	1.5		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	1.0		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	510		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.16		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	220		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.9		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	62		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	7700	D2	5.0	0.31	mg/L	10		200.7 Rev 4.4	Total/NA
Cobalt	0.0021	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.15	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Alkalinity as CaCO3	320		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	320		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	23000	D2	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	7.7	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW30-0421 — Lab Sample ID: 550-162771-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	28		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Client Sample ID: FC-CCR-MW30-0421 (Continued) — Lab Sample ID: 550-162771-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.0025	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0065	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW36R-0421 — Lab Sample ID: 550-162771-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	510	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.29	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	4300	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.61		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	53		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	500		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.072	E4	0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	430		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.25		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	29		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	990	D2	1.0	0.061	mg/L	2		200.7 Rev 4.4	Total/NA
Cobalt	0.26	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0012	D1 E4	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Alkalinity as CaCO3	230		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	230		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6800	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	7.6	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW384R-0421 — Lab Sample ID: 550-162771-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	310	D2 E4	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.33	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	4100	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.39		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	29		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	490		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.080	E4	0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	310		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	20		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	970	D2	1.0	0.061	mg/L	2		200.7 Rev 4.4	Total/NA
Barium	0.013	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00013	D1 E4	0.00040	0.000092	mg/L	4		200.8 LL	Total/NA
Cobalt	0.25	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Lead	0.0020	D1	0.0020	0.00088	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0065	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.0016	D1 E4	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Alkalinity as CaCO3	130		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	130		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	5900	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	7.9	H5	0.1	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: 550-162771-1
SDG: APS Four Corners Power plant

Client Sample ID: FC-CCR-MW56-0421 — Lab Sample ID: 550-162771-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2300	D2	400	100	mg/L	200		300.0	Total/NA
Sulfate	19000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	1.7		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	1.8	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	490		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.26		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	2500	D2	10	0.22	mg/L	5		200.7 Rev 4.4	Total/NA
Manganese	0.016		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	100		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	5100	D2	5.0	0.31	mg/L	10		200.7 Rev 4.4	Total/NA
Antimony	0.00022	D1 E4	0.0040	0.00017	mg/L	4		200.8 LL	Total/NA
Arsenic	0.0013	D1 E4	0.0020	0.00099	mg/L	4		200.8 LL	Total/NA
Barium	0.020	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00029	D1 E4	0.00040	0.000092	mg/L	4		200.8 LL	Total/NA
Cobalt	0.00051	D1 E4	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Lead	0.0019	D1 E4	0.0020	0.00088	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0043	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Selenium	0.28	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.0011	D1	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Alkalinity as CaCO3	800		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	800		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	28000	D2	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	8.0	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-FD05-0421 — Lab Sample ID: 550-162771-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2.0	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0013	D1 E4	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0040	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW57-0421 — Lab Sample ID: 550-162771-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	420	D2	200	52	mg/L	100		300.0	Total/NA
Sulfate	7400	D2	200	43	mg/L	100		300.0	Total/NA
Beryllium	0.00013	E4	0.0010	0.000067	mg/L	1		200.7 Rev 4.4	Total/NA
Lithium	0.77		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.96	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	460	M3	2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.62		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	810	M3	2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.17		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	52		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2000	D2 M3	2.5	0.15	mg/L	5		200.7 Rev 4.4	Total/NA
Antimony	0.00071	D1 E4	0.0040	0.00017	mg/L	4		200.8 LL	Total/NA
Barium	0.018	D1	0.0020	0.0010	mg/L	4		200.8 LL	Total/NA
Cadmium	0.00012	D1 E4	0.00040	0.000092	mg/L	4		200.8 LL	Total/NA
Cobalt	0.0019	D1 E4	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Lead	0.0019	D1 E4	0.0020	0.00088	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0060	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW57-0421 (Continued) — Lab Sample ID: 550-162771-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.0033	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00019	D1 E4	0.00040	0.000053	mg/L	4		200.8 LL	Total/NA
Alkalinity as CaCO3	440		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	440		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	12000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	8.1	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW60-0421 — Lab Sample ID: 550-162771-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	60	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.21	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.16	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW77S-0421 — Lab Sample ID: 550-162771-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	11	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0053	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.028	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW78S-0421 — Lab Sample ID: 550-162771-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1.5	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.019	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.022	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW79S-0421 — Lab Sample ID: 550-162771-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	17	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0038	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.011	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW81-0421 — Lab Sample ID: 550-162771-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	38	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.020	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0072	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-FD061-0421 — Lab Sample ID: 550-162771-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	40	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.020	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0073	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-SUMP1-0421 — Lab Sample ID: 550-162771-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	72	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-SUMP1-0421 (Continued) — Lab Sample ID: 550-162771-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	0.19		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.0088	E4	0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.067	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.13	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-SUMP2-0421 — Lab Sample ID: 550-162771-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	35	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	4.9		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.046		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0024	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0054	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-SUMP3-0421 — Lab Sample ID: 550-162771-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	37	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.21		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.64		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0025	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.017	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-SUMP7-0421 — Lab Sample ID: 550-162771-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	56	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.31		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.052		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.083	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0054	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-SUMP8-0421 — Lab Sample ID: 550-162771-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	43	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.62		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.041	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0032	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-SUMP9-0421 — Lab Sample ID: 550-162771-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	31	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	1.8		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.0019	E4	0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.025	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0023	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-SUMP10-0421 — Lab Sample ID: 550-162771-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	52	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	2.2		0.10	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-SUMP10-0421 (Continued) — Lab Sample ID: 550-162771-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.024		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.19	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.00085	D1 E4	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-SUMP11-0421 — Lab Sample ID: 550-162771-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	36	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.67		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.0011	E4	0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.072	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0055	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-SUMP12-0421 — Lab Sample ID: 550-162771-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	30	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.86		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.052	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-SUMP13-0421 — Lab Sample ID: 550-162771-39

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	33	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.15		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.0018	E4	0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.041	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0064	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-SUMP14-0421 — Lab Sample ID: 550-162771-40

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	31	B3 B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	1.7		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.013		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.11	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.021	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-SUMP15-0421 — Lab Sample ID: 550-162771-41

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	24		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.63		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.088		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.18	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0020	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-SUMP16-0421 — Lab Sample ID: 550-162771-42

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	23		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.14		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.082	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0011	D1 E4	0.0020	0.00081	mg/L	4		200.8 LL	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: 550-162771-1
SDG: APS Four Corners Power plant

Client Sample ID: FC-CCR-SUMP17-0421 — Lab Sample ID: 550-162771-43

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	18		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.29		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.0012	E4	0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0013	D1 E4	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0015	D1 E4	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-SUMP18-0421 — Lab Sample ID: 550-162771-44

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	5.3		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.55		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.032		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0011	D1 E4	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0033	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-DMX01-0421

Lab Sample ID: 550-162771-1
Date Collected: 04/25/21 10:04
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	89		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 21:33	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.00089	D1 E4	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 20:19	4
Molybdenum	0.014	D1	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 20:19	4

Client Sample ID: FC-CCR-DMX03-0421

Lab Sample ID: 550-162771-2
Date Collected: 04/25/21 13:45
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1100	D2 L3	400	100	mg/L			05/08/21 02:47	200
Fluoride	0.17	E4	0.40	0.047	mg/L			05/08/21 02:20	1
Sulfate	13000	D2	400	85	mg/L			05/08/21 02:47	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:47	05/03/21 21:36	1
Lithium	1.2		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 15:17	1
Boron	0.92		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 21:36	1
Calcium	470		2.0	0.013	mg/L		04/29/21 19:47	05/03/21 21:36	1
Iron	0.44		0.10	0.010	mg/L		04/29/21 19:47	05/03/21 21:36	1
Magnesium	2000	D2	10	0.22	mg/L		04/29/21 19:47	05/04/21 17:57	5
Manganese	0.30		0.010	0.00019	mg/L		04/29/21 19:47	05/03/21 21:36	1
Potassium	72		0.50	0.17	mg/L		04/29/21 19:47	05/03/21 21:36	1
Sodium	3100	D2	2.5	0.15	mg/L		04/29/21 19:47	05/04/21 17:57	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00033	D1 E4	0.0040	0.00017	mg/L		04/28/21 21:16	05/11/21 20:21	4
Arsenic	ND	D1 E8	0.0020	0.00099	mg/L		04/28/21 21:16	05/11/21 20:21	4
Barium	0.018	D1	0.0020	0.0010	mg/L		04/28/21 21:16	05/11/21 20:21	4
Cadmium	0.00012	D1 E4	0.00040	0.000092	mg/L		04/28/21 21:16	05/11/21 20:21	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/28/21 21:16	05/11/21 20:21	4
Cobalt	0.0015	D1 E4	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 20:21	4
Lead	0.0022	D1	0.0020	0.00088	mg/L		04/28/21 21:16	05/11/21 20:21	4
Molybdenum	0.0011	D1 E4	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 20:21	4
Selenium	0.012	D1	0.0020	0.00030	mg/L		04/28/21 21:16	05/11/21 20:21	4
Thallium	0.00048	D1	0.00040	0.000053	mg/L		04/28/21 21:16	05/11/21 20:21	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	750		6.0	6.0	mg/L			05/02/21 13:20	1
Bicarbonate Alkalinity as CaCO3	750		6.0	6.0	mg/L			05/02/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Total Dissolved Solids	20000	D2	200	200	mg/L			04/29/21 08:38	1
pH	7.4	H5	1.7	1.7	SU			05/05/21 17:02	1

Client Sample ID: FC-CCR-DMX03-0421

Lab Sample ID: 550-162771-2
Date Collected: 04/25/21 13:45
Matrix: Water
Date Received: 04/28/21 16:44

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature	6.1	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-DMX04-0421

Lab Sample ID: 550-162771-3
Date Collected: 04/25/21 15:24
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	660	D2 L3	200	52	mg/L			05/08/21 04:37	100
Fluoride	0.89		0.40	0.047	mg/L			05/08/21 04:10	1
Sulfate	8500	D2	200	43	mg/L			05/08/21 04:37	100

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:47	05/03/21 22:26	1
Lithium	0.66		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 16:40	1
Boron	2.7		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 22:26	1
Calcium	440		2.0	0.013	mg/L		04/29/21 19:47	05/03/21 22:26	1
Iron	0.12		0.10	0.010	mg/L		04/29/21 19:47	05/03/21 22:26	1
Magnesium	840		2.0	0.044	mg/L		04/29/21 19:47	05/03/21 22:26	1
Manganese	0.32		0.010	0.00019	mg/L		04/29/21 19:47	05/03/21 22:26	1
Potassium	47		0.50	0.17	mg/L		04/29/21 19:47	05/03/21 22:26	1
Sodium	2800	D2	2.5	0.15	mg/L		04/29/21 19:47	05/04/21 18:50	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00039	D1 E4	0.0040	0.00017	mg/L		04/28/21 21:16	05/11/21 20:23	4
Arsenic	ND	D1 E8	0.0020	0.00099	mg/L		04/28/21 21:16	05/11/21 20:23	4
Barium	0.0078	D1	0.0020	0.0010	mg/L		04/28/21 21:16	05/11/21 20:23	4
Cadmium	0.00020	D1 E4	0.00040	0.000092	mg/L		04/28/21 21:16	05/11/21 20:23	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/28/21 21:16	05/11/21 20:23	4
Cobalt	0.00058	D1 E4	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 20:23	4
Lead	0.0019	D1 E4	0.0020	0.00088	mg/L		04/28/21 21:16	05/11/21 20:23	4
Molybdenum	0.010	D1	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 20:23	4
Selenium	0.016	D1	0.0020	0.00030	mg/L		04/28/21 21:16	05/11/21 20:23	4
Thallium	0.00028	D1 E4	0.00040	0.000053	mg/L		04/28/21 21:16	05/11/21 20:23	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	410		6.0	6.0	mg/L			04/29/21 19:22	1
Bicarbonate Alkalinity as CaCO3	410		6.0	6.0	mg/L			04/29/21 19:22	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 19:22	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			04/29/21 19:22	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 19:22	1
Total Dissolved Solids	14000	D2	100	100	mg/L			04/29/21 08:38	1
pH	7.7	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	6.4	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-DMX06-0421

Lab Sample ID: 550-162771-4
Date Collected: 04/27/21 10:12
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	630	D2 L3	200	52	mg/L			05/08/21 05:32	100
Fluoride	0.36	E4	0.40	0.047	mg/L			05/08/21 05:04	1
Sulfate	6900	D2	200	43	mg/L			05/08/21 05:32	100

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:47	05/03/21 21:40	1
Lithium	0.76		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 21:11	1
Boron	6.5		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 21:40	1
Calcium	410		2.0	0.013	mg/L		04/29/21 19:47	05/03/21 21:40	1
Iron	0.10		0.10	0.010	mg/L		04/29/21 19:47	05/03/21 21:40	1
Magnesium	610		2.0	0.044	mg/L		04/29/21 19:47	05/03/21 21:40	1
Manganese	0.76		0.010	0.00019	mg/L		04/29/21 19:47	05/03/21 21:40	1
Potassium	46		0.50	0.17	mg/L		04/29/21 19:47	05/03/21 21:40	1
Sodium	2300	D2	2.5	0.15	mg/L		04/29/21 19:47	05/04/21 18:00	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00017	D1 E4	0.0040	0.00017	mg/L		04/28/21 21:16	05/11/21 20:25	4
Arsenic	ND	D1 E8	0.0020	0.00099	mg/L		04/28/21 21:16	05/11/21 20:25	4
Barium	0.013	D1	0.0020	0.0010	mg/L		04/28/21 21:16	05/11/21 20:25	4
Cadmium	0.00022	D1 E4	0.00040	0.000092	mg/L		04/28/21 21:16	05/11/21 20:25	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/28/21 21:16	05/11/21 20:25	4
Cobalt	0.00046	D1 E4	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 20:25	4
Lead	0.0018	D1 E4	0.0020	0.00088	mg/L		04/28/21 21:16	05/11/21 20:25	4
Molybdenum	0.0032	D1	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 20:25	4
Selenium	0.0029	D1	0.0020	0.00030	mg/L		04/28/21 21:16	05/11/21 20:25	4
Thallium	0.000080	D1 E4	0.00040	0.000053	mg/L		04/28/21 21:16	05/11/21 20:25	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	430		6.0	6.0	mg/L			04/29/21 19:32	1
Bicarbonate Alkalinity as CaCO3	430		6.0	6.0	mg/L			04/29/21 19:32	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 19:32	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			04/29/21 19:32	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 19:32	1
Total Dissolved Solids	12000	D2	100	100	mg/L			04/29/21 08:40	1
pH	7.3	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	6.9	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW01-0421

Lab Sample ID: 550-162771-5
Date Collected: 04/24/21 10:03
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	56		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 21:44	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.066	D1	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 20:27	4

Client Sample ID: FC-CCR-MW01-0421

Lab Sample ID: 550-162771-5
Matrix: Water
Date Collected: 04/24/21 10:03
Date Received: 04/28/21 16:44

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	0.031	D1	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 20:27	4

Client Sample ID: FC-CCR-MW03-0421

Lab Sample ID: 550-162771-6
Matrix: Water
Date Collected: 04/24/21 10:46
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	7.8		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 21:48	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.00054	D1 E4	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 20:29	4
Molybdenum	0.0022	D1	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 20:29	4

Client Sample ID: FC-CCR-MW05-0421

Lab Sample ID: 550-162771-7
Matrix: Water
Date Collected: 04/25/21 14:37
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4400	D2 L3	400	100	mg/L			05/08/21 06:27	200
Fluoride	0.52	D1 E4	0.80	0.095	mg/L			05/08/21 05:59	2
Sulfate	15000	D2	400	85	mg/L			05/08/21 06:27	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:47	05/03/21 21:52	1
Lithium	2.2		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 16:43	1
Boron	1.2		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 21:52	1
Calcium	510		2.0	0.013	mg/L		04/29/21 19:47	05/03/21 21:52	1
Iron	0.26		0.10	0.010	mg/L		04/29/21 19:47	05/03/21 21:52	1
Magnesium	1500	D2	4.0	0.089	mg/L		04/29/21 19:47	05/04/21 18:08	2
Manganese	1.6		0.010	0.00019	mg/L		04/29/21 19:47	05/03/21 21:52	1
Potassium	100		0.50	0.17	mg/L		04/29/21 19:47	05/03/21 21:52	1
Sodium	6500	D2	5.0	0.31	mg/L		04/29/21 19:47	05/04/21 18:04	10

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0094	D1	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 20:31	4
Molybdenum	0.0024	D1	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 20:31	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	900		6.0	6.0	mg/L			05/02/21 13:20	1
Bicarbonate Alkalinity as CaCO3	900		6.0	6.0	mg/L			05/02/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Total Dissolved Solids	26000	D2	200	200	mg/L			04/29/21 08:38	1
pH	7.2	H5	1.7	1.7	SU			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW05-0421

Lab Sample ID: 550-162771-7
Date Collected: 04/25/21 14:37
Matrix: Water
Date Received: 04/28/21 16:44

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature	5.9	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW06-0421

Lab Sample ID: 550-162771-8
Date Collected: 04/26/21 14:44
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2500	D2	1000	260	mg/L			05/10/21 22:18	500
Fluoride	0.58	D1 E4	0.80	0.095	mg/L			05/10/21 21:50	2
Sulfate	20000	D2	1000	210	mg/L			05/10/21 22:18	500

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:47	05/03/21 21:55	1
Lithium	2.1		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 19:40	1
Boron	5.8		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 21:55	1
Calcium	490		2.0	0.013	mg/L		04/29/21 19:47	05/03/21 21:55	1
Iron	4.7		0.10	0.010	mg/L		04/29/21 19:47	05/03/21 21:55	1
Magnesium	1600	D2	4.0	0.089	mg/L		04/29/21 19:47	05/04/21 18:16	2
Manganese	4.1		0.010	0.00019	mg/L		04/29/21 19:47	05/03/21 21:55	1
Potassium	100		0.50	0.17	mg/L		04/29/21 19:47	05/03/21 21:55	1
Sodium	7400	D2	5.0	0.31	mg/L		04/29/21 19:47	05/04/21 18:12	10

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00022	D1 E4	0.0040	0.00017	mg/L		04/28/21 21:16	05/11/21 20:33	4
Arsenic	0.0014	D1 E4	0.0020	0.00099	mg/L		04/28/21 21:16	05/11/21 20:33	4
Barium	0.028	D1	0.0020	0.0010	mg/L		04/28/21 21:16	05/11/21 20:33	4
Cadmium	ND	D1 E8	0.00040	0.000092	mg/L		04/28/21 21:16	05/11/21 20:33	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/28/21 21:16	05/11/21 20:33	4
Cobalt	0.0086	D1	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 20:33	4
Lead	0.0019	D1 E4	0.0020	0.00088	mg/L		04/28/21 21:16	05/11/21 20:33	4
Molybdenum	0.0036	D1	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 20:33	4
Selenium	0.0043	D1	0.0020	0.00030	mg/L		04/28/21 21:16	05/11/21 20:33	4
Thallium	ND	D1 E8	0.00040	0.000053	mg/L		04/28/21 21:16	05/11/21 20:33	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	710		6.0	6.0	mg/L			04/29/21 19:57	1
Bicarbonate Alkalinity as CaCO3	710		6.0	6.0	mg/L			04/29/21 19:57	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 19:57	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			04/29/21 19:57	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 19:57	1
Total Dissolved Solids	29000	D2	200	200	mg/L			04/29/21 08:40	1
pH	7.5	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	6.2	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW15-0421

Lab Sample ID: 550-162771-9

Date Collected: 04/27/21 10:56
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1000	D2 M2	200	52	mg/L			05/10/21 16:49	100
Fluoride	0.27	E4	0.40	0.047	mg/L			05/10/21 16:21	1
Sulfate	6400	D2 M2	200	43	mg/L			05/10/21 16:49	100

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:47	05/03/21 21:59	1
Lithium	0.96		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 17:04	1
Boron	7.8		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 21:59	1
Calcium	470		2.0	0.013	mg/L		04/29/21 19:47	05/03/21 21:59	1
Iron	0.17		0.10	0.010	mg/L		04/29/21 19:47	05/03/21 21:59	1
Magnesium	710		2.0	0.044	mg/L		04/29/21 19:47	05/03/21 21:59	1
Manganese	1.0		0.010	0.00019	mg/L		04/29/21 19:47	05/03/21 21:59	1
Potassium	47		0.50	0.17	mg/L		04/29/21 19:47	05/03/21 21:59	1
Sodium	2100	D2	2.5	0.15	mg/L		04/29/21 19:47	05/04/21 18:19	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0040	0.00017	mg/L		04/28/21 21:16	05/11/21 20:35	4
Arsenic	ND	D1 E8	0.0020	0.00099	mg/L		04/28/21 21:16	05/11/21 20:35	4
Barium	0.021	D1	0.0020	0.0010	mg/L		04/28/21 21:16	05/11/21 20:35	4
Cadmium	ND	D1 E8	0.00040	0.000092	mg/L		04/28/21 21:16	05/11/21 20:35	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/28/21 21:16	05/11/21 20:35	4
Cobalt	0.0017	D1 E4	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 20:35	4
Lead	0.0019	D1 E4	0.0020	0.00088	mg/L		04/28/21 21:16	05/11/21 20:35	4
Molybdenum	0.0016	D1 E4	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 20:35	4
Selenium	0.0037	D1	0.0020	0.00030	mg/L		04/28/21 21:16	05/11/21 20:35	4
Thallium	0.00010	D1 E4	0.00040	0.000053	mg/L		04/28/21 21:16	05/11/21 20:35	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	700		6.0	6.0	mg/L			04/29/21 20:09	1
Bicarbonate Alkalinity as CaCO3	700		6.0	6.0	mg/L			04/29/21 20:09	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 20:09	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			04/29/21 20:09	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 20:09	1
Total Dissolved Solids	11000	D2	100	100	mg/L			04/29/21 08:40	1
pH	7.2	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	5.8	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW16-0421

Lab Sample ID: 550-162771-10

Date Collected: 04/27/21 11:43
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	780	D2	200	52	mg/L			05/08/21 09:38	100
Fluoride	0.19	E4	0.40	0.047	mg/L			05/08/21 09:11	1
Sulfate	11000	D2	200	43	mg/L			05/08/21 09:38	100

Client Sample ID: FC-CCR-MW16-0421

Lab Sample ID: 550-162771-10
Matrix: Water
Date Collected: 04/27/21 11:43
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:47	05/03/21 22:03	1
Lithium	**1.3**		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 17:07	1
Boron	**7.9**		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 22:03	1
Calcium	**420**		2.0	0.013	mg/L		04/29/21 19:47	05/03/21 22:03	1
Magnesium	**1400**	**D2**	4.0	0.089	mg/L		04/29/21 19:47	05/04/21 18:35	2
Potassium	**58**		0.50	0.17	mg/L		04/29/21 19:47	05/03/21 22:03	1
Sodium	**3100**	**D2**	2.5	0.15	mg/L		04/29/21 19:47	05/04/21 18:23	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0040	0.00017	mg/L		04/28/21 21:16	05/11/21 20:38	4
Arsenic	ND	D1 E8	0.0020	0.00099	mg/L		04/28/21 21:16	05/11/21 20:38	4
Barium	**0.022**	**D1**	0.0020	0.0010	mg/L		04/28/21 21:16	05/11/21 20:38	4
Cadmium	**0.00020**	**D1 E4**	0.00040	0.000092	mg/L		04/28/21 21:16	05/11/21 20:38	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/28/21 21:16	05/11/21 20:38	4
Cobalt	**0.0071**	**D1**	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 20:38	4
Lead	**0.0021**	**D1**	0.0020	0.00088	mg/L		04/28/21 21:16	05/11/21 20:38	4
Molybdenum	**0.00088**	**D1 E4**	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 20:38	4
Selenium	**0.033**	**D1**	0.0020	0.00030	mg/L		04/28/21 21:16	05/11/21 20:38	4
Thallium	**0.00051**	**D1**	0.00040	0.000053	mg/L		04/28/21 21:16	05/11/21 20:38	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**650**		6.0	6.0	mg/L			04/29/21 20:21	1
Bicarbonate Alkalinity as CaCO3	**650**		6.0	6.0	mg/L			04/29/21 20:21	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 20:21	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			04/29/21 20:21	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 20:21	1
Total Dissolved Solids	**18000**	**D2**	200	200	mg/L			04/29/21 08:40	1
pH	**7.3**	**H5**	1.7	1.7	SU			05/05/21 17:02	1
Temperature	**6.2**	**H5**	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-FD03-0421

Lab Sample ID: 550-162771-11
Matrix: Water
Date Collected: 04/24/21 10:03
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**56**		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 22:14	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	**0.070**	**D1**	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 20:44	4
Molybdenum	**0.034**	**D1**	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 20:44	4

Client Sample ID: FC-CCR-MW17R-0421

Lab Sample ID: 550-162771-12
Date Collected: 04/25/21 16:53
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	390	D2	200	52	mg/L			05/10/21 18:39	100
Fluoride	0.45		0.40	0.047	mg/L			05/10/21 18:11	1
Sulfate	4000	D2	200	43	mg/L			05/10/21 18:39	100

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:47	05/03/21 22:18	1
Lithium	0.42		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 17:10	1
Boron	36		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 22:18	1
Calcium	470		2.0	0.013	mg/L		04/29/21 19:47	05/03/21 22:18	1
Iron	0.094	E4	0.10	0.010	mg/L		04/29/21 19:47	05/03/21 22:18	1
Magnesium	290		2.0	0.044	mg/L		04/29/21 19:47	05/03/21 22:18	1
Manganese	0.83		0.010	0.00019	mg/L		04/29/21 19:47	05/03/21 22:18	1
Potassium	22		0.50	0.17	mg/L		04/29/21 19:47	05/03/21 22:18	1
Sodium	1100	D2	1.0	0.061	mg/L		04/29/21 19:47	05/04/21 18:38	2

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00027	D1 E4	0.0040	0.00017	mg/L		04/28/21 21:16	05/11/21 20:46	4
Arsenic	ND	D1 E8	0.0020	0.00099	mg/L		04/28/21 21:16	05/11/21 20:46	4
Barium	0.019	D1	0.0020	0.0010	mg/L		04/28/21 21:16	05/11/21 20:46	4
Cadmium	0.0017	D1	0.00040	0.000092	mg/L		04/28/21 21:16	05/11/21 20:46	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/28/21 21:16	05/11/21 20:46	4
Cobalt	0.066	D1	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 20:46	4
Lead	0.0043	D1	0.0020	0.00088	mg/L		04/28/21 21:16	05/11/21 20:46	4
Molybdenum	0.0014	D1 E4	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 20:46	4
Selenium	0.0012	D1 E4	0.0020	0.00030	mg/L		04/28/21 21:16	05/11/21 20:46	4
Thallium	0.00028	D1 E4	0.00040	0.000053	mg/L		04/28/21 21:16	05/11/21 20:46	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	140		6.0	6.0	mg/L			04/29/21 20:30	1
Bicarbonate Alkalinity as CaCO3	140		6.0	6.0	mg/L			04/29/21 20:30	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 20:30	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			04/29/21 20:30	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 20:30	1
Total Dissolved Solids	6200	D2	100	100	mg/L			04/29/21 08:38	1
pH	7.6	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	6.6	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW18-0421

Lab Sample ID: 550-162771-13
Date Collected: 04/25/21 16:18
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4800	D2	400	100	mg/L			05/11/21 02:52	200
Fluoride	ND	D1 D5 E8	0.80	0.095	mg/L			05/11/21 02:25	2
Sulfate	16000	D2	400	85	mg/L			05/11/21 02:52	200

Client Sample ID: FC-CCR-MW18-0421

Lab Sample ID: 550-162771-13
Date Collected: 04/25/21 16:18
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:47	05/03/21 22:22	1
Lithium	2.2		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 17:14	1
Boron	1.3		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 22:22	1
Calcium	510		2.0	0.013	mg/L		04/29/21 19:47	05/03/21 22:22	1
Iron	0.41		0.10	0.010	mg/L		04/29/21 19:47	05/03/21 22:22	1
Magnesium	1100	D2	4.0	0.089	mg/L		04/29/21 19:47	05/04/21 18:46	2
Manganese	2.6		0.010	0.00019	mg/L		04/29/21 19:47	05/03/21 22:22	1
Potassium	110		0.50	0.17	mg/L		04/29/21 19:47	05/03/21 22:22	1
Sodium	7100	D2	5.0	0.31	mg/L		04/29/21 19:47	05/04/21 18:42	10

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.012	D1	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 20:48	4
Molybdenum	0.0023	D1	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 20:48	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	900		6.0	6.0	mg/L			05/09/21 12:45	1
Bicarbonate Alkalinity as CaCO3	900		6.0	6.0	mg/L			05/09/21 12:45	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/09/21 12:45	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			05/09/21 12:45	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/09/21 12:45	1
Total Dissolved Solids	5900	D2	200	200	mg/L			04/29/21 08:38	1
pH	7.2	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	6.6	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW19-0421

Lab Sample ID: 550-162771-14
Date Collected: 04/25/21 10:53
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.0		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 21:29	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.00052		0.00050	0.000063	mg/L		04/30/21 09:03	05/05/21 15:15	1
Molybdenum	0.0030		0.00050	0.00020	mg/L		04/30/21 09:03	05/05/21 15:15	1

Client Sample ID: FC-CCR-MW21-0421

Lab Sample ID: 550-162771-15
Date Collected: 04/24/21 11:36
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	4.5	D1	0.10	0.0051	mg/L		04/29/21 19:47	05/04/21 18:53	2

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0052	D1	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 20:52	4
Molybdenum	0.0029	D1	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 20:52	4

Client Sample ID: FC-CCR-MW23R-0421

Lab Sample ID: 550-162771-16
Date Collected: 04/25/21 12:06
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	730	D2	400	100	mg/L			05/10/21 15:28	200
Fluoride	0.27	D1 E4	0.80	0.095	mg/L			05/10/21 15:10	2
Sulfate	8700	D2	400	85	mg/L			05/10/21 15:28	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:47	05/03/21 22:33	1
Lithium	0.91		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 17:17	1
Boron	15		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 22:33	1
Calcium	480		2.0	0.013	mg/L		04/29/21 19:47	05/03/21 22:33	1
Iron	0.18		0.10	0.010	mg/L		04/29/21 19:47	05/03/21 22:33	1
Magnesium	1100	D2	4.0	0.089	mg/L		04/29/21 19:47	05/04/21 19:01	2
Manganese	0.038		0.010	0.00019	mg/L		04/29/21 19:47	05/03/21 22:33	1
Potassium	41		0.50	0.17	mg/L		04/29/21 19:47	05/03/21 22:33	1
Sodium	1700	D2	2.5	0.15	mg/L		04/29/21 19:47	05/04/21 18:57	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.00092	D1 E4	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 20:54	4
Molybdenum	0.0052	D1	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 20:54	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	490		6.0	6.0	mg/L			05/02/21 12:19	1
Bicarbonate Alkalinity as CaCO3	490		6.0	6.0	mg/L			05/02/21 12:19	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 12:19	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			05/02/21 12:19	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 12:19	1
Total Dissolved Solids	13000	D2	100	100	mg/L			04/29/21 08:38	1
pH	7.4	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	6.9	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW24-0421

Lab Sample ID: 550-162771-17
Date Collected: 04/26/21 13:50
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5600	D2	400	100	mg/L			05/08/21 11:01	200
Fluoride	0.66	D1 E4	0.80	0.095	mg/L			05/08/21 10:33	2
Sulfate	14000	D2	400	85	mg/L			05/08/21 11:01	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:47	05/03/21 22:37	1
Lithium	1.5		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 17:21	1
Boron	1.0		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 22:37	1
Calcium	510		2.0	0.013	mg/L		04/29/21 19:47	05/03/21 22:37	1
Iron	0.16		0.10	0.010	mg/L		04/29/21 19:47	05/03/21 22:37	1
Magnesium	220		2.0	0.044	mg/L		04/29/21 19:47	05/03/21 22:37	1
Manganese	1.9		0.010	0.00019	mg/L		04/29/21 19:47	05/03/21 22:37	1

Client Sample ID: FC-CCR-MW24-0421

Lab Sample ID: 550-162771-17
Matrix: Water
Date Collected: 04/26/21 13:50
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	62		0.50	0.17	mg/L		04/29/21 19:47	05/03/21 22:37	1
Sodium	7700	D2	5.0	0.31	mg/L		04/29/21 19:47	05/04/21 19:05	10

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0021	D1	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 20:56	4
Molybdenum	0.15	D1	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 20:56	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	320		6.0	6.0	mg/L			05/02/21 12:28	1
Bicarbonate Alkalinity as CaCO3	320		6.0	6.0	mg/L			05/02/21 12:28	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 12:28	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			05/02/21 12:28	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 12:28	1
Total Dissolved Solids	23000	D2	200	200	mg/L			04/29/21 08:40	1
pH	7.6	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	7.7	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW30-0421

Lab Sample ID: 550-162771-18
Matrix: Water
Date Collected: 04/25/21 09:24
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	28		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 22:41	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0025	D1	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 20:58	4
Molybdenum	0.0065	D1	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 20:58	4

Client Sample ID: FC-CCR-MW36R-0421

Lab Sample ID: 550-162771-19
Matrix: Water
Date Collected: 04/25/21 13:00
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	510	D2	400	100	mg/L			05/08/21 11:55	200
Fluoride	0.29	D1 E4	0.80	0.095	mg/L			05/08/21 11:28	2
Sulfate	4300	D2	400	85	mg/L			05/08/21 11:55	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:47	05/03/21 22:44	1
Lithium	0.61		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 17:37	1
Boron	53		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 22:44	1
Calcium	500		2.0	0.013	mg/L		04/29/21 19:47	05/03/21 22:44	1
Iron	0.072	E4	0.10	0.010	mg/L		04/29/21 19:47	05/03/21 22:44	1
Magnesium	430		2.0	0.044	mg/L		04/29/21 19:47	05/03/21 22:44	1
Manganese	0.25		0.010	0.00019	mg/L		04/29/21 19:47	05/03/21 22:44	1

Client Sample ID: FC-CCR-MW36R-0421

Lab Sample ID: 550-162771-19
Date Collected: 04/25/21 13:00
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	29		0.50	0.17	mg/L		04/29/21 19:47	05/03/21 22:44	1
Sodium	990	D2	1.0	0.061	mg/L		04/29/21 19:47	05/04/21 19:09	2

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.26	D1	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 21:01	4
Molybdenum	0.0012	D1 E4	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 21:01	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	230		6.0	6.0	mg/L			05/02/21 12:37	1
Bicarbonate Alkalinity as CaCO3	230		6.0	6.0	mg/L			05/02/21 12:37	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 12:37	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			05/02/21 12:37	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 12:37	1
Total Dissolved Solids	6800	D2	100	100	mg/L			04/29/21 08:38	1
pH	7.6	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	7.6	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW384R-0421

Lab Sample ID: 550-162771-20
Date Collected: 04/27/21 07:36
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	310	D2 E4	400	100	mg/L			05/10/21 16:42	200
Fluoride	0.33	D1 E4	0.80	0.095	mg/L			05/10/21 16:23	2
Sulfate	4100	D2	400	85	mg/L			05/10/21 16:42	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:47	05/03/21 22:48	1
Lithium	0.39		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 21:38	1
Boron	29		0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 22:48	1
Calcium	490		2.0	0.013	mg/L		04/29/21 19:47	05/03/21 22:48	1
Iron	0.080	E4	0.10	0.010	mg/L		04/29/21 19:47	05/03/21 22:48	1
Magnesium	310		2.0	0.044	mg/L		04/29/21 19:47	05/03/21 22:48	1
Manganese	ND	E8	0.010	0.00019	mg/L		04/29/21 19:47	05/03/21 22:48	1
Potassium	20		0.50	0.17	mg/L		04/29/21 19:47	05/03/21 22:48	1
Sodium	970	D2	1.0	0.061	mg/L		04/29/21 19:47	05/04/21 19:20	2

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	D1 E8	0.0040	0.00017	mg/L		04/28/21 21:16	05/11/21 21:03	4
Arsenic	ND	D1 E8	0.0020	0.00099	mg/L		04/28/21 21:16	05/11/21 21:03	4
Barium	0.013	D1	0.0020	0.0010	mg/L		04/28/21 21:16	05/11/21 21:03	4
Cadmium	0.00013	D1 E4	0.00040	0.000092	mg/L		04/28/21 21:16	05/11/21 21:03	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/28/21 21:16	05/11/21 21:03	4
Cobalt	0.25	D1	0.0020	0.00025	mg/L		04/28/21 21:16	05/11/21 21:03	4
Lead	0.0020	D1	0.0020	0.00088	mg/L		04/28/21 21:16	05/11/21 21:03	4
Molybdenum	0.0065	D1	0.0020	0.00081	mg/L		04/28/21 21:16	05/11/21 21:03	4

Client Sample ID: FC-CCR-MW384R-0421

Lab Sample ID: 550-162771-20
Date Collected: 04/27/21 07:36
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	**0.0016**	**D1 E4**	0.0020	0.00030	mg/L		04/28/21 21:16	05/11/21 21:03	4
Thallium	ND	D1 E8	0.00040	0.000053	mg/L		04/28/21 21:16	05/11/21 21:03	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**130**		6.0	6.0	mg/L			05/02/21 12:45	1
Bicarbonate Alkalinity as CaCO3	**130**		6.0	6.0	mg/L			05/02/21 12:45	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 12:45	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			05/02/21 12:45	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 12:45	1
Total Dissolved Solids	**5900**	**D2**	100	100	mg/L			04/29/21 08:40	1
pH	**7.3**	**H5**	1.7	1.7	SU			05/05/21 17:02	1
Temperature	**7.9**	**H5**	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW56-0421

Lab Sample ID: 550-162771-21
Date Collected: 04/26/21 11:41
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2300**	**D2**	400	100	mg/L			05/10/21 17:19	200
Fluoride	ND	D1 D5 E8	0.80	0.095	mg/L			05/10/21 17:00	2
Sulfate	**19000**	**D2**	400	85	mg/L			05/10/21 17:19	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 20:28	05/04/21 00:07	1
Lithium	**1.7**		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 17:47	1
Boron	**1.8**	**B3 B7**	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 00:07	1
Calcium	**490**		2.0	0.013	mg/L		04/29/21 20:28	05/04/21 00:07	1
Iron	**0.26**		0.10	0.010	mg/L		04/29/21 20:28	05/04/21 00:07	1
Magnesium	**2500**	**D2**	10	0.22	mg/L		04/29/21 20:28	05/04/21 20:17	5
Manganese	**0.016**		0.010	0.00019	mg/L		04/29/21 20:28	05/04/21 00:07	1
Potassium	**100**		0.50	0.17	mg/L		04/29/21 20:28	05/04/21 00:07	1
Sodium	**5100**	**D2**	5.0	0.31	mg/L		04/29/21 20:28	05/05/21 22:31	10

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00022**	**D1 E4**	0.0040	0.00017	mg/L		04/28/21 21:43	05/11/21 21:21	4
Arsenic	**0.0013**	**D1 E4**	0.0020	0.00099	mg/L		04/28/21 21:43	05/11/21 21:21	4
Barium	**0.020**	**D1**	0.0020	0.0010	mg/L		04/28/21 21:43	05/11/21 21:21	4
Cadmium	**0.00029**	**D1 E4**	0.00040	0.000092	mg/L		04/28/21 21:43	05/11/21 21:21	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/28/21 21:43	05/11/21 21:21	4
Cobalt	**0.00051**	**D1 E4**	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 21:21	4
Lead	**0.0019**	**D1 E4**	0.0020	0.00088	mg/L		04/28/21 21:43	05/11/21 21:21	4
Molybdenum	**0.0043**	**D1**	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 21:21	4
Selenium	**0.28**	**D1**	0.0020	0.00030	mg/L		04/28/21 21:43	05/11/21 21:21	4
Thallium	**0.0011**	**D1**	0.00040	0.000053	mg/L		04/28/21 21:43	05/11/21 21:21	4

Client Sample ID: FC-CCR-MW56-0421

Lab Sample ID: 550-162771-21
Date Collected: 04/26/21 11:41
Matrix: Water
Date Received: 04/28/21 16:44

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	800		6.0	6.0	mg/L			05/02/21 13:20	1
Bicarbonate Alkalinity as CaCO3	800		6.0	6.0	mg/L			05/02/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Total Dissolved Solids	28000	D2	200	200	mg/L			04/29/21 08:40	1
pH	7.4	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	8.0	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-FD05-0421

Lab Sample ID: 550-162771-22
Date Collected: 04/25/21 10:53
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.0	B3 B7	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 00:11	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0013	D1 E4	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 21:19	4
Molybdenum	0.0040	D1	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 21:19	4

Client Sample ID: FC-CCR-MW57-0421

Lab Sample ID: 550-162771-23
Date Collected: 04/27/21 08:26
Matrix: Water
Date Received: 04/28/21 16:44

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	420	D2	200	52	mg/L			05/10/21 17:55	100
Fluoride	ND	E8	0.40	0.047	mg/L			05/10/21 17:37	1
Sulfate	7400	D2	200	43	mg/L			05/10/21 17:55	100

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.00013	E4	0.0010	0.000067	mg/L		04/29/21 20:28	05/04/21 00:04	1
Lithium	0.77		0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 17:51	1
Boron	0.96	B3 B7	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 00:04	1
Calcium	460	M3	2.0	0.013	mg/L		04/29/21 20:28	05/04/21 00:04	1
Iron	0.62		0.10	0.010	mg/L		04/29/21 20:28	05/04/21 00:04	1
Magnesium	810	M3	2.0	0.044	mg/L		04/29/21 20:28	05/04/21 00:04	1
Manganese	0.17		0.010	0.00019	mg/L		04/29/21 20:28	05/04/21 00:04	1
Potassium	52		0.50	0.17	mg/L		04/29/21 20:28	05/04/21 00:04	1
Sodium	2000	D2 M3	2.5	0.15	mg/L		04/29/21 20:28	05/04/21 20:13	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00071	D1 E4	0.0040	0.00017	mg/L		04/28/21 21:43	05/11/21 21:24	4
Arsenic	ND	D1 E8	0.0020	0.00099	mg/L		04/28/21 21:43	05/11/21 21:24	4
Barium	0.018	D1	0.0020	0.0010	mg/L		04/28/21 21:43	05/11/21 21:24	4
Cadmium	0.00012	D1 E4	0.00040	0.000092	mg/L		04/28/21 21:43	05/11/21 21:24	4
Chromium	ND	B3 D1 E8	0.0040	0.0017	mg/L		04/28/21 21:43	05/11/21 21:24	4

Client Sample ID: FC-CCR-MW57-0421

Lab Sample ID: 550-162771-23
Date Collected: 04/27/21 08:26
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0019	D1 E4	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 21:24	4
Lead	0.0019	D1 E4	0.0020	0.00088	mg/L		04/28/21 21:43	05/11/21 21:24	4
Molybdenum	0.0060	D1	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 21:24	4
Selenium	0.0033	D1	0.0020	0.00030	mg/L		04/28/21 21:43	05/11/21 21:24	4
Thallium	0.00019	D1 E4	0.00040	0.000053	mg/L		04/28/21 21:43	05/11/21 21:24	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	440		6.0	6.0	mg/L			05/02/21 13:42	1
Bicarbonate Alkalinity as CaCO3	440		6.0	6.0	mg/L			05/02/21 13:42	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 13:42	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			05/02/21 13:42	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 13:42	1
Total Dissolved Solids	12000	D2	100	100	mg/L			04/29/21 08:40	1
pH	7.5	H5	1.7	1.7	SU			05/05/21 17:02	1
Temperature	8.1	H5	0.1	0.1	Degrees C			05/05/21 17:02	1

Client Sample ID: FC-CCR-MW60-0421

Lab Sample ID: 550-162771-24
Date Collected: 04/24/21 09:30
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	60	B3 B7	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 00:15	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.21	D1	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 21:26	4
Molybdenum	0.16	D1	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 21:26	4

Client Sample ID: FC-CCR-MW77S-0421

Lab Sample ID: 550-162771-25
Date Collected: 04/24/21 13:51
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	11	B3 B7	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 00:19	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0053	D1	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 21:28	4
Molybdenum	0.028	D1	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 21:28	4

Client Sample ID: FC-CCR-MW78S-0421

Lab Sample ID: 550-162771-26
Date Collected: 04/24/21 14:57
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.5	B3 B7	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 00:23	1

Client Sample ID: FC-CCR-MW78S-0421

Lab Sample ID: 550-162771-26
Date Collected: 04/24/21 14:57
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.019	D1	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 21:30	4
Molybdenum	0.022	D1	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 21:30	4

Client Sample ID: FC-CCR-MW79S-0421

Lab Sample ID: 550-162771-27
Date Collected: 04/24/21 16:29
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	17	B3 B7	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 00:26	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0038	D1	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 21:32	4
Molybdenum	0.011	D1	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 21:32	4

Client Sample ID: FC-CCR-MW81-0421

Lab Sample ID: 550-162771-28
Date Collected: 04/24/21 15:38
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	38	B3 B7	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 00:30	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.020	D1	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 21:34	4
Molybdenum	0.0072	D1	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 21:34	4

Client Sample ID: FC-CCR-FD061-0421

Lab Sample ID: 550-162771-29
Date Collected: 04/24/21 15:38
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	40	B3 B7	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 00:34	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.020	D1	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 21:36	4
Molybdenum	0.0073	D1	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 21:36	4

Client Sample ID: FC-CCR-SUMP1-0421

Lab Sample ID: 550-162771-30
Date Collected: 04/23/21 08:01
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	72	B3 B7	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 00:38	1
Iron	0.19		0.10	0.010	mg/L		04/29/21 20:28	05/04/21 00:38	1
Manganese	0.0088	E4	0.010	0.00019	mg/L		04/29/21 20:28	05/04/21 00:38	1

Client Sample ID: FC-CCR-SUMP1-0421

Lab Sample ID: 550-162771-30
Date Collected: 04/23/21 08:01
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.067	D1	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 21:38	4
Molybdenum	0.13	D1	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 21:38	4

Client Sample ID: FC-CCR-SUMP2-0421

Lab Sample ID: 550-162771-31
Date Collected: 04/23/21 09:38
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	35	B3 B7	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 00:49	1
Iron	4.9		0.10	0.010	mg/L		04/29/21 20:28	05/04/21 00:49	1
Manganese	0.046		0.010	0.00019	mg/L		04/29/21 20:28	05/04/21 00:49	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0024	D1	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 21:45	4
Molybdenum	0.0054	D1	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 21:45	4

Client Sample ID: FC-CCR-SUMP3-0421

Lab Sample ID: 550-162771-32
Date Collected: 04/23/21 09:10
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	37	B3 B7	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 00:53	1
Iron	0.21		0.10	0.010	mg/L		04/29/21 20:28	05/04/21 00:53	1
Manganese	0.64		0.010	0.00019	mg/L		04/29/21 20:28	05/04/21 00:53	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0025	D1	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 21:47	4
Molybdenum	0.017	D1	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 21:47	4

Client Sample ID: FC-CCR-SUMP7-0421

Lab Sample ID: 550-162771-33
Date Collected: 04/23/21 10:17
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	56	B3 B7	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 00:57	1
Iron	0.31		0.10	0.010	mg/L		04/29/21 20:28	05/04/21 00:57	1
Manganese	0.052		0.010	0.00019	mg/L		04/29/21 20:28	05/04/21 00:57	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.083	D1	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 21:49	4
Molybdenum	0.0054	D1	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 21:49	4

Client Sample ID: FC-CCR-SUMP8-0421

Lab Sample ID: 550-162771-34

Date Collected: 04/23/21 09:55
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	43	B3 B7	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 01:00	1
Iron	0.62		0.10	0.010	mg/L		04/29/21 20:28	05/04/21 01:00	1
Manganese	ND	E8	0.010	0.00019	mg/L		04/29/21 20:28	05/04/21 01:00	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.041	D1	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 21:51	4
Molybdenum	0.0032	D1	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 21:51	4

Client Sample ID: FC-CCR-SUMP9-0421

Lab Sample ID: 550-162771-35

Date Collected: 04/23/21 10:27
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	31	B3 B7	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 01:04	1
Iron	1.8		0.10	0.010	mg/L		04/29/21 20:28	05/04/21 01:04	1
Manganese	0.0019	E4	0.010	0.00019	mg/L		04/29/21 20:28	05/04/21 01:04	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.025	D1	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 21:53	4
Molybdenum	0.0023	D1	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 21:53	4

Client Sample ID: FC-CCR-SUMP10-0421

Lab Sample ID: 550-162771-36

Date Collected: 04/23/21 10:35
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	52	B3 B7	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 01:08	1
Iron	2.2		0.10	0.010	mg/L		04/29/21 20:28	05/04/21 01:08	1
Manganese	0.024		0.010	0.00019	mg/L		04/29/21 20:28	05/04/21 01:08	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.19	D1	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 21:55	4
Molybdenum	0.00085	D1 E4	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 21:55	4

Client Sample ID: FC-CCR-SUMP11-0421

Lab Sample ID: 550-162771-37

Date Collected: 04/23/21 10:42
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	36	B3 B7	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 01:12	1
Iron	0.67		0.10	0.010	mg/L		04/29/21 20:28	05/04/21 01:12	1
Manganese	0.0011	E4	0.010	0.00019	mg/L		04/29/21 20:28	05/04/21 01:12	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.072	D1	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 21:57	4

Client Sample ID: FC-CCR-SUMP11-0421

Lab Sample ID: 550-162771-37
Date Collected: 04/23/21 10:42
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	**0.0055**	**D1**	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 21:57	4

Client Sample ID: FC-CCR-SUMP12-0421

Lab Sample ID: 550-162771-38
Date Collected: 04/23/21 10:51
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**30**	**B3 B7**	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 01:15	1
Iron	**0.86**		0.10	0.010	mg/L		04/29/21 20:28	05/04/21 01:15	1
Manganese	ND	E8	0.010	0.00019	mg/L		04/29/21 20:28	05/04/21 01:15	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	**0.052**	**D1**	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 21:59	4
Molybdenum	ND	D1 E8	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 21:59	4

Client Sample ID: FC-CCR-SUMP13-0421

Lab Sample ID: 550-162771-39
Date Collected: 04/23/21 11:01
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**33**	**B3 B7**	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 01:19	1
Iron	**0.15**		0.10	0.010	mg/L		04/29/21 20:28	05/04/21 01:19	1
Manganese	**0.0018**	**E4**	0.010	0.00019	mg/L		04/29/21 20:28	05/04/21 01:19	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	**0.041**	**D1**	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 22:02	4
Molybdenum	**0.0064**	**D1**	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 22:02	4

Client Sample ID: FC-CCR-SUMP14-0421

Lab Sample ID: 550-162771-40
Date Collected: 04/23/21 11:10
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**31**	**B3 B7**	0.050	0.0025	mg/L		04/29/21 20:28	05/04/21 01:23	1
Iron	**1.7**		0.10	0.010	mg/L		04/29/21 20:28	05/04/21 01:23	1
Manganese	**0.013**		0.010	0.00019	mg/L		04/29/21 20:28	05/04/21 01:23	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	**0.11**	**D1**	0.0020	0.00025	mg/L		04/28/21 21:43	05/11/21 22:04	4
Molybdenum	**0.021**	**D1**	0.0020	0.00081	mg/L		04/28/21 21:43	05/11/21 22:04	4

Client Sample ID: FC-CCR-SUMP15-0421

Lab Sample ID: 550-162771-41
Date Collected: 04/23/21 11:08
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	24		0.050	0.0025	mg/L		04/29/21 21:19	05/04/21 02:54	1
Iron	0.63		0.10	0.010	mg/L		04/29/21 21:19	05/04/21 02:54	1
Manganese	0.088		0.010	0.00019	mg/L		04/29/21 21:19	05/04/21 02:54	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.18	D1	0.0020	0.00025	mg/L		04/29/21 08:46	05/11/21 19:56	4
Molybdenum	0.0020	D1	0.0020	0.00081	mg/L		04/29/21 08:46	05/11/21 19:56	4

Client Sample ID: FC-CCR-SUMP16-0421

Lab Sample ID: 550-162771-42
Date Collected: 04/23/21 11:29
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	23		0.050	0.0025	mg/L		04/29/21 21:19	05/04/21 02:57	1
Iron	0.14		0.10	0.010	mg/L		04/29/21 21:19	05/04/21 02:57	1
Manganese	ND	E8	0.010	0.00019	mg/L		04/29/21 21:19	05/04/21 02:57	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.082	D1	0.0020	0.00025	mg/L		04/29/21 08:46	05/11/21 19:58	4
Molybdenum	0.0011	D1 E4	0.0020	0.00081	mg/L		04/29/21 08:46	05/11/21 19:58	4

Client Sample ID: FC-CCR-SUMP17-0421

Lab Sample ID: 550-162771-43
Date Collected: 04/23/21 11:36
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	18		0.050	0.0025	mg/L		04/29/21 21:19	05/04/21 03:01	1
Iron	0.29		0.10	0.010	mg/L		04/29/21 21:19	05/04/21 03:01	1
Manganese	0.0012	E4	0.010	0.00019	mg/L		04/29/21 21:19	05/04/21 03:01	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0013	D1 E4	0.0020	0.00025	mg/L		04/29/21 08:46	05/11/21 20:00	4
Molybdenum	0.0015	D1 E4	0.0020	0.00081	mg/L		04/29/21 08:46	05/11/21 20:00	4

Client Sample ID: FC-CCR-SUMP18-0421

Lab Sample ID: 550-162771-44
Date Collected: 04/23/21 11:46
Matrix: Water
Date Received: 04/28/21 16:44

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	5.3		0.050	0.0025	mg/L		04/29/21 21:19	05/04/21 03:05	1
Iron	0.55		0.10	0.010	mg/L		04/29/21 21:19	05/04/21 03:05	1
Manganese	0.032		0.010	0.00019	mg/L		04/29/21 21:19	05/04/21 03:05	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0011	D1 E4	0.0020	0.00025	mg/L		04/29/21 08:46	05/11/21 20:02	4

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162771-1
SDG: APS Four Corners Power plant

Client Sample ID: FC-CCR-SUMP18-0421
Date Collected: 04/23/21 11:46
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162771-44
Matrix: Water

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	0.0033	D1	0.0020	0.00081	mg/L		04/29/21 08:46	05/11/21 20:02	4

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-241874/1030
Matrix: Water
Analysis Batch: 241874

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			05/08/21 00:58	1
Fluoride	ND	E8	0.40	0.047	mg/L			05/08/21 00:58	1
Sulfate	ND	E8	2.0	0.43	mg/L			05/08/21 00:58	1

Lab Sample ID: LCS 550-241874/31
Matrix: Water
Analysis Batch: 241874

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	4.18		mg/L		105	90 - 110
Sulfate	20.0	22.0		mg/L		110	90 - 110

Lab Sample ID: LCSD 550-241874/32
Matrix: Water
Analysis Batch: 241874

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	4.20		mg/L		105	90 - 110	0	20
Sulfate	20.0	21.9		mg/L		110	90 - 110	0	20

Lab Sample ID: 550-163224-C-2 MS ^2
Matrix: Water
Analysis Batch: 241874

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	3000	E2 D2 M3	40.0	2990	D2 E2 M3	mg/L		-58	80 - 120
Fluoride	0.37	E4 D1	8.00	7.46	D1	mg/L		89	80 - 120
Sulfate	1700	E2 D2 M3	40.0	1730	D2 E2 M3	mg/L		-6	80 - 120

Lab Sample ID: 550-163224-C-2 MSD ^2
Matrix: Water
Analysis Batch: 241874

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	3000	E2 D2 M3	40.0	2980	D2 E2 M3	mg/L		-84	80 - 120	0	20
Fluoride	0.37	E4 D1	8.00	8.30	D1	mg/L		99	80 - 120	11	20
Sulfate	1700	E2 D2 M3	40.0	1720	D2 E2 M3	mg/L		-23	80 - 120	0	20

Lab Sample ID: MB 550-241876/1030
Matrix: Water
Analysis Batch: 241876

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			05/08/21 00:58	1
Fluoride	ND	E8	0.40	0.047	mg/L			05/08/21 00:58	1
Sulfate	ND	E8	2.0	0.43	mg/L			05/08/21 00:58	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-241876/31
Matrix: Water
Analysis Batch: 241876

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	23.0	L3	mg/L		115	90 - 110		
Fluoride			4.00	4.19		mg/L		105	90 - 110		
Sulfate			20.0	21.9		mg/L		110	90 - 110		

Lab Sample ID: LCSD 550-241876/32
Matrix: Water
Analysis Batch: 241876

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	22.0		mg/L		110	90 - 110	5	20
Fluoride			4.00	4.23		mg/L		106	90 - 110	1	20
Sulfate			20.0	21.8		mg/L		109	90 - 110	1	20

Lab Sample ID: 550-162771-2 MS
Matrix: Water
Analysis Batch: 241876

Client Sample ID: FC-CCR-DMX03-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1100	L3 D2	4000	5480	D2	mg/L		110	80 - 120		
Fluoride	ND	E8 D1 D5	800	830	D1	mg/L		104	80 - 120		
Sulfate	13000	D2	4000	16600	D2	mg/L		100	80 - 120		

Lab Sample ID: 550-162771-2 MSD
Matrix: Water
Analysis Batch: 241876

Client Sample ID: FC-CCR-DMX03-0421
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	L3 D2	4000	5540	D2	mg/L		111	80 - 120	1	20
Fluoride	ND	E8 D1 D5	800	847	D1	mg/L		106	80 - 120	2	20
Sulfate	13000	D2	4000	16600	D2	mg/L		98	80 - 120	0	20

Lab Sample ID: MB 550-241947/2
Matrix: Water
Analysis Batch: 241947

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			05/10/21 13:38	1
Fluoride	ND	E8	0.40	0.047	mg/L			05/10/21 13:38	1
Sulfate	ND	E8	2.0	0.43	mg/L			05/10/21 13:38	1

Lab Sample ID: LCS 550-241947/5
Matrix: Water
Analysis Batch: 241947

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	4.09		mg/L		102	90 - 110		
Sulfate			20.0	20.5		mg/L		102	90 - 110		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 550-241947/6
Matrix: Water
Analysis Batch: 241947

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	20.5		mg/L		102	90 - 110	0	20
Fluoride			4.00	4.11		mg/L		103	90 - 110	1	20
Sulfate			20.0	20.5		mg/L		103	90 - 110	0	20

Lab Sample ID: 550-162771-16 MS
Matrix: Water
Analysis Batch: 241947

Client Sample ID: FC-CCR-MW23R-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	730	D2	4000	5130	D2	mg/L		110	80 - 120		
Fluoride	ND	E8 D1 D5	800	853	D1	mg/L		107	80 - 120		
Sulfate	8700	D2	4000	13200	D2	mg/L		113	80 - 120		

Lab Sample ID: 550-162771-16 MSD
Matrix: Water
Analysis Batch: 241947

Client Sample ID: FC-CCR-MW23R-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	730	D2	4000	5090	D2	mg/L		109	80 - 120	1	20
Fluoride	ND	E8 D1 D5	800	861	D1	mg/L		108	80 - 120	1	20
Sulfate	8700	D2	4000	12500	D2	mg/L		97	80 - 120	5	20

Lab Sample ID: MB 550-241950/2
Matrix: Water
Analysis Batch: 241950

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			05/10/21 14:04	1
Fluoride	ND	E8	0.40	0.047	mg/L			05/10/21 14:04	1
Sulfate	ND	E8	2.0	0.43	mg/L			05/10/21 14:04	1

Lab Sample ID: LCS 550-241950/5
Matrix: Water
Analysis Batch: 241950

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	4.12		mg/L		103	90 - 110		
Sulfate			20.0	20.8		mg/L		104	90 - 110		

Lab Sample ID: LCSD 550-241950/6
Matrix: Water
Analysis Batch: 241950

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	21.3		mg/L		107	90 - 110	2	20
Fluoride			4.00	4.17		mg/L		104	90 - 110	1	20
Sulfate			20.0	21.4		mg/L		107	90 - 110	3	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-162771-9 MS
Matrix: Water
Analysis Batch: 241950

Client Sample ID: FC-CCR-MW15-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	ND	E8 M2 D1 D5	400	ND	D1 D5 E8 M2	mg/L		0	80 - 120		

Lab Sample ID: 550-162771-9 MSD
Matrix: Water
Analysis Batch: 241950

Client Sample ID: FC-CCR-MW15-0421
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	E8 M2 D1 D5	400	ND	D1 D5 E8 M2	mg/L		0	80 - 120	NC	20

Lab Sample ID: MB 550-241953/2
Matrix: Water
Analysis Batch: 241953

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			05/10/21 14:05	1
Fluoride	ND	E8	0.40	0.047	mg/L			05/10/21 14:05	1
Sulfate	ND	E8	2.0	0.43	mg/L			05/10/21 14:05	1

Lab Sample ID: LCS 550-241953/5
Matrix: Water
Analysis Batch: 241953

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	3.94		mg/L		98	90 - 110		
Sulfate			20.0	20.4		mg/L		102	90 - 110		

Lab Sample ID: LCSD 550-241953/6
Matrix: Water
Analysis Batch: 241953

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	19.5		mg/L		97	90 - 110	2	20
Fluoride			4.00	3.98		mg/L		100	90 - 110	1	20
Sulfate			20.0	21.0		mg/L		105	90 - 110	3	20

Lab Sample ID: 550-163139-A-6 MS
Matrix: Water
Analysis Batch: 241953

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	620	D2	200	812	D2	mg/L		96	80 - 120		
Fluoride	0.64	E4	40.0	38.8	D1	mg/L		95	80 - 120		
Sulfate	900	M3 D2	200	1080	D2 M3	mg/L		91	80 - 120		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-163139-A-6 MSD
Matrix: Water
Analysis Batch: 241953

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	620	D2	200	814	D2	mg/L		97	80 - 120	0	20
Fluoride	0.64	E4	40.0	39.4	D1	mg/L		97	80 - 120	2	20
Sulfate	900	M3 D2	200	1080	D2 M3	mg/L		92	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-240937/1-A
Matrix: Water
Analysis Batch: 241267

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240937

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 19:47	05/03/21 21:10	1
Boron	0.00758	E4	0.050	0.0025	mg/L		04/29/21 19:47	05/03/21 21:10	1
Calcium	0.0147	E4	2.0	0.013	mg/L		04/29/21 19:47	05/03/21 21:10	1
Magnesium	ND	E8	2.0	0.044	mg/L		04/29/21 19:47	05/03/21 21:10	1
Potassium	ND	E8	0.50	0.17	mg/L		04/29/21 19:47	05/03/21 21:10	1
Iron	ND	E8	0.10	0.010	mg/L		04/29/21 19:47	05/03/21 21:10	1
Manganese	0.000240	E4	0.010	0.00019	mg/L		04/29/21 19:47	05/03/21 21:10	1

Lab Sample ID: MB 550-240937/1-A
Matrix: Water
Analysis Batch: 241402

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240937

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.00631	E4	0.050	0.0025	mg/L		04/29/21 19:47	05/04/21 17:23	1
Magnesium	ND	E8	2.0	0.044	mg/L		04/29/21 19:47	05/04/21 17:23	1
Sodium	0.110	E4	0.50	0.031	mg/L		04/29/21 19:47	05/04/21 17:23	1

Lab Sample ID: LCS 550-240937/2-A
Matrix: Water
Analysis Batch: 241267

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240937

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	1.00	1.05		mg/L		105	85 - 115
Boron	1.00	0.998		mg/L		100	85 - 115
Calcium	21.0	21.6		mg/L		103	85 - 115
Magnesium	21.0	21.5		mg/L		102	85 - 115
Potassium	20.0	20.4		mg/L		102	85 - 115
Iron	1.00	0.975		mg/L		98	85 - 115
Manganese	1.00	1.02		mg/L		102	85 - 115

Lab Sample ID: LCS 550-240937/2-A
Matrix: Water
Analysis Batch: 241402

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240937

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.982		mg/L		98	85 - 115
Magnesium	21.0	20.6		mg/L		98	85 - 115
Sodium	20.0	19.5		mg/L		97	85 - 115

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCSD 550-240937/3-A
Matrix: Water
Analysis Batch: 241267

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240937

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium			1.00	1.02		mg/L		102	85 - 115	3	20
Boron			1.00	0.990		mg/L		99	85 - 115	1	20
Calcium			21.0	21.1		mg/L		101	85 - 115	2	20
Magnesium			21.0	21.1		mg/L		101	85 - 115	2	20
Potassium			20.0	20.1		mg/L		100	85 - 115	2	20
Iron			1.00	0.954		mg/L		95	85 - 115	2	20
Manganese			1.00	1.01		mg/L		101	85 - 115	1	20

Lab Sample ID: LCSD 550-240937/3-A
Matrix: Water
Analysis Batch: 241402

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240937

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	1	20
Magnesium			21.0	20.8		mg/L		99	85 - 115	1	20
Sodium			20.0	19.7		mg/L		98	85 - 115	1	20

Lab Sample ID: 550-162771-14 MS
Matrix: Water
Analysis Batch: 241267

Client Sample ID: FC-CCR-MW19-0421
Prep Type: Total/NA
Prep Batch: 240937

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Boron	2.0		1.00	2.94		mg/L		94	70 - 130		

Lab Sample ID: 550-162771-14 MSD
Matrix: Water
Analysis Batch: 241267

Client Sample ID: FC-CCR-MW19-0421
Prep Type: Total/NA
Prep Batch: 240937

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	2.0		1.00	2.85		mg/L		85	70 - 130	3	20

Lab Sample ID: MB 550-240940/1-A
Matrix: Water
Analysis Batch: 241269

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240940

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		04/29/21 20:28	05/03/21 23:45	1
Boron	0.00509	E4	0.050	0.0025	mg/L		04/29/21 20:28	05/03/21 23:45	1
Calcium	0.0157	E4	2.0	0.013	mg/L		04/29/21 20:28	05/03/21 23:45	1
Magnesium	ND	E8	2.0	0.044	mg/L		04/29/21 20:28	05/03/21 23:45	1
Potassium	ND	E8	0.50	0.17	mg/L		04/29/21 20:28	05/03/21 23:45	1
Iron	ND	E8	0.10	0.010	mg/L		04/29/21 20:28	05/03/21 23:45	1
Manganese	0.000190	E4	0.010	0.00019	mg/L		04/29/21 20:28	05/03/21 23:45	1

Lab Sample ID: MB 550-240940/1-A
Matrix: Water
Analysis Batch: 241404

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240940

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	ND	E8	2.0	0.044	mg/L		04/29/21 20:28	05/04/21 19:54	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 550-240940/1-A
Matrix: Water
Analysis Batch: 241404

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240940

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	0.158	E4	0.50	0.031	mg/L		04/29/21 20:28	05/04/21 19:54	1

Lab Sample ID: LCS 550-240940/2-A
Matrix: Water
Analysis Batch: 241269

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240940

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	1.00	1.06		mg/L		106	85 - 115
Boron	1.00	0.998		mg/L		100	85 - 115
Calcium	21.0	21.7		mg/L		103	85 - 115
Magnesium	21.0	21.5		mg/L		103	85 - 115
Potassium	20.0	20.8		mg/L		104	85 - 115
Iron	1.00	0.990		mg/L		99	85 - 115
Manganese	1.00	1.04		mg/L		104	85 - 115

Lab Sample ID: LCS 550-240940/2-A
Matrix: Water
Analysis Batch: 241404

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240940

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Magnesium	21.0	20.0		mg/L		95	85 - 115
Sodium	20.0	19.2		mg/L		96	85 - 115

Lab Sample ID: LCSD 550-240940/3-A
Matrix: Water
Analysis Batch: 241269

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240940

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	1.00	1.06		mg/L		106	85 - 115	0	20
Boron	1.00	1.01		mg/L		101	85 - 115	1	20
Calcium	21.0	21.7		mg/L		104	85 - 115	0	20
Magnesium	21.0	21.6		mg/L		103	85 - 115	0	20
Potassium	20.0	20.8		mg/L		104	85 - 115	0	20
Iron	1.00	0.988		mg/L		99	85 - 115	0	20
Manganese	1.00	1.04		mg/L		104	85 - 115	1	20

Lab Sample ID: LCSD 550-240940/3-A
Matrix: Water
Analysis Batch: 241404

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240940

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Magnesium	21.0	20.3		mg/L		96	85 - 115	1	20
Sodium	20.0	19.3		mg/L		97	85 - 115	1	20

Lab Sample ID: 550-162771-23 MS
Matrix: Water
Analysis Batch: 241269

Client Sample ID: FC-CCR-MW57-0421
Prep Type: Total/NA
Prep Batch: 240940

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.00013	E4	1.00	1.10		mg/L		110	70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-162771-23 MS — **Client Sample ID: FC-CCR-MW57-0421**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241269 — **Prep Batch: 240940**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.96	B7 B3	1.00	1.96		mg/L		100	70 - 130
Calcium	460	M3	21.0	449	M3	mg/L		-43	70 - 130
Magnesium	810	M3	21.0	785	M3	mg/L		-137	70 - 130
Potassium	52		20.0	73.6		mg/L		107	70 - 130
Iron	0.62		1.00	1.58		mg/L		95	70 - 130
Manganese	0.17		1.00	1.16		mg/L		99	70 - 130

Lab Sample ID: 550-162771-23 MS — **Client Sample ID: FC-CCR-MW57-0421**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241404 — **Prep Batch: 240940**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Magnesium	710	M3	21.0	702	M3	mg/L		-24	70 - 130
Sodium	2000	M3 D2	20.0	1930	M3	mg/L		-285	70 - 130

Lab Sample ID: 550-162771-23 MSD — **Client Sample ID: FC-CCR-MW57-0421**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241269 — **Prep Batch: 240940**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	0.00013	E4	1.00	1.10		mg/L		110	70 - 130	0	20
Boron	0.96	B7 B3	1.00	1.94		mg/L		98	70 - 130	1	20
Calcium	460	M3	21.0	449	M3	mg/L		-41	70 - 130	0	20
Magnesium	810	M3	21.0	786	M3	mg/L		-133	70 - 130	0	20
Potassium	52		20.0	73.6		mg/L		107	70 - 130	0	20
Iron	0.62		1.00	1.60		mg/L		98	70 - 130	1	20
Manganese	0.17		1.00	1.14		mg/L		97	70 - 130	1	20

Lab Sample ID: 550-162771-23 MSD — **Client Sample ID: FC-CCR-MW57-0421**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241404 — **Prep Batch: 240940**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Magnesium	710	M3	21.0	690	M3	mg/L		-78	70 - 130	2	20
Sodium	2000	M3 D2	20.0	1900	M3	mg/L		-415	70 - 130	1	20

Lab Sample ID: MB 550-240942/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 241270 — **Prep Batch: 240942**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.0225	E4	0.050	0.0025	mg/L		04/29/21 21:19	05/04/21 01:34	1
Iron	ND	E8	0.10	0.010	mg/L		04/29/21 21:19	05/04/21 01:34	1
Manganese	0.000290	E4	0.010	0.00019	mg/L		04/29/21 21:19	05/04/21 01:34	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 550-240942/2-A
Matrix: Water
Analysis Batch: 241270

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240942

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.00		mg/L		100	85 - 115
Iron	1.00	0.952		mg/L		95	85 - 115
Manganese	1.00	1.01		mg/L		101	85 - 115

Lab Sample ID: LCSD 550-240942/3-A
Matrix: Water
Analysis Batch: 241270

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240942

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	1.01		mg/L		101	85 - 115	1	20
Iron	1.00	0.989		mg/L		99	85 - 115	4	20
Manganese	1.00	1.02		mg/L		102	85 - 115	1	20

Lab Sample ID: 550-162769-D-13-A MS
Matrix: Water
Analysis Batch: 241270

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 240942

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.43		1.00	1.41		mg/L		97	70 - 130
Manganese	6.5	M3	1.00	7.11	M3	mg/L		64	70 - 130

Lab Sample ID: 550-162769-D-13-A MS ^5
Matrix: Water
Analysis Batch: 241405

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 240942

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	110	M3 D2	1.00	105	M3	mg/L		-517	70 - 130

Lab Sample ID: 550-162769-D-13-B MSD
Matrix: Water
Analysis Batch: 241270

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 240942

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	0.43		1.00	1.41		mg/L		98	70 - 130	0	20
Manganese	6.5	M3	1.00	7.11	M3	mg/L		64	70 - 130	0	20

Lab Sample ID: 550-162769-D-13-B MSD ^5
Matrix: Water
Analysis Batch: 241405

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 240942

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	110	M3 D2	1.00	104	M3	mg/L		-691	70 - 130	2	20

Lab Sample ID: MB 280-535039/1-A
Matrix: Water
Analysis Batch: 535416

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 535039

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	E8	0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 20:04	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 280-535039/2-A
Matrix: Water
Analysis Batch: 535416

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 535039

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium			1.00	0.977		mg/L		98	90 - 112		

Lab Sample ID: 550-162771-4 MS
Matrix: Water
Analysis Batch: 535416

Client Sample ID: FC-CCR-DMX06-0421
Prep Type: Total/NA
Prep Batch: 535039

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium	0.76		1.00	1.82		mg/L		107	70 - 130		

Lab Sample ID: 550-162771-4 MSD
Matrix: Water
Analysis Batch: 535416

Client Sample ID: FC-CCR-DMX06-0421
Prep Type: Total/NA
Prep Batch: 535039

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.76		1.00	1.84		mg/L		109	70 - 130	1	20

Lab Sample ID: 550-162771-20 MS
Matrix: Water
Analysis Batch: 535416

Client Sample ID: FC-CCR-MW384R-0421
Prep Type: Total/NA
Prep Batch: 535039

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium	0.39		1.00	1.40		mg/L		101	70 - 130		

Lab Sample ID: 550-162771-20 MSD
Matrix: Water
Analysis Batch: 535416

Client Sample ID: FC-CCR-MW384R-0421
Prep Type: Total/NA
Prep Batch: 535039

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.39		1.00	1.39		mg/L		100	70 - 130	1	20

Lab Sample ID: MB 280-535040/1-A
Matrix: Water
Analysis Batch: 535416

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 535040

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	E8	0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 18:07	1

Lab Sample ID: LCS 280-535040/2-A
Matrix: Water
Analysis Batch: 535416

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 535040

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium			1.00	0.979		mg/L		98	90 - 112		

Lab Sample ID: 550-162771-8 MS
Matrix: Water
Analysis Batch: 535416

Client Sample ID: FC-CCR-MW06-0421
Prep Type: Total/NA
Prep Batch: 535040

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium	2.1		1.00	3.17		mg/L		111	70 - 130		

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: 550-162771-8 MSD — **Client Sample ID: FC-CCR-MW06-0421**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 535416 — **Prep Batch: 535040**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	2.1		1.00	3.09		mg/L		102	70 - 130	3	20

Lab Sample ID: MB 280-535042/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 535416 — **Prep Batch: 535042**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	E8	0.020	0.0091	mg/L		05/06/21 16:25	05/07/21 15:10	1

Lab Sample ID: LCS 280-535042/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 535416 — **Prep Batch: 535042**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	1.00	0.945		mg/L		95	90 - 112

Lab Sample ID: 550-162771-2 MS — **Client Sample ID: FC-CCR-DMX03-0421**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 535416 — **Prep Batch: 535042**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	1.2		1.00	2.28		mg/L		107	70 - 130

Lab Sample ID: 550-162771-2 MSD — **Client Sample ID: FC-CCR-DMX03-0421**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 535416 — **Prep Batch: 535042**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	1.2		1.00	2.29		mg/L		109	70 - 130	0	20

Lab Sample ID: 550-162771-19 MS — **Client Sample ID: FC-CCR-MW36R-0421**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 535416 — **Prep Batch: 535042**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.61		1.00	1.63		mg/L		102	70 - 130

Lab Sample ID: 550-162771-19 MSD — **Client Sample ID: FC-CCR-MW36R-0421**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 535416 — **Prep Batch: 535042**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.61		1.00	1.59		mg/L		98	70 - 130	2	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-240781/1-A
Matrix: Water
Analysis Batch: 242137

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240781

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0000680	E4	0.0010	0.000043	mg/L		04/28/21 21:16	05/11/21 20:08	1
Arsenic	ND	E8	0.00050	0.00025	mg/L		04/28/21 21:16	05/11/21 20:08	1
Barium	ND	E8	0.00050	0.00026	mg/L		04/28/21 21:16	05/11/21 20:08	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		04/28/21 21:16	05/11/21 20:08	1
Chromium	ND	E8	0.0010	0.00043	mg/L		04/28/21 21:16	05/11/21 20:08	1
Cobalt	ND	E8	0.00050	0.000063	mg/L		04/28/21 21:16	05/11/21 20:08	1
Lead	ND	E8	0.00050	0.00022	mg/L		04/28/21 21:16	05/11/21 20:08	1
Molybdenum	ND	E8	0.00050	0.00020	mg/L		04/28/21 21:16	05/11/21 20:08	1
Selenium	0.000103	E4	0.00050	0.000074	mg/L		04/28/21 21:16	05/11/21 20:08	1
Thallium	0.0000220	E4	0.00010	0.000013	mg/L		04/28/21 21:16	05/11/21 20:08	1

Lab Sample ID: LCS 550-240781/2-A
Matrix: Water
Analysis Batch: 242137

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240781

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	0.0986		mg/L		99	85 - 115
Barium	0.100	0.113		mg/L		113	85 - 115
Cadmium	0.100	0.0988		mg/L		99	85 - 115
Chromium	0.100	0.100		mg/L		100	85 - 115
Cobalt	0.100	0.0953		mg/L		95	85 - 115
Lead	0.100	0.0986		mg/L		99	85 - 115
Molybdenum	0.100	0.101		mg/L		101	85 - 115
Selenium	0.100	0.101		mg/L		101	85 - 115
Thallium	0.100	0.103		mg/L		103	85 - 115

Lab Sample ID: LCSD 550-240781/3-A
Matrix: Water
Analysis Batch: 242137

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240781

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.100	0.100		mg/L		100	85 - 115	0	20
Arsenic	0.100	0.0974		mg/L		97	85 - 115	1	20
Barium	0.100	0.115		mg/L		115	85 - 115	2	20
Cadmium	0.100	0.101		mg/L		101	85 - 115	2	20
Chromium	0.100	0.0988		mg/L		99	85 - 115	1	20
Cobalt	0.100	0.0933		mg/L		93	85 - 115	2	20
Lead	0.100	0.0918		mg/L		92	85 - 115	7	20
Molybdenum	0.100	0.101		mg/L		101	85 - 115	0	20
Selenium	0.100	0.0983		mg/L		98	85 - 115	3	20
Thallium	0.100	0.0961		mg/L		96	85 - 115	7	20

Lab Sample ID: 550-162771-1 MS
Matrix: Water
Analysis Batch: 242137

Client Sample ID: FC-CCR-DMX01-0421
Prep Type: Total/NA
Prep Batch: 240781

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.00033	E4 D1	0.100	0.116		mg/L		116	70 - 130

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: 550-162771-1 MS
Matrix: Water
Analysis Batch: 242137

Client Sample ID: FC-CCR-DMX01-0421
Prep Type: Total/NA
Prep Batch: 240781

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0015	E4 D1	0.100	0.122		mg/L		121	70 - 130
Barium	0.017	M1 D1	0.100	0.149	M1	mg/L		132	70 - 130
Cadmium	0.00046	D1	0.100	0.107		mg/L		106	70 - 130
Chromium	ND	E8 B3 D1	0.100	0.112		mg/L		112	70 - 130
Cobalt	0.00089	E4 D1	0.100	0.105		mg/L		104	70 - 130
Lead	0.0019	E4 D1	0.100	0.0984		mg/L		97	70 - 130
Molybdenum	0.014	D1	0.100	0.132		mg/L		117	70 - 130
Selenium	0.012	M1 D1	0.100	0.149	M1	mg/L		137	70 - 130
Thallium	0.00052	D1	0.100	0.0967		mg/L		96	70 - 130

Lab Sample ID: 550-162771-1 MSD
Matrix: Water
Analysis Batch: 242137

Client Sample ID: FC-CCR-DMX01-0421
Prep Type: Total/NA
Prep Batch: 240781

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.00033	E4 D1	0.100	0.116		mg/L		115	70 - 130	0	20
Arsenic	0.0015	E4 D1	0.100	0.122		mg/L		120	70 - 130	0	20
Barium	0.017	M1 D1	0.100	0.146		mg/L		129	70 - 130	2	20
Cadmium	0.00046	D1	0.100	0.106		mg/L		105	70 - 130	1	20
Chromium	ND	E8 B3 D1	0.100	0.112		mg/L		112	70 - 130	0	20
Cobalt	0.00089	E4 D1	0.100	0.104		mg/L		103	70 - 130	1	20
Lead	0.0019	E4 D1	0.100	0.0974		mg/L		96	70 - 130	1	20
Molybdenum	0.014	D1	0.100	0.133		mg/L		119	70 - 130	1	20
Selenium	0.012	M1 D1	0.100	0.148	M1	mg/L		136	70 - 130	1	20
Thallium	0.00052	D1	0.100	0.0960		mg/L		95	70 - 130	1	20

Lab Sample ID: MB 550-240782/1-A
Matrix: Water
Analysis Batch: 242138

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240782

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0000710	E4	0.0010	0.000043	mg/L		04/28/21 21:43	05/11/21 21:09	1
Arsenic	ND	E8	0.00050	0.00025	mg/L		04/28/21 21:43	05/11/21 21:09	1
Barium	ND	E8	0.00050	0.00026	mg/L		04/28/21 21:43	05/11/21 21:09	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		04/28/21 21:43	05/11/21 21:09	1
Chromium	ND	E8	0.0010	0.00043	mg/L		04/28/21 21:43	05/11/21 21:09	1
Cobalt	ND	E8	0.00050	0.000063	mg/L		04/28/21 21:43	05/11/21 21:09	1
Lead	ND	E8	0.00050	0.00022	mg/L		04/28/21 21:43	05/11/21 21:09	1
Molybdenum	ND	E8	0.00050	0.00020	mg/L		04/28/21 21:43	05/11/21 21:09	1
Selenium	0.0000920	E4	0.00050	0.000074	mg/L		04/28/21 21:43	05/11/21 21:09	1
Thallium	0.0000190	E4	0.00010	0.000013	mg/L		04/28/21 21:43	05/11/21 21:09	1

Lab Sample ID: LCS 550-240782/2-A
Matrix: Water
Analysis Batch: 242138

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240782

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.0973		mg/L		97	85 - 115
Arsenic	0.100	0.0988		mg/L		99	85 - 115

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 550-240782/2-A
Matrix: Water
Analysis Batch: 242138

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240782

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.100	0.115		mg/L		115	85 - 115
Cadmium	0.100	0.0984		mg/L		98	85 - 115
Chromium	0.100	0.101		mg/L		101	85 - 115
Cobalt	0.100	0.0951		mg/L		95	85 - 115
Lead	0.100	0.0926		mg/L		93	85 - 115
Molybdenum	0.100	0.0983		mg/L		98	85 - 115
Selenium	0.100	0.103		mg/L		103	85 - 115
Thallium	0.100	0.0941		mg/L		94	85 - 115

Lab Sample ID: LCSD 550-240782/3-A
Matrix: Water
Analysis Batch: 242138

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240782

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.100	0.0968		mg/L		97	85 - 115	0	20
Arsenic	0.100	0.0972		mg/L		97	85 - 115	2	20
Barium	0.100	0.114		mg/L		114	85 - 115	1	20
Cadmium	0.100	0.0968		mg/L		97	85 - 115	2	20
Chromium	0.100	0.0991		mg/L		99	85 - 115	2	20
Cobalt	0.100	0.0939		mg/L		94	85 - 115	1	20
Lead	0.100	0.0927		mg/L		93	85 - 115	0	20
Molybdenum	0.100	0.0979		mg/L		98	85 - 115	0	20
Selenium	0.100	0.0999		mg/L		100	85 - 115	3	20
Thallium	0.100	0.0968		mg/L		97	85 - 115	3	20

Lab Sample ID: 550-162771-22 MS
Matrix: Water
Analysis Batch: 242138

Client Sample ID: FC-CCR-FD05-0421
Prep Type: Total/NA
Prep Batch: 240782

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.00051	E4 D1	0.100	0.108		mg/L		107	70 - 130
Arsenic	0.0019	E4 D1	0.100	0.116		mg/L		114	70 - 130
Barium	0.018	D1	0.100	0.136		mg/L		118	70 - 130
Cadmium	0.00038	E4 D1	0.100	0.0977		mg/L		97	70 - 130
Chromium	ND	E8 B3 D1	0.100	0.106		mg/L		106	70 - 130
Cobalt	0.0013	E4 D1	0.100	0.0970		mg/L		96	70 - 130
Lead	0.0021	D1	0.100	0.0915		mg/L		89	70 - 130
Molybdenum	0.0040	D1	0.100	0.115		mg/L		111	70 - 130
Selenium	0.017	M1 D1	0.100	0.155	M1	mg/L		138	70 - 130
Thallium	0.00060	D1	0.100	0.0906		mg/L		90	70 - 130

Lab Sample ID: 550-162771-22 MSD
Matrix: Water
Analysis Batch: 242138

Client Sample ID: FC-CCR-FD05-0421
Prep Type: Total/NA
Prep Batch: 240782

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.00051	E4 D1	0.100	0.112		mg/L		111	70 - 130	3	20
Arsenic	0.0019	E4 D1	0.100	0.120		mg/L		118	70 - 130	3	20
Barium	0.018	D1	0.100	0.144		mg/L		126	70 - 130	6	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: 550-162771-22 MSD — **Client Sample ID: FC-CCR-FD05-0421**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 242138 — **Prep Batch: 240782**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	0.00038	E4 D1	0.100	0.0994		mg/L		99	70 - 130	2	20
Chromium	ND	E8 B3 D1	0.100	0.108		mg/L		108	70 - 130	3	20
Cobalt	0.0013	E4 D1	0.100	0.0995		mg/L		98	70 - 130	3	20
Lead	0.0021	D1	0.100	0.0946		mg/L		93	70 - 130	3	20
Molybdenum	0.0040	D1	0.100	0.118		mg/L		114	70 - 130	3	20
Selenium	0.017	M1 D1	0.100	0.160	M1	mg/L		143	70 - 130	3	20
Thallium	0.00060	D1	0.100	0.0941		mg/L		94	70 - 130	4	20

Lab Sample ID: MB 550-240831/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 242136 — **Prep Batch: 240831**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	ND	E8	0.00050	0.000063	mg/L		04/29/21 08:46	05/11/21 19:04	1
Molybdenum	ND	E8	0.00050	0.00020	mg/L		04/29/21 08:46	05/11/21 19:04	1

Lab Sample ID: LCS 550-240831/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 242136 — **Prep Batch: 240831**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.100	0.102		mg/L		102	85 - 115
Molybdenum	0.100	0.104		mg/L		104	85 - 115

Lab Sample ID: LCSD 550-240831/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 242136 — **Prep Batch: 240831**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	0.100	0.0997		mg/L		100	85 - 115	2	20
Molybdenum	0.100	0.105		mg/L		105	85 - 115	1	20

Lab Sample ID: 550-162769-E-13-A MS ^4 — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 242136 — **Prep Batch: 240831**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.0052	D1	0.100	0.115		mg/L		109	70 - 130
Molybdenum	0.0022	D1	0.100	0.125		mg/L		123	70 - 130

Lab Sample ID: 550-162769-E-13-B MSD ^4 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 242136 — **Prep Batch: 240831**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	0.0052	D1	0.100	0.116		mg/L		111	70 - 130	1	20
Molybdenum	0.0022	D1	0.100	0.132		mg/L		130	70 - 130	5	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 550-241000/1-A
Matrix: Water
Analysis Batch: 241594

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 241000

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	ND	E8	0.00050	0.000063	mg/L		04/30/21 09:03	05/05/21 15:04	1
Molybdenum	ND	E8	0.00050	0.00020	mg/L		04/30/21 09:03	05/05/21 15:04	1

Lab Sample ID: LCS 550-241000/2-A
Matrix: Water
Analysis Batch: 241594

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 241000

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.100	0.102		mg/L		102	85 - 115
Molybdenum	0.100	0.106		mg/L		106	85 - 115

Lab Sample ID: LCSD 550-241000/3-A
Matrix: Water
Analysis Batch: 241594

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 241000

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	0.100	0.102		mg/L		102	85 - 115	0	20
Molybdenum	0.100	0.103		mg/L		103	85 - 115	3	20

Lab Sample ID: 550-162771-14 MS
Matrix: Water
Analysis Batch: 241594

Client Sample ID: FC-CCR-MW19-0421
Prep Type: Total/NA
Prep Batch: 241000

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.00052		0.100	0.0943		mg/L		94	70 - 130
Molybdenum	0.0030		0.100	0.108		mg/L		105	70 - 130

Lab Sample ID: 550-162771-14 MSD
Matrix: Water
Analysis Batch: 241594

Client Sample ID: FC-CCR-MW19-0421
Prep Type: Total/NA
Prep Batch: 241000

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	0.00052		0.100	0.0945		mg/L		94	70 - 130	0	20
Molybdenum	0.0030		0.100	0.105		mg/L		102	70 - 130	2	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-240994/34
Matrix: Water
Analysis Batch: 240994

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 16:25	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 16:25	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 16:25	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			04/29/21 16:25	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			04/29/21 16:25	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 550-240994/33
Matrix: Water
Analysis Batch: 240994

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	259		mg/L		104	90 - 110		

Lab Sample ID: LCSD 550-240994/46
Matrix: Water
Analysis Batch: 240994

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	260		mg/L		104	90 - 110	0	20

Lab Sample ID: 550-162768-A-10 DU
Matrix: Water
Analysis Batch: 240994

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	ND	E8		ND	E8	mg/L				NC	20
Bicarbonate Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20
Carbonate Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20
Alkalinity, Phenolphthalein	ND	E8		ND	E8	mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20

Lab Sample ID: MB 550-241118/1
Matrix: Water
Analysis Batch: 241118

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 13:20	1

Lab Sample ID: LCS 550-241118/2
Matrix: Water
Analysis Batch: 241118

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	248		mg/L		99	90 - 110		

Lab Sample ID: LCSD 550-241118/3
Matrix: Water
Analysis Batch: 241118

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	248		mg/L		99	90 - 110	0	20

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 550-162673-E-2 DU
Matrix: Water
Analysis Batch: 241119

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	750			750		mg/L				0	20
Bicarbonate Alkalinity as CaCO3	750			750		mg/L				0	20
Carbonate Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20
Alkalinity, Phenolphthalein	ND	E8		ND	E8	mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20

Lab Sample ID: MB 550-241148/7
Matrix: Water
Analysis Batch: 241148

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 11:32	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 11:32	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 11:32	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			05/02/21 11:32	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/02/21 11:32	1

Lab Sample ID: LCS 550-241148/6
Matrix: Water
Analysis Batch: 241148

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	261		mg/L		105	90 - 110		

Lab Sample ID: LCSD 550-241148/20
Matrix: Water
Analysis Batch: 241148

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	261		mg/L		104	90 - 110	0	20

Lab Sample ID: 550-162829-A-2 DU
Matrix: Water
Analysis Batch: 241148

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	220			222		mg/L				0.08	20
Bicarbonate Alkalinity as CaCO3	220			222		mg/L				0.08	20
Carbonate Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20
Alkalinity, Phenolphthalein	ND	E8		ND	E8	mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20

Lab Sample ID: 550-162873-E-1 DU
Matrix: Water
Analysis Batch: 241148

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	150			148		mg/L				0.5	20
Bicarbonate Alkalinity as CaCO3	150			148		mg/L				0.5	20
Carbonate Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 550-162873-E-1 DU
Matrix: Water
Analysis Batch: 241148

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Phenolphthalein	ND	E8	ND	E8	mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20

Lab Sample ID: MB 550-241839/1
Matrix: Water
Analysis Batch: 241839

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/09/21 12:45	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/09/21 12:45	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/09/21 12:45	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			05/09/21 12:45	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			05/09/21 12:45	1

Lab Sample ID: LCS 550-241839/2
Matrix: Water
Analysis Batch: 241839

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 550-241839/3
Matrix: Water
Analysis Batch: 241839

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	248		mg/L		99	90 - 110	1	20

Lab Sample ID: 550-162771-13 DU
Matrix: Water
Analysis Batch: 241840

Client Sample ID: FC-CCR-MW18-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity as CaCO3	900		900		mg/L		0	20
Bicarbonate Alkalinity as CaCO3	900		900		mg/L		0	20
Carbonate Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20
Alkalinity, Phenolphthalein	ND	E8	ND	E8	mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-240828/1
Matrix: Water
Analysis Batch: 240828

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			04/29/21 08:38	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 550-240828/2
Matrix: Water
Analysis Batch: 240828

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 550-240828/3
Matrix: Water
Analysis Batch: 240828

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	980		mg/L		98	90 - 110	2	10

Lab Sample ID: 550-162768-A-8 DU
Matrix: Water
Analysis Batch: 240828

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	6500	D2		6650	D2	mg/L				3	10

Lab Sample ID: MB 550-240829/1
Matrix: Water
Analysis Batch: 240829

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			04/29/21 08:40	1

Lab Sample ID: LCS 550-240829/2
Matrix: Water
Analysis Batch: 240829

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	1010		mg/L		101	90 - 110		

Lab Sample ID: LCSD 550-240829/3
Matrix: Water
Analysis Batch: 240829

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	984		mg/L		98	90 - 110	3	10

Lab Sample ID: 550-162768-A-1 DU
Matrix: Water
Analysis Batch: 240829

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	8900	D2		8710	D2	mg/L				2	10

Lab Sample ID: 550-162771-8 DU
Matrix: Water
Analysis Batch: 240829

Client Sample ID: FC-CCR-MW06-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	29000	D2		29000	D2	mg/L				0.2	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-241582/49
Matrix: Water
Analysis Batch: 241582

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 550-241582/61
Matrix: Water
Analysis Batch: 241582

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: LCSSRM 550-241582/73
Matrix: Water
Analysis Batch: 241582

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 550-241582/79
Matrix: Water
Analysis Batch: 241582

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: 550-162769-A-9 DU
Matrix: Water
Analysis Batch: 241582

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	H5	7.3	H5	SU		0.3	5
Temperature	18.9	H5	18.9	H5	Degrees C		0	

Lab Sample ID: 550-162771-4 DU
Matrix: Water
Analysis Batch: 241582

Client Sample ID: FC-CCR-DMX06-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.3	H5	7.4	H5	SU		0.7	5
Temperature	6.9	H5	7.6	H5	Degrees C		10	

Lab Sample ID: 550-162771-20 DU
Matrix: Water
Analysis Batch: 241582

Client Sample ID: FC-CCR-MW384R-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.3	H5	7.4	H5	SU		0.7	5
Temperature	7.9	H5	8.1	H5	Degrees C		2	

HPLC/IC

Analysis Batch: 241874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-10	FC-CCR-MW16-0421	Total/NA	Water	300.0	
550-162771-10	FC-CCR-MW16-0421	Total/NA	Water	300.0	
550-162771-17	FC-CCR-MW24-0421	Total/NA	Water	300.0	
550-162771-17	FC-CCR-MW24-0421	Total/NA	Water	300.0	
550-162771-19	FC-CCR-MW36R-0421	Total/NA	Water	300.0	
550-162771-19	FC-CCR-MW36R-0421	Total/NA	Water	300.0	
MB 550-241874/1030	Method Blank	Total/NA	Water	300.0	
LCS 550-241874/31	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-241874/32	Lab Control Sample Dup	Total/NA	Water	300.0	
550-163224-C-2 MS ^2	Matrix Spike	Total/NA	Water	300.0	
550-163224-C-2 MSD ^2	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 241876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-2	FC-CCR-DMX03-0421	Total/NA	Water	300.0	
550-162771-2	FC-CCR-DMX03-0421	Total/NA	Water	300.0	
550-162771-3	FC-CCR-DMX04-0421	Total/NA	Water	300.0	
550-162771-3	FC-CCR-DMX04-0421	Total/NA	Water	300.0	
550-162771-4	FC-CCR-DMX06-0421	Total/NA	Water	300.0	
550-162771-4	FC-CCR-DMX06-0421	Total/NA	Water	300.0	
550-162771-7	FC-CCR-MW05-0421	Total/NA	Water	300.0	
550-162771-7	FC-CCR-MW05-0421	Total/NA	Water	300.0	
MB 550-241876/1030	Method Blank	Total/NA	Water	300.0	
LCS 550-241876/31	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-241876/32	Lab Control Sample Dup	Total/NA	Water	300.0	
550-162771-2 MS	FC-CCR-DMX03-0421	Total/NA	Water	300.0	
550-162771-2 MSD	FC-CCR-DMX03-0421	Total/NA	Water	300.0	

Analysis Batch: 241947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-16	FC-CCR-MW23R-0421	Total/NA	Water	300.0	
550-162771-16	FC-CCR-MW23R-0421	Total/NA	Water	300.0	
550-162771-20	FC-CCR-MW384R-0421	Total/NA	Water	300.0	
550-162771-20	FC-CCR-MW384R-0421	Total/NA	Water	300.0	
550-162771-21	FC-CCR-MW56-0421	Total/NA	Water	300.0	
550-162771-21	FC-CCR-MW56-0421	Total/NA	Water	300.0	
550-162771-23	FC-CCR-MW57-0421	Total/NA	Water	300.0	
550-162771-23	FC-CCR-MW57-0421	Total/NA	Water	300.0	
MB 550-241947/2	Method Blank	Total/NA	Water	300.0	
LCS 550-241947/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-241947/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-162771-16 MS	FC-CCR-MW23R-0421	Total/NA	Water	300.0	
550-162771-16 MSD	FC-CCR-MW23R-0421	Total/NA	Water	300.0	

Analysis Batch: 241950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-8	FC-CCR-MW06-0421	Total/NA	Water	300.0	
550-162771-8	FC-CCR-MW06-0421	Total/NA	Water	300.0	
550-162771-9	FC-CCR-MW15-0421	Total/NA	Water	300.0	
550-162771-9	FC-CCR-MW15-0421	Total/NA	Water	300.0	
550-162771-12	FC-CCR-MW17R-0421	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 241950 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-12	FC-CCR-MW17R-0421	Total/NA	Water	300.0	
MB 550-241950/2	Method Blank	Total/NA	Water	300.0	
LCS 550-241950/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-241950/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-162771-9 MS	FC-CCR-MW15-0421	Total/NA	Water	300.0	
550-162771-9 MSD	FC-CCR-MW15-0421	Total/NA	Water	300.0	

Analysis Batch: 241953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-13	FC-CCR-MW18-0421	Total/NA	Water	300.0	
550-162771-13	FC-CCR-MW18-0421	Total/NA	Water	300.0	
MB 550-241953/2	Method Blank	Total/NA	Water	300.0	
LCS 550-241953/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-241953/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-163139-A-6 MS	Matrix Spike	Total/NA	Water	300.0	
550-163139-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 240781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-1	FC-CCR-DMX01-0421	Total/NA	Water	200.8	
550-162771-2	FC-CCR-DMX03-0421	Total/NA	Water	200.8	
550-162771-3	FC-CCR-DMX04-0421	Total/NA	Water	200.8	
550-162771-4	FC-CCR-DMX06-0421	Total/NA	Water	200.8	
550-162771-5	FC-CCR-MW01-0421	Total/NA	Water	200.8	
550-162771-6	FC-CCR-MW03-0421	Total/NA	Water	200.8	
550-162771-7	FC-CCR-MW05-0421	Total/NA	Water	200.8	
550-162771-8	FC-CCR-MW06-0421	Total/NA	Water	200.8	
550-162771-9	FC-CCR-MW15-0421	Total/NA	Water	200.8	
550-162771-10	FC-CCR-MW16-0421	Total/NA	Water	200.8	
550-162771-11	FC-CCR-FD03-0421	Total/NA	Water	200.8	
550-162771-12	FC-CCR-MW17R-0421	Total/NA	Water	200.8	
550-162771-13	FC-CCR-MW18-0421	Total/NA	Water	200.8	
550-162771-15	FC-CCR-MW21-0421	Total/NA	Water	200.8	
550-162771-16	FC-CCR-MW23R-0421	Total/NA	Water	200.8	
550-162771-17	FC-CCR-MW24-0421	Total/NA	Water	200.8	
550-162771-18	FC-CCR-MW30-0421	Total/NA	Water	200.8	
550-162771-19	FC-CCR-MW36R-0421	Total/NA	Water	200.8	
550-162771-20	FC-CCR-MW384R-0421	Total/NA	Water	200.8	
MB 550-240781/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-240781/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-240781/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-162771-1 MS	FC-CCR-DMX01-0421	Total/NA	Water	200.8	
550-162771-1 MSD	FC-CCR-DMX01-0421	Total/NA	Water	200.8	

Prep Batch: 240782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-21	FC-CCR-MW56-0421	Total/NA	Water	200.8	
550-162771-22	FC-CCR-FD05-0421	Total/NA	Water	200.8	
550-162771-23	FC-CCR-MW57-0421	Total/NA	Water	200.8	

Metals (Continued)

Prep Batch: 240782 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-24	FC-CCR-MW60-0421	Total/NA	Water	200.8	
550-162771-25	FC-CCR-MW77S-0421	Total/NA	Water	200.8	
550-162771-26	FC-CCR-MW78S-0421	Total/NA	Water	200.8	
550-162771-27	FC-CCR-MW79S-0421	Total/NA	Water	200.8	
550-162771-28	FC-CCR-MW81-0421	Total/NA	Water	200.8	
550-162771-29	FC-CCR-FD061-0421	Total/NA	Water	200.8	
550-162771-30	FC-CCR-SUMP1-0421	Total/NA	Water	200.8	
550-162771-31	FC-CCR-SUMP2-0421	Total/NA	Water	200.8	
550-162771-32	FC-CCR-SUMP3-0421	Total/NA	Water	200.8	
550-162771-33	FC-CCR-SUMP7-0421	Total/NA	Water	200.8	
550-162771-34	FC-CCR-SUMP8-0421	Total/NA	Water	200.8	
550-162771-35	FC-CCR-SUMP9-0421	Total/NA	Water	200.8	
550-162771-36	FC-CCR-SUMP10-0421	Total/NA	Water	200.8	
550-162771-37	FC-CCR-SUMP11-0421	Total/NA	Water	200.8	
550-162771-38	FC-CCR-SUMP12-0421	Total/NA	Water	200.8	
550-162771-39	FC-CCR-SUMP13-0421	Total/NA	Water	200.8	
550-162771-40	FC-CCR-SUMP14-0421	Total/NA	Water	200.8	
MB 550-240782/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-240782/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-240782/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-162771-22 MS	FC-CCR-FD05-0421	Total/NA	Water	200.8	
550-162771-22 MSD	FC-CCR-FD05-0421	Total/NA	Water	200.8	

Prep Batch: 240831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-41	FC-CCR-SUMP15-0421	Total/NA	Water	200.8	
550-162771-42	FC-CCR-SUMP16-0421	Total/NA	Water	200.8	
550-162771-43	FC-CCR-SUMP17-0421	Total/NA	Water	200.8	
550-162771-44	FC-CCR-SUMP18-0421	Total/NA	Water	200.8	
MB 550-240831/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-240831/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-240831/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-162769-E-13-A MS ^4	Matrix Spike	Total/NA	Water	200.8	
550-162769-E-13-B MSD ^4	Matrix Spike Duplicate	Total/NA	Water	200.8	

Prep Batch: 240937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-1	FC-CCR-DMX01-0421	Total/NA	Water	200.7	
550-162771-2	FC-CCR-DMX03-0421	Total/NA	Water	200.7	
550-162771-3	FC-CCR-DMX04-0421	Total/NA	Water	200.7	
550-162771-4	FC-CCR-DMX06-0421	Total/NA	Water	200.7	
550-162771-5	FC-CCR-MW01-0421	Total/NA	Water	200.7	
550-162771-6	FC-CCR-MW03-0421	Total/NA	Water	200.7	
550-162771-7	FC-CCR-MW05-0421	Total/NA	Water	200.7	
550-162771-8	FC-CCR-MW06-0421	Total/NA	Water	200.7	
550-162771-9	FC-CCR-MW15-0421	Total/NA	Water	200.7	
550-162771-10	FC-CCR-MW16-0421	Total/NA	Water	200.7	
550-162771-11	FC-CCR-FD03-0421	Total/NA	Water	200.7	
550-162771-12	FC-CCR-MW17R-0421	Total/NA	Water	200.7	
550-162771-13	FC-CCR-MW18-0421	Total/NA	Water	200.7	
550-162771-14	FC-CCR-MW19-0421	Total/NA	Water	200.7	

Metals (Continued)

Prep Batch: 240937 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-15	FC-CCR-MW21-0421	Total/NA	Water	200.7	
550-162771-16	FC-CCR-MW23R-0421	Total/NA	Water	200.7	
550-162771-17	FC-CCR-MW24-0421	Total/NA	Water	200.7	
550-162771-18	FC-CCR-MW30-0421	Total/NA	Water	200.7	
550-162771-19	FC-CCR-MW36R-0421	Total/NA	Water	200.7	
550-162771-20	FC-CCR-MW384R-0421	Total/NA	Water	200.7	
MB 550-240937/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-240937/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-240937/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-162771-14 MS	FC-CCR-MW19-0421	Total/NA	Water	200.7	
550-162771-14 MSD	FC-CCR-MW19-0421	Total/NA	Water	200.7	

Prep Batch: 240940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-21	FC-CCR-MW56-0421	Total/NA	Water	200.7	
550-162771-22	FC-CCR-FD05-0421	Total/NA	Water	200.7	
550-162771-23	FC-CCR-MW57-0421	Total/NA	Water	200.7	
550-162771-24	FC-CCR-MW60-0421	Total/NA	Water	200.7	
550-162771-25	FC-CCR-MW77S-0421	Total/NA	Water	200.7	
550-162771-26	FC-CCR-MW78S-0421	Total/NA	Water	200.7	
550-162771-27	FC-CCR-MW79S-0421	Total/NA	Water	200.7	
550-162771-28	FC-CCR-MW81-0421	Total/NA	Water	200.7	
550-162771-29	FC-CCR-FD061-0421	Total/NA	Water	200.7	
550-162771-30	FC-CCR-SUMP1-0421	Total/NA	Water	200.7	
550-162771-31	FC-CCR-SUMP2-0421	Total/NA	Water	200.7	
550-162771-32	FC-CCR-SUMP3-0421	Total/NA	Water	200.7	
550-162771-33	FC-CCR-SUMP7-0421	Total/NA	Water	200.7	
550-162771-34	FC-CCR-SUMP8-0421	Total/NA	Water	200.7	
550-162771-35	FC-CCR-SUMP9-0421	Total/NA	Water	200.7	
550-162771-36	FC-CCR-SUMP10-0421	Total/NA	Water	200.7	
550-162771-37	FC-CCR-SUMP11-0421	Total/NA	Water	200.7	
550-162771-38	FC-CCR-SUMP12-0421	Total/NA	Water	200.7	
550-162771-39	FC-CCR-SUMP13-0421	Total/NA	Water	200.7	
550-162771-40	FC-CCR-SUMP14-0421	Total/NA	Water	200.7	
MB 550-240940/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-240940/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-240940/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-162771-23 MS	FC-CCR-MW57-0421	Total/NA	Water	200.7	
550-162771-23 MSD	FC-CCR-MW57-0421	Total/NA	Water	200.7	

Prep Batch: 240942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-41	FC-CCR-SUMP15-0421	Total/NA	Water	200.7	
550-162771-42	FC-CCR-SUMP16-0421	Total/NA	Water	200.7	
550-162771-43	FC-CCR-SUMP17-0421	Total/NA	Water	200.7	
550-162771-44	FC-CCR-SUMP18-0421	Total/NA	Water	200.7	
MB 550-240942/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-240942/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-240942/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-162769-D-13-A MS	Matrix Spike	Total/NA	Water	200.7	
550-162769-D-13-A MS ^5	Matrix Spike	Total/NA	Water	200.7	

Metals (Continued)

Prep Batch: 240942 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-D-13-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
550-162769-D-13-B MSD ^5	Matrix Spike Duplicate	Total/NA	Water	200.7	

Prep Batch: 241000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-14	FC-CCR-MW19-0421	Total/NA	Water	200.8	
MB 550-241000/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-241000/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-241000/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-162771-14 MS	FC-CCR-MW19-0421	Total/NA	Water	200.8	
550-162771-14 MSD	FC-CCR-MW19-0421	Total/NA	Water	200.8	

Analysis Batch: 241267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-1	FC-CCR-DMX01-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-2	FC-CCR-DMX03-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-3	FC-CCR-DMX04-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-4	FC-CCR-DMX06-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-5	FC-CCR-MW01-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-6	FC-CCR-MW03-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-7	FC-CCR-MW05-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-8	FC-CCR-MW06-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-9	FC-CCR-MW15-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-10	FC-CCR-MW16-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-11	FC-CCR-FD03-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-12	FC-CCR-MW17R-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-13	FC-CCR-MW18-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-14	FC-CCR-MW19-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-16	FC-CCR-MW23R-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-17	FC-CCR-MW24-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-18	FC-CCR-MW30-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-19	FC-CCR-MW36R-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-20	FC-CCR-MW384R-0421	Total/NA	Water	200.7 Rev 4.4	240937
MB 550-240937/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	240937
LCS 550-240937/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	240937
LCSD 550-240937/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-14 MS	FC-CCR-MW19-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-14 MSD	FC-CCR-MW19-0421	Total/NA	Water	200.7 Rev 4.4	240937

Analysis Batch: 241269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-21	FC-CCR-MW56-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-22	FC-CCR-FD05-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-23	FC-CCR-MW57-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-24	FC-CCR-MW60-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-25	FC-CCR-MW77S-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-26	FC-CCR-MW78S-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-27	FC-CCR-MW79S-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-28	FC-CCR-MW81-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-29	FC-CCR-FD061-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-30	FC-CCR-SUMP1-0421	Total/NA	Water	200.7 Rev 4.4	240940

Metals (Continued)

Analysis Batch: 241269 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-31	FC-CCR-SUMP2-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-32	FC-CCR-SUMP3-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-33	FC-CCR-SUMP7-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-34	FC-CCR-SUMP8-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-35	FC-CCR-SUMP9-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-36	FC-CCR-SUMP10-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-37	FC-CCR-SUMP11-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-38	FC-CCR-SUMP12-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-39	FC-CCR-SUMP13-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-40	FC-CCR-SUMP14-0421	Total/NA	Water	200.7 Rev 4.4	240940
MB 550-240940/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	240940
LCS 550-240940/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	240940
LCSD 550-240940/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-23 MS	FC-CCR-MW57-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-23 MSD	FC-CCR-MW57-0421	Total/NA	Water	200.7 Rev 4.4	240940

Analysis Batch: 241270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-41	FC-CCR-SUMP15-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162771-42	FC-CCR-SUMP16-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162771-43	FC-CCR-SUMP17-0421	Total/NA	Water	200.7 Rev 4.4	240942
550-162771-44	FC-CCR-SUMP18-0421	Total/NA	Water	200.7 Rev 4.4	240942
MB 550-240942/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	240942
LCS 550-240942/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	240942
LCSD 550-240942/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-D-13-A MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-D-13-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	240942

Analysis Batch: 241402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-2	FC-CCR-DMX03-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-3	FC-CCR-DMX04-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-4	FC-CCR-DMX06-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-7	FC-CCR-MW05-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-7	FC-CCR-MW05-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-8	FC-CCR-MW06-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-8	FC-CCR-MW06-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-9	FC-CCR-MW15-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-10	FC-CCR-MW16-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-10	FC-CCR-MW16-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-12	FC-CCR-MW17R-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-13	FC-CCR-MW18-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-13	FC-CCR-MW18-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-15	FC-CCR-MW21-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-16	FC-CCR-MW23R-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-16	FC-CCR-MW23R-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-17	FC-CCR-MW24-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-19	FC-CCR-MW36R-0421	Total/NA	Water	200.7 Rev 4.4	240937
550-162771-20	FC-CCR-MW384R-0421	Total/NA	Water	200.7 Rev 4.4	240937
MB 550-240937/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	240937
LCS 550-240937/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	240937

Metals (Continued)

Analysis Batch: 241402 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 550-240937/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	240937

Analysis Batch: 241404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-21	FC-CCR-MW56-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-23	FC-CCR-MW57-0421	Total/NA	Water	200.7 Rev 4.4	240940
MB 550-240940/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	240940
LCS 550-240940/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	240940
LCSD 550-240940/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-23 MS	FC-CCR-MW57-0421	Total/NA	Water	200.7 Rev 4.4	240940
550-162771-23 MSD	FC-CCR-MW57-0421	Total/NA	Water	200.7 Rev 4.4	240940

Analysis Batch: 241405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162769-D-13-A MS ^5	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	240942
550-162769-D-13-B MSD ^5	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	240942

Analysis Batch: 241531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-21	FC-CCR-MW56-0421	Total/NA	Water	200.7 Rev 4.4	240940

Analysis Batch: 241594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-14	FC-CCR-MW19-0421	Total/NA	Water	200.8 LL	241000
MB 550-241000/1-A	Method Blank	Total/NA	Water	200.8 LL	241000
LCS 550-241000/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	241000
LCSD 550-241000/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	241000
550-162771-14 MS	FC-CCR-MW19-0421	Total/NA	Water	200.8 LL	241000
550-162771-14 MSD	FC-CCR-MW19-0421	Total/NA	Water	200.8 LL	241000

Analysis Batch: 242136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-41	FC-CCR-SUMP15-0421	Total/NA	Water	200.8 LL	240831
550-162771-42	FC-CCR-SUMP16-0421	Total/NA	Water	200.8 LL	240831
550-162771-43	FC-CCR-SUMP17-0421	Total/NA	Water	200.8 LL	240831
550-162771-44	FC-CCR-SUMP18-0421	Total/NA	Water	200.8 LL	240831
MB 550-240831/1-A	Method Blank	Total/NA	Water	200.8 LL	240831
LCS 550-240831/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	240831
LCSD 550-240831/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	240831
550-162769-E-13-A MS ^4	Matrix Spike	Total/NA	Water	200.8 LL	240831
550-162769-E-13-B MSD ^4	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	240831

Analysis Batch: 242137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-1	FC-CCR-DMX01-0421	Total/NA	Water	200.8 LL	240781
550-162771-2	FC-CCR-DMX03-0421	Total/NA	Water	200.8 LL	240781
550-162771-3	FC-CCR-DMX04-0421	Total/NA	Water	200.8 LL	240781
550-162771-4	FC-CCR-DMX06-0421	Total/NA	Water	200.8 LL	240781
550-162771-5	FC-CCR-MW01-0421	Total/NA	Water	200.8 LL	240781
550-162771-6	FC-CCR-MW03-0421	Total/NA	Water	200.8 LL	240781
550-162771-7	FC-CCR-MW05-0421	Total/NA	Water	200.8 LL	240781

Metals (Continued)

Analysis Batch: 242137 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-8	FC-CCR-MW06-0421	Total/NA	Water	200.8 LL	240781
550-162771-9	FC-CCR-MW15-0421	Total/NA	Water	200.8 LL	240781
550-162771-10	FC-CCR-MW16-0421	Total/NA	Water	200.8 LL	240781
550-162771-11	FC-CCR-FD03-0421	Total/NA	Water	200.8 LL	240781
550-162771-12	FC-CCR-MW17R-0421	Total/NA	Water	200.8 LL	240781
550-162771-13	FC-CCR-MW18-0421	Total/NA	Water	200.8 LL	240781
550-162771-15	FC-CCR-MW21-0421	Total/NA	Water	200.8 LL	240781
550-162771-16	FC-CCR-MW23R-0421	Total/NA	Water	200.8 LL	240781
550-162771-17	FC-CCR-MW24-0421	Total/NA	Water	200.8 LL	240781
550-162771-18	FC-CCR-MW30-0421	Total/NA	Water	200.8 LL	240781
550-162771-19	FC-CCR-MW36R-0421	Total/NA	Water	200.8 LL	240781
550-162771-20	FC-CCR-MW384R-0421	Total/NA	Water	200.8 LL	240781
MB 550-240781/1-A	Method Blank	Total/NA	Water	200.8 LL	240781
LCS 550-240781/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	240781
LCSD 550-240781/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	240781
550-162771-1 MS	FC-CCR-DMX01-0421	Total/NA	Water	200.8 LL	240781
550-162771-1 MSD	FC-CCR-DMX01-0421	Total/NA	Water	200.8 LL	240781

Analysis Batch: 242138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-21	FC-CCR-MW56-0421	Total/NA	Water	200.8 LL	240782
550-162771-22	FC-CCR-FD05-0421	Total/NA	Water	200.8 LL	240782
550-162771-23	FC-CCR-MW57-0421	Total/NA	Water	200.8 LL	240782
550-162771-24	FC-CCR-MW60-0421	Total/NA	Water	200.8 LL	240782
550-162771-25	FC-CCR-MW77S-0421	Total/NA	Water	200.8 LL	240782
550-162771-26	FC-CCR-MW78S-0421	Total/NA	Water	200.8 LL	240782
550-162771-27	FC-CCR-MW79S-0421	Total/NA	Water	200.8 LL	240782
550-162771-28	FC-CCR-MW81-0421	Total/NA	Water	200.8 LL	240782
550-162771-29	FC-CCR-FD061-0421	Total/NA	Water	200.8 LL	240782
550-162771-30	FC-CCR-SUMP1-0421	Total/NA	Water	200.8 LL	240782
550-162771-31	FC-CCR-SUMP2-0421	Total/NA	Water	200.8 LL	240782
550-162771-32	FC-CCR-SUMP3-0421	Total/NA	Water	200.8 LL	240782
550-162771-33	FC-CCR-SUMP7-0421	Total/NA	Water	200.8 LL	240782
550-162771-34	FC-CCR-SUMP8-0421	Total/NA	Water	200.8 LL	240782
550-162771-35	FC-CCR-SUMP9-0421	Total/NA	Water	200.8 LL	240782
550-162771-36	FC-CCR-SUMP10-0421	Total/NA	Water	200.8 LL	240782
550-162771-37	FC-CCR-SUMP11-0421	Total/NA	Water	200.8 LL	240782
550-162771-38	FC-CCR-SUMP12-0421	Total/NA	Water	200.8 LL	240782
550-162771-39	FC-CCR-SUMP13-0421	Total/NA	Water	200.8 LL	240782
550-162771-40	FC-CCR-SUMP14-0421	Total/NA	Water	200.8 LL	240782
MB 550-240782/1-A	Method Blank	Total/NA	Water	200.8 LL	240782
LCS 550-240782/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	240782
LCSD 550-240782/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	240782
550-162771-22 MS	FC-CCR-FD05-0421	Total/NA	Water	200.8 LL	240782
550-162771-22 MSD	FC-CCR-FD05-0421	Total/NA	Water	200.8 LL	240782

Prep Batch: 535039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-4	FC-CCR-DMX06-0421	Total/NA	Water	200.7	
550-162771-20	FC-CCR-MW384R-0421	Total/NA	Water	200.7	
MB 280-535039/1-A	Method Blank	Total/NA	Water	200.7	

Metals (Continued)

Prep Batch: 535039 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-535039/2-A	Lab Control Sample	Total/NA	Water	200.7	
550-162771-4 MS	FC-CCR-DMX06-0421	Total/NA	Water	200.7	
550-162771-4 MSD	FC-CCR-DMX06-0421	Total/NA	Water	200.7	
550-162771-20 MS	FC-CCR-MW384R-0421	Total/NA	Water	200.7	
550-162771-20 MSD	FC-CCR-MW384R-0421	Total/NA	Water	200.7	

Prep Batch: 535040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-8	FC-CCR-MW06-0421	Total/NA	Water	200.7	
MB 280-535040/1-A	Method Blank	Total/NA	Water	200.7	
LCS 280-535040/2-A	Lab Control Sample	Total/NA	Water	200.7	
550-162771-8 MS	FC-CCR-MW06-0421	Total/NA	Water	200.7	
550-162771-8 MSD	FC-CCR-MW06-0421	Total/NA	Water	200.7	

Prep Batch: 535042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-2	FC-CCR-DMX03-0421	Total/NA	Water	200.7	
550-162771-3	FC-CCR-DMX04-0421	Total/NA	Water	200.7	
550-162771-7	FC-CCR-MW05-0421	Total/NA	Water	200.7	
550-162771-9	FC-CCR-MW15-0421	Total/NA	Water	200.7	
550-162771-10	FC-CCR-MW16-0421	Total/NA	Water	200.7	
550-162771-12	FC-CCR-MW17R-0421	Total/NA	Water	200.7	
550-162771-13	FC-CCR-MW18-0421	Total/NA	Water	200.7	
550-162771-16	FC-CCR-MW23R-0421	Total/NA	Water	200.7	
550-162771-17	FC-CCR-MW24-0421	Total/NA	Water	200.7	
550-162771-19	FC-CCR-MW36R-0421	Total/NA	Water	200.7	
550-162771-21	FC-CCR-MW56-0421	Total/NA	Water	200.7	
550-162771-23	FC-CCR-MW57-0421	Total/NA	Water	200.7	
MB 280-535042/1-A	Method Blank	Total/NA	Water	200.7	
LCS 280-535042/2-A	Lab Control Sample	Total/NA	Water	200.7	
550-162771-2 MS	FC-CCR-DMX03-0421	Total/NA	Water	200.7	
550-162771-2 MSD	FC-CCR-DMX03-0421	Total/NA	Water	200.7	
550-162771-19 MS	FC-CCR-MW36R-0421	Total/NA	Water	200.7	
550-162771-19 MSD	FC-CCR-MW36R-0421	Total/NA	Water	200.7	

Analysis Batch: 535416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-2	FC-CCR-DMX03-0421	Total/NA	Water	200.7 Rev 4.4	535042
550-162771-3	FC-CCR-DMX04-0421	Total/NA	Water	200.7 Rev 4.4	535042
550-162771-4	FC-CCR-DMX06-0421	Total/NA	Water	200.7 Rev 4.4	535039
550-162771-7	FC-CCR-MW05-0421	Total/NA	Water	200.7 Rev 4.4	535042
550-162771-8	FC-CCR-MW06-0421	Total/NA	Water	200.7 Rev 4.4	535040
550-162771-9	FC-CCR-MW15-0421	Total/NA	Water	200.7 Rev 4.4	535042
550-162771-10	FC-CCR-MW16-0421	Total/NA	Water	200.7 Rev 4.4	535042
550-162771-12	FC-CCR-MW17R-0421	Total/NA	Water	200.7 Rev 4.4	535042
550-162771-13	FC-CCR-MW18-0421	Total/NA	Water	200.7 Rev 4.4	535042
550-162771-16	FC-CCR-MW23R-0421	Total/NA	Water	200.7 Rev 4.4	535042
550-162771-17	FC-CCR-MW24-0421	Total/NA	Water	200.7 Rev 4.4	535042
550-162771-19	FC-CCR-MW36R-0421	Total/NA	Water	200.7 Rev 4.4	535042
550-162771-20	FC-CCR-MW384R-0421	Total/NA	Water	200.7 Rev 4.4	535039
550-162771-21	FC-CCR-MW56-0421	Total/NA	Water	200.7 Rev 4.4	535042

Metals (Continued)

Analysis Batch: 535416 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-23	FC-CCR-MW57-0421	Total/NA	Water	200.7 Rev 4.4	535042
MB 280-535039/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	535039
MB 280-535040/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	535040
MB 280-535042/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	535042
LCS 280-535039/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	535039
LCS 280-535040/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	535040
LCS 280-535042/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	535042
550-162771-2 MS	FC-CCR-DMX03-0421	Total/NA	Water	200.7 Rev 4.4	535042
550-162771-2 MSD	FC-CCR-DMX03-0421	Total/NA	Water	200.7 Rev 4.4	535042
550-162771-4 MS	FC-CCR-DMX06-0421	Total/NA	Water	200.7 Rev 4.4	535039
550-162771-4 MSD	FC-CCR-DMX06-0421	Total/NA	Water	200.7 Rev 4.4	535039
550-162771-8 MS	FC-CCR-MW06-0421	Total/NA	Water	200.7 Rev 4.4	535040
550-162771-8 MSD	FC-CCR-MW06-0421	Total/NA	Water	200.7 Rev 4.4	535040
550-162771-19 MS	FC-CCR-MW36R-0421	Total/NA	Water	200.7 Rev 4.4	535042
550-162771-19 MSD	FC-CCR-MW36R-0421	Total/NA	Water	200.7 Rev 4.4	535042
550-162771-20 MS	FC-CCR-MW384R-0421	Total/NA	Water	200.7 Rev 4.4	535039
550-162771-20 MSD	FC-CCR-MW384R-0421	Total/NA	Water	200.7 Rev 4.4	535039

General Chemistry

Analysis Batch: 240828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-2	FC-CCR-DMX03-0421	Total/NA	Water	SM 2540C	
550-162771-3	FC-CCR-DMX04-0421	Total/NA	Water	SM 2540C	
550-162771-7	FC-CCR-MW05-0421	Total/NA	Water	SM 2540C	
550-162771-12	FC-CCR-MW17R-0421	Total/NA	Water	SM 2540C	
550-162771-13	FC-CCR-MW18-0421	Total/NA	Water	SM 2540C	
550-162771-16	FC-CCR-MW23R-0421	Total/NA	Water	SM 2540C	
550-162771-19	FC-CCR-MW36R-0421	Total/NA	Water	SM 2540C	
MB 550-240828/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-240828/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-240828/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-162768-A-8 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 240829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-4	FC-CCR-DMX06-0421	Total/NA	Water	SM 2540C	
550-162771-8	FC-CCR-MW06-0421	Total/NA	Water	SM 2540C	
550-162771-9	FC-CCR-MW15-0421	Total/NA	Water	SM 2540C	
550-162771-10	FC-CCR-MW16-0421	Total/NA	Water	SM 2540C	
550-162771-17	FC-CCR-MW24-0421	Total/NA	Water	SM 2540C	
550-162771-20	FC-CCR-MW384R-0421	Total/NA	Water	SM 2540C	
550-162771-21	FC-CCR-MW56-0421	Total/NA	Water	SM 2540C	
550-162771-23	FC-CCR-MW57-0421	Total/NA	Water	SM 2540C	
MB 550-240829/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-240829/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-240829/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-162768-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	
550-162771-8 DU	FC-CCR-MW06-0421	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 240994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-3	FC-CCR-DMX04-0421	Total/NA	Water	SM 2320B	
550-162771-4	FC-CCR-DMX06-0421	Total/NA	Water	SM 2320B	
550-162771-8	FC-CCR-MW06-0421	Total/NA	Water	SM 2320B	
550-162771-9	FC-CCR-MW15-0421	Total/NA	Water	SM 2320B	
550-162771-10	FC-CCR-MW16-0421	Total/NA	Water	SM 2320B	
550-162771-12	FC-CCR-MW17R-0421	Total/NA	Water	SM 2320B	
MB 550-240994/34	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-240994/33	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-240994/46	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-162768-A-10 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 241118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-241118/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-241118/2	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-241118/3	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 241119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-2	FC-CCR-DMX03-0421	Total/NA	Water	SM 2320B	
550-162771-7	FC-CCR-MW05-0421	Total/NA	Water	SM 2320B	
550-162771-21	FC-CCR-MW56-0421	Total/NA	Water	SM 2320B	
550-162673-E-2 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 241148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-16	FC-CCR-MW23R-0421	Total/NA	Water	SM 2320B	
550-162771-17	FC-CCR-MW24-0421	Total/NA	Water	SM 2320B	
550-162771-19	FC-CCR-MW36R-0421	Total/NA	Water	SM 2320B	
550-162771-20	FC-CCR-MW384R-0421	Total/NA	Water	SM 2320B	
550-162771-23	FC-CCR-MW57-0421	Total/NA	Water	SM 2320B	
MB 550-241148/7	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-241148/6	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-241148/20	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-162829-A-2 DU	Duplicate	Total/NA	Water	SM 2320B	
550-162873-E-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 241582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-2	FC-CCR-DMX03-0421	Total/NA	Water	SM 4500 H+ B	
550-162771-3	FC-CCR-DMX04-0421	Total/NA	Water	SM 4500 H+ B	
550-162771-4	FC-CCR-DMX06-0421	Total/NA	Water	SM 4500 H+ B	
550-162771-7	FC-CCR-MW05-0421	Total/NA	Water	SM 4500 H+ B	
550-162771-8	FC-CCR-MW06-0421	Total/NA	Water	SM 4500 H+ B	
550-162771-9	FC-CCR-MW15-0421	Total/NA	Water	SM 4500 H+ B	
550-162771-10	FC-CCR-MW16-0421	Total/NA	Water	SM 4500 H+ B	
550-162771-12	FC-CCR-MW17R-0421	Total/NA	Water	SM 4500 H+ B	
550-162771-13	FC-CCR-MW18-0421	Total/NA	Water	SM 4500 H+ B	
550-162771-16	FC-CCR-MW23R-0421	Total/NA	Water	SM 4500 H+ B	
550-162771-17	FC-CCR-MW24-0421	Total/NA	Water	SM 4500 H+ B	
550-162771-19	FC-CCR-MW36R-0421	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 241582 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-20	FC-CCR-MW384R-0421	Total/NA	Water	SM 4500 H+ B	
550-162771-21	FC-CCR-MW56-0421	Total/NA	Water	SM 4500 H+ B	
550-162771-23	FC-CCR-MW57-0421	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-241582/49	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-241582/61	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-241582/73	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-241582/79	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-162769-A-9 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	
550-162771-4 DU	FC-CCR-DMX06-0421	Total/NA	Water	SM 4500 H+ B	
550-162771-20 DU	FC-CCR-MW384R-0421	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 241839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-241839/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-241839/2	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-241839/3	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 241840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-162771-13	FC-CCR-MW18-0421	Total/NA	Water	SM 2320B	
550-162771-13 DU	FC-CCR-MW18-0421	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162771-1
SDG: APS Four Corners Power plant

Client Sample ID: FC-CCR-DMX01-0421

Lab Sample ID: 550-162771-1
Date Collected: 04/25/21 10:04
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 21:33	MGM	TAL PHX
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 20:19	ARE	TAL PHX

Client Sample ID: FC-CCR-DMX03-0421

Lab Sample ID: 550-162771-2
Date Collected: 04/25/21 13:45
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	241876	05/08/21 02:20	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241876	05/08/21 02:47	JRP	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 21:36	MGM	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	241402	05/04/21 17:57	MGM	TAL PHX
Total/NA	Prep	200.7			535042	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 15:17	LMT	TAL DEN
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 20:21	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	241119	05/02/21 13:20	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
					(Start)	04/29/21 08:38		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-DMX04-0421

Lab Sample ID: 550-162771-3
Date Collected: 04/25/21 15:24
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	241876	05/08/21 04:10	JRP	TAL PHX
Total/NA	Analysis	300.0		100	241876	05/08/21 04:37	JRP	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 22:26	MGM	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	241402	05/04/21 18:50	MGM	TAL PHX
Total/NA	Prep	200.7			535042	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 16:40	LMT	TAL DEN
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 20:23	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	240994	04/29/21 19:22	DGS	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162771-1
SDG: APS Four Corners Power plant

Client Sample ID: FC-CCR-DMX04-0421
Date Collected: 04/25/21 15:24
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162771-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-DMX06-0421
Date Collected: 04/27/21 10:12
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162771-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	241876	05/08/21 05:04	JRP	TAL PHX
Total/NA	Analysis	300.0		100	241876	05/08/21 05:32	JRP	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 21:40	MGM	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	241402	05/04/21 18:00	MGM	TAL PHX
Total/NA	Prep	200.7			535039	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 21:11	LMT	TAL DEN
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 20:25	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	240994	04/29/21 19:32	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	240829		YET	TAL PHX
					(Start)	04/29/21 08:40		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW01-0421
Date Collected: 04/24/21 10:03
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162771-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 21:44	MGM	TAL PHX
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 20:27	ARE	TAL PHX

Client Sample ID: FC-CCR-MW03-0421
Date Collected: 04/24/21 10:46
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162771-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 21:48	MGM	TAL PHX
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 20:29	ARE	TAL PHX

Client Sample ID: FC-CCR-MW05-0421

Lab Sample ID: 550-162771-7

Date Collected: 04/25/21 14:37
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241876	05/08/21 05:59	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241876	05/08/21 06:27	JRP	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 21:52	MGM	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	241402	05/04/21 18:04	MGM	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	241402	05/04/21 18:08	MGM	TAL PHX
Total/NA	Prep	200.7			535042	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 16:43	LMT	TAL DEN
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 20:31	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	241119	05/02/21 13:20	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
					(Start)	04/29/21 08:38		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW06-0421

Lab Sample ID: 550-162771-8

Date Collected: 04/26/21 14:44
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241950	05/10/21 21:50	JRP	TAL PHX
Total/NA	Analysis	300.0		500	241950	05/10/21 22:18	JRP	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 21:55	MGM	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	241402	05/04/21 18:12	MGM	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	241402	05/04/21 18:16	MGM	TAL PHX
Total/NA	Prep	200.7			535040	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 19:40	LMT	TAL DEN
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 20:33	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	240994	04/29/21 19:57	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	240829		YET	TAL PHX
					(Start)	04/29/21 08:40		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162771-1
SDG: APS Four Corners Power plant

Client Sample ID: FC-CCR-MW15-0421

Date Collected: 04/27/21 10:56
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162771-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	241950	05/10/21 16:21	JRP	TAL PHX
Total/NA	Analysis	300.0		100	241950	05/10/21 16:49	JRP	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 21:59	MGM	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	241402	05/04/21 18:19	MGM	TAL PHX
Total/NA	Prep	200.7			535042	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 17:04	LMT	TAL DEN
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 20:35	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	240994	04/29/21 20:09	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	240829		YET	TAL PHX
					(Start)	04/29/21 08:40		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW16-0421

Date Collected: 04/27/21 11:43
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162771-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	241874	05/08/21 09:11	JRP	TAL PHX
Total/NA	Analysis	300.0		100	241874	05/08/21 09:38	JRP	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 22:03	MGM	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	241402	05/04/21 18:23	MGM	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	241402	05/04/21 18:35	MGM	TAL PHX
Total/NA	Prep	200.7			535042	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 17:07	LMT	TAL DEN
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 20:38	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	240994	04/29/21 20:21	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	240829		YET	TAL PHX
					(Start)	04/29/21 08:40		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-FD03-0421

Lab Sample ID: 550-162771-11

Date Collected: 04/24/21 10:03
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 22:14	MGM	TAL PHX
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 20:44	ARE	TAL PHX

Client Sample ID: FC-CCR-MW17R-0421

Lab Sample ID: 550-162771-12

Date Collected: 04/25/21 16:53
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	241950	05/10/21 18:11	JRP	TAL PHX
Total/NA	Analysis	300.0		100	241950	05/10/21 18:39	JRP	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 22:18	MGM	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	241402	05/04/21 18:38	MGM	TAL PHX
Total/NA	Prep	200.7			535042	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 17:10	LMT	TAL DEN
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 20:46	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	240994	04/29/21 20:30	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
					(Start)	04/29/21 08:38		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW18-0421

Lab Sample ID: 550-162771-13

Date Collected: 04/25/21 16:18
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241953	05/11/21 02:25	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241953	05/11/21 02:52	JRP	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 22:22	MGM	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	241402	05/04/21 18:42	MGM	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	241402	05/04/21 18:46	MGM	TAL PHX
Total/NA	Prep	200.7			535042	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 17:14	LMT	TAL DEN
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 20:48	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	241840	05/09/21 12:45	DGS	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162771-1
SDG: APS Four Corners Power plant

Client Sample ID: FC-CCR-MW18-0421
Date Collected: 04/25/21 16:18
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162771-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW19-0421
Date Collected: 04/25/21 10:53
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162771-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 21:29	MGM	TAL PHX
Total/NA	Prep	200.8			241000	04/30/21 09:03	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	241594	05/05/21 15:15	ARE	TAL PHX

Client Sample ID: FC-CCR-MW21-0421
Date Collected: 04/24/21 11:36
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162771-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	241402	05/04/21 18:53	MGM	TAL PHX
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 20:52	ARE	TAL PHX

Client Sample ID: FC-CCR-MW23R-0421
Date Collected: 04/25/21 12:06
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162771-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241947	05/10/21 15:10	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241947	05/10/21 15:28	JRP	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 22:33	MGM	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	241402	05/04/21 18:57	MGM	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	241402	05/04/21 19:01	MGM	TAL PHX
Total/NA	Prep	200.7			535042	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 17:17	LMT	TAL DEN
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 20:54	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	241148	05/02/21 12:19	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
					(Start)	04/29/21 08:38		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW24-0421

Lab Sample ID: 550-162771-17

Date Collected: 04/26/21 13:50
Date Received: 04/28/21 16:44

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241874	05/08/21 10:33	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241874	05/08/21 11:01	JRP	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 22:37	MGM	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	241402	05/04/21 19:05	MGM	TAL PHX
Total/NA	Prep	200.7			535042	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 17:21	LMT	TAL DEN
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 20:56	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	241148	05/02/21 12:28	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	240829		YET	TAL PHX
					(Start)	04/29/21 08:40		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW30-0421

Lab Sample ID: 550-162771-18

Date Collected: 04/25/21 09:24
Date Received: 04/28/21 16:44

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 22:41	MGM	TAL PHX
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 20:58	ARE	TAL PHX

Client Sample ID: FC-CCR-MW36R-0421

Lab Sample ID: 550-162771-19

Date Collected: 04/25/21 13:00
Date Received: 04/28/21 16:44

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241874	05/08/21 11:28	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241874	05/08/21 11:55	JRP	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 22:44	MGM	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	241402	05/04/21 19:09	MGM	TAL PHX
Total/NA	Prep	200.7			535042	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 17:37	LMT	TAL DEN
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 21:01	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	241148	05/02/21 12:37	DGS	TAL PHX

Client Sample ID: FC-CCR-MW36R-0421

Lab Sample ID: 550-162771-19

Date Collected: 04/25/21 13:00
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	240828		YET	TAL PHX
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW384R-0421

Lab Sample ID: 550-162771-20

Date Collected: 04/27/21 07:36
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241947	05/10/21 16:23	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241947	05/10/21 16:42	JRP	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241267	05/03/21 22:48	MGM	TAL PHX
Total/NA	Prep	200.7			240937	04/29/21 19:47	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	241402	05/04/21 19:20	MGM	TAL PHX
Total/NA	Prep	200.7			535039	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 21:38	LMT	TAL DEN
Total/NA	Prep	200.8			240781	04/28/21 21:16	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242137	05/11/21 21:03	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	241148	05/02/21 12:45	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	240829		YET	TAL PHX
					(Start)	04/29/21 08:40		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW56-0421

Lab Sample ID: 550-162771-21

Date Collected: 04/26/21 11:41
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	241947	05/10/21 17:00	JRP	TAL PHX
Total/NA	Analysis	300.0		200	241947	05/10/21 17:19	JRP	TAL PHX
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 00:07	MGM	TAL PHX
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	241404	05/04/21 20:17	MGM	TAL PHX
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	241531	05/05/21 22:31	MGM	TAL PHX
Total/NA	Prep	200.7			535042	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 17:47	LMT	TAL DEN
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 21:21	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	241119	05/02/21 13:20	DGS	TAL PHX

Client Sample ID: FC-CCR-MW56-0421

Lab Sample ID: 550-162771-21

Date Collected: 04/26/21 11:41
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	240829		YET	TAL PHX
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-FD05-0421

Lab Sample ID: 550-162771-22

Date Collected: 04/25/21 10:53
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 00:11	MGM	TAL PHX
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 21:19	ARE	TAL PHX

Client Sample ID: FC-CCR-MW57-0421

Lab Sample ID: 550-162771-23

Date Collected: 04/27/21 08:26
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	241947	05/10/21 17:37	JRP	TAL PHX
Total/NA	Analysis	300.0		100	241947	05/10/21 17:55	JRP	TAL PHX
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 00:04	MGM	TAL PHX
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	241404	05/04/21 20:13	MGM	TAL PHX
Total/NA	Prep	200.7			535042	05/06/21 16:25	EAS	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	535416	05/07/21 17:51	LMT	TAL DEN
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 21:24	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	241148	05/02/21 13:42	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	240829		YET	TAL PHX
					(Start)	04/29/21 08:40		
					(End)	04/30/21 09:40		
Total/NA	Analysis	SM 4500 H+ B		1	241582	05/05/21 17:02	JMN	TAL PHX

Client Sample ID: FC-CCR-MW60-0421

Lab Sample ID: 550-162771-24

Date Collected: 04/24/21 09:30
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 00:15	MGM	TAL PHX
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 21:26	ARE	TAL PHX

Client Sample ID: FC-CCR-MW77S-0421
Lab Sample ID: 550-162771-25
Date Collected: 04/24/21 13:51
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 00:19	MGM	TAL PHX
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 21:28	ARE	TAL PHX

Client Sample ID: FC-CCR-MW78S-0421
Lab Sample ID: 550-162771-26
Date Collected: 04/24/21 14:57
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 00:23	MGM	TAL PHX
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 21:30	ARE	TAL PHX

Client Sample ID: FC-CCR-MW79S-0421
Lab Sample ID: 550-162771-27
Date Collected: 04/24/21 16:29
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 00:26	MGM	TAL PHX
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 21:32	ARE	TAL PHX

Client Sample ID: FC-CCR-MW81-0421
Lab Sample ID: 550-162771-28
Date Collected: 04/24/21 15:38
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 00:30	MGM	TAL PHX
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 21:34	ARE	TAL PHX

Client Sample ID: FC-CCR-FD061-0421
Lab Sample ID: 550-162771-29
Date Collected: 04/24/21 15:38
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 00:34	MGM	TAL PHX
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 21:36	ARE	TAL PHX

Client Sample ID: FC-CCR-SUMP1-0421
Lab Sample ID: 550-162771-30
Date Collected: 04/23/21 08:01
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 00:38	MGM	TAL PHX
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 21:38	ARE	TAL PHX

Client Sample ID: FC-CCR-SUMP2-0421
Lab Sample ID: 550-162771-31
Date Collected: 04/23/21 09:38
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 00:49	MGM	TAL PHX
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 21:45	ARE	TAL PHX

Client Sample ID: FC-CCR-SUMP3-0421
Lab Sample ID: 550-162771-32
Date Collected: 04/23/21 09:10
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 00:53	MGM	TAL PHX
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 21:47	ARE	TAL PHX

Client Sample ID: FC-CCR-SUMP7-0421
Lab Sample ID: 550-162771-33
Date Collected: 04/23/21 10:17
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 00:57	MGM	TAL PHX
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 21:49	ARE	TAL PHX

Client Sample ID: FC-CCR-SUMP8-0421
Lab Sample ID: 550-162771-34
Date Collected: 04/23/21 09:55
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 01:00	MGM	TAL PHX
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 21:51	ARE	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162771-1
SDG: APS Four Corners Power plant

Client Sample ID: FC-CCR-SUMP9-0421
Lab Sample ID: 550-162771-35
Date Collected: 04/23/21 10:27
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 01:04	MGM	TAL PHX
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 21:53	ARE	TAL PHX

Client Sample ID: FC-CCR-SUMP10-0421
Lab Sample ID: 550-162771-36
Date Collected: 04/23/21 10:35
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 01:08	MGM	TAL PHX
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 21:55	ARE	TAL PHX

Client Sample ID: FC-CCR-SUMP11-0421
Lab Sample ID: 550-162771-37
Date Collected: 04/23/21 10:42
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 01:12	MGM	TAL PHX
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 21:57	ARE	TAL PHX

Client Sample ID: FC-CCR-SUMP12-0421
Lab Sample ID: 550-162771-38
Date Collected: 04/23/21 10:51
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 01:15	MGM	TAL PHX
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 21:59	ARE	TAL PHX

Client Sample ID: FC-CCR-SUMP13-0421
Lab Sample ID: 550-162771-39
Date Collected: 04/23/21 11:01
Matrix: Water
Date Received: 04/28/21 16:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 01:19	MGM	TAL PHX
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 22:02	ARE	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162771-1
SDG: APS Four Corners Power plant

Client Sample ID: FC-CCR-SUMP14-0421
Date Collected: 04/23/21 11:10
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162771-40
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240940	04/29/21 20:28	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241269	05/04/21 01:23	MGM	TAL PHX
Total/NA	Prep	200.8			240782	04/28/21 21:43	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		4	242138	05/11/21 22:04	ARE	TAL PHX

Client Sample ID: FC-CCR-SUMP15-0421
Date Collected: 04/23/21 11:08
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162771-41
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241270	05/04/21 02:54	MGM	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242136	05/11/21 19:56	ARE	TAL PHX

Client Sample ID: FC-CCR-SUMP16-0421
Date Collected: 04/23/21 11:29
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162771-42
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241270	05/04/21 02:57	MGM	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242136	05/11/21 19:58	ARE	TAL PHX

Client Sample ID: FC-CCR-SUMP17-0421
Date Collected: 04/23/21 11:36
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162771-43
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241270	05/04/21 03:01	MGM	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242136	05/11/21 20:00	ARE	TAL PHX

Client Sample ID: FC-CCR-SUMP18-0421
Date Collected: 04/23/21 11:46
Date Received: 04/28/21 16:44

Lab Sample ID: 550-162771-44
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			240942	04/29/21 21:19	SXF	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	241270	05/04/21 03:05	MGM	TAL PHX
Total/NA	Prep	200.8			240831	04/29/21 08:46	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	242136	05/11/21 20:02	ARE	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162771-1
SDG: APS Four Corners Power plant

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162771-1
SDG: APS Four Corners Power plant

Laboratory: Eurofins TestAmerica, 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	06-08-21

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 2320B		Water	Alkalinity, Phenolphthalein
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins TestAmerica, Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-21
A2LA	ISO/IEC 17025	2907.01	10-31-21
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-28-22
Arizona	State	AZ0713	12-21-21
Arkansas DEQ	State	19-047-0	06-01-21
California	State	2513	01-08-22
Connecticut	State	PH-0686	11-30-22
Florida	NELAP	E87667-57	07-01-21
Georgia	State	4025-011	01-08-22
Illinois	NELAP	2000172019-1	04-30-21 *
Iowa	State	IA#370	12-02-21
Kansas	NELAP	E-10166	04-30-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-21
Minnesota	NELAP	1788752	12-31-21
Nevada	State	CO000262020-1	07-31-21
New Hampshire	NELAP	205319	04-29-22
New Jersey	NELAP	190002	06-30-21
New York	NELAP	59923	04-01-22
North Carolina (WW/SW)	State	358	12-31-21
North Dakota	State	R-034	01-08-22
Oklahoma	State	2018-006	09-01-21
Oregon	NELAP	4025-011	01-08-22
Pennsylvania	NELAP	013	07-31-21
South Carolina	State	72002001	01-08-22
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-20-18	09-30-21
US Fish & Wildlife	US Federal Programs	058448	08-01-21
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-21
Virginia	NELAP	10490	06-14-21
Washington	State	C583-19	08-03-21
West Virginia DEP	State	354	11-30-21
Wisconsin	State	999615430	08-31-21
Wyoming (UST)	A2LA	2907.01	10-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-162771-1
SDG: APS Four Corners Power plant

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
200.8 LL	Metals (ICP/MS)	EPA	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 4500 H+ B	pH	SM	TAL PHX
200.7	Preparation, Total Metals	EPA	TAL DEN
200.7	Preparation, Total Metals	EPA	TAL PHX
200.8	Preparation, Total Metals	EPA	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, 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 602.454.9305

550-162771 Chain of Custody

Chain of Custody Record

162771

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

5/12/2021

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	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			
Site: APS Four Corners Power Plant (Other)	☐ 2 days			Job / SDG No.:
PO #: 100611133	☐ 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, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be, Li, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Li, K, Mg, Na, Mn, Fe)	EPA 200.7 - Totals (B, Ca, Be, Li, K, Mg, Na, Mn, Fe)	EPA 200.8 - Totals (Co, Mo)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 2320B (CO3 Alkalinity as CaCO3, HCO3 Alkalinity as					Sample Specific Notes:
1	FC-CCR-DMX01-0421	4/25/2021	10:04	G	W	1	N	N		X					X								Low Flow
2	FC-CCR-DMX03-0421	4/25/2021	13:45	G	W	2	N	N	X					X		X	X	X	X				"
3	FC-CCR-DMX04-0421	4/25/2021	15:24	G	W	2	N	N	X					X		X	X	X	X				"
4	FC-CCR-DMX06-0421	4/27/2021	10:12	G	W	2	N	N	X					X		X	X	X	X				"
5	FC-CCR-MW01-0421	4/24/2021	10:03	G	W	1	N	N		X					X								"
6	FC-CCR-MW03-0421	4/24/2021	10:46	G	W	1	N	N		X					X								"
7	FC-CCR-MW05-0421	4/25/2021	14:37	G	W	2	N	N	X		X		X		X		X	X	X				"
8	FC-CCR-MW06-0421	4/26/2021	14:44	G	W	2	N	N	X					X		X	X	X	X				"
9	FC-CCR-MW15-0421	4/27/2021	10:56	G	W	2	N	N	X					X		X	X	X	X				"
10	FC-CCR-MW16-0421	4/27/2021	11:43	G	W	2	N	N	X			X				X	X	X	X				"
11	FC-CCR-FD03-0421	4/24/2021	10:03	G	W	1	N	N		X					X								"
									1	4	4	4	4	4	1	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

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____		
Relinquished by:	Company: Woodard	Date/Time: 04-28-21 16:44	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: Date/Time: ETAMPX 4/28/21 1644

COC 1.9

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

162771

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

5/12/2021

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	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 #: 100611133	☐ 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, Li, K, Mg, Na, Mn, Fe)	EPA 200.7 - Totals (B, Ca, Be, Li, K, Mg, Na, Mn, Fe)	EPA 200.8 - Totals (Co, Mo)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 2320B (CO3 Alkalinity as CaCO3, HCO3 Alkalinity as	Sample Specific Notes:
2	FC-CCR-MW17R-0421	4/25/2021	16:53	G	W	2	N	N	X			X		X	X	X	X	Low Flow
3	FC-CCR-MW18-0421	4/25/2021	16:18	G	W	2	N	N	X		X		X		X	X	X	"
14	FC-CCR-MW19-0421	4/25/2021	10:53	G	W	1	N	Y		X			X					"
15	FC-CCR-MW21-0421	4/24/2021	11:36	G	W	1	N	N		X			X					"
16	FC-CCR-MW23R-0421	4/25/2021	12:06	G	W	2	N	N	X		X		X		X	X	X	"
17	FC-CCR-MW24-0421	4/26/2021	13:50	G	W	2	N	N	X		X		X		X	X	X	"
18	FC-CCR-MW30-0421	4/25/2021	9:24	G	W	1	N	N		X			X					"
19	FC-CCR-MW36R-0421	4/25/2021	13:00	G	W	2	N	N	X		X		X		X	X	X	"
20	FC-CCR-MW38R-0421	4/27/2021	7:36	G	W	2	N	N	X			X		X	X	X	X	"
21	FC-CCR-MW56-0421	4/26/2021	11:41	G	W	2	N	N	X			X		X	X	X	X	"
22	FC-CCR-FD05-0421	4/25/2021	10:53	G	W	1	N	N		X			X					"
									1	4	4	4	1	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

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]	Wood PLC	04-28-21/16:44			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Nicole Gruel	Company: Eth PHX	Date/Time: 4/28/21 1644

COD 0.3

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

162771

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

5/12/2021

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	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			
Site: APS Four Corners Power Plant (Other)	☐ 2 days			Job / SDG No.:
PO #: 100611133	☐ 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, Mn, Fe)	EPA 200.7 - Totals (B, Ca, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Be, Li, K, Mg, Na, Mn, Fe)	EPA 200.8 - Totals (Co, Mo)	EPA 200.8 - Totals (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	SM 4500-HB (pH)	SM 2540C (TDS)	SM 2320B (CO3 Alkalinity as CaCO3, HCO3 Alkalinity as	Sample Specific Notes:
23	FC-CCR-MW57-0421	4/27/2021	8:26	G	W	2	N	N	X				X		X	X	X	X	Low Flow
24	FC-CCR-MW60-0421	4/24/2021	9:30	G	W	1	N	N		X				X					"
25	FC-CCR-MW77S-0421	4/24/2021	13:51	G	W	1	N	N		X				X					"
26	FC-CCR-MW78S-0421	4/24/2021	14:57	G	W	1	N	N		X				X					"
27	FC-CCR-MW79S-0421	4/24/2021	16:29	G	W	1	N	N		X				X					"
28	FC-CCR-MW81-0421	4/24/2021	15:38	G	W	1	N	N		X				X					"
29	FC-CCR-FD06-0421	4/24/2021	15:38	G	W	1	N	N		X				X					Low Flow
30	FC-CCR-SUMP1-0421	4/23/2021	8:01	G	W	1	N	N			X			X					Sample Port
31	FC-CCR-SUMP2-0421	4/23/2021	9:38	G	W	1	N	N			X			X					Bail
32	FC-CCR-SUMP3-0421	4/23/2021	9:10	G	W	1	N	N			X			X					"
33	FC-CCR-SUMP7-0421	4/23/2021	10:17	G	W	1	N	N			X			X					Sample Port
34	FC-CCR-SUMP8-0421	4/23/2021	9:55	G	W	1	N	N			X			X					"
	Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								1	4	4	4	4	4	4	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

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]	Wood PLC	4-28-21/16:44			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Nicole Grewel	Company: ETA PHX	Date/Time: 4/29/21 1644

COD 0.3

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

Page 92 of 96

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

162771

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

5/12/2021

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	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			
Site: APS Four Corners Power Plant (Other)	☐ 2 days			Job / SDG No.:
PO #: 100611133	☐ 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 200.7 - Totals (B, Mn, Fe)	EPA 200.8 - Totals (Co, Mo)	Sample Specific Notes:
35	FC-CCR-SUMP9-0421	4/23/2021	10:27	G	W	1	N	N	X	X	Sample Port
36	FC-CCR-SUMP10-0421	4/23/2021	10:35	G	W	1	N	N	X	X	"
37	FC-CCR-SUMP11-0421	4/23/2021	10:42	G	W	1	N	N	X	X	"
38	FC-CCR-SUMP12-0421	4/23/2021	10:51	G	W	1	N	N	X	X	"
39	FC-CCR-SUMP13-0421	4/23/2021	11:01	G	W	1	N	N	X	X	"
40	FC-CCR-SUMP14-0421	4/23/2021	11:10	C	W	1	N	N	X	X	Sampled Port, Pump A&B
41	FC-CCR-SUMP15-0421	4/23/2021	11:18	C	W	1	N	N	X	X	Sampled Port, Pump A&B
42	FC-CCR-SUMP16-0421	4/23/2021	11:29	C	W	1	N	N	X	X	Sampled Port, Pump A&B
43	FC-CCR-SUMP17-0421	4/23/2021	11:36	G	W	1	N	N	X	X	"
44	FC-CCR-SUMP18-0421	4/23/2021	11:46	G	W	1	N	N	X	X	"
	Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____								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

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____		
Relinquished by:	Company: Wood PLC	Date/Time: 04-23-21/1644	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Nicole Steed	Company: ETA PHX	Date/Time: 4/23/21 1644

COC 1.8

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd Suite 189
Phoenix, AZ 85040
Phone: 602-437-3340 Fax: 602-454-9303

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Baker, Ken	Carrier Tracking No(s):	COC No: 550-30773.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Baker@Eurofinset.com	State of Origin: Arizona	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Arizona		Job #: 550-162771-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 5/11/2021			
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 #: 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, 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_TOT Lithium-ICP	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
FC-CCR-DMX03-0421 (550-162771-2)	4/25/21	13:45 Arizona		Water			X	1	AZ Sample
FC-CCR-DMX04-0421 (550-162771-3)	4/25/21	15:24 Arizona		Water			X	1	AZ Sample
FC-CCR-DMX06-0421 (550-162771-4)	4/27/21	10:12 Arizona		Water			X	1	AZ Sample
FC-CCR-MW05-0421 (550-162771-7)	4/25/21	14:37 Arizona		Water			X	1	AZ Sample
FC-CCR-MW06-0421 (550-162771-8)	4/26/21	14:44 Arizona		Water			X	1	AZ Sample
FC-CCR-MW15-0421 (550-162771-9)	4/27/21	10:56 Arizona		Water			X	1	AZ Sample
FC-CCR-MW16-0421 (550-162771-10)	4/27/21	11:43 Arizona		Water			X	1	AZ Sample
FC-CCR-MW17R-0421 (550-162771-12)	4/25/21	16:53 Arizona		Water			X	1	AZ Sample
FC-CCR-MW18-0421 (550-162771-13)	4/25/21	16:18 Arizona		Water			X	1	AZ Sample

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

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: 04-30-21 15:15	Company: TA Phx	Received by: Fedex	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by: [signature]	Date/Time: 5/1/2021 0935	Company: EDAPen
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, #11, +0.4 K		

Ver: 11/01/2020

5/12/2021

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-162771-1
SDG Number: APS Four Corners Power plant

Login Number: 162771
List Number: 1
Creator: Maycock, Lisa

List Source: Eurofins TestAmerica, 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: 550-162771-1
SDG Number: APS Four Corners Power plant

Login Number: 162771
List Number: 2
Creator: O'Hara, Jake F

List Source: Eurofins TestAmerica, Denver
List Creation: 05/01/21 04:41 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.	False	
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: April 25, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-DMX03-0421	< 0.4	< 0.8	< 0.8
Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/13/2021
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: _____

April 25, 2021 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66499

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. (480) 897-9459

Comments: FC-CCR-DMX03-0421

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

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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: April 25, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-DMX04-0421	< 0.4	< 0.8	< 0.8
Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/13/2021 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: _____

April 25, 2021 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66500

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. (480) 897-9459

Comments: FC-CCR-DMX04-0421

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: April 27, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-DMX06-0421	< 0.4	< 0.8	< 0.8

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/13/2021
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: _____

April 27, 2021 (Sample Date) 10:12 (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 — 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66501

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. (480) 897-9459

Comments: FC-CCR-DMX06-0421

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: April 26, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW06-0421	< 0.4	< 0.8	< 0.8

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P.

5/13/2021
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: _____

April 26, 2021 (Sample Date) 14:44 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66502

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. (480) 897-9459

Comments: FC-CCR-MW06-0421

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Radiation Safety Engineering, Inc.

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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: April 27, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW15-0421	< 0.4	< 0.8	< 0.8

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/13/2021 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: _____

April 27, 2021 (Sample Date) 10:56 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66503

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. (480) 897-9459

Comments: FC-CCR-MW15-0421

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: April 27, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW16-0421	0.9 ± 0.2	1.1 ± 0.4	2.0 ± 0.4
Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/13/2021 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: _____

April 27, 2021 (Sample Date) 11:43 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	2.0 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	0.9 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	1.1 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66504

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. (480) 897-9459

Comments: FC-CCR-MW16-0421

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: April 25, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

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-0421	0.9 ± 0.2	1.3 ± 0.4	2.2 ± 0.4
Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/13/2021
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: _____

April 25, 2021 (Sample Date) 16:53 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	2.2 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	0.9 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	1.3 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66505

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. (480) 897-9459

Comments: FC-CCR-MW17R-0421

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: April 27, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

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-0421	< 0.4	< 0.8	< 0.8

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/13/2021 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: _____

April 27, 2021 (Sample Date) 7:36 (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

☐ 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	< 0.8		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	< 0.8		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66506

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. (480) 897-9459

Comments: FC-CCR-MW38R-0421

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: April 26, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW56-0421	0.5 ± 0.2	2.2 ± 0.4	2.7 ± 0.4

Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/13/2021
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: _____

April 26, 2021 (Sample Date) 11:41 (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 — 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	2.7 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	0.5 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	2.2 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

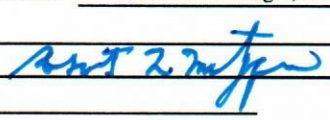
Specimen Number: RSE66507

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. (480) 897-9459

Comments: FC-CCR-MW56-0421

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: April 27, 2021
Sample Received: April 29, 2021
Analysis Completed: May 13, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW57-0421	< 0.4	0.9 ± 0.4	0.9 ± 0.4
Date of Analysis	4/30/2021	4/30/2021	4/30/2021

Robert L. Metzger, Ph.D., C.H.P. 5/13/2021
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: _____

April 27, 2021 (Sample Date) 8:26 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	4/30/2021	0.9 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	4/30/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	4/30/2021	0.9 ± 0.4		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE66508

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. (480) 897-9459

Comments: FC-CCR-MW57-0421

Authorized Signature: Robert L. Metzger

Date Public Water System Notified: _____

DWAR 6: 11/2007

Client Information		Radiation Safety Engineering, Inc.	
Name:	Natalie Chrisman/602-250-3608 Jim Edwards/928-288-1241	3245 North Washington Street	Chandler, Arizona 85225
Company	Arizona Public Service	Analysis Request	
Address	PO Box 355, MS 4915 Fruitland, NM 87416		
Phone			
Site	APS Four Corners Power Plant (Other)		

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-DMX03-0421	4/25/2021	13:45	GW						X	X	X				166499	
FC-CCR-DMX04-0421	4/25/2021	15:24	GW						X	X	X				166500	
FC-CCR-DMX06-0421	4/27/2027	10:12	GW						X	X	X				166501	
FC-CCR-MW06-0421	4/26/2027	14:44	GW						X	X	X				166502	
FC-CCR-MW15-0421	4/27/2021	10:56	GW						X	X	X				166503	
FC-CCR-MW16-0421	4/27/2021	11:43	GW						X	X	X				166504	
FC-CCR-MW17R-0421	4/25/2021	16:53	GW						X	X	X				166505	
FC-CCR-MW38R-0421	4/27/2021	7:36	GW						X	X	X				166506	
FC-CCR-MW56-0421	4/26/2021	11:41	GW						X	X	X				166507	
FC-CCR-MW57-0421	4/27/2021	8:26	GW						X	X	X				166508	

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:

Instructions/Comments

Method HPGe

Relinquished By:	Company: Wood	Date/time: 4/29/21 12:10	Received By: Pat Flanning		Company: RSE	Date/time: 4.29.21	
Relinquished By:	Company:	Date/time:	Received By:		Company:	Date/time: 12:10	
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 America

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-174392-1
Laboratory SDG: APS Four Corners Power Plant (Other)
Client Project/Site: CCR Groundwater Monitoring

For:
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Attn: Natalie Chrisman

Rachel E. Sester

Authorized for release by:
11/30/2021 2:21:15 PM

Rachel Sester, Project Manager I
(602)659-7615
Rachel.Sester@Eurofinset.com

LINKS

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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174392-1
SDG: APS Four Corners Power Plant (Other)

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.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
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.
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.
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of analyte.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target 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.

General Chemistry

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
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.
R8	Sample RPD exceeded the method acceptance limit.

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)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: 550-174392-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-174392-1

Comments
No additional comments.

Receipt
The samples were received on 11/16/2021 3:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 0.2º C, 0.9º C, 1.3º C, 1.5º C and 1.8º C.

Receipt Exceptions
All sample containers received in Denver have 75-125ml of volume.

FC-CCR-DMX01 (550-174392-1), FC-CCR-DMX03 (550-174392-2), FC-CCR-MW01 (550-174392-3), FC-CCR-MW03 (550-174392-4), FC-CCR-FD05 (550-174392-5), FC-CCR-MW19 (550-174392-6), FC-CCR-MW21 (550-174392-7), FC-CCR-MW23R (550-174392-8), FC-CCR-MW30 (550-174392-9), FC-CCR-MW36R (550-174392-10), FC-CCR-FD06 (550-174392-11), FC-CCR-MW60 (550-174392-12), FC-CCR-MW77S (550-174392-13), FC-CCR-MW77S (550-174392-13[MS]), FC-CCR-MW77S (550-174392-13[MSD]), FC-CCR-MW78S (550-174392-14), FC-CCR-MW79S (550-174392-15), FC-CCR-MW81 (550-174392-16), FC-CCR-MW82S (550-174392-17) and FC-CCR-FD07 (550-174392-18)

HPLC/IC
Method 300.0: The following sample was diluted for Fluoride by method EPA 300.0 due to the nature of the sample matrix: FC-CCR-DMX03 (550-174392-2). The sample contained high concentrations of Chloride and Sulfate which exceeded the instrument's maximum column capacity. Fluoride was not detected in the diluted sample. As such, elevated reporting limits (RLs) have been provided and the data has been qualified with D1 and D5 flags.

Method 300.0: The following sample was diluted for Fluoride by method EPA 300.0 due to the nature of the sample matrix: (550-174641-A-28 ^2). The sample contained high concentrations of Chloride and Sulfate which exceeded the instrument's maximum column capacity. Fluoride was not detected in the diluted sample. As such, elevated reporting limits (RLs) have been provided and the data has been qualified with D1 and D5 flags.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 200.7 Rev 4.4: The method blank for preparation batch 550-258795 and analytical batch 550-259107 contained Boron above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 200.7 Rev 4.4: The continuing calibration blank (CCB) for analytical batch 550-259107 contained Boron 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.

Method 200.7 Rev 4.4: The following samples were diluted to bring the concentration of target analytes within the calibration range: FC-CCR-DMX03 (550-174392-2), FC-CCR-MW23R (550-174392-8) and FC-CCR-FD06 (550-174392-11). Elevated reporting limits (RLs) are provided.

Method 200.7 Rev 4.4: The following sample was diluted due to the nature of the sample matrix: FC-CCR-MW21 (550-174392-7). Elevated reporting limits (RLs) are provided.

Method 200.7 Rev 4.4: The following sample was diluted to bring the concentration of target analytes within the calibration range: FC-CCR-MW82S (550-174392-17). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Job ID: 550-174392-1 (Continued)

Laboratory: Eurofins TestAmerica, Phoenix (Continued)

Method SM 4500 H+ B: The pH by method by SM 4500H+B for the following samples were outside the instrument calibration range of 1.68 to 12.45: (550-174507-B-3) and (550-174507-B-3 DU). Sample result exceeded the high end of the calibration range. Results reported above the highest calibration standard have less certainty (i.e., are estimated). Therefore, data has been reported as greater than 12.45 and qualified with an N1 flag.

Method SM 2320B: The sample duplicate (DU) precision for the following sample associated with analytical batch 550-259778 was outside control limits for Alkalinity: FC-CCR-DMX03 (550-174392-2) and (550-174392-A-2 DU). Non-homogeneity of the sample matrix was suspected. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision met acceptance criteria.

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: 550-174392-1
SDG: APS Four Corners Power Plant (Other)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-174392-1	FC-CCR-DMX01	Water	11/14/21 11:22	11/16/21 15:15
550-174392-2	FC-CCR-DMX03	Water	11/14/21 14:16	11/16/21 15:15
550-174392-3	FC-CCR-MW01	Water	11/13/21 13:35	11/16/21 15:15
550-174392-4	FC-CCR-MW03	Water	11/13/21 14:06	11/16/21 15:15
550-174392-5	FC-CCR-FD05	Water	11/14/21 10:18	11/16/21 15:15
550-174392-6	FC-CCR-MW19	Water	11/14/21 13:12	11/16/21 15:15
550-174392-7	FC-CCR-MW21	Water	11/13/21 14:40	11/16/21 15:15
550-174392-8	FC-CCR-MW23R	Water	11/14/21 13:44	11/16/21 15:15
550-174392-9	FC-CCR-MW30	Water	11/13/21 15:57	11/16/21 15:15
550-174392-10	FC-CCR-MW36R	Water	11/14/21 14:54	11/16/21 15:15
550-174392-11	FC-CCR-FD06	Water	11/14/21 11:22	11/16/21 15:15
550-174392-12	FC-CCR-MW60	Water	11/13/21 13:06	11/16/21 15:15
550-174392-13	FC-CCR-MW77S	Water	11/13/21 15:23	11/16/21 15:15
550-174392-14	FC-CCR-MW78S	Water	11/14/21 08:58	11/16/21 15:15
550-174392-15	FC-CCR-MW79S	Water	11/14/21 10:50	11/16/21 15:15
550-174392-16	FC-CCR-MW81	Water	11/14/21 10:18	11/16/21 15:15
550-174392-17	FC-CCR-MW82S	Water	11/14/21 12:35	11/16/21 15:15
550-174392-18	FC-CCR-FD07	Water	11/13/21 15:23	11/16/21 15:15

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174392-1
SDG: APS Four Corners Power Plant (Other)

Client Sample ID: FC-CCR-DMX01 — Lab Sample ID: 550-174392-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	99	B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.00073	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.019	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA

Client Sample ID: FC-CCR-DMX03 — Lab Sample ID: 550-174392-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1300	D2	400	100	mg/L	200		300.0	Total/NA
Sulfate	15000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	1.3		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.93	B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	430		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.35		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	2300	D2	10	0.22	mg/L	5		200.7 Rev 4.4	Total/NA
Manganese	0.32		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	58		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	3600	D2	2.5	0.15	mg/L	5		200.7 Rev 4.4	Total/NA
Antimony	0.00011	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Barium	0.018	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.00024	D1	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Chromium	0.0015	D1 E4	0.0020	0.00087	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0013	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.00095	D1 E4	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.0084	D1	0.0010	0.00015	mg/L	2		200.8 LL	Total/NA
Thallium	0.00051	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	950	R8	6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	950	R8	6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	39000	D2	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	9.5	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW01 — Lab Sample ID: 550-174392-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	63	B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.074	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.036	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW03 — Lab Sample ID: 550-174392-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	8.4	B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.00031	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0022	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA

Client Sample ID: FC-CCR-FD05 — Lab Sample ID: 550-174392-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	43	B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.022	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0034	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174392-1
SDG: APS Four Corners Power Plant (Other)

Client Sample ID: FC-CCR-MW19 — Lab Sample ID: 550-174392-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2.1	B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0016	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0032	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW21 — Lab Sample ID: 550-174392-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	4.8	D1	0.25	0.013	mg/L	5		200.7 Rev 4.4	Total/NA
Cobalt	0.0059	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.0039	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW23R — Lab Sample ID: 550-174392-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	900	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.28	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	11000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	1.1		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	14	B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	470		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.19		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	1600	D2	10	0.22	mg/L	5		200.7 Rev 4.4	Total/NA
Potassium	38		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2500	D2	2.5	0.15	mg/L	5		200.7 Rev 4.4	Total/NA
Cobalt	0.00068	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0035	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	500		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	500		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	17000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	10.8	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW30 — Lab Sample ID: 550-174392-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	23	B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0042	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.015	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW36R — Lab Sample ID: 550-174392-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	57	B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.26	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.00056	D1 E4	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA

Client Sample ID: FC-CCR-FD06 — Lab Sample ID: 550-174392-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	100	D2	0.10	0.0051	mg/L	2		200.7 Rev 4.4	Total/NA
Cobalt	0.0010	D1 E4	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.021	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174392-1
SDG: APS Four Corners Power Plant (Other)

Client Sample ID: FC-CCR-MW60 — Lab Sample ID: 550-174392-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	65	B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.25	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.19	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW77S — Lab Sample ID: 550-174392-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	11	B7 M3	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0058	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.020	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW78S — Lab Sample ID: 550-174392-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1.6	B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0071	D1	0.0020	0.00025	mg/L	4		200.8 LL	Total/NA
Molybdenum	0.013	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW79S — Lab Sample ID: 550-174392-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	16	B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0036	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0092	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW81 — Lab Sample ID: 550-174392-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	45	B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.023	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0035	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA

Client Sample ID: FC-CCR-MW82S — Lab Sample ID: 550-174392-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	730	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.35	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	7700	D2	400	85	mg/L	200		300.0	Total/NA
Boron	55	B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	420		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	880		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	27		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1600	D2	2.5	0.15	mg/L	5		200.7 Rev 4.4	Total/NA
Cobalt	0.060	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.00048	D1 E4	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	320		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	200		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Carbonate Alkalinity as CaCO3	120		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Alkalinity, Phenolphthalein	59		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	11000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.3	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	9.6	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Phoenix

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174392-1
SDG: APS Four Corners Power Plant (Other)

Client Sample ID: FC-CCR-FD07

Lab Sample ID: 550-174392-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	12	B7	0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0057	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.020	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-DMX01

Lab Sample ID: 550-174392-1
Date Collected: 11/14/21 11:22
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**99**	**B7**	0.050	0.0025	mg/L		11/17/21 05:48	11/18/21 22:30	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	**0.00073**	**D1 E4**	0.0010	0.00013	mg/L		11/17/21 08:04	11/22/21 18:35	2
Molybdenum	**0.019**	**D1**	0.0010	0.00040	mg/L		11/17/21 08:04	11/22/21 18:35	2

Client Sample ID: FC-CCR-DMX03

Lab Sample ID: 550-174392-2
Date Collected: 11/14/21 14:16
Matrix: Water
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1300**	**D2**	400	100	mg/L			11/22/21 22:13	200
Fluoride	ND	D1 D5 E8	0.80	0.095	mg/L			11/22/21 21:54	2
Sulfate	**15000**	**D2**	400	85	mg/L			11/22/21 22:13	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/17/21 05:48	11/18/21 22:32	1
Lithium	**1.3**		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 14:43	1
Boron	**0.93**	**B7**	0.050	0.0025	mg/L		11/17/21 05:48	11/18/21 22:32	1
Calcium	**430**		2.0	0.013	mg/L		11/17/21 05:48	11/18/21 22:32	1
Iron	**0.35**		0.10	0.010	mg/L		11/17/21 05:48	11/18/21 22:32	1
Magnesium	**2300**	**D2**	10	0.22	mg/L		11/17/21 05:48	11/22/21 14:04	5
Manganese	**0.32**		0.010	0.00019	mg/L		11/17/21 05:48	11/18/21 22:32	1
Potassium	**58**		0.50	0.17	mg/L		11/17/21 05:48	11/18/21 22:32	1
Sodium	**3600**	**D2**	2.5	0.15	mg/L		11/17/21 05:48	11/22/21 14:04	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00011**	**D1 E4**	0.0020	0.000087	mg/L		11/17/21 08:04	11/22/21 18:37	2
Arsenic	ND	D1 E8	0.0010	0.00049	mg/L		11/17/21 08:04	11/22/21 18:37	2
Barium	**0.018**	**D1**	0.0010	0.00052	mg/L		11/17/21 08:04	11/22/21 18:37	2
Cadmium	**0.00024**	**D1**	0.00020	0.000046	mg/L		11/17/21 08:04	11/22/21 18:37	2
Chromium	**0.0015**	**D1 E4**	0.0020	0.00087	mg/L		11/17/21 08:04	11/22/21 18:37	2
Cobalt	**0.0013**	**D1**	0.0010	0.00013	mg/L		11/17/21 08:04	11/22/21 18:37	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/17/21 08:04	11/22/21 18:37	2
Molybdenum	**0.00095**	**D1 E4**	0.0010	0.00040	mg/L		11/17/21 08:04	11/22/21 18:37	2
Selenium	**0.0084**	**D1**	0.0010	0.00015	mg/L		11/17/21 08:04	11/22/21 18:37	2
Thallium	**0.00051**	**D1**	0.00020	0.000026	mg/L		11/17/21 08:04	11/22/21 18:37	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**950**	**R8**	6.0	6.0	mg/L			11/28/21 13:20	1
Bicarbonate Alkalinity as CaCO3	**950**	**R8**	6.0	6.0	mg/L			11/28/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Total Dissolved Solids	**39000**	**D2**	200	200	mg/L			11/18/21 07:59	1
pH	**7.4**	**H5**	1.7	1.7	SU			11/24/21 10:35	1

Client Sample ID: FC-CCR-DMX03
Lab Sample ID: 550-174392-2
Date Collected: 11/14/21 14:16
Matrix: Water
Date Received: 11/16/21 15:15

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature	9.5	H5	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-MW01
Lab Sample ID: 550-174392-3
Date Collected: 11/13/21 13:35
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	63	B7	0.050	0.0025	mg/L		11/17/21 05:48	11/18/21 22:35	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.074	D1	0.0010	0.00013	mg/L		11/17/21 08:04	11/22/21 18:39	2
Molybdenum	0.036	D1	0.0010	0.00040	mg/L		11/17/21 08:04	11/22/21 18:39	2

Client Sample ID: FC-CCR-MW03
Lab Sample ID: 550-174392-4
Date Collected: 11/13/21 14:06
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	8.4	B7	0.050	0.0025	mg/L		11/17/21 05:48	11/18/21 22:38	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.00031	D1 E4	0.0010	0.00013	mg/L		11/17/21 08:04	11/22/21 18:41	2
Molybdenum	0.0022	D1	0.0010	0.00040	mg/L		11/17/21 08:04	11/22/21 18:41	2

Client Sample ID: FC-CCR-FD05
Lab Sample ID: 550-174392-5
Date Collected: 11/14/21 10:18
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	43	B7	0.050	0.0025	mg/L		11/17/21 05:48	11/18/21 22:40	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.022	D1	0.0010	0.00013	mg/L		11/17/21 08:04	11/22/21 18:43	2
Molybdenum	0.0034	D1	0.0010	0.00040	mg/L		11/17/21 08:04	11/22/21 18:43	2

Client Sample ID: FC-CCR-MW19
Lab Sample ID: 550-174392-6
Date Collected: 11/14/21 13:12
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.1	B7	0.050	0.0025	mg/L		11/17/21 05:48	11/18/21 22:43	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0016	D1	0.0010	0.00013	mg/L		11/17/21 08:04	11/22/21 18:45	2

Client Sample ID: FC-CCR-MW19

Lab Sample ID: 550-174392-6
Date Collected: 11/14/21 13:12
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	0.0032	D1	0.0010	0.00040	mg/L		11/17/21 08:04	11/22/21 18:45	2

Client Sample ID: FC-CCR-MW21

Lab Sample ID: 550-174392-7
Date Collected: 11/13/21 14:40
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	4.8	D1	0.25	0.013	mg/L		11/17/21 05:48	11/22/21 14:07	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0059	D1	0.0020	0.00025	mg/L		11/17/21 08:04	11/23/21 11:48	4
Molybdenum	0.0039	D1	0.0020	0.00081	mg/L		11/17/21 08:04	11/23/21 11:48	4

Client Sample ID: FC-CCR-MW23R

Lab Sample ID: 550-174392-8
Date Collected: 11/14/21 13:44
Matrix: Water
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	900	D2	400	100	mg/L			11/22/21 22:50	200
Fluoride	0.28	D1 E4	0.80	0.095	mg/L			11/22/21 22:31	2
Sulfate	11000	D2	400	85	mg/L			11/22/21 22:50	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/17/21 05:48	11/18/21 22:48	1
Lithium	1.1		0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 14:47	1
Boron	14	B7	0.050	0.0025	mg/L		11/17/21 05:48	11/18/21 22:48	1
Calcium	470		2.0	0.013	mg/L		11/17/21 05:48	11/18/21 22:48	1
Iron	0.19		0.10	0.010	mg/L		11/17/21 05:48	11/18/21 22:48	1
Magnesium	1600	D2	10	0.22	mg/L		11/17/21 05:48	11/22/21 14:12	5
Manganese	ND	E8	0.010	0.00019	mg/L		11/17/21 05:48	11/18/21 22:48	1
Potassium	38		0.50	0.17	mg/L		11/17/21 05:48	11/18/21 22:48	1
Sodium	2500	D2	2.5	0.15	mg/L		11/17/21 05:48	11/22/21 14:12	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.00068	D1 E4	0.0010	0.00013	mg/L		11/17/21 08:04	11/22/21 18:54	2
Molybdenum	0.0035	D1	0.0010	0.00040	mg/L		11/17/21 08:04	11/22/21 18:54	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	500		6.0	6.0	mg/L			11/21/21 18:31	1
Bicarbonate Alkalinity as CaCO3	500		6.0	6.0	mg/L			11/21/21 18:31	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 18:31	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/21/21 18:31	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 18:31	1
Total Dissolved Solids	17000	D2	100	100	mg/L			11/19/21 09:20	1
pH	7.4	H5	1.7	1.7	SU			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW23R
Lab Sample ID: 550-174392-8
Date Collected: 11/14/21 13:44
Matrix: Water
Date Received: 11/16/21 15:15

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature	10.8	H5	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW30
Lab Sample ID: 550-174392-9
Date Collected: 11/13/21 15:57
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	23	B7	0.050	0.0025	mg/L		11/17/21 05:48	11/18/21 22:56	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0042	D1	0.0010	0.00013	mg/L		11/17/21 08:04	11/22/21 18:56	2
Molybdenum	0.015	D1	0.0010	0.00040	mg/L		11/17/21 08:04	11/22/21 18:56	2

Client Sample ID: FC-CCR-MW36R
Lab Sample ID: 550-174392-10
Date Collected: 11/14/21 14:54
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	57	B7	0.050	0.0025	mg/L		11/17/21 05:48	11/18/21 22:58	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.26	D1	0.0010	0.00013	mg/L		11/17/21 08:04	11/22/21 18:58	2
Molybdenum	0.00056	D1 E4	0.0010	0.00040	mg/L		11/17/21 08:04	11/22/21 18:58	2

Client Sample ID: FC-CCR-FD06
Lab Sample ID: 550-174392-11
Date Collected: 11/14/21 11:22
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	100	D2	0.10	0.0051	mg/L		11/17/21 05:48	11/22/21 14:15	2

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0010	D1 E4	0.0020	0.00025	mg/L		11/17/21 08:04	11/23/21 11:50	4
Molybdenum	0.021	D1	0.0020	0.00081	mg/L		11/17/21 08:04	11/23/21 11:50	4

Client Sample ID: FC-CCR-MW60
Lab Sample ID: 550-174392-12
Date Collected: 11/13/21 13:06
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	65	B7	0.050	0.0025	mg/L		11/17/21 05:48	11/18/21 23:04	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.25	D1	0.0010	0.00013	mg/L		11/17/21 08:04	11/22/21 19:02	2

Client Sample ID: FC-CCR-MW60
Lab Sample ID: 550-174392-12
Date Collected: 11/13/21 13:06
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	0.19	D1	0.0010	0.00040	mg/L		11/17/21 08:04	11/22/21 19:02	2

Client Sample ID: FC-CCR-MW77S
Lab Sample ID: 550-174392-13
Date Collected: 11/13/21 15:23
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	11	B7 M3	0.050	0.0025	mg/L		11/17/21 05:48	11/18/21 22:27	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0058	D1	0.0010	0.00013	mg/L		11/17/21 08:04	11/22/21 18:33	2
Molybdenum	0.020	D1	0.0010	0.00040	mg/L		11/17/21 08:04	11/22/21 18:33	2

Client Sample ID: FC-CCR-MW78S
Lab Sample ID: 550-174392-14
Date Collected: 11/14/21 08:58
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.6	B7	0.050	0.0025	mg/L		11/17/21 05:48	11/18/21 23:06	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0071	D1	0.0020	0.00025	mg/L		11/17/21 08:04	11/23/21 11:52	4
Molybdenum	0.013	D1	0.0010	0.00040	mg/L		11/17/21 08:04	11/22/21 19:04	2

Client Sample ID: FC-CCR-MW79S
Lab Sample ID: 550-174392-15
Date Collected: 11/14/21 10:50
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	16	B7	0.050	0.0025	mg/L		11/17/21 05:48	11/18/21 23:09	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0036	D1	0.0010	0.00013	mg/L		11/17/21 08:04	11/22/21 19:06	2
Molybdenum	0.0092	D1	0.0010	0.00040	mg/L		11/17/21 08:04	11/22/21 19:06	2

Client Sample ID: FC-CCR-MW81
Lab Sample ID: 550-174392-16
Date Collected: 11/14/21 10:18
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	45	B7	0.050	0.0025	mg/L		11/17/21 05:48	11/18/21 23:11	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.023	D1	0.0010	0.00013	mg/L		11/17/21 08:04	11/22/21 19:08	2

Client Sample ID: FC-CCR-MW81

Lab Sample ID: 550-174392-16
Date Collected: 11/14/21 10:18
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	0.0035	D1	0.0010	0.00040	mg/L		11/17/21 08:04	11/22/21 19:08	2

Client Sample ID: FC-CCR-MW82S

Lab Sample ID: 550-174392-17
Date Collected: 11/14/21 12:35
Matrix: Water
Date Received: 11/16/21 15:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	730	D2	400	100	mg/L			11/23/21 02:30	200
Fluoride	0.35	D1 E4	0.80	0.095	mg/L			11/23/21 02:12	2
Sulfate	7700	D2	400	85	mg/L			11/23/21 02:30	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	55	B7	0.050	0.0025	mg/L		11/17/21 05:48	11/18/21 23:14	1
Calcium	420		2.0	0.013	mg/L		11/17/21 05:48	11/18/21 23:14	1
Magnesium	880		2.0	0.044	mg/L		11/17/21 05:48	11/19/21 17:49	1
Potassium	27		0.50	0.17	mg/L		11/17/21 05:48	11/18/21 23:14	1
Sodium	1600	D2	2.5	0.15	mg/L		11/17/21 05:48	11/23/21 16:33	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.060	D1	0.0010	0.00013	mg/L		11/17/21 08:04	11/22/21 19:10	2
Molybdenum	0.00048	D1 E4	0.0010	0.00040	mg/L		11/17/21 08:04	11/22/21 19:10	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	320		6.0	6.0	mg/L			11/22/21 07:06	1
Bicarbonate Alkalinity as CaCO3	200		6.0	6.0	mg/L			11/22/21 07:06	1
Carbonate Alkalinity as CaCO3	120		6.0	6.0	mg/L			11/22/21 07:06	1
Alkalinity, Phenolphthalein	59		6.0	6.0	mg/L			11/22/21 07:06	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/22/21 07:06	1
Total Dissolved Solids	11000	D2	100	100	mg/L			11/19/21 09:20	1
pH	7.3	H5	1.7	1.7	SU			11/23/21 14:19	1
Temperature	9.6	H5	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-FD07

Lab Sample ID: 550-174392-18
Date Collected: 11/13/21 15:23
Matrix: Water
Date Received: 11/16/21 15:15

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	12	B7	0.050	0.0025	mg/L		11/17/21 05:48	11/18/21 23:17	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0057	D1	0.0010	0.00013	mg/L		11/17/21 08:04	11/22/21 19:12	2
Molybdenum	0.020	D1	0.0010	0.00040	mg/L		11/17/21 08:04	11/22/21 19:12	2

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-259394/2
Matrix: Water
Analysis Batch: 259394

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/22/21 12:41	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/22/21 12:41	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/22/21 12:41	1

Lab Sample ID: LCS 550-259394/5
Matrix: Water
Analysis Batch: 259394

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		104	90 - 110		
Fluoride			4.00	4.22		mg/L		106	90 - 110		
Sulfate			20.0	20.9		mg/L		105	90 - 110		

Lab Sample ID: LCSD 550-259394/6
Matrix: Water
Analysis Batch: 259394

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	4.15		mg/L		104	90 - 110	2	20
Sulfate			20.0	20.9		mg/L		105	90 - 110	0	20

Lab Sample ID: 550-174373-A-10 MS ^2
Matrix: Water
Analysis Batch: 259394

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	0.12	E4 D1	8.00	8.30	D1	mg/L		102	80 - 120		

Lab Sample ID: 550-174373-A-10 MS ^200
Matrix: Water
Analysis Batch: 259394

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	1300	D2	4000	5570	D2	mg/L		108	80 - 120		
Sulfate	10000	M2 D2	4000	12600	D2 M2	mg/L		67	80 - 120		

Lab Sample ID: 550-174373-A-10 MSD ^2
Matrix: Water
Analysis Batch: 259394

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	0.12	E4 D1	8.00	8.69	D1	mg/L		107	80 - 120	5	20

Lab Sample ID: 550-174373-A-10 MSD ^200
Matrix: Water
Analysis Batch: 259394

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	1300	D2	4000	5500	D2	mg/L		106	80 - 120	1	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-174373-A-10 MSD ^200
Matrix: Water
Analysis Batch: 259394

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
Sulfate	10000	M2 D2	4000	12600	D2 M2	mg/L		67	80 - 120	0	20

Lab Sample ID: MB 550-259395/1030
Matrix: Water
Analysis Batch: 259395

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/22/21 23:26	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/22/21 23:26	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/22/21 23:26	1

Lab Sample ID: LCS 550-259395/31
Matrix: Water
Analysis Batch: 259395

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	4.28		mg/L		107	90 - 110
Sulfate	20.0	21.3		mg/L		106	90 - 110

Lab Sample ID: LCSD 550-259395/32
Matrix: Water
Analysis Batch: 259395

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	4.28		mg/L		107	90 - 110	0	20
Sulfate	20.0	21.2		mg/L		106	90 - 110	0	20

Lab Sample ID: 550-174641-A-28 MS ^2
Matrix: Water
Analysis Batch: 259395

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	E8 D1 D5	8.00	8.11	D1	mg/L		101	80 - 120

Lab Sample ID: 550-174641-A-28 MS ^200
Matrix: Water
Analysis Batch: 259395

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	1700	D2	4000	6280	D2	mg/L		115	80 - 120
Sulfate	25000	E2 D2 M3	4000	28800	D2 E2 M3	mg/L		92	80 - 120

Lab Sample ID: 550-174641-A-28 MSD ^2
Matrix: Water
Analysis Batch: 259395

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	E8 D1 D5	8.00	8.25	D1	mg/L		103	80 - 120	2	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-174641-A-28 MSD ^200
Matrix: Water
Analysis Batch: 259395

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	1700	D2	4000	6100	D2	mg/L		110	80 - 120	3	20
Sulfate	25000	E2 D2 M3	4000	26800	D2 E2 M3	mg/L		42	80 - 120	7	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-258795/1-A
Matrix: Water
Analysis Batch: 259107

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258795

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/17/21 05:48	11/18/21 22:14	1
Boron	0.0623	B1	0.050	0.0025	mg/L		11/17/21 05:48	11/18/21 22:14	1
Calcium	0.0771	E4	2.0	0.013	mg/L		11/17/21 05:48	11/18/21 22:14	1
Iron	ND	E8	0.10	0.010	mg/L		11/17/21 05:48	11/18/21 22:14	1
Manganese	0.00108	E4	0.010	0.00019	mg/L		11/17/21 05:48	11/18/21 22:14	1
Potassium	ND	E8	0.50	0.17	mg/L		11/17/21 05:48	11/18/21 22:14	1

Lab Sample ID: MB 550-258795/1-A
Matrix: Water
Analysis Batch: 259263

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258795

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	0.542	E4	2.0	0.044	mg/L		11/17/21 05:48	11/19/21 17:18	1

Lab Sample ID: MB 550-258795/1-A
Matrix: Water
Analysis Batch: 259321

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258795

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND	E8	0.050	0.0025	mg/L		11/17/21 05:48	11/22/21 13:49	1
Magnesium	ND	E8	2.0	0.044	mg/L		11/17/21 05:48	11/22/21 13:49	1
Sodium	ND	E8	0.50	0.031	mg/L		11/17/21 05:48	11/22/21 13:49	1

Lab Sample ID: LCS 550-258795/2-A
Matrix: Water
Analysis Batch: 259107

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258795

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	1.00	0.994		mg/L		99	85 - 115
Boron	1.00	0.991		mg/L		99	85 - 115
Calcium	21.0	20.0		mg/L		95	85 - 115
Iron	1.00	0.967		mg/L		97	85 - 115
Manganese	1.00	0.961		mg/L		96	85 - 115
Potassium	20.0	19.8		mg/L		99	85 - 115

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 550-258795/2-A
Matrix: Water
Analysis Batch: 259263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258795

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Magnesium			21.0	20.9		mg/L		99	85 - 115		

Lab Sample ID: LCS 550-258795/2-A
Matrix: Water
Analysis Batch: 259321

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258795

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Boron			1.00	0.979		mg/L		98	85 - 115		
Magnesium			21.0	21.8		mg/L		104	85 - 115		
Sodium			20.0	20.3		mg/L		102	85 - 115		

Lab Sample ID: LCSD 550-258795/3-A
Matrix: Water
Analysis Batch: 259107

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258795

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	1	20
Boron			1.00	0.987		mg/L		99	85 - 115	0	20
Calcium			21.0	20.0		mg/L		95	85 - 115	0	20
Iron			1.00	0.964		mg/L		96	85 - 115	0	20
Manganese			1.00	0.959		mg/L		96	85 - 115	0	20
Potassium			20.0	19.7		mg/L		98	85 - 115	1	20

Lab Sample ID: LCSD 550-258795/3-A
Matrix: Water
Analysis Batch: 259263

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258795

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Magnesium			21.0	20.8		mg/L		99	85 - 115	1	20

Lab Sample ID: LCSD 550-258795/3-A
Matrix: Water
Analysis Batch: 259321

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258795

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	0	20
Magnesium			21.0	21.9		mg/L		104	85 - 115	1	20
Sodium			20.0	20.5		mg/L		103	85 - 115	1	20

Lab Sample ID: 550-174392-13 MS
Matrix: Water
Analysis Batch: 259107

Client Sample ID: FC-CCR-MW77S
Prep Type: Total/NA
Prep Batch: 258795

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Boron	11	M3 B7	1.00	11.5	M3	mg/L		10	70 - 130		

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-174392-13 MSD — **Client Sample ID: FC-CCR-MW77S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 259107 — **Prep Batch: 258795**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	11	M3 B7	1.00	11.5	M3	mg/L		16	70 - 130	0	20

Lab Sample ID: MB 280-558452/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558746 — **Prep Batch: 558452**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	E8	0.020	0.0091	mg/L		11/23/21 15:30	11/24/21 14:35	1

Lab Sample ID: LCS 280-558452/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558746 — **Prep Batch: 558452**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	1.00	1.03		mg/L		103	90 - 112

Lab Sample ID: 280-156015-E-2-E MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558746 — **Prep Batch: 558452**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.037		1.00	1.07		mg/L		103	70 - 130

Lab Sample ID: 280-156015-E-2-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558746 — **Prep Batch: 558452**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.037		1.00	1.07		mg/L		103	70 - 130	0	20

Lab Sample ID: 280-156021-B-4-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558746 — **Prep Batch: 558452**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.012	E4	1.00	1.02		mg/L		101	70 - 130	0	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-258801/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 259359 — **Prep Batch: 258801**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0000430	E4	0.0010	0.000043	mg/L		11/17/21 08:04	11/22/21 18:22	1
Arsenic	ND	E8	0.00050	0.00025	mg/L		11/17/21 08:04	11/22/21 18:22	1
Barium	0.000317	E4	0.00050	0.00026	mg/L		11/17/21 08:04	11/22/21 18:22	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		11/17/21 08:04	11/22/21 18:22	1
Chromium	ND	E8	0.0010	0.00043	mg/L		11/17/21 08:04	11/22/21 18:22	1
Cobalt	ND	E8	0.00050	0.000063	mg/L		11/17/21 08:04	11/22/21 18:22	1

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 550-258801/1-A
Matrix: Water
Analysis Batch: 259359

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258801

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	E8	0.00050	0.00022	mg/L		11/17/21 08:04	11/22/21 18:22	1
Molybdenum	ND	E8	0.00050	0.00020	mg/L		11/17/21 08:04	11/22/21 18:22	1
Selenium	ND	E8	0.00050	0.000074	mg/L		11/17/21 08:04	11/22/21 18:22	1
Thallium	ND	E8	0.00010	0.000013	mg/L		11/17/21 08:04	11/22/21 18:22	1

Lab Sample ID: LCS 550-258801/2-A
Matrix: Water
Analysis Batch: 259359

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258801

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	0.101		mg/L		101	85 - 115
Cadmium	0.100	0.103		mg/L		103	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	0.105		mg/L		105	85 - 115
Molybdenum	0.100	0.101		mg/L		101	85 - 115
Selenium	0.100	0.0965		mg/L		96	85 - 115
Thallium	0.100	0.103		mg/L		103	85 - 115

Lab Sample ID: LCS 550-258801/2-A
Matrix: Water
Analysis Batch: 259417

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258801

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.100	0.115		mg/L		115	85 - 115

Lab Sample ID: LCSD 550-258801/3-A
Matrix: Water
Analysis Batch: 259359

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258801

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	0.0962		mg/L		96	85 - 115	5	20
Cadmium	0.100	0.0989		mg/L		99	85 - 115	4	20
Chromium	0.100	0.0993		mg/L		99	85 - 115	5	20
Cobalt	0.100	0.0991		mg/L		99	85 - 115	6	20
Lead	0.100	0.101		mg/L		101	85 - 115	4	20
Molybdenum	0.100	0.0999		mg/L		100	85 - 115	1	20
Selenium	0.100	0.0922		mg/L		92	85 - 115	4	20
Thallium	0.100	0.0989		mg/L		99	85 - 115	4	20

Lab Sample ID: 550-174392-13 MS
Matrix: Water
Analysis Batch: 259359

Client Sample ID: FC-CCR-MW77S
Prep Type: Total/NA
Prep Batch: 258801

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.0058	D1	0.100	0.110		mg/L		104	70 - 130
Molybdenum	0.020	D1	0.100	0.132		mg/L		111	70 - 130

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: 550-174392-13 MSD
Matrix: Water
Analysis Batch: 259359

Client Sample ID: FC-CCR-MW77S
Prep Type: Total/NA
Prep Batch: 258801

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	0.0058	D1	0.100	0.108		mg/L		103	70 - 130	1	20
Molybdenum	0.020	D1	0.100	0.135		mg/L		114	70 - 130	2	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-259292/35
Matrix: Water
Analysis Batch: 259292

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/21/21 16:52	1

Lab Sample ID: LCS 550-259292/34
Matrix: Water
Analysis Batch: 259292

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	234		mg/L		94	90 - 110

Lab Sample ID: LCSD 550-259292/47
Matrix: Water
Analysis Batch: 259292

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	2	20

Lab Sample ID: 550-174257-M-5 DU
Matrix: Water
Analysis Batch: 259292

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	110		108		mg/L		1	20
Bicarbonate Alkalinity as CaCO3	110		108		mg/L		1	20
Carbonate Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20
Alkalinity, Phenolphthalein	ND	E8	ND	E8	mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20

Lab Sample ID: MB 550-259777/1
Matrix: Water
Analysis Batch: 259777

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MB 550-259777/1
Matrix: Water
Analysis Batch: 259777

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1

Lab Sample ID: LCS 550-259777/2
Matrix: Water
Analysis Batch: 259777

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	226		mg/L		90	90 - 110		

Lab Sample ID: LCSD 550-259777/8
Matrix: Water
Analysis Batch: 259777

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	246		mg/L		98	90 - 110	8	20

Lab Sample ID: 550-174492-K-13 DU
Matrix: Water
Analysis Batch: 259777

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	730			758		mg/L				3	20
Bicarbonate Alkalinity as CaCO3	730			758		mg/L				3	20
Carbonate Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20
Alkalinity, Phenolphthalein	ND	E8		ND	E8	mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20

Lab Sample ID: 550-174392-2 DU
Matrix: Water
Analysis Batch: 259778

Client Sample ID: FC-CCR-DMX03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	950	R8		750	R8	mg/L				24	20
Bicarbonate Alkalinity as CaCO3	950	R8		750	R8	mg/L				24	20
Carbonate Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20
Alkalinity, Phenolphthalein	ND	E8		ND	E8	mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-258958/1
Matrix: Water
Analysis Batch: 258958

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			11/18/21 07:59	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 550-258958/2
Matrix: Water
Analysis Batch: 258958

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 550-258958/3
Matrix: Water
Analysis Batch: 258958

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	986		mg/L		99	90 - 110	4	10

Lab Sample ID: 550-174373-A-12 DU
Matrix: Water
Analysis Batch: 258958

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	9900	D2		9220	D2	mg/L				7	10

Lab Sample ID: MB 550-259113/1
Matrix: Water
Analysis Batch: 259113

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			11/19/21 09:20	1

Lab Sample ID: LCS 550-259113/2
Matrix: Water
Analysis Batch: 259113

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	1100		mg/L		110	90 - 110		

Lab Sample ID: LCSD 550-259113/3
Matrix: Water
Analysis Batch: 259113

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	1100		mg/L		110	90 - 110	1	10

Lab Sample ID: 550-174373-A-3 DU
Matrix: Water
Analysis Batch: 259113

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	10000	D2		10100	D2	mg/L				1	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-259646/34
Matrix: Water
Analysis Batch: 259646

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 550-259646/42
Matrix: Water
Analysis Batch: 259646

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		100.3	98.5 - 101.5

Lab Sample ID: 550-174373-A-4 DU
Matrix: Water
Analysis Batch: 259646

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	H5	7.4	H5	SU		0.1	5
Temperature	9.8	H5	10.0	H5	Degrees C		2	

Lab Sample ID: LCSSRM 550-259745/85
Matrix: Water
Analysis Batch: 259745

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		100.1	98.5 - 101.5

Lab Sample ID: LCSSRM 550-259745/96
Matrix: Water
Analysis Batch: 259745

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: 550-174712-A-1 DU
Matrix: Water
Analysis Batch: 259745

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	H5	7.5	H5	SU		0	5
Temperature	18.6	H5	18.7	H5	Degrees C		0.5	

HPLC/IC

Analysis Batch: 259394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174392-2	FC-CCR-DMX03	Total/NA	Water	300.0	
550-174392-2	FC-CCR-DMX03	Total/NA	Water	300.0	
550-174392-8	FC-CCR-MW23R	Total/NA	Water	300.0	
550-174392-8	FC-CCR-MW23R	Total/NA	Water	300.0	
MB 550-259394/2	Method Blank	Total/NA	Water	300.0	
LCS 550-259394/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-259394/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174373-A-10 MS ^2	Matrix Spike	Total/NA	Water	300.0	
550-174373-A-10 MS ^200	Matrix Spike	Total/NA	Water	300.0	
550-174373-A-10 MSD ^2	Matrix Spike Duplicate	Total/NA	Water	300.0	
550-174373-A-10 MSD ^200	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 259395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174392-17	FC-CCR-MW82S	Total/NA	Water	300.0	
550-174392-17	FC-CCR-MW82S	Total/NA	Water	300.0	
MB 550-259395/1030	Method Blank	Total/NA	Water	300.0	
LCS 550-259395/31	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-259395/32	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174641-A-28 MS ^2	Matrix Spike	Total/NA	Water	300.0	
550-174641-A-28 MS ^200	Matrix Spike	Total/NA	Water	300.0	
550-174641-A-28 MSD ^2	Matrix Spike Duplicate	Total/NA	Water	300.0	
550-174641-A-28 MSD ^200	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 258795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174392-1	FC-CCR-DMX01	Total/NA	Water	200.7	
550-174392-2	FC-CCR-DMX03	Total/NA	Water	200.7	
550-174392-3	FC-CCR-MW01	Total/NA	Water	200.7	
550-174392-4	FC-CCR-MW03	Total/NA	Water	200.7	
550-174392-5	FC-CCR-FD05	Total/NA	Water	200.7	
550-174392-6	FC-CCR-MW19	Total/NA	Water	200.7	
550-174392-7	FC-CCR-MW21	Total/NA	Water	200.7	
550-174392-8	FC-CCR-MW23R	Total/NA	Water	200.7	
550-174392-9	FC-CCR-MW30	Total/NA	Water	200.7	
550-174392-10	FC-CCR-MW36R	Total/NA	Water	200.7	
550-174392-11	FC-CCR-FD06	Total/NA	Water	200.7	
550-174392-12	FC-CCR-MW60	Total/NA	Water	200.7	
550-174392-13	FC-CCR-MW77S	Total/NA	Water	200.7	
550-174392-14	FC-CCR-MW78S	Total/NA	Water	200.7	
550-174392-15	FC-CCR-MW79S	Total/NA	Water	200.7	
550-174392-16	FC-CCR-MW81	Total/NA	Water	200.7	
550-174392-17	FC-CCR-MW82S	Total/NA	Water	200.7	
550-174392-18	FC-CCR-FD07	Total/NA	Water	200.7	
MB 550-258795/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-258795/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-258795/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-174392-13 MS	FC-CCR-MW77S	Total/NA	Water	200.7	
550-174392-13 MSD	FC-CCR-MW77S	Total/NA	Water	200.7	

Metals

Prep Batch: 258801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174392-1	FC-CCR-DMX01	Total/NA	Water	200.8	
550-174392-2	FC-CCR-DMX03	Total/NA	Water	200.8	
550-174392-3	FC-CCR-MW01	Total/NA	Water	200.8	
550-174392-4	FC-CCR-MW03	Total/NA	Water	200.8	
550-174392-5	FC-CCR-FD05	Total/NA	Water	200.8	
550-174392-6	FC-CCR-MW19	Total/NA	Water	200.8	
550-174392-7	FC-CCR-MW21	Total/NA	Water	200.8	
550-174392-8	FC-CCR-MW23R	Total/NA	Water	200.8	
550-174392-9	FC-CCR-MW30	Total/NA	Water	200.8	
550-174392-10	FC-CCR-MW36R	Total/NA	Water	200.8	
550-174392-11	FC-CCR-FD06	Total/NA	Water	200.8	
550-174392-12	FC-CCR-MW60	Total/NA	Water	200.8	
550-174392-13	FC-CCR-MW77S	Total/NA	Water	200.8	
550-174392-14	FC-CCR-MW78S	Total/NA	Water	200.8	
550-174392-15	FC-CCR-MW79S	Total/NA	Water	200.8	
550-174392-16	FC-CCR-MW81	Total/NA	Water	200.8	
550-174392-17	FC-CCR-MW82S	Total/NA	Water	200.8	
550-174392-18	FC-CCR-FD07	Total/NA	Water	200.8	
MB 550-258801/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-258801/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-258801/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-174392-13 MS	FC-CCR-MW77S	Total/NA	Water	200.8	
550-174392-13 MSD	FC-CCR-MW77S	Total/NA	Water	200.8	

Analysis Batch: 259107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174392-1	FC-CCR-DMX01	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-2	FC-CCR-DMX03	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-3	FC-CCR-MW01	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-4	FC-CCR-MW03	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-5	FC-CCR-FD05	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-6	FC-CCR-MW19	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-8	FC-CCR-MW23R	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-9	FC-CCR-MW30	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-10	FC-CCR-MW36R	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-12	FC-CCR-MW60	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-13	FC-CCR-MW77S	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-14	FC-CCR-MW78S	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-15	FC-CCR-MW79S	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-16	FC-CCR-MW81	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-17	FC-CCR-MW82S	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-18	FC-CCR-FD07	Total/NA	Water	200.7 Rev 4.4	258795
MB 550-258795/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	258795
LCS 550-258795/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	258795
LCSD 550-258795/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-13 MS	FC-CCR-MW77S	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-13 MSD	FC-CCR-MW77S	Total/NA	Water	200.7 Rev 4.4	258795

Analysis Batch: 259263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174392-17	FC-CCR-MW82S	Total/NA	Water	200.7 Rev 4.4	258795

Metals (Continued)

Analysis Batch: 259263 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-258795/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	258795
LCS 550-258795/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	258795
LCSD 550-258795/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	258795

Analysis Batch: 259321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174392-2	FC-CCR-DMX03	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-7	FC-CCR-MW21	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-8	FC-CCR-MW23R	Total/NA	Water	200.7 Rev 4.4	258795
550-174392-11	FC-CCR-FD06	Total/NA	Water	200.7 Rev 4.4	258795
MB 550-258795/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	258795
LCS 550-258795/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	258795
LCSD 550-258795/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	258795

Analysis Batch: 259359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174392-1	FC-CCR-DMX01	Total/NA	Water	200.8 LL	258801
550-174392-2	FC-CCR-DMX03	Total/NA	Water	200.8 LL	258801
550-174392-3	FC-CCR-MW01	Total/NA	Water	200.8 LL	258801
550-174392-4	FC-CCR-MW03	Total/NA	Water	200.8 LL	258801
550-174392-5	FC-CCR-FD05	Total/NA	Water	200.8 LL	258801
550-174392-6	FC-CCR-MW19	Total/NA	Water	200.8 LL	258801
550-174392-8	FC-CCR-MW23R	Total/NA	Water	200.8 LL	258801
550-174392-9	FC-CCR-MW30	Total/NA	Water	200.8 LL	258801
550-174392-10	FC-CCR-MW36R	Total/NA	Water	200.8 LL	258801
550-174392-12	FC-CCR-MW60	Total/NA	Water	200.8 LL	258801
550-174392-13	FC-CCR-MW77S	Total/NA	Water	200.8 LL	258801
550-174392-14	FC-CCR-MW78S	Total/NA	Water	200.8 LL	258801
550-174392-15	FC-CCR-MW79S	Total/NA	Water	200.8 LL	258801
550-174392-16	FC-CCR-MW81	Total/NA	Water	200.8 LL	258801
550-174392-17	FC-CCR-MW82S	Total/NA	Water	200.8 LL	258801
550-174392-18	FC-CCR-FD07	Total/NA	Water	200.8 LL	258801
MB 550-258801/1-A	Method Blank	Total/NA	Water	200.8 LL	258801
LCS 550-258801/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	258801
LCSD 550-258801/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	258801
550-174392-13 MS	FC-CCR-MW77S	Total/NA	Water	200.8 LL	258801
550-174392-13 MSD	FC-CCR-MW77S	Total/NA	Water	200.8 LL	258801

Analysis Batch: 259407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174392-7	FC-CCR-MW21	Total/NA	Water	200.8 LL	258801
550-174392-11	FC-CCR-FD06	Total/NA	Water	200.8 LL	258801
550-174392-14	FC-CCR-MW78S	Total/NA	Water	200.8 LL	258801

Analysis Batch: 259417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 550-258801/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	258801

Analysis Batch: 259532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174392-17	FC-CCR-MW82S	Total/NA	Water	200.7 Rev 4.4	258795

Metals

Prep Batch: 558452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174392-2	FC-CCR-DMX03	Total/NA	Water	200.7	
550-174392-8	FC-CCR-MW23R	Total/NA	Water	200.7	
MB 280-558452/1-A	Method Blank	Total/NA	Water	200.7	
LCS 280-558452/2-A	Lab Control Sample	Total/NA	Water	200.7	
280-156015-E-2-E MS	Matrix Spike	Total/NA	Water	200.7	
280-156015-E-2-F MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
280-156021-B-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Analysis Batch: 558746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174392-2	FC-CCR-DMX03	Total/NA	Water	200.7 Rev 4.4	558452
550-174392-8	FC-CCR-MW23R	Total/NA	Water	200.7 Rev 4.4	558452
MB 280-558452/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	558452
LCS 280-558452/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	558452
280-156015-E-2-E MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	558452
280-156015-E-2-F MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	558452
280-156021-B-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	558452

General Chemistry

Analysis Batch: 258958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174392-2	FC-CCR-DMX03	Total/NA	Water	SM 2540C	
MB 550-258958/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-258958/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-258958/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-174373-A-12 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 259113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174392-8	FC-CCR-MW23R	Total/NA	Water	SM 2540C	
550-174392-17	FC-CCR-MW82S	Total/NA	Water	SM 2540C	
MB 550-259113/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-259113/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-259113/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-174373-A-3 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 259292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174392-8	FC-CCR-MW23R	Total/NA	Water	SM 2320B	
550-174392-17	FC-CCR-MW82S	Total/NA	Water	SM 2320B	
MB 550-259292/35	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-259292/34	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-259292/47	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-174257-M-5 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 259646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174392-8	FC-CCR-MW23R	Total/NA	Water	SM 4500 H+ B	
550-174392-17	FC-CCR-MW82S	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259646/34	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 259646 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSSRM 550-259646/42	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-174373-A-4 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 259745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174392-2	FC-CCR-DMX03	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259745/85	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259745/96	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-174712-A-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 259777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-259777/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-259777/2	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-259777/8	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-174492-K-13 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 259778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174392-2	FC-CCR-DMX03	Total/NA	Water	SM 2320B	
550-174392-2 DU	FC-CCR-DMX03	Total/NA	Water	SM 2320B	

Client Sample ID: FC-CCR-DMX01

Lab Sample ID: 550-174392-1

Date Collected: 11/14/21 11:22
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259107	11/18/21 22:30	MGM	TAL PHX
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259359	11/22/21 18:35	ARE	TAL PHX

Client Sample ID: FC-CCR-DMX03

Lab Sample ID: 550-174392-2

Date Collected: 11/14/21 14:16
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259394	11/22/21 21:54	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259394	11/22/21 22:13	JNW	TAL PHX
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259107	11/18/21 22:32	MGM	TAL PHX
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	259321	11/22/21 14:04	MGM	TAL PHX
Total/NA	Prep	200.7			558452	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 14:43	MAB	TAL DEN
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259359	11/22/21 18:37	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	259778	11/28/21 13:20	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	258958		YET	TAL PHX
					(Start)	11/18/21 07:59		
					(End)	11/19/21 12:20		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Client Sample ID: FC-CCR-MW01

Lab Sample ID: 550-174392-3

Date Collected: 11/13/21 13:35
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259107	11/18/21 22:35	MGM	TAL PHX
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259359	11/22/21 18:39	ARE	TAL PHX

Client Sample ID: FC-CCR-MW03

Lab Sample ID: 550-174392-4

Date Collected: 11/13/21 14:06
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259107	11/18/21 22:38	MGM	TAL PHX
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259359	11/22/21 18:41	ARE	TAL PHX

Client Sample ID: FC-CCR-FD05

Lab Sample ID: 550-174392-5
Matrix: Water
Date Collected: 11/14/21 10:18
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259107	11/18/21 22:40	MGM	TAL PHX
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259359	11/22/21 18:43	ARE	TAL PHX

Client Sample ID: FC-CCR-MW19

Lab Sample ID: 550-174392-6
Matrix: Water
Date Collected: 11/14/21 13:12
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259107	11/18/21 22:43	MGM	TAL PHX
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259359	11/22/21 18:45	ARE	TAL PHX

Client Sample ID: FC-CCR-MW21

Lab Sample ID: 550-174392-7
Matrix: Water
Date Collected: 11/13/21 14:40
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	259321	11/22/21 14:07	MGM	TAL PHX
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	259407	11/23/21 11:48	ARE	TAL PHX

Client Sample ID: FC-CCR-MW23R

Lab Sample ID: 550-174392-8
Matrix: Water
Date Collected: 11/14/21 13:44
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259394	11/22/21 22:31	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259394	11/22/21 22:50	JNW	TAL PHX
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259107	11/18/21 22:48	MGM	TAL PHX
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	259321	11/22/21 14:12	MGM	TAL PHX
Total/NA	Prep	200.7			558452	11/23/21 15:30	CEH	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558746	11/24/21 14:47	MAB	TAL DEN
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259359	11/22/21 18:54	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	259292	11/21/21 18:31	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259113		EJR	TAL PHX
					(Start)	11/19/21 09:20		
					(End)	11/23/21 18:00		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174392-1
SDG: APS Four Corners Power Plant (Other)

Client Sample ID: FC-CCR-MW30
Date Collected: 11/13/21 15:57
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174392-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259107	11/18/21 22:56	MGM	TAL PHX
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259359	11/22/21 18:56	ARE	TAL PHX

Client Sample ID: FC-CCR-MW36R
Date Collected: 11/14/21 14:54
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174392-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259107	11/18/21 22:58	MGM	TAL PHX
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259359	11/22/21 18:58	ARE	TAL PHX

Client Sample ID: FC-CCR-FD06
Date Collected: 11/14/21 11:22
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174392-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	259321	11/22/21 14:15	MGM	TAL PHX
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	259407	11/23/21 11:50	ARE	TAL PHX

Client Sample ID: FC-CCR-MW60
Date Collected: 11/13/21 13:06
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174392-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259107	11/18/21 23:04	MGM	TAL PHX
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259359	11/22/21 19:02	ARE	TAL PHX

Client Sample ID: FC-CCR-MW77S
Date Collected: 11/13/21 15:23
Date Received: 11/16/21 15:15

Lab Sample ID: 550-174392-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259107	11/18/21 22:27	MGM	TAL PHX
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259359	11/22/21 18:33	ARE	TAL PHX

Client Sample ID: FC-CCR-MW78S
Lab Sample ID: 550-174392-14
Date Collected: 11/14/21 08:58
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259107	11/18/21 23:06	MGM	TAL PHX
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259359	11/22/21 19:04	ARE	TAL PHX
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	259407	11/23/21 11:52	ARE	TAL PHX

Client Sample ID: FC-CCR-MW79S
Lab Sample ID: 550-174392-15
Date Collected: 11/14/21 10:50
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259107	11/18/21 23:09	MGM	TAL PHX
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259359	11/22/21 19:06	ARE	TAL PHX

Client Sample ID: FC-CCR-MW81
Lab Sample ID: 550-174392-16
Date Collected: 11/14/21 10:18
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259107	11/18/21 23:11	MGM	TAL PHX
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259359	11/22/21 19:08	ARE	TAL PHX

Client Sample ID: FC-CCR-MW82S
Lab Sample ID: 550-174392-17
Date Collected: 11/14/21 12:35
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259395	11/23/21 02:12	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259395	11/23/21 02:30	JNW	TAL PHX
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259107	11/18/21 23:14	MGM	TAL PHX
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259263	11/19/21 17:49	MGM	TAL PHX
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	259532	11/23/21 16:33	MGM	TAL PHX
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259359	11/22/21 19:10	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	259292	11/22/21 07:06	DGS	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174392-1
SDG: APS Four Corners Power Plant (Other)

Client Sample ID: FC-CCR-MW82S

Lab Sample ID: 550-174392-17

Date Collected: 11/14/21 12:35
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	259113		EJR	TAL PHX
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-FD07

Lab Sample ID: 550-174392-18

Date Collected: 11/13/21 15:23
Matrix: Water
Date Received: 11/16/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			258795	11/17/21 05:48	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259107	11/18/21 23:17	MGM	TAL PHX
Total/NA	Prep	200.8			258801	11/17/21 08:04	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259359	11/22/21 19:12	ARE	TAL PHX

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174392-1
SDG: APS Four Corners Power Plant (Other)

Laboratory: Eurofins TestAmerica, 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	06-10-22

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 2320B		Water	Alkalinity, Phenolphthalein
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins TestAmerica, Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	11-30-21
A2LA	ISO/IEC 17025	2907.01	11-30-21
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-28-22
Arizona	State	AZ0713	12-19-21
Arkansas DEQ	State	19-047-0	06-01-21 *
California	State	2513	01-08-22
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-22
Georgia	State	4025-011	01-08-22
Illinois	NELAP	2000172019-1	04-30-22
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	04-30-22
Kentucky (WW)	State	KY98047	12-31-21
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-22
Minnesota	NELAP	1788752	12-31-21
Nevada	State	CO000262020-1	07-31-22
New Hampshire	NELAP	205319	04-29-22
New Jersey	NELAP	190002	07-01-22
New York	NELAP	59923	04-01-22
North Carolina (WW/SW)	State	358	12-31-21
North Dakota	State	R-034	01-08-22
Oklahoma	State	2018-006	08-31-22
Oregon	NELAP	4025-011	01-08-22
Pennsylvania	NELAP	013	07-31-22
South Carolina	State	72002001	01-08-22
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-21 *
Virginia	NELAP	10490	06-14-22
Washington	State	C583-19	08-03-22
West Virginia DEP	State	354	11-30-21
Wisconsin	State	999615430	08-31-22
Wyoming (UST)	A2LA	2907.01	11-30-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174392-1
SDG: APS Four Corners Power Plant (Other)

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
200.8 LL	Metals (ICP/MS)	EPA	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 4500 H+ B	pH	SM	TAL PHX
200.7	Preparation, Total Metals	EPA	TAL DEN
200.7	Preparation, Total Metals	EPA	TAL PHX
200.8	Preparation, Total Metals	EPA	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, 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

174392

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

11/30/2021

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	Carrier:	1 of 13 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 #: 100613442	☐ 1 day			Sample Specific Notes:

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,)	EPA 200.7 - Total (Ca, Be, Li,)	EPA 200.7 - Total (Ca, Be, Li, K, Mg, Na)	EPA 200.7 - Total (Ca, Li, K, Mg, Na, Mn, Fe)	EPA 200.7 - Total (Ca, Be, Li, K, Mg, Na, Mn, Fe)	EPA 200.8 - Total (Ca, Be, Co, Cr, Pb, Mn, As, Ba, Tl)	EPA 200.8 - Total (Sb, Mo)	EPA 245.1 - Total (Hg)	SM 4500-H+B (pH)	SM 2340C (TDS)	SM 2320B (CO3 Alkalinity as CO3, HCO3 Alkalinity as
FC-CCR-DMX01-1121	11/14/2021	11:22	G	W	1	N	N		X					X				
FC-CCR-DMX03-1121	11/14/2021	14:16	G	W	2	N		X					X	X		X	X	X
[redacted]																		
[redacted]																		
FC-CCR-MW01-1121	11/13/2021	13:35	G	W	1	N			X					X				
FC-CCR-MW03-1121	11/13/2021	14:06	G	W	1	N			X					X				
[redacted]																		
[redacted]																		
[redacted]																		
[redacted]																		
[redacted]																		
FC-CCR-FD05-1121	11/14/2021	10:18	G	W	1	N			X					X				
Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____								1	4	4	4	4	4	4	4	4	1	1	1

Sample Specific Notes:
Low Flow
"
"
"
"
"
"
"
"
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"
"

550-174392 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

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____		
Relinquished by:	Company: Wood	Date/Time: 11/16/21 07:45	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:	Date/Time:

Temp 0.2°C, 1.3°C, 0.9°C, 1.5°C 1.8°C

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

174342

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	Carrier:	2 of 13 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 #: 100613442	☐ 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)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	SM 4500-HB (pH)	SM 2540C (TDS)	SM 2320B (CO3 Alkalinity as CaCO3, HCO3 Alkalinity as CaCO3)	Sample Specific Notes:
	~~FC-[illegible]~~			~~G~~	~~W~~	~~2~~	N		X						X	X			X	X	X	Low Flow
	~~FC-CCR-MW18-1121~~			~~G~~	~~W~~	~~2~~	~~N~~		X						X		X		X	X	X	"
6	FC-CCR-MW19-1121	11/14/2021	13:12	G	W	1	N			X							X					"
7	FC-CCR-MW21-1121	11/13/2021	14:40	G	W	1	N			X							X					"
8	FC-CCR-MW23R-1121	11/14/2021	13:44	G	W	2	N		X						X		X		X	X	X	"
	~~FC-[illegible]~~			~~G~~	~~W~~	~~2~~	~~N~~								X		X		X	X	X	"
9	FC-CCR-MW30-1121	11/13/2021	15:57	G	W	1	N			X							X					"
				G	W	1	N			X							X					"
10	FC-CCR-MW36R-1121	11/14/2021	14:54	G	W	2	N		X						X		X		X	X	X	"
	~~FC-[illegible]-1121~~			~~G~~	~~W~~	~~2~~	~~N~~		X						X	X			X	X	X	"
	~~FC-[illegible]~~			~~G~~	~~W~~	~~2~~	~~N~~		X						X	X			X	X	X	"
11	FC-CCR-FD06-1121	11/14/2021	11:22	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	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

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ Therm ID No.: ____		
Relinquished by: [signature]	Company: Wood	Date/Time: 11/16/21 07:48	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: EESTW	Date/Time: 11-16-21 15:15

Temp 0.2°C, 1.3°C, 0.9°C, 1.5°C 1.6°C

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

174392

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

11/30/2021

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	Carrier:	3 of 6 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 #: 100613442	☐ 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, Li)	EPA 200.7 - Totals (B, Mn, Fe)	EPA 200.7 - Totals (B, Ca, K, Mg, Na)	EPA 200.7 - Totals (B, Ca, Li, K, Mg, Na, Mn, Fe)	EPA 200.7 - Totals (B, Ca, Be, Li, K, Mg, Na, Mn, Fe)	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-MW67-1121~~			G	W	2	N		X						X	X	X		X	X	X	Low Flow
12	FC-CCR-MW60-1121	11/13/2021	13:06	G	W	1	N			X							X					"
13	FC-CCR-MW77S-1121	11/13/2021	15:23	G	W	1	N			X							X					"
14	FC-CCR-MW78S-1121	11/14/2021	8:58	G	W	1	N			X							X					"
15	FC-CCR-MW79S-1121	11/14/2021	10:50	G	W	1	N			X							X					"
				G	W	1	N			X							X					"
16	FC-CCR-MW81-1121	11/14/2021	10:18	G	W	1	N			X							X					"
17	FC-CCR-MW82S-1121	11/14/2021	12:35	G	W	2	N		X				X				X		X	X	X	Port
10	FC-CCR-FD07-1121	11/13/2021	15:23	G	W	1	N	N		X							X					Low Flow
13	FC-CCR-MW77S-1121-MS	11/13/2021	15:23	G	W	1	N	N		X							X					"
13	FC-CCR-MW77S-1121-SD	11/13/2021	15:23	G	W	1	N	N		X							X					"
									1	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

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:
	Wood	11/16/21 07:48			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				EESW	11-16-21 15:15

0.9°C Temp 1.3°C, 0.9°C, 1.5°C 1.8°C

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd Suite 189
Phoenix, AZ 85040
Phone: 602-437-3340 Fax: 602-454-9303

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Baker, Ken	Carrier Tracking No(s):	COC No: 550-32385.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Baker@Eurofinset.com	State of Origin: Arizona	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Arizona		Job #: 550-174392-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 12/21/2021			
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 #: 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, 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_TOT Lithium-ICP	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
FC-CCR-DMX03 (550-174392-2)	11/14/21	14:16 Arizona		Water			X	1	AZ Sample
FC-CCR-MW23R (550-174392-8)	11/14/21	13:44 Arizona		Water			X	1	AZ Sample

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

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
Nicole Greenwood	11/17/21 1400	EM DIX	FED EX		
FedEx			[signature]	11/18/2021 1030	ETA RM

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.: 1754911

Cooler Temperature(s) °C and Other Remarks: 2.1 IR # 11+10

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-174392-1
SDG Number: APS Four Corners Power Plant (Other)

Login Number: 174392
List Number: 1
Creator: Maycock, Lisa

List Source: Eurofins TestAmerica, 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: 550-174392-1
SDG Number: APS Four Corners Power Plant (Other)

Login Number: 174392
List Number: 2
Creator: Rystrom, Joshua R

List Source: Eurofins TestAmerica, Denver
List Creation: 11/18/21 05:14 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.	False	Limited volume received.
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 America

ANALYTICAL REPORT

Eurofins Phoenix
4625 East Cotton Center Boulevard
Building #3 Suite #189
Phoenix, AZ 85040
Tel: (866)772-5227

Laboratory Job ID: 550-174641-1
Laboratory SDG: APS Four Corners Power Plant (Other)
Client Project/Site: CCR Groundwater Monitoring
Revision: 1

For:
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Attn: Natalie Chrisman

Rachel F. Sester

Authorized for release by:
1/21/2022 4:19:32 PM

Rachel Sester, Project Manager I
(602)659-7615
Rachel.Sester@Eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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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.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
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.
N1	See case narrative.

Metals

Qualifier	Qualifier Description
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of analyte.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target 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.

General Chemistry

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
H1	Sample analysis performed 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.
R8	Sample RPD exceeded the method acceptance limit.

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)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: 550-174641-1

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-174641-1

Revision
This report was revised on 1/21/22 to correct the sample for sample 550-174641-4 and to correct the selenium data for samples 550-174641-6, 550-174641-12, and 550-174641-13 (see narrative below). This final report replaces the report that was generated on 12/7/21 at 5:24 PM.

Comments
No additional comments.

Receipt
The samples were received on 11/20/2021 10:16 AM. 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 0.4º C, 1.0º C, 1.4º C and 3.2º C.

Receipt Exceptions
All containers received for Denver workshare are filled at 200 mL of 250 mL.

FC-CCR-DMX04-1121 (550-174641-1), FC-CCR-DMX06-1121 (550-174641-2), FC-CCR-MW05-1121 (550-174641-3), FC-CCR-MW06-1121 (550-174641-4), FC-CCR-MW11-1121 (550-174641-5), FC-CCR-MW15-1121 (550-174641-6), FC-CCR-MW16-1121 (550-174641-7), FC-CCR-MW17R-1121 (550-174641-8), FC-CCR-MW18-1121 (550-174641-9), FC-CCR-MW24-1121 (550-174641-10), FC-CCR-MW38R-1121 (550-174641-11), FC-CCR-MW56-1121 (550-174641-12), FC-CCR-MW57-1121 (550-174641-13), FC-CCR-SUMP1-1121 (550-174641-14), FC-CCR-SUMP2-1121 (550-174641-15), FC-CCR-SUMP3-1121 (550-174641-16), FC-CCR-SUMP7-1121 (550-174641-17), FC-CCR-SUMP8-1121 (550-174641-18), FC-CCR-SUMP9-1121 (550-174641-19), FC-CCR-SUMP10-1121 (550-174641-20), FC-CCR-SUMP11-1121 (550-174641-21), FC-CCR-SUMP12-1121 (550-174641-22), FC-CCR-SUMP13-1121 (550-174641-23), FC-CCR-SUMP14-1121 (550-174641-24), FC-CCR-SUMP15-1121 (550-174641-25), FC-CCR-SUMP16-1121 (550-174641-26), FC-CCR-SUMP17-1121 (550-174641-27), FC-CCR-SUMP18-1121 (550-174641-28), FC-CCR-SUMP18-1121 (550-174641-28[MS]), FC-CCR-SUMP18-1121 (550-174641-28[MSD]) and FC-CCR-FD07-1121 (550-174641-29)

HPLC/IC
Method 300.0: The following sample was diluted for Fluoride by method EPA 300.0 due to the nature of the sample matrix: FC-CCR-SUMP18-1121 (550-174641-28). The sample contained high concentrations of Chloride and Sulfate which exceeded the instrument's maximum column capacity. Fluoride was not detected in the diluted sample. As such, elevated reporting limits (RLs) have been provided and the data has been qualified with D1 and D5 flags.

Method 300.0: The results for the source sample and the matrix spike / matrix spike duplicate (MS/MSD) associated with analytical batch 550-259395 for Sulfate by method EPA 300.0 could not be reported due to the analyte exceeding the high end of the instrument calibration range. As such, reanalysis at a dilution was required and no results could be reported for the associated source sample. The results for the batch laboratory control sample / laboratory sample control duplicate (LCS/LCSD) met method acceptance criteria and may be used to verify accuracy and precision. Therefore, the following sample results have been reported and qualified with cn flags.

FC-CCR-DMX04-1121 (550-174641-1) and FC-CCR-DMX06-1121 (550-174641-2)

Method 300.0: The following samples were diluted for Fluoride by method EPA 300.0 due to the nature of the sample matrix: FC-CCR-MW18-1121 (550-174641-9) and FC-CCR-MW56-1121 (550-174641-12). The sample contained high concentrations of Chloride and Sulfate which exceeded the instrument's maximum column capacity. Fluoride was not detected in the diluted sample. As such, elevated reporting limits (RLs) have been provided and the data has been qualified with D flags

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 200.7 Rev 4.4: The continuing calibration blank (CCB) for analytical batch 550-259538 contained Boron 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.

Job ID: 550-174641-1 (Continued)

Laboratory: Eurofins Phoenix (Continued)

Method 200.7 Rev 4.4: The following samples were diluted to bring the concentration of target analytes within the calibration range: FC-CCR-DMX04-1121 (550-174641-1), FC-CCR-DMX06-1121 (550-174641-2), FC-CCR-MW05-1121 (550-174641-3), FC-CCR-MW06-1121 (550-174641-4), FC-CCR-MW15-1121 (550-174641-6), FC-CCR-MW16-1121 (550-174641-7), FC-CCR-MW17R-1121 (550-174641-8), FC-CCR-MW18-1121 (550-174641-9), FC-CCR-MW24-1121 (550-174641-10), FC-CCR-MW38R-1121 (550-174641-11), FC-CCR-MW56-1121 (550-174641-12), FC-CCR-MW57-1121 (550-174641-13) and FC-CCR-SUMP3-1121 (550-174641-16). Elevated reporting limits (RLs) are provided.

Method 200.7 Rev 4.4: The following sample was diluted due to the nature of the sample matrix: FC-CCR-MW11-1121 (550-174641-5). Elevated reporting limits (RLs) are provided.

Method 200.7 Rev 4.4: The following samples were diluted to bring the concentration of target analytes within the calibration range: FC-CCR-SUMP8-1121 (550-174641-18) and FC-CCR-SUMP18-1121 (550-174641-28). Elevated reporting limits (RLs) are provided.

Method 200.7 Rev 4.4: The following samples were diluted to bring the concentration of target analytes within the calibration range: FC-CCR-SUMP15-1121 (550-174641-25) and FC-CCR-FD07-1121 (550-174641-29). Elevated reporting limits (RLs) are provided.

Method 200.7 Rev 4.4: The following samples were diluted to bring the concentration of target analytes within the calibration range: FC-CCR-MW06-1121 (550-174641-4) and FC-CCR-MW11-1121 (550-174641-5). Elevated reporting limits (RLs) are provided.

Method 200.7 Rev 4.4: The continuing calibration blank (CCB) for analytical batch 550-259794 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.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Method SM 2320B: The sample duplicate (DU) precision for the following sample associated with analytical batch 550-259778 was outside control limits for Alkalinity: (550-174392-A-2) and (550-174392-A-2 DU). Non-homogeneity of the sample matrix was suspected. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision met acceptance criteria.

Method SM 2540C: The sample duplicate (DU) precision for analytical batch 550-259595 was outside control limits for TDS. Sample non-homogeneity was suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method SM 2540C: Reanalysis of the following samples were performed outside of the analytical holding time for Total Dissolved Solids (TDS) due to yielding an excessive residue amount in the initial analysis: FC-CCR-DMX04-1121 (550-174641-1), FC-CCR-MW05-1121 (550-174641-3), FC-CCR-MW18-1121 (550-174641-9), FC-CCR-MW24-1121 (550-174641-10), FC-CCR-MW56-1121 (550-174641-12) and FC-CCR-SUMP15-1121 (550-174641-25). The residue results were greater than the method required amount of 0.2000 g; therefore, those results could not be reported and the test was re-performed using smaller sample aliquots. The reanalysis conformed to the method specified residue requirements and these results have been reported and qualified with H1 and D2 flags.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Job ID: 550-174641-2

Laboratory: Eurofins Phoenix

Narrative

Job Narrative
550-174641-2

Comments

No additional comments.

Receipt

The samples were received on 11/20/2021 10:16 AM. 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 0.4º C, 1.0º C, 1.4º C and 3.2º C.

Job ID: 550-174641-2 (Continued)

Laboratory: Eurofins Phoenix (Continued)

Metals

Method 200.8 LL: The continuing calibration blank (CCB) for analytical batch 550-263722 contained Selenium 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.

Method 200.8 LL: The following sample(s) required confirmation (CON) due to results for Selenium not matching historicals for the locations. The bottles were checked and were properly labeled. The batch was checked and the samples were in the correct order. The calibration for the run and the QC samples before and after the samples were passing. The CCB run directly before the samples was a non detect, showing no evidence of carryover. All of the results were reported from dilutions due to the matrix of the samples. The samples were re-digested in duplicate for confirmation. The re-digested samples confirmed with each other but did not confirm the original results. Possible reason for the anomalies could be the dilutions due to matrix.: FC-CCR-MW15-1121 (550-174641-6), FC-CCR-MW56-1121 (550-174641-12) and FC-CCR-MW57-1121 (550-174641-13).

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: 550-174641-1
SDG: APS Four Corners Power Plant (Other)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-174641-1	FC-CCR-DMX04-1121	Water	11/16/21 11:02	11/20/21 10:16
550-174641-2	FC-CCR-DMX06-1121	Water	11/18/21 09:00	11/20/21 10:16
550-174641-3	FC-CCR-MW05-1121	Water	11/16/21 09:45	11/20/21 10:16
550-174641-4	FC-CCR-MW06-1121	Water	11/16/21 13:01	11/20/21 10:16
550-174641-5	FC-CCR-MW11-1121	Water	11/18/21 13:45	11/20/21 10:16
550-174641-6	FC-CCR-MW15-1121	Water	11/18/21 09:48	11/20/21 10:16
550-174641-7	FC-CCR-MW16-1121	Water	11/18/21 10:47	11/20/21 10:16
550-174641-8	FC-CCR-MW17R-1121	Water	11/16/21 15:01	11/20/21 10:16
550-174641-9	FC-CCR-MW18-1121	Water	11/16/21 10:23	11/20/21 10:16
550-174641-10	FC-CCR-MW24-1121	Water	11/16/21 12:20	11/20/21 10:16
550-174641-11	FC-CCR-MW38R-1121	Water	11/16/21 15:32	11/20/21 10:16
550-174641-12	FC-CCR-MW56-1121	Water	11/16/21 14:10	11/20/21 10:16
550-174641-13	FC-CCR-MW57-1121	Water	11/17/21 11:53	11/20/21 10:16
550-174641-14	FC-CCR-SUMP1-1121	Water	11/17/21 08:05	11/20/21 10:16
550-174641-15	FC-CCR-SUMP2-1121	Water	11/17/21 08:12	11/20/21 10:16
550-174641-16	FC-CCR-SUMP3-1121	Water	11/17/21 08:12	11/20/21 10:16
550-174641-17	FC-CCR-SUMP7-1121	Water	11/17/21 08:37	11/20/21 10:16
550-174641-18	FC-CCR-SUMP8-1121	Water	11/17/21 08:33	11/20/21 10:16
550-174641-19	FC-CCR-SUMP9-1121	Water	11/17/21 08:47	11/20/21 10:16
550-174641-20	FC-CCR-SUMP10-1121	Water	11/17/21 08:55	11/20/21 10:16
550-174641-21	FC-CCR-SUMP11-1121	Water	11/17/21 09:05	11/20/21 10:16
550-174641-22	FC-CCR-SUMP12-1121	Water	11/17/21 09:11	11/20/21 10:16
550-174641-23	FC-CCR-SUMP13-1121	Water	11/17/21 09:16	11/20/21 10:16
550-174641-24	FC-CCR-SUMP14-1121	Water	11/17/21 09:26	11/20/21 10:16
550-174641-25	FC-CCR-SUMP15-1121	Water	11/17/21 09:32	11/20/21 10:16
550-174641-26	FC-CCR-SUMP16-1121	Water	11/17/21 09:37	11/20/21 10:16
550-174641-27	FC-CCR-SUMP17-1121	Water	11/17/21 09:43	11/20/21 10:16
550-174641-28	FC-CCR-SUMP18-1121	Water	11/17/21 09:50	11/20/21 10:16
550-174641-29	FC-CCR-FD07-1121	Water	11/17/21 09:50	11/20/21 10:16

Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174641-1
SDG: APS Four Corners Power Plant (Other)

Client Sample ID: FC-CCR-DMX04-1121 — Lab Sample ID: 550-174641-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	510	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.94	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	8000	D2 N1	400	85	mg/L	200		300.0	Total/NA
Lithium	0.62		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	1.7		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	420		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.089	E4	0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	750		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.14		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	35		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1800	D2	2.5	0.15	mg/L	5		200.7 Rev 4.4	Total/NA
Antimony	0.00034	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Arsenic	0.00099	D1 E4	0.0010	0.00049	mg/L	2		200.8 LL	Total/NA
Barium	0.010		0.00050	0.00026	mg/L	1		200.8 LL	Total/NA
Chromium	0.0011	D1 E4	0.0020	0.00087	mg/L	2		200.8 LL	Total/NA
Cobalt	0.00055	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0064	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.0035	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00014		0.00010	0.000013	mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	340		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	340		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	12000	D2 H1	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.8	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	13.3	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-DMX06-1121 — Lab Sample ID: 550-174641-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	910	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.27	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	9100	D2 N1	400	85	mg/L	200		300.0	Total/NA
Lithium	0.89		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	5.6		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	380		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.085	E4	0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	560		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.84		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	42		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2700	D2	2.5	0.15	mg/L	5		200.7 Rev 4.4	Total/NA
Antimony	0.00018	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Arsenic	0.00062	D1 E4	0.0010	0.00049	mg/L	2		200.8 LL	Total/NA
Barium	0.011		0.00050	0.00026	mg/L	1		200.8 LL	Total/NA
Cadmium	0.00019	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Chromium	0.0019	D1 E4	0.0020	0.00087	mg/L	2		200.8 LL	Total/NA
Cobalt	0.00054	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0047	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.0034	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.000073	E4	0.00010	0.000013	mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	440		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	440		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	12000	D2	100	100	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-DMX06-1121 (Continued) — Lab Sample ID: 550-174641-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	7.5	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	13.3	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW05-1121 — Lab Sample ID: 550-174641-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8100	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.51	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	27000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	2.1		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	1.2		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	510		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.30		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	1400	D2	4.0	0.089	mg/L	2		200.7 Rev 4.4	Total/NA
Manganese	1.6		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	89		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	6500	D2	5.0	0.31	mg/L	10		200.7 Rev 4.4	Total/NA
Cobalt	0.0082	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0017	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	850		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	850		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	28000	D2 H1	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.2	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	13.9	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW06-1121 — Lab Sample ID: 550-174641-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5500	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.58	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	51000	D2	2000	430	mg/L	1000		300.0	Total/NA
Lithium	2.4		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	6.1		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	480		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.33		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	1700	D2	10	0.22	mg/L	5		200.7 Rev 4.4	Total/NA
Manganese	0.022		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	95		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	8000	D2	10	0.61	mg/L	20		200.7 Rev 4.4	Total/NA
Antimony	0.00029	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Arsenic	0.0018	D1	0.0010	0.00049	mg/L	2		200.8 LL	Total/NA
Barium	0.017	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.00013	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.00056	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Lead	0.00057	D1 E4	0.0010	0.00044	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0040	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.0040	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.000040	D1 E4	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	660		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	660		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	34000	D2	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW06-1121 (Continued) — Lab Sample ID: 550-174641-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Temperature	12.8	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW11-1121 — Lab Sample ID: 550-174641-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5600	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	2.9	D1	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	140000	D2	4000	850	mg/L	2000		300.0	Total/NA
Boron	0.50	D1	0.50	0.025	mg/L	10		200.7 Rev 4.4	Total/NA
Calcium	510	D1	20	0.13	mg/L	10		200.7 Rev 4.4	Total/NA
Magnesium	10000	D1	20	0.44	mg/L	10		200.7 Rev 4.4	Total/NA
Potassium	160	D1	5.0	1.7	mg/L	10		200.7 Rev 4.4	Total/NA
Sodium	14000	D2	25	1.5	mg/L	50		200.7 Rev 4.4	Total/NA
Cobalt	0.022	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0034	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Alkalinity as CaCO3	750		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	750		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	79000	D2	1000	1000	mg/L	1		SM 2540C	Total/NA
pH	7.1	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	13.6	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW15-1121 — Lab Sample ID: 550-174641-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1200	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.37	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	8400	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.97		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	7.3		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	420		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.11		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	630		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.72		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	37		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	2100	D2	2.5	0.15	mg/L	5		200.7 Rev 4.4	Total/NA
Antimony	0.00014	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Arsenic	0.0012	D1	0.0010	0.00049	mg/L	2		200.8 LL	Total/NA
Barium	0.020	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.000076	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0016	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0014	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.00050		0.00050	0.000074	mg/L	1		200.8 LL	Total/NA
Selenium	0.73	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00013		0.00010	0.000013	mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	630		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	630		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	11000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.4	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	9.0	H5	0.1	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: 550-174641-1
SDG: APS Four Corners Power Plant (Other)

Client Sample ID: FC-CCR-MW16-1121 — Lab Sample ID: 550-174641-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1300	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.39	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	22000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	1.4		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	8.4		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	430		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.14		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	1300	D2	10	0.22	mg/L	5		200.7 Rev 4.4	Total/NA
Manganese	1.2		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	50		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	3100	D2	2.5	0.15	mg/L	5		200.7 Rev 4.4	Total/NA
Antimony	0.00022	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Arsenic	0.00085	D1 E4	0.0010	0.00049	mg/L	2		200.8 LL	Total/NA
Barium	0.021	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.00018	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0074	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.00079	D1 E4	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.0041	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00045		0.00010	0.000013	mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	580		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	580		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	18000	D2	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.5	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	8.0	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW17R-1121 — Lab Sample ID: 550-174641-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	490	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.62	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	5700	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.47		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	39		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	470		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.048	E4	0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	290		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.83		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	21		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1100	D2	1.0	0.061	mg/L	2		200.7 Rev 4.4	Total/NA
Antimony	0.00011	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Arsenic	0.00051	D1 E4	0.0010	0.00049	mg/L	2		200.8 LL	Total/NA
Barium	0.019		0.00050	0.00026	mg/L	1		200.8 LL	Total/NA
Cadmium	0.0016	D1	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Cobalt	0.072	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Lead	0.0025		0.00050	0.00022	mg/L	1		200.8 LL	Total/NA
Molybdenum	0.0013	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.026	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.00026		0.00010	0.000013	mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	130		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	130		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6300	D2	100	100	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW17R-1121 (Continued) — Lab Sample ID: 550-174641-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	7.7	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	8.8	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW18-1121 — Lab Sample ID: 550-174641-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5100	D2	400	100	mg/L	200		300.0	Total/NA
Sulfate	16000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	2.4		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	1.2		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	510		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.54		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	1100	D2	4.0	0.089	mg/L	2		200.7 Rev 4.4	Total/NA
Manganese	2.5		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	93		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	7400	D2	5.0	0.31	mg/L	10		200.7 Rev 4.4	Total/NA
Cobalt	0.012	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0017	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	850		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	850		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	28000	D2 H1	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	10.6	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW24-1121 — Lab Sample ID: 550-174641-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5200	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.21	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	13000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	1.5		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	0.98		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	490		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.22		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	210		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	1.8		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	49		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	6900	D2	5.0	0.31	mg/L	10		200.7 Rev 4.4	Total/NA
Cobalt	0.0042	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.034	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	290		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	290		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	23000	D2 H1	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.7	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	10.6	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW38R-1121 — Lab Sample ID: 550-174641-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	320	D2	100	26	mg/L	50		300.0	Total/NA
Fluoride	0.40	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	4500	D2	400	85	mg/L	200		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-MW38R-1121 (Continued) — Lab Sample ID: 550-174641-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.40		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	27		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	460		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.078	E4	0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	280		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.0027	E4	0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	17		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	920	D2	1.0	0.061	mg/L	2		200.7 Rev 4.4	Total/NA
Antimony	0.00010	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Arsenic	0.00072	D1 E4	0.0010	0.00049	mg/L	2		200.8 LL	Total/NA
Barium	0.013		0.00050	0.00026	mg/L	1		200.8 LL	Total/NA
Chromium	0.0012	D1 E4	0.0020	0.00087	mg/L	2		200.8 LL	Total/NA
Cobalt	0.25	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0060	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.0012	D1 E4	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.000049	E4	0.00010	0.000013	mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	120		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	120		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	6000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.6	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	10.5	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-MW56-1121 — Lab Sample ID: 550-174641-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2400	D2	400	100	mg/L	200		300.0	Total/NA
Sulfate	20000	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	1.8		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	1.8		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	470		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.24		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	2500	D2	10	0.22	mg/L	5		200.7 Rev 4.4	Total/NA
Manganese	0.038		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	78		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	4900	D2	5.0	0.31	mg/L	10		200.7 Rev 4.4	Total/NA
Antimony	0.00017	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Arsenic	0.0018	D1	0.0010	0.00049	mg/L	2		200.8 LL	Total/NA
Barium	0.018	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.00020	D1	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Chromium	0.0017	D1 E4	0.0020	0.00087	mg/L	2		200.8 LL	Total/NA
Cobalt	0.00062	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0045	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.39		0.00050	0.000074	mg/L	1		200.8 LL	Total/NA
Selenium	0.00070	D1 E4	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.0011	D1	0.00020	0.000026	mg/L	2		200.8 LL	Total/NA
Alkalinity as CaCO3	800		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	800		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	30000	D2 H1	200	200	mg/L	1		SM 2540C	Total/NA
pH	7.8	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	10.6	H5	0.1	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: 550-174641-1
SDG: APS Four Corners Power Plant (Other)

Client Sample ID: FC-CCR-MW57-1121 — Lab Sample ID: 550-174641-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	480	D2	400	100	mg/L	200		300.0	Total/NA
Fluoride	0.19	D1 E4	0.80	0.095	mg/L	2		300.0	Total/NA
Sulfate	8400	D2	400	85	mg/L	200		300.0	Total/NA
Lithium	0.81		0.020	0.0091	mg/L	1		200.7 Rev 4.4	Total/NA
Boron	1.1		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	470		2.0	0.013	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	1.4		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	860		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.28		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	45		0.50	0.17	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1900	D2	2.5	0.15	mg/L	5		200.7 Rev 4.4	Total/NA
Antimony	0.00041	D1 E4	0.0020	0.000087	mg/L	2		200.8 LL	Total/NA
Arsenic	0.0014	D1	0.0010	0.00049	mg/L	2		200.8 LL	Total/NA
Barium	0.018	D1	0.0010	0.00052	mg/L	2		200.8 LL	Total/NA
Cadmium	0.000078	D1 E4	0.00020	0.000046	mg/L	2		200.8 LL	Total/NA
Chromium	0.0015	D1 E4	0.0020	0.00087	mg/L	2		200.8 LL	Total/NA
Cobalt	0.0035	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0028	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Selenium	0.0015		0.00050	0.000074	mg/L	1		200.8 LL	Total/NA
Selenium	0.24	D1	0.0020	0.00030	mg/L	4		200.8 LL	Total/NA
Thallium	0.000068	E4	0.00010	0.000013	mg/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	410		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	410		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	11000	D2	100	100	mg/L	1		SM 2540C	Total/NA
pH	7.9	H5	1.7	1.7	SU	1		SM 4500 H+ B	Total/NA
Temperature	9.6	H5	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: FC-CCR-SUMP1-1121 — Lab Sample ID: 550-174641-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	510	D2	400	100	mg/L	200		300.0	Total/NA
Boron	73		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.15		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	560		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.015		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.060	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.13	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	8000	D2	100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FC-CCR-SUMP2-1121 — Lab Sample ID: 550-174641-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	530	D2	400	100	mg/L	200		300.0	Total/NA
Boron	37		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	5.2		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	490		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.0047	E4	0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.00018	D1 E4	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0051	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	7100	D2	100	100	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-SUMP3-1121 — Lab Sample ID: 550-174641-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	960	D2	400	100	mg/L	200		300.0	Total/NA
Boron	26		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.27		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	1200	D2	4.0	0.089	mg/L	2		200.7 Rev 4.4	Total/NA
Manganese	0.16		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0021	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.021	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	26000	D2	200	200	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FC-CCR-SUMP7-1121 — Lab Sample ID: 550-174641-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	710	D2	400	100	mg/L	200		300.0	Total/NA
Boron	58		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.30		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	810		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.057		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.082	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0051	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	9800	D2	100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FC-CCR-SUMP8-1121 — Lab Sample ID: 550-174641-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	820	D2	400	100	mg/L	200		300.0	Total/NA
Boron	46		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	1.9		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	1400		4.0	0.089	mg/L	2		200.7 Rev 4.4	Total/NA
Manganese	0.0037	E4	0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.036	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0037	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	17000	D2	100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FC-CCR-SUMP9-1121 — Lab Sample ID: 550-174641-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	630	D2	400	100	mg/L	200		300.0	Total/NA
Boron	31		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.38		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	840		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.022	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0011	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	9800	D2	100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FC-CCR-SUMP10-1121 — Lab Sample ID: 550-174641-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	520	D2	400	100	mg/L	200		300.0	Total/NA
Boron	55		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	2.2		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	480		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.026		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.19	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-SUMP10-1121 (Continued) — Lab Sample ID: 550-174641-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	0.00089	D1 E4	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	9900	D2	100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FC-CCR-SUMP11-1121 — Lab Sample ID: 550-174641-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	540	D2	400	100	mg/L	200		300.0	Total/NA
Boron	53		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	6.8		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	510		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.034		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.18	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0014	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	10000	D2	100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FC-CCR-SUMP12-1121 — Lab Sample ID: 550-174641-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	520	D2	400	100	mg/L	200		300.0	Total/NA
Boron	54		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	5.5		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	450		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.016		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.19	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.00088	D1 E4	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	10000	D2	100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FC-CCR-SUMP13-1121 — Lab Sample ID: 550-174641-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	530	D2	400	100	mg/L	200		300.0	Total/NA
Boron	37		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	1.4		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	500		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.0087	E4	0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.093	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.00097	D1 E4	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	9300	D2	100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FC-CCR-SUMP14-1121 — Lab Sample ID: 550-174641-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	470	D2	400	100	mg/L	200		300.0	Total/NA
Boron	31		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	3.1		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	420		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.010		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.061	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0032	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	9900	D2	100	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: 550-174641-1
SDG: APS Four Corners Power Plant (Other)

Client Sample ID: FC-CCR-SUMP15-1121 — Lab Sample ID: 550-174641-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1700	D2	400	100	mg/L	200		300.0	Total/NA
Boron	5.6		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.97		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	3500	D2	10	0.22	mg/L	5		200.7 Rev 4.4	Total/NA
Manganese	0.012		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0015	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0032	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	38000	D2 H1	200	200	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FC-CCR-SUMP16-1121 — Lab Sample ID: 550-174641-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	460	D2	400	100	mg/L	200		300.0	Total/NA
Boron	21		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	21		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	850		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.65		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.029	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0029	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	8200	D2	100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FC-CCR-SUMP17-1121 — Lab Sample ID: 550-174641-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	860	D2	400	100	mg/L	200		300.0	Total/NA
Boron	15		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.15		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	960		2.0	0.044	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.00042	E4	0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0011	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0016	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	15000	D2	100	100	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FC-CCR-SUMP18-1121 — Lab Sample ID: 550-174641-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1700	D2	400	100	mg/L	200		300.0	Total/NA
Boron	4.6		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.31		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	3200	M3	10	0.22	mg/L	5		200.7 Rev 4.4	Total/NA
Manganese	0.032		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0013	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0036	D1	0.0020	0.00081	mg/L	4		200.8 LL	Total/NA
Total Dissolved Solids	37000	D2	200	200	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FC-CCR-FD07-1121 — Lab Sample ID: 550-174641-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1700	D2	400	100	mg/L	200		300.0	Total/NA
Boron	5.4		0.050	0.0025	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.33		0.10	0.010	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	3500	D2	10	0.22	mg/L	5		200.7 Rev 4.4	Total/NA
Manganese	0.040		0.010	0.00019	mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-FD07-1121 (Continued)

Lab Sample ID: 550-174641-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.0011	D1	0.0010	0.00013	mg/L	2		200.8 LL	Total/NA
Molybdenum	0.0032	D1	0.0010	0.00040	mg/L	2		200.8 LL	Total/NA
Total Dissolved Solids	38000	D2	200	200	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: FC-CCR-DMX04-1121

Lab Sample ID: 550-174641-1
Date Collected: 11/16/21 11:02
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	510	D2	400	100	mg/L			11/23/21 06:11	200
Fluoride	0.94	D1	0.80	0.095	mg/L			11/23/21 05:53	2
Sulfate	8000	D2 N1	400	85	mg/L			11/23/21 06:11	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/22/21 10:18	11/23/21 19:11	1
Lithium	0.62		0.020	0.0091	mg/L		11/26/21 06:11	11/26/21 14:47	1
Boron	1.7		0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 19:11	1
Calcium	420		2.0	0.013	mg/L		11/22/21 10:18	11/23/21 19:11	1
Iron	0.089	E4	0.10	0.010	mg/L		11/22/21 10:18	11/23/21 19:11	1
Magnesium	750		2.0	0.044	mg/L		11/22/21 10:18	11/23/21 19:11	1
Manganese	0.14		0.010	0.00019	mg/L		11/22/21 10:18	11/23/21 19:11	1
Potassium	35		0.50	0.17	mg/L		11/22/21 10:18	11/23/21 19:11	1
Sodium	1800	D2	2.5	0.15	mg/L		11/22/21 10:18	11/24/21 21:38	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00034	D1 E4	0.0020	0.000087	mg/L		11/22/21 08:34	11/29/21 18:00	2
Arsenic	0.00099	D1 E4	0.0010	0.00049	mg/L		11/22/21 08:34	11/29/21 18:00	2
Barium	0.010		0.00050	0.00026	mg/L		11/22/21 08:34	11/23/21 16:55	1
Cadmium	ND	D1 E8	0.00020	0.000046	mg/L		11/22/21 08:34	11/29/21 18:00	2
Chromium	0.0011	D1 E4	0.0020	0.00087	mg/L		11/22/21 08:34	11/29/21 18:00	2
Cobalt	0.00055	D1 E4	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 18:00	2
Lead	ND	E8	0.00050	0.00022	mg/L		11/22/21 08:34	11/23/21 16:55	1
Molybdenum	0.0064	D1	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 18:00	2
Selenium	0.0035	D1	0.0020	0.00030	mg/L		11/22/21 08:34	12/02/21 11:12	4
Thallium	0.00014		0.00010	0.000013	mg/L		11/22/21 08:34	11/23/21 16:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	340		6.0	6.0	mg/L			11/23/21 16:08	1
Bicarbonate Alkalinity as CaCO3	340		6.0	6.0	mg/L			11/23/21 16:08	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/23/21 16:08	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/23/21 16:08	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/23/21 16:08	1
Total Dissolved Solids	12000	D2 H1	100	100	mg/L			11/30/21 16:38	1
pH	7.8	H5	1.7	1.7	SU			11/23/21 14:19	1
Temperature	13.3	H5	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-DMX06-1121

Lab Sample ID: 550-174641-2
Date Collected: 11/18/21 09:00
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	910	D2	400	100	mg/L			11/23/21 06:48	200
Fluoride	0.27	D1 E4	0.80	0.095	mg/L			11/23/21 06:30	2
Sulfate	9100	D2 N1	400	85	mg/L			11/23/21 06:48	200

Client Sample ID: FC-CCR-DMX06-1121

Lab Sample ID: 550-174641-2

Date Collected: 11/18/21 09:00
Matrix: Water
Date Received: 11/20/21 10:16

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/22/21 10:18	11/23/21 19:14	1
Lithium	**0.89**		0.020	0.0091	mg/L		11/26/21 06:11	11/26/21 14:51	1
Boron	**5.6**		0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 19:14	1
Calcium	**380**		2.0	0.013	mg/L		11/22/21 10:18	11/23/21 19:14	1
Iron	**0.085**	**E4**	0.10	0.010	mg/L		11/22/21 10:18	11/23/21 19:14	1
Magnesium	**560**		2.0	0.044	mg/L		11/22/21 10:18	11/23/21 19:14	1
Manganese	**0.84**		0.010	0.00019	mg/L		11/22/21 10:18	11/23/21 19:14	1
Potassium	**42**		0.50	0.17	mg/L		11/22/21 10:18	11/23/21 19:14	1
Sodium	**2700**	**D2**	2.5	0.15	mg/L		11/22/21 10:18	11/24/21 21:41	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00018**	**D1 E4**	0.0020	0.000087	mg/L		11/22/21 08:34	11/29/21 18:02	2
Arsenic	**0.00062**	**D1 E4**	0.0010	0.00049	mg/L		11/22/21 08:34	11/29/21 18:02	2
Barium	**0.011**		0.00050	0.00026	mg/L		11/22/21 08:34	11/23/21 16:57	1
Cadmium	**0.00019**	**D1 E4**	0.00020	0.000046	mg/L		11/22/21 08:34	11/29/21 18:02	2
Chromium	**0.0019**	**D1 E4**	0.0020	0.00087	mg/L		11/22/21 08:34	11/29/21 18:02	2
Cobalt	**0.00054**	**D1 E4**	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 18:02	2
Lead	ND	E8	0.00050	0.00022	mg/L		11/22/21 08:34	11/23/21 16:57	1
Molybdenum	**0.0047**	**D1**	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 18:02	2
Selenium	**0.0034**	**D1**	0.0020	0.00030	mg/L		11/22/21 08:34	12/02/21 11:14	4
Thallium	**0.000073**	**E4**	0.00010	0.000013	mg/L		11/22/21 08:34	11/23/21 16:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**440**		6.0	6.0	mg/L			11/23/21 16:29	1
Bicarbonate Alkalinity as CaCO3	**440**		6.0	6.0	mg/L			11/23/21 16:29	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/23/21 16:29	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/23/21 16:29	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/23/21 16:29	1
Total Dissolved Solids	**12000**	**D2**	100	100	mg/L			11/24/21 13:30	1
pH	**7.5**	**H5**	1.7	1.7	SU			11/23/21 14:19	1
Temperature	**13.3**	**H5**	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW05-1121

Lab Sample ID: 550-174641-3

Date Collected: 11/16/21 09:45
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8100**	**D2**	400	100	mg/L			11/22/21 21:03	200
Fluoride	**0.51**	**D1 E4**	0.80	0.095	mg/L			11/22/21 20:35	2
Sulfate	**27000**	**D2**	400	85	mg/L			11/22/21 21:03	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/22/21 10:18	11/23/21 19:17	1
Lithium	**2.1**		0.020	0.0091	mg/L		11/26/21 06:11	11/26/21 14:55	1
Boron	**1.2**		0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 19:17	1
Calcium	**510**		2.0	0.013	mg/L		11/22/21 10:18	11/23/21 19:17	1
Iron	**0.30**		0.10	0.010	mg/L		11/22/21 10:18	11/23/21 19:17	1

Client Sample ID: FC-CCR-MW05-1121

Lab Sample ID: 550-174641-3

Date Collected: 11/16/21 09:45
Matrix: Water
Date Received: 11/20/21 10:16

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	1400	D2	4.0	0.089	mg/L		11/22/21 10:18	11/24/21 21:49	2
Manganese	1.6		0.010	0.00019	mg/L		11/22/21 10:18	11/23/21 19:17	1
Potassium	89		0.50	0.17	mg/L		11/22/21 10:18	11/23/21 19:17	1
Sodium	6500	D2	5.0	0.31	mg/L		11/22/21 10:18	11/24/21 21:44	10

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0082	D1	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 18:04	2
Molybdenum	0.0017	D1	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 18:04	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	850		6.0	6.0	mg/L			11/28/21 13:20	1
Bicarbonate Alkalinity as CaCO3	850		6.0	6.0	mg/L			11/28/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Total Dissolved Solids	28000	D2 H1	200	200	mg/L			11/30/21 16:38	1
pH	7.2	H5	1.7	1.7	SU			11/23/21 14:19	1
Temperature	13.9	H5	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW06-1121

Lab Sample ID: 550-174641-4

Date Collected: 11/16/21 13:01
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5500	D2	400	100	mg/L			11/22/21 22:55	200
Fluoride	0.58	D1 E4	0.80	0.095	mg/L			11/22/21 22:27	2
Sulfate	51000	D2	2000	430	mg/L			11/24/21 01:03	1000

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/22/21 10:18	11/23/21 19:19	1
Lithium	2.4		0.020	0.0091	mg/L		11/26/21 06:11	11/26/21 14:59	1
Boron	6.1		0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 19:19	1
Calcium	480		2.0	0.013	mg/L		11/22/21 10:18	11/23/21 19:19	1
Iron	0.33		0.10	0.010	mg/L		11/22/21 10:18	11/23/21 19:19	1
Magnesium	1700	D2	10	0.22	mg/L		11/22/21 10:18	11/24/21 21:59	5
Manganese	0.022		0.010	0.00019	mg/L		11/22/21 10:18	11/23/21 19:19	1
Potassium	95		0.50	0.17	mg/L		11/22/21 10:18	11/23/21 19:19	1
Sodium	8000	D2	10	0.61	mg/L		11/22/21 10:18	11/26/21 17:49	20

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00029	D1 E4	0.0020	0.000087	mg/L		11/22/21 08:34	11/29/21 18:06	2
Arsenic	0.0018	D1	0.0010	0.00049	mg/L		11/22/21 08:34	11/29/21 18:06	2
Barium	0.017	D1	0.0010	0.00052	mg/L		11/22/21 08:34	11/29/21 18:06	2
Cadmium	0.00013	D1 E4	0.00020	0.000046	mg/L		11/22/21 08:34	11/29/21 18:06	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/22/21 08:34	11/29/21 18:06	2
Cobalt	0.00056	D1 E4	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 18:06	2

Client Sample ID: FC-CCR-MW06-1121

Lab Sample ID: 550-174641-4
Date Collected: 11/16/21 13:01
Matrix: Water
Date Received: 11/20/21 10:16

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00057	D1 E4	0.0010	0.00044	mg/L		11/22/21 08:34	11/29/21 18:06	2
Molybdenum	0.0040	D1	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 18:06	2
Selenium	0.0040	D1	0.0020	0.00030	mg/L		11/22/21 08:34	12/02/21 11:16	4
Thallium	0.000040	D1 E4	0.00020	0.000026	mg/L		11/22/21 08:34	11/29/21 18:06	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	660		6.0	6.0	mg/L			11/23/21 16:55	1
Bicarbonate Alkalinity as CaCO3	660		6.0	6.0	mg/L			11/23/21 16:55	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/23/21 16:55	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/23/21 16:55	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/23/21 16:55	1
Total Dissolved Solids	34000	D2	200	200	mg/L			11/24/21 13:30	1
pH	7.7	H5	1.7	1.7	SU			11/23/21 14:19	1
Temperature	12.8	H5	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW11-1121

Lab Sample ID: 550-174641-5
Date Collected: 11/18/21 13:45
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5600	D2	400	100	mg/L			11/22/21 23:51	200
Fluoride	2.9	D1	0.80	0.095	mg/L			11/22/21 23:23	2
Sulfate	140000	D2	4000	850	mg/L			11/23/21 20:53	2000

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.50	D1	0.50	0.025	mg/L		11/22/21 10:18	11/24/21 22:02	10
Calcium	510	D1	20	0.13	mg/L		11/22/21 10:18	11/24/21 22:02	10
Magnesium	10000	D1	20	0.44	mg/L		11/22/21 10:18	11/24/21 22:02	10
Potassium	160	D1	5.0	1.7	mg/L		11/22/21 10:18	11/24/21 22:02	10
Sodium	14000	D2	25	1.5	mg/L		11/22/21 10:18	11/26/21 17:51	50

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.022	D1	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 18:08	2
Molybdenum	0.0034	D1	0.0020	0.00081	mg/L		11/22/21 08:34	11/30/21 16:39	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	750		6.0	6.0	mg/L			11/28/21 13:20	1
Bicarbonate Alkalinity as CaCO3	750		6.0	6.0	mg/L			11/28/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Total Dissolved Solids	79000	D2	1000	1000	mg/L			11/24/21 13:30	1
pH	7.1	H5	1.7	1.7	SU			11/23/21 14:19	1
Temperature	13.6	H5	0.1	0.1	Degrees C			11/23/21 14:19	1

Client Sample ID: FC-CCR-MW15-1121

Lab Sample ID: 550-174641-6

Date Collected: 11/18/21 09:48
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1200	D2	400	100	mg/L			11/23/21 00:47	200
Fluoride	0.37	D1 E4	0.80	0.095	mg/L			11/23/21 00:19	2
Sulfate	8400	D2	400	85	mg/L			11/23/21 00:47	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/22/21 10:18	11/23/21 19:24	1
Lithium	0.97		0.020	0.0091	mg/L		11/26/21 06:11	11/26/21 15:03	1
Boron	7.3		0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 19:24	1
Calcium	420		2.0	0.013	mg/L		11/22/21 10:18	11/23/21 19:24	1
Iron	0.11		0.10	0.010	mg/L		11/22/21 10:18	11/23/21 19:24	1
Magnesium	630		2.0	0.044	mg/L		11/22/21 10:18	11/23/21 19:24	1
Manganese	0.72		0.010	0.00019	mg/L		11/22/21 10:18	11/23/21 19:24	1
Potassium	37		0.50	0.17	mg/L		11/22/21 10:18	11/23/21 19:24	1
Sodium	2100	D2	2.5	0.15	mg/L		11/22/21 10:18	11/24/21 22:07	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00014	D1 E4	0.0020	0.000087	mg/L		11/22/21 08:34	11/29/21 18:11	2
Arsenic	0.0012	D1	0.0010	0.00049	mg/L		11/22/21 08:34	11/29/21 18:11	2
Barium	0.020	D1	0.0010	0.00052	mg/L		11/22/21 08:34	11/29/21 18:11	2
Cadmium	0.000076	D1 E4	0.00020	0.000046	mg/L		11/22/21 08:34	11/29/21 18:11	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/22/21 08:34	11/29/21 18:11	2
Cobalt	0.0016	D1	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 18:11	2
Lead	ND	E8	0.00050	0.00022	mg/L		11/22/21 08:34	11/23/21 17:06	1
Molybdenum	0.0014	D1	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 18:11	2
Selenium	0.00050		0.00050	0.000074	mg/L		01/05/22 07:29	01/19/22 16:31	1
Selenium	0.73	D1	0.0020	0.00030	mg/L		11/22/21 08:34	12/02/21 11:22	4
Thallium	0.00013		0.00010	0.000013	mg/L		11/22/21 08:34	11/23/21 17:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	630		6.0	6.0	mg/L			11/23/21 17:21	1
Bicarbonate Alkalinity as CaCO3	630		6.0	6.0	mg/L			11/23/21 17:21	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/23/21 17:21	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/23/21 17:21	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/23/21 17:21	1
Total Dissolved Solids	11000	D2	100	100	mg/L			11/24/21 13:30	1
pH	7.4	H5	1.7	1.7	SU			11/24/21 10:35	1
Temperature	9.0	H5	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-MW16-1121

Lab Sample ID: 550-174641-7

Date Collected: 11/18/21 10:47
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1300	D2	400	100	mg/L			11/23/21 01:43	200
Fluoride	0.39	D1 E4	0.80	0.095	mg/L			11/23/21 01:15	2
Sulfate	22000	D2	400	85	mg/L			11/23/21 01:43	200

Client Sample ID: FC-CCR-MW16-1121

Lab Sample ID: 550-174641-7

Date Collected: 11/18/21 10:47
Matrix: Water
Date Received: 11/20/21 10:16

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/22/21 10:18	11/23/21 19:32	1
Lithium	**1.4**		0.020	0.0091	mg/L		11/26/21 06:11	11/26/21 15:23	1
Boron	**8.4**		0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 19:32	1
Calcium	**430**		2.0	0.013	mg/L		11/22/21 10:18	11/23/21 19:32	1
Iron	**0.14**		0.10	0.010	mg/L		11/22/21 10:18	11/23/21 19:32	1
Magnesium	**1300**	**D2**	10	0.22	mg/L		11/22/21 10:18	11/24/21 22:10	5
Manganese	**1.2**		0.010	0.00019	mg/L		11/22/21 10:18	11/23/21 19:32	1
Potassium	**50**		0.50	0.17	mg/L		11/22/21 10:18	11/23/21 19:32	1
Sodium	**3100**	**D2**	2.5	0.15	mg/L		11/22/21 10:18	11/24/21 22:10	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00022**	**D1 E4**	0.0020	0.000087	mg/L		11/22/21 08:34	11/29/21 18:17	2
Arsenic	**0.00085**	**D1 E4**	0.0010	0.00049	mg/L		11/22/21 08:34	11/29/21 18:17	2
Barium	**0.021**	**D1**	0.0010	0.00052	mg/L		11/22/21 08:34	11/29/21 18:17	2
Cadmium	**0.00018**	**D1 E4**	0.00020	0.000046	mg/L		11/22/21 08:34	11/29/21 18:17	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/22/21 08:34	11/29/21 18:17	2
Cobalt	**0.0074**	**D1**	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 18:17	2
Lead	ND	E8	0.00050	0.00022	mg/L		11/22/21 08:34	11/23/21 17:12	1
Molybdenum	**0.00079**	**D1 E4**	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 18:17	2
Selenium	**0.0041**	**D1**	0.0020	0.00030	mg/L		11/22/21 08:34	12/02/21 11:24	4
Thallium	**0.00045**		0.00010	0.000013	mg/L		11/22/21 08:34	11/23/21 17:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**580**		6.0	6.0	mg/L			11/23/21 17:32	1
Bicarbonate Alkalinity as CaCO3	**580**		6.0	6.0	mg/L			11/23/21 17:32	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/23/21 17:32	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/23/21 17:32	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/23/21 17:32	1
Total Dissolved Solids	**18000**	**D2**	200	200	mg/L			11/24/21 13:30	1
pH	**7.5**	**H5**	1.7	1.7	SU			11/24/21 10:35	1
Temperature	**8.0**	**H5**	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-MW17R-1121

Lab Sample ID: 550-174641-8

Date Collected: 11/16/21 15:01
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**490**	**D2**	400	100	mg/L			11/23/21 02:39	200
Fluoride	**0.62**	**D1 E4**	0.80	0.095	mg/L			11/23/21 02:11	2
Sulfate	**5700**	**D2**	400	85	mg/L			11/23/21 02:39	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/22/21 10:18	11/23/21 19:35	1
Lithium	**0.47**		0.020	0.0091	mg/L		11/26/21 06:11	11/26/21 15:27	1
Boron	**39**		0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 19:35	1
Calcium	**470**		2.0	0.013	mg/L		11/22/21 10:18	11/23/21 19:35	1
Iron	**0.048**	**E4**	0.10	0.010	mg/L		11/22/21 10:18	11/23/21 19:35	1

Client Sample ID: FC-CCR-MW17R-1121

Lab Sample ID: 550-174641-8

Date Collected: 11/16/21 15:01
Matrix: Water
Date Received: 11/20/21 10:16

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	290		2.0	0.044	mg/L		11/22/21 10:18	11/23/21 19:35	1
Manganese	0.83		0.010	0.00019	mg/L		11/22/21 10:18	11/23/21 19:35	1
Potassium	21		0.50	0.17	mg/L		11/22/21 10:18	11/23/21 19:35	1
Sodium	1100	D2	1.0	0.061	mg/L		11/22/21 10:18	11/24/21 22:12	2

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00011	D1 E4	0.0020	0.000087	mg/L		11/22/21 08:34	11/29/21 18:19	2
Arsenic	0.00051	D1 E4	0.0010	0.00049	mg/L		11/22/21 08:34	11/29/21 18:19	2
Barium	0.019		0.00050	0.00026	mg/L		11/22/21 08:34	11/23/21 17:14	1
Cadmium	0.0016	D1	0.00020	0.000046	mg/L		11/22/21 08:34	11/29/21 18:19	2
Chromium	ND	D1 E8	0.0020	0.00087	mg/L		11/22/21 08:34	11/29/21 18:19	2
Cobalt	0.072	D1	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 18:19	2
Lead	0.0025		0.00050	0.00022	mg/L		11/22/21 08:34	11/23/21 17:14	1
Molybdenum	0.0013	D1	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 18:19	2
Selenium	0.026	D1	0.0020	0.00030	mg/L		11/22/21 08:34	12/02/21 11:27	4
Thallium	0.00026		0.00010	0.000013	mg/L		11/22/21 08:34	11/23/21 17:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	130		6.0	6.0	mg/L			11/23/21 17:41	1
Bicarbonate Alkalinity as CaCO3	130		6.0	6.0	mg/L			11/23/21 17:41	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/23/21 17:41	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/23/21 17:41	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/23/21 17:41	1
Total Dissolved Solids	6300	D2	100	100	mg/L			11/23/21 18:25	1
pH	7.7	H5	1.7	1.7	SU			11/24/21 10:35	1
Temperature	8.8	H5	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-MW18-1121

Lab Sample ID: 550-174641-9

Date Collected: 11/16/21 10:23
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5100	D2	400	100	mg/L			11/24/21 14:00	200
Fluoride	ND	D1 D5 E8	0.80	0.095	mg/L			11/24/21 13:05	2
Sulfate	16000	D2	400	85	mg/L			11/24/21 14:00	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/22/21 10:18	11/23/21 19:37	1
Lithium	2.4		0.020	0.0091	mg/L		11/26/21 06:11	11/26/21 15:31	1
Boron	1.2		0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 19:37	1
Calcium	510		2.0	0.013	mg/L		11/22/21 10:18	11/23/21 19:37	1
Iron	0.54		0.10	0.010	mg/L		11/22/21 10:18	11/23/21 19:37	1
Magnesium	1100	D2	4.0	0.089	mg/L		11/22/21 10:18	11/24/21 22:20	2
Manganese	2.5		0.010	0.00019	mg/L		11/22/21 10:18	11/23/21 19:37	1
Potassium	93		0.50	0.17	mg/L		11/22/21 10:18	11/23/21 19:37	1
Sodium	7400	D2	5.0	0.31	mg/L		11/22/21 10:18	11/24/21 22:15	10

Client Sample ID: FC-CCR-MW18-1121

Lab Sample ID: 550-174641-9
Date Collected: 11/16/21 10:23
Matrix: Water
Date Received: 11/20/21 10:16

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.012	D1	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 18:21	2
Molybdenum	0.0017	D1	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 18:21	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	850		6.0	6.0	mg/L			11/28/21 13:20	1
Bicarbonate Alkalinity as CaCO3	850		6.0	6.0	mg/L			11/28/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Total Dissolved Solids	28000	D2 H1	200	200	mg/L			11/30/21 16:38	1
pH	7.6	H5	1.7	1.7	SU			11/24/21 10:35	1
Temperature	10.6	H5	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-MW24-1121

Lab Sample ID: 550-174641-10
Date Collected: 11/16/21 12:20
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5200	D2	400	100	mg/L			11/24/21 15:14	200
Fluoride	0.21	D1 E4	0.80	0.095	mg/L			11/24/21 14:55	2
Sulfate	13000	D2	400	85	mg/L			11/24/21 15:14	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/22/21 10:18	11/23/21 19:40	1
Lithium	1.5		0.020	0.0091	mg/L		11/26/21 06:11	11/26/21 15:36	1
Boron	0.98		0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 19:40	1
Calcium	490		2.0	0.013	mg/L		11/22/21 10:18	11/23/21 19:40	1
Iron	0.22		0.10	0.010	mg/L		11/22/21 10:18	11/23/21 19:40	1
Magnesium	210		2.0	0.044	mg/L		11/22/21 10:18	11/23/21 19:40	1
Manganese	1.8		0.010	0.00019	mg/L		11/22/21 10:18	11/23/21 19:40	1
Potassium	49		0.50	0.17	mg/L		11/22/21 10:18	11/23/21 19:40	1
Sodium	6900	D2	5.0	0.31	mg/L		11/22/21 10:18	11/24/21 22:23	10

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0042	D1	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 18:23	2
Molybdenum	0.034	D1	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 18:23	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	290		6.0	6.0	mg/L			11/23/21 18:06	1
Bicarbonate Alkalinity as CaCO3	290		6.0	6.0	mg/L			11/23/21 18:06	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/23/21 18:06	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/23/21 18:06	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/23/21 18:06	1
Total Dissolved Solids	23000	D2 H1	200	200	mg/L			11/30/21 16:38	1
pH	7.7	H5	1.7	1.7	SU			11/24/21 10:35	1
Temperature	10.6	H5	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-MW38R-1121

Lab Sample ID: 550-174641-11
Date Collected: 11/16/21 15:32
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	320	D2	100	26	mg/L			11/26/21 18:44	50
Fluoride	0.40	D1 E4	0.80	0.095	mg/L			11/24/21 15:32	2
Sulfate	4500	D2	400	85	mg/L			11/24/21 15:51	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/22/21 10:18	11/23/21 19:43	1
Lithium	0.40		0.020	0.0091	mg/L		11/26/21 06:11	11/26/21 15:40	1
Boron	27		0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 19:43	1
Calcium	460		2.0	0.013	mg/L		11/22/21 10:18	11/23/21 19:43	1
Iron	0.078	E4	0.10	0.010	mg/L		11/22/21 10:18	11/23/21 19:43	1
Magnesium	280		2.0	0.044	mg/L		11/22/21 10:18	11/23/21 19:43	1
Manganese	0.0027	E4	0.010	0.00019	mg/L		11/22/21 10:18	11/23/21 19:43	1
Potassium	17		0.50	0.17	mg/L		11/22/21 10:18	11/23/21 19:43	1
Sodium	920	D2	1.0	0.061	mg/L		11/22/21 10:18	11/24/21 22:36	2

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00010	D1 E4	0.0020	0.000087	mg/L		11/22/21 08:34	11/29/21 18:25	2
Arsenic	0.00072	D1 E4	0.0010	0.00049	mg/L		11/22/21 08:34	11/29/21 18:25	2
Barium	0.013		0.00050	0.00026	mg/L		11/22/21 08:34	11/23/21 17:20	1
Cadmium	ND	D1 E8	0.00020	0.000046	mg/L		11/22/21 08:34	11/29/21 18:25	2
Chromium	0.0012	D1 E4	0.0020	0.00087	mg/L		11/22/21 08:34	11/29/21 18:25	2
Cobalt	0.25	D1	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 18:25	2
Lead	ND	E8	0.00050	0.00022	mg/L		11/22/21 08:34	11/23/21 17:20	1
Molybdenum	0.0060	D1	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 18:25	2
Selenium	0.0012	D1 E4	0.0020	0.00030	mg/L		11/22/21 08:34	12/02/21 11:29	4
Thallium	0.000049	E4	0.00010	0.000013	mg/L		11/22/21 08:34	11/23/21 17:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	120		6.0	6.0	mg/L			11/28/21 13:20	1
Bicarbonate Alkalinity as CaCO3	120		6.0	6.0	mg/L			11/28/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Total Dissolved Solids	6000	D2	100	100	mg/L			11/23/21 18:25	1
pH	7.6	H5	1.7	1.7	SU			11/24/21 10:35	1
Temperature	10.5	H5	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-MW56-1121

Lab Sample ID: 550-174641-12
Date Collected: 11/16/21 14:10
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2400	D2	400	100	mg/L			11/24/21 17:04	200
Fluoride	ND	D1 D5 E8	0.80	0.095	mg/L			11/24/21 16:46	2
Sulfate	20000	D2	400	85	mg/L			11/24/21 17:04	200

Client Sample ID: FC-CCR-MW56-1121

Lab Sample ID: 550-174641-12

Date Collected: 11/16/21 14:10
Matrix: Water
Date Received: 11/20/21 10:16

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/22/21 10:18	11/23/21 19:45	1
Lithium	**1.8**		0.020	0.0091	mg/L		11/26/21 06:11	11/26/21 15:44	1
Boron	**1.8**		0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 19:45	1
Calcium	**470**		2.0	0.013	mg/L		11/22/21 10:18	11/23/21 19:45	1
Iron	**0.24**		0.10	0.010	mg/L		11/22/21 10:18	11/23/21 19:45	1
Magnesium	**2500**	**D2**	10	0.22	mg/L		11/22/21 10:18	11/24/21 22:41	5
Manganese	**0.038**		0.010	0.00019	mg/L		11/22/21 10:18	11/23/21 19:45	1
Potassium	**78**		0.50	0.17	mg/L		11/22/21 10:18	11/23/21 19:45	1
Sodium	**4900**	**D2**	5.0	0.31	mg/L		11/22/21 10:18	11/24/21 22:38	10

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00017**	**D1 E4**	0.0020	0.000087	mg/L		11/22/21 08:34	11/29/21 18:27	2
Arsenic	**0.0018**	**D1**	0.0010	0.00049	mg/L		11/22/21 08:34	11/29/21 18:27	2
Barium	**0.018**	**D1**	0.0010	0.00052	mg/L		11/22/21 08:34	11/29/21 18:27	2
Cadmium	**0.00020**	**D1**	0.00020	0.000046	mg/L		11/22/21 08:34	11/29/21 18:27	2
Chromium	**0.0017**	**D1 E4**	0.0020	0.00087	mg/L		11/22/21 08:34	11/29/21 18:27	2
Cobalt	**0.00062**	**D1 E4**	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 18:27	2
Lead	ND	D1 E8	0.0010	0.00044	mg/L		11/22/21 08:34	11/29/21 18:27	2
Molybdenum	**0.0045**	**D1**	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 18:27	2
Selenium	**0.39**		0.00050	0.000074	mg/L		01/05/22 07:29	01/14/22 20:27	1
Selenium	**0.00070**	**D1 E4**	0.0020	0.00030	mg/L		11/22/21 08:34	12/02/21 11:31	4
Thallium	**0.0011**	**D1**	0.00020	0.000026	mg/L		11/22/21 08:34	11/29/21 18:27	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**800**		6.0	6.0	mg/L			11/28/21 13:20	1
Bicarbonate Alkalinity as CaCO3	**800**		6.0	6.0	mg/L			11/28/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Total Dissolved Solids	**30000**	**D2 H1**	200	200	mg/L			11/30/21 16:38	1
pH	**7.8**	**H5**	1.7	1.7	SU			11/24/21 10:35	1
Temperature	**10.6**	**H5**	0.1	0.1	Degrees C			11/24/21 10:35	1

Client Sample ID: FC-CCR-MW57-1121

Lab Sample ID: 550-174641-13

Date Collected: 11/17/21 11:53
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**480**	**D2**	400	100	mg/L			11/24/21 17:41	200
Fluoride	**0.19**	**D1 E4**	0.80	0.095	mg/L			11/24/21 17:23	2
Sulfate	**8400**	**D2**	400	85	mg/L			11/24/21 17:41	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND	E8	0.0010	0.000067	mg/L		11/22/21 10:18	11/23/21 19:48	1
Lithium	**0.81**		0.020	0.0091	mg/L		11/26/21 06:11	11/26/21 15:48	1
Boron	**1.1**		0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 19:48	1
Calcium	**470**		2.0	0.013	mg/L		11/22/21 10:18	11/23/21 19:48	1

Client Sample ID: FC-CCR-MW57-1121

Lab Sample ID: 550-174641-13
Matrix: Water
Date Collected: 11/17/21 11:53
Date Received: 11/20/21 10:16

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1.4		0.10	0.010	mg/L		11/22/21 10:18	11/23/21 19:48	1
Magnesium	860		2.0	0.044	mg/L		11/22/21 10:18	11/23/21 19:48	1
Manganese	0.28		0.010	0.00019	mg/L		11/22/21 10:18	11/23/21 19:48	1
Potassium	45		0.50	0.17	mg/L		11/22/21 10:18	11/23/21 19:48	1
Sodium	1900	D2	2.5	0.15	mg/L		11/22/21 10:18	11/24/21 22:43	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00041	D1 E4	0.0020	0.000087	mg/L		11/22/21 08:34	11/29/21 18:29	2
Arsenic	0.0014	D1	0.0010	0.00049	mg/L		11/22/21 08:34	11/29/21 18:29	2
Barium	0.018	D1	0.0010	0.00052	mg/L		11/22/21 08:34	11/29/21 18:29	2
Cadmium	0.000078	D1 E4	0.00020	0.000046	mg/L		11/22/21 08:34	11/29/21 18:29	2
Chromium	0.0015	D1 E4	0.0020	0.00087	mg/L		11/22/21 08:34	11/29/21 18:29	2
Cobalt	0.0035	D1	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 18:29	2
Lead	ND	E8	0.00050	0.00022	mg/L		11/22/21 08:34	11/23/21 17:24	1
Molybdenum	0.0028	D1	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 18:29	2
Selenium	0.0015		0.00050	0.000074	mg/L		01/05/22 07:29	01/19/22 16:39	1
Selenium	0.24	D1	0.0020	0.00030	mg/L		11/22/21 08:34	12/02/21 11:33	4
Thallium	0.000068	E4	0.00010	0.000013	mg/L		11/22/21 08:34	11/23/21 17:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	410		6.0	6.0	mg/L			11/28/21 13:20	1
Bicarbonate Alkalinity as CaCO3	410		6.0	6.0	mg/L			11/28/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Total Dissolved Solids	11000	D2	100	100	mg/L			11/23/21 18:27	1
pH	7.9	H5	1.7	1.7	SU			12/03/21 17:20	1
Temperature	9.6	H5	0.1	0.1	Degrees C			12/03/21 17:20	1

Client Sample ID: FC-CCR-SUMP1-1121

Lab Sample ID: 550-174641-14
Matrix: Water
Date Collected: 11/17/21 08:05
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	510	D2	400	100	mg/L			11/24/21 18:18	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	73		0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 19:50	1
Iron	0.15		0.10	0.010	mg/L		11/22/21 10:18	11/23/21 19:50	1
Magnesium	560		2.0	0.044	mg/L		11/22/21 10:18	11/23/21 19:50	1
Manganese	0.015		0.010	0.00019	mg/L		11/22/21 10:18	11/23/21 19:50	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.060	D1	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 18:31	2
Molybdenum	0.13	D1	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 18:31	2

Client Sample ID: FC-CCR-SUMP1-1121

Lab Sample ID: 550-174641-14
Matrix: Water
Date Collected: 11/17/21 08:05
Date Received: 11/20/21 10:16

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	8000	D2	100	100	mg/L			11/23/21 18:27	1

Client Sample ID: FC-CCR-SUMP2-1121

Lab Sample ID: 550-174641-15
Matrix: Water
Date Collected: 11/17/21 08:12
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	530	D2	400	100	mg/L			11/24/21 18:55	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	37		0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 19:53	1
Iron	5.2		0.10	0.010	mg/L		11/22/21 10:18	11/23/21 19:53	1
Magnesium	490		2.0	0.044	mg/L		11/22/21 10:18	11/23/21 19:53	1
Manganese	0.0047	E4	0.010	0.00019	mg/L		11/22/21 10:18	11/23/21 19:53	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.00018	D1 E4	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 18:33	2
Molybdenum	0.0051	D1	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 18:33	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	7100	D2	100	100	mg/L			11/23/21 18:27	1

Client Sample ID: FC-CCR-SUMP3-1121

Lab Sample ID: 550-174641-16
Matrix: Water
Date Collected: 11/17/21 08:12
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	960	D2	400	100	mg/L			11/24/21 19:32	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	26		0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 19:55	1
Iron	0.27		0.10	0.010	mg/L		11/22/21 10:18	11/23/21 19:55	1
Magnesium	1200	D2	4.0	0.089	mg/L		11/22/21 10:18	11/24/21 22:46	2
Manganese	0.16		0.010	0.00019	mg/L		11/22/21 10:18	11/23/21 19:55	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0021	D1	0.0010	0.00013	mg/L		11/22/21 08:34	11/29/21 18:35	2
Molybdenum	0.021	D1	0.0010	0.00040	mg/L		11/22/21 08:34	11/29/21 18:35	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	26000	D2	200	200	mg/L			11/23/21 18:27	1

Client Sample ID: FC-CCR-SUMP7-1121

Lab Sample ID: 550-174641-17
Date Collected: 11/17/21 08:37
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	710	D2	400	100	mg/L			11/24/21 20:45	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	58		0.050	0.0025	mg/L		11/22/21 10:34	11/23/21 20:19	1
Iron	0.30		0.10	0.010	mg/L		11/22/21 10:34	11/23/21 20:19	1
Magnesium	810		2.0	0.044	mg/L		11/22/21 10:34	11/23/21 20:19	1
Manganese	0.057		0.010	0.00019	mg/L		11/22/21 10:34	11/23/21 20:19	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.082	D1	0.0010	0.00013	mg/L		11/22/21 08:41	11/29/21 18:54	2
Molybdenum	0.0051	D1	0.0010	0.00040	mg/L		11/22/21 08:41	11/29/21 18:54	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	9800	D2	100	100	mg/L			11/23/21 18:27	1

Client Sample ID: FC-CCR-SUMP8-1121

Lab Sample ID: 550-174641-18
Date Collected: 11/17/21 08:33
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	820	D2	400	100	mg/L			11/24/21 21:22	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	46		0.050	0.0025	mg/L		11/22/21 10:34	11/23/21 20:21	1
Iron	1.9		0.10	0.010	mg/L		11/22/21 10:34	11/23/21 20:21	1
Magnesium	1400		4.0	0.089	mg/L		11/22/21 10:34	11/24/21 21:02	2
Manganese	0.0037	E4	0.010	0.00019	mg/L		11/22/21 10:34	11/23/21 20:21	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.036	D1	0.0010	0.00013	mg/L		11/22/21 08:41	11/29/21 18:56	2
Molybdenum	0.0037	D1	0.0010	0.00040	mg/L		11/22/21 08:41	11/29/21 18:56	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	17000	D2	100	100	mg/L			11/23/21 18:27	1

Client Sample ID: FC-CCR-SUMP9-1121

Lab Sample ID: 550-174641-19
Date Collected: 11/17/21 08:47
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	630	D2	400	100	mg/L			11/24/21 21:59	200

Client Sample ID: FC-CCR-SUMP9-1121

Lab Sample ID: 550-174641-19
Date Collected: 11/17/21 08:47
Matrix: Water
Date Received: 11/20/21 10:16

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	31		0.050	0.0025	mg/L		11/22/21 10:34	11/23/21 20:24	1
Iron	0.38		0.10	0.010	mg/L		11/22/21 10:34	11/23/21 20:24	1
Magnesium	840		2.0	0.044	mg/L		11/22/21 10:34	11/23/21 20:24	1
Manganese	ND	E8	0.010	0.00019	mg/L		11/22/21 10:34	11/23/21 20:24	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.022	D1	0.0010	0.00013	mg/L		11/22/21 08:41	11/29/21 18:58	2
Molybdenum	0.0011	D1	0.0010	0.00040	mg/L		11/22/21 08:41	11/29/21 18:58	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	9800	D2	100	100	mg/L			11/23/21 18:29	1

Client Sample ID: FC-CCR-SUMP10-1121

Lab Sample ID: 550-174641-20
Date Collected: 11/17/21 08:55
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	520	D2	400	100	mg/L			11/24/21 22:36	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	55		0.050	0.0025	mg/L		11/22/21 10:34	11/23/21 20:27	1
Iron	2.2		0.10	0.010	mg/L		11/22/21 10:34	11/23/21 20:27	1
Magnesium	480		2.0	0.044	mg/L		11/22/21 10:34	11/23/21 20:27	1
Manganese	0.026		0.010	0.00019	mg/L		11/22/21 10:34	11/23/21 20:27	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.19	D1	0.0010	0.00013	mg/L		11/22/21 08:41	11/29/21 19:00	2
Molybdenum	0.00089	D1 E4	0.0010	0.00040	mg/L		11/22/21 08:41	11/29/21 19:00	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	9900	D2	100	100	mg/L			11/23/21 18:29	1

Client Sample ID: FC-CCR-SUMP11-1121

Lab Sample ID: 550-174641-21
Date Collected: 11/17/21 09:05
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	540	D2	400	100	mg/L			11/24/21 23:12	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	53		0.050	0.0025	mg/L		11/22/21 10:34	11/23/21 20:29	1
Iron	6.8		0.10	0.010	mg/L		11/22/21 10:34	11/23/21 20:29	1
Magnesium	510		2.0	0.044	mg/L		11/22/21 10:34	11/23/21 20:29	1
Manganese	0.034		0.010	0.00019	mg/L		11/22/21 10:34	11/23/21 20:29	1

Client Sample ID: FC-CCR-SUMP11-1121

Lab Sample ID: 550-174641-21
Date Collected: 11/17/21 09:05
Matrix: Water
Date Received: 11/20/21 10:16

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.18	D1	0.0010	0.00013	mg/L		11/22/21 08:41	11/29/21 19:03	2
Molybdenum	0.0014	D1	0.0010	0.00040	mg/L		11/22/21 08:41	11/29/21 19:03	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10000	D2	100	100	mg/L			11/23/21 18:29	1

Client Sample ID: FC-CCR-SUMP12-1121

Lab Sample ID: 550-174641-22
Date Collected: 11/17/21 09:11
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	520	D2	400	100	mg/L			11/25/21 00:26	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	54		0.050	0.0025	mg/L		11/22/21 10:34	11/23/21 20:32	1
Iron	5.5		0.10	0.010	mg/L		11/22/21 10:34	11/23/21 20:32	1
Magnesium	450		2.0	0.044	mg/L		11/22/21 10:34	11/23/21 20:32	1
Manganese	0.016		0.010	0.00019	mg/L		11/22/21 10:34	11/23/21 20:32	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.19	D1	0.0010	0.00013	mg/L		11/22/21 08:41	11/29/21 19:09	2
Molybdenum	0.00088	D1 E4	0.0010	0.00040	mg/L		11/22/21 08:41	11/29/21 19:09	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10000	D2	100	100	mg/L			11/23/21 18:29	1

Client Sample ID: FC-CCR-SUMP13-1121

Lab Sample ID: 550-174641-23
Date Collected: 11/17/21 09:16
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	530	D2	400	100	mg/L			11/25/21 01:03	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	37		0.050	0.0025	mg/L		11/22/21 10:34	11/24/21 21:05	1
Iron	1.4		0.10	0.010	mg/L		11/22/21 10:34	11/26/21 18:02	1
Magnesium	500		2.0	0.044	mg/L		11/22/21 10:34	11/24/21 21:05	1
Manganese	0.0087	E4	0.010	0.00019	mg/L		11/22/21 10:34	11/24/21 21:05	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.093	D1	0.0010	0.00013	mg/L		11/22/21 08:41	11/29/21 19:11	2
Molybdenum	0.00097	D1 E4	0.0010	0.00040	mg/L		11/22/21 08:41	11/29/21 19:11	2

Client Sample ID: FC-CCR-SUMP13-1121

Lab Sample ID: 550-174641-23

Date Collected: 11/17/21 09:16
Matrix: Water
Date Received: 11/20/21 10:16

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	9300	D2	100	100	mg/L			11/23/21 18:29	1

Client Sample ID: FC-CCR-SUMP14-1121

Lab Sample ID: 550-174641-24

Date Collected: 11/17/21 09:26
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	470	D2	400	100	mg/L			11/25/21 01:40	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	31		0.050	0.0025	mg/L		11/22/21 10:34	11/24/21 21:07	1
Iron	3.1		0.10	0.010	mg/L		11/22/21 10:34	11/26/21 18:04	1
Magnesium	420		2.0	0.044	mg/L		11/22/21 10:34	11/24/21 21:07	1
Manganese	0.010		0.010	0.00019	mg/L		11/22/21 10:34	11/24/21 21:07	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.061	D1	0.0010	0.00013	mg/L		11/22/21 08:41	11/29/21 19:13	2
Molybdenum	0.0032	D1	0.0010	0.00040	mg/L		11/22/21 08:41	11/29/21 19:13	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	9900	D2	100	100	mg/L			11/23/21 18:29	1

Client Sample ID: FC-CCR-SUMP15-1121

Lab Sample ID: 550-174641-25

Date Collected: 11/17/21 09:32
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1700	D2	400	100	mg/L			11/25/21 02:16	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	5.6		0.050	0.0025	mg/L		11/22/21 10:34	11/24/21 21:10	1
Iron	0.97		0.10	0.010	mg/L		11/22/21 10:34	11/26/21 18:09	1
Magnesium	3500	D2	10	0.22	mg/L		11/22/21 10:34	11/26/21 18:07	5
Manganese	0.012		0.010	0.00019	mg/L		11/22/21 10:34	11/24/21 21:10	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0015	D1	0.0010	0.00013	mg/L		11/22/21 08:41	11/29/21 19:15	2
Molybdenum	0.0032	D1	0.0010	0.00040	mg/L		11/22/21 08:41	11/29/21 19:15	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	38000	D2 H1	200	200	mg/L			11/30/21 16:38	1

Client Sample ID: FC-CCR-SUMP16-1121

Lab Sample ID: 550-174641-26
Date Collected: 11/17/21 09:37
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	460	D2	400	100	mg/L			11/25/21 02:53	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	21		0.050	0.0025	mg/L		11/22/21 10:34	11/24/21 21:12	1
Iron	21		0.10	0.010	mg/L		11/22/21 10:34	11/26/21 18:12	1
Magnesium	850		2.0	0.044	mg/L		11/22/21 10:34	11/24/21 21:12	1
Manganese	0.65		0.010	0.00019	mg/L		11/22/21 10:34	11/24/21 21:12	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.029	D1	0.0010	0.00013	mg/L		11/22/21 08:41	11/29/21 19:17	2
Molybdenum	0.0029	D1	0.0010	0.00040	mg/L		11/22/21 08:41	11/29/21 19:17	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	8200	D2	100	100	mg/L			11/23/21 18:29	1

Client Sample ID: FC-CCR-SUMP17-1121

Lab Sample ID: 550-174641-27
Date Collected: 11/17/21 09:43
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	860	D2	400	100	mg/L			11/25/21 04:07	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	15		0.050	0.0025	mg/L		11/22/21 10:34	11/24/21 21:15	1
Iron	0.15		0.10	0.010	mg/L		11/22/21 10:34	11/26/21 18:14	1
Magnesium	960		2.0	0.044	mg/L		11/22/21 10:34	11/24/21 21:15	1
Manganese	0.00042	E4	0.010	0.00019	mg/L		11/22/21 10:34	11/24/21 21:15	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0011	D1	0.0010	0.00013	mg/L		11/22/21 08:41	11/29/21 19:19	2
Molybdenum	0.0016	D1	0.0010	0.00040	mg/L		11/22/21 08:41	11/29/21 19:19	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	15000	D2	100	100	mg/L			11/23/21 18:29	1

Client Sample ID: FC-CCR-SUMP18-1121

Lab Sample ID: 550-174641-28
Date Collected: 11/17/21 09:50
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1700	D2	400	100	mg/L			11/23/21 01:17	200

Client Sample ID: FC-CCR-SUMP18-1121

Lab Sample ID: 550-174641-28

Date Collected: 11/17/21 09:50
Matrix: Water
Date Received: 11/20/21 10:16

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	4.6		0.050	0.0025	mg/L		11/22/21 10:34	11/23/21 20:16	1
Iron	0.31		0.10	0.010	mg/L		11/22/21 10:34	11/23/21 20:16	1
Magnesium	3200	M3	10	0.22	mg/L		11/22/21 10:34	11/24/21 20:59	5
Manganese	0.032		0.010	0.00019	mg/L		11/22/21 10:34	11/23/21 20:16	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0013	D1	0.0010	0.00013	mg/L		11/22/21 08:41	11/29/21 18:52	2
Molybdenum	0.0036	D1	0.0020	0.00081	mg/L		11/22/21 08:41	11/30/21 15:34	4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	37000	D2	200	200	mg/L			11/23/21 18:29	1

Client Sample ID: FC-CCR-FD07-1121

Lab Sample ID: 550-174641-29

Date Collected: 11/17/21 09:50
Matrix: Water
Date Received: 11/20/21 10:16

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1700	D2	400	100	mg/L			11/25/21 04:44	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	5.4		0.050	0.0025	mg/L		11/22/21 10:34	11/24/21 21:18	1
Iron	0.33		0.10	0.010	mg/L		11/22/21 10:34	11/26/21 18:20	1
Magnesium	3500	D2	10	0.22	mg/L		11/22/21 10:34	11/26/21 18:17	5
Manganese	0.040		0.010	0.00019	mg/L		11/22/21 10:34	11/24/21 21:18	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0011	D1	0.0010	0.00013	mg/L		11/22/21 08:41	11/29/21 19:21	2
Molybdenum	0.0032	D1	0.0010	0.00040	mg/L		11/22/21 08:41	11/29/21 19:21	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	38000	D2	200	200	mg/L			11/23/21 18:29	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-259395/1030
Matrix: Water
Analysis Batch: 259395

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/22/21 23:26	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/22/21 23:26	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/22/21 23:26	1

Lab Sample ID: LCS 550-259395/31
Matrix: Water
Analysis Batch: 259395

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	4.28		mg/L		107	90 - 110
Sulfate	20.0	21.3		mg/L		106	90 - 110

Lab Sample ID: LCSD 550-259395/32
Matrix: Water
Analysis Batch: 259395

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	4.28		mg/L		107	90 - 110	0	20
Sulfate	20.0	21.2		mg/L		106	90 - 110	0	20

Lab Sample ID: 550-174641-28 MS
Matrix: Water
Analysis Batch: 259395

Client Sample ID: FC-CCR-SUMP18-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1700	D2	4000	6280	D2	mg/L		115	80 - 120

Lab Sample ID: 550-174641-28 MSD
Matrix: Water
Analysis Batch: 259395

Client Sample ID: FC-CCR-SUMP18-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1700	D2	4000	6100	D2	mg/L		110	80 - 120	3	20

Lab Sample ID: MB 550-259397/2
Matrix: Water
Analysis Batch: 259397

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/22/21 13:16	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/22/21 13:16	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/22/21 13:16	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-259397/5
Matrix: Water
Analysis Batch: 259397

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	20.3		mg/L		101	90 - 110		
Fluoride			4.00	3.90		mg/L		97	90 - 110		
Sulfate			20.0	19.5		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-259397/6
Matrix: Water
Analysis Batch: 259397

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	20.2		mg/L		101	90 - 110	0	20
Fluoride			4.00	3.93		mg/L		98	90 - 110	1	20
Sulfate			20.0	19.5		mg/L		98	90 - 110	0	20

Lab Sample ID: 550-174492-I-11 MS ^5
Matrix: Water
Analysis Batch: 259397

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	250	M1 D2	100	386	D2 M1	mg/L		139	80 - 120		
Fluoride	0.39	E4 M1 D1	20.0	28.5	D1 M1	mg/L		141	80 - 120		
Sulfate	160	M1 D2	100	293	D2 M1	mg/L		137	80 - 120		

Lab Sample ID: 550-174492-I-11 MSD ^5
Matrix: Water
Analysis Batch: 259397

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	250	M1 D2	100	388	D2 M1	mg/L		141	80 - 120	1	20
Fluoride	0.39	E4 M1 D1	20.0	28.9	D1 M1	mg/L		143	80 - 120	1	20
Sulfate	160	M1 D2	100	295	D2 M1	mg/L		139	80 - 120	1	20

Lab Sample ID: MB 550-259488/2
Matrix: Water
Analysis Batch: 259488

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/23/21 12:17	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/23/21 12:17	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/23/21 12:17	1

Lab Sample ID: LCS 550-259488/5
Matrix: Water
Analysis Batch: 259488

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	4.29		mg/L		107	90 - 110		
Sulfate			20.0	21.3		mg/L		106	90 - 110		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 550-259488/6
Matrix: Water
Analysis Batch: 259488

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	4.30		mg/L		108	90 - 110	0	20
Sulfate			20.0	21.3		mg/L		107	90 - 110	0	20

Lab Sample ID: 550-174447-K-1 MS ^20
Matrix: Water
Analysis Batch: 259488

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	1000	M2 D2	400	1360	D2	mg/L		85	80 - 120
Sulfate	450	D2	400	836	D2	mg/L		98	80 - 120

Lab Sample ID: 550-174447-K-1 MSD ^20
Matrix: Water
Analysis Batch: 259488

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	1000	M2 D2	400	1330	D2 M2	mg/L		78	80 - 120	2	20
Sulfate	450	D2	400	835	D2	mg/L		97	80 - 120	0	20

Lab Sample ID: MB 550-259489/2
Matrix: Water
Analysis Batch: 259489

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/23/21 12:57	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/23/21 12:57	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/23/21 12:57	1

Lab Sample ID: LCS 550-259489/5
Matrix: Water
Analysis Batch: 259489

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	4.05		mg/L		101	90 - 110
Sulfate			20.0	19.7		mg/L		99	90 - 110

Lab Sample ID: LCSD 550-259489/6
Matrix: Water
Analysis Batch: 259489

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	20.5		mg/L		103	90 - 110	1	20
Fluoride			4.00	4.07		mg/L		102	90 - 110	0	20
Sulfate			20.0	19.7		mg/L		99	90 - 110	0	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-174378-B-2 MS
Matrix: Water
Analysis Batch: 259489

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	34	M1	20.0	56.3		mg/L		113	80 - 120
Fluoride	6.5		4.00	10.6		mg/L		102	80 - 120
Sulfate	140	M3	20.0	156	M3	mg/L		76	80 - 120

Lab Sample ID: 550-174378-B-2 MSD
Matrix: Water
Analysis Batch: 259489

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	34	M1	20.0	59.0	M1	mg/L		127	80 - 120	5	20
Fluoride	6.5		4.00	11.1		mg/L		114	80 - 120	4	20
Sulfate	140	M3	20.0	158	M3	mg/L		89	80 - 120	2	20

Lab Sample ID: MB 550-259637/2
Matrix: Water
Analysis Batch: 259637

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/24/21 11:33	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/24/21 11:33	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/24/21 11:33	1

Lab Sample ID: LCS 550-259637/5
Matrix: Water
Analysis Batch: 259637

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	20.6		mg/L		103	90 - 110
Fluoride	4.00	4.20		mg/L		105	90 - 110
Sulfate	20.0	20.8		mg/L		104	90 - 110

Lab Sample ID: LCSD 550-259637/6
Matrix: Water
Analysis Batch: 259637

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	20.5		mg/L		103	90 - 110	0	20
Fluoride	4.00	4.20		mg/L		105	90 - 110	0	20
Sulfate	20.0	20.8		mg/L		104	90 - 110	0	20

Lab Sample ID: 550-174641-9 MS
Matrix: Water
Analysis Batch: 259637

Client Sample ID: FC-CCR-MW18-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	ND	E8 D1 D5	8.00	7.18	D1	mg/L		90	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-174641-9 MS
Matrix: Water
Analysis Batch: 259637

Client Sample ID: FC-CCR-MW18-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5100	D2	4000	9580	D2	mg/L		113	80 - 120
Sulfate	16000	D2	4000	19800	D2 M3	mg/L		84	80 - 120

Lab Sample ID: 550-174641-9 MSD
Matrix: Water
Analysis Batch: 259637

Client Sample ID: FC-CCR-MW18-1121
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	E8 D1 D5	8.00	7.40	D1	mg/L		93	80 - 120	3	20

Lab Sample ID: 550-174641-9 MSD
Matrix: Water
Analysis Batch: 259637

Client Sample ID: FC-CCR-MW18-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5100	D2	4000	9540	D2	mg/L		112	80 - 120	0	20
Sulfate	16000	D2	4000	19700	D2 M3	mg/L		82	80 - 120	0	20

Lab Sample ID: MB 550-259733/2
Matrix: Water
Analysis Batch: 259733

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	E8	2.0	0.52	mg/L			11/26/21 12:17	1
Fluoride	ND	E8	0.40	0.047	mg/L			11/26/21 12:17	1
Sulfate	ND	E8	2.0	0.43	mg/L			11/26/21 12:17	1

Lab Sample ID: LCS 550-259733/5
Matrix: Water
Analysis Batch: 259733

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	3.91		mg/L		98	90 - 110
Sulfate	20.0	19.4		mg/L		97	90 - 110

Lab Sample ID: LCSD 550-259733/6
Matrix: Water
Analysis Batch: 259733

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	3.91		mg/L		98	90 - 110	0	20
Sulfate	20.0	19.4		mg/L		97	90 - 110	0	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-174857-B-2 MS
Matrix: Water
Analysis Batch: 259733

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	220	E2 M3	20.0	229	E2 M3	mg/L		46	80 - 120
Fluoride	1.0		4.00	5.33		mg/L		108	80 - 120
Sulfate	160	M3	20.0	179	M3	mg/L		78	80 - 120

Lab Sample ID: 550-174857-B-2 MSD
Matrix: Water
Analysis Batch: 259733

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	220	E2 M3	20.0	227	E2 M3	mg/L		39	80 - 120	1	20
Fluoride	1.0		4.00	5.16		mg/L		103	80 - 120	3	20
Sulfate	160	M3	20.0	176	M3	mg/L		67	80 - 120	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-259281/1-A
Matrix: Water
Analysis Batch: 259537

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259281

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.000100	E4	0.0010	0.000067	mg/L		11/22/21 10:18	11/23/21 18:48	1
Boron	0.00414	E4	0.050	0.0025	mg/L		11/22/21 10:18	11/23/21 18:48	1
Calcium	ND	E8	2.0	0.013	mg/L		11/22/21 10:18	11/23/21 18:48	1
Magnesium	ND	E8	2.0	0.044	mg/L		11/22/21 10:18	11/23/21 18:48	1
Potassium	ND	E8	0.50	0.17	mg/L		11/22/21 10:18	11/23/21 18:48	1
Sodium	ND	E8	0.50	0.031	mg/L		11/22/21 10:18	11/23/21 18:48	1
Iron	ND	E8	0.10	0.010	mg/L		11/22/21 10:18	11/23/21 18:48	1
Manganese	0.000460	E4	0.010	0.00019	mg/L		11/22/21 10:18	11/23/21 18:48	1

Lab Sample ID: LCS 550-259281/2-A
Matrix: Water
Analysis Batch: 259537

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259281

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	0.964		mg/L		96	85 - 115
Calcium	21.0	20.8		mg/L		99	85 - 115
Magnesium	21.0	21.2		mg/L		101	85 - 115
Potassium	20.0	19.7		mg/L		99	85 - 115
Sodium	20.0	19.6		mg/L		98	85 - 115
Iron	1.00	0.988		mg/L		99	85 - 115
Manganese	1.00	0.973		mg/L		97	85 - 115

Lab Sample ID: LCSD 550-259281/3-A
Matrix: Water
Analysis Batch: 259537

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259281

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	1.00	0.992		mg/L		99	85 - 115	1	20
Boron	1.00	0.950		mg/L		95	85 - 115	1	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCSD 550-259281/3-A
Matrix: Water
Analysis Batch: 259537

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259281

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium			21.0	20.7		mg/L		99	85 - 115	0	20
Magnesium			21.0	21.2		mg/L		101	85 - 115	0	20
Potassium			20.0	19.7		mg/L		99	85 - 115	0	20
Sodium			20.0	19.6		mg/L		98	85 - 115	0	20
Iron			1.00	0.989		mg/L		99	85 - 115	0	20
Manganese			1.00	0.967		mg/L		97	85 - 115	1	20

Lab Sample ID: 550-174640-B-2-B MS
Matrix: Water
Analysis Batch: 259537

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 259281

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	ND	E8	1.00	0.989		mg/L		99	70 - 130
Boron	18	M3	1.00	18.2	M3	mg/L		28	70 - 130
Calcium	420	M3	21.0	432	M3	mg/L		39	70 - 130
Magnesium	910	M3	21.0	904	M3	mg/L		-13	70 - 130
Potassium	35		20.0	55.8		mg/L		103	70 - 130
Iron	0.11		1.00	1.09		mg/L		99	70 - 130
Manganese	0.16		1.00	1.01		mg/L		86	70 - 130

Lab Sample ID: 550-174640-B-2-B MS ^5
Matrix: Water
Analysis Batch: 259664

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 259281

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	2700	E2 M3	20.0	2720	M3	mg/L		-71	70 - 130

Lab Sample ID: 550-174640-B-2-C MSD
Matrix: Water
Analysis Batch: 259537

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 259281

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	ND	E8	1.00	0.995		mg/L		99	70 - 130	1	20
Boron	18	M3	1.00	18.1	M3	mg/L		20	70 - 130	0	20
Calcium	420	M3	21.0	429	M3	mg/L		23	70 - 130	1	20
Magnesium	910	M3	21.0	896	M3	mg/L		-53	70 - 130	1	20
Potassium	35		20.0	56.2		mg/L		105	70 - 130	1	20
Iron	0.11		1.00	1.09		mg/L		99	70 - 130	0	20
Manganese	0.16		1.00	1.03		mg/L		87	70 - 130	1	20

Lab Sample ID: 550-174640-B-2-C MSD ^5
Matrix: Water
Analysis Batch: 259664

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 259281

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sodium	2700	E2 M3	20.0	2590	M3	mg/L		-695	70 - 130	5	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 550-259282/1-A
Matrix: Water
Analysis Batch: 259538

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259282

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.0168	E4	0.050	0.0025	mg/L		11/22/21 10:34	11/23/21 20:03	1
Magnesium	ND	E8	2.0	0.044	mg/L		11/22/21 10:34	11/23/21 20:03	1
Iron	ND	E8	0.10	0.010	mg/L		11/22/21 10:34	11/23/21 20:03	1
Manganese	ND	E8	0.010	0.00019	mg/L		11/22/21 10:34	11/23/21 20:03	1

Lab Sample ID: LCS 550-259282/2-A
Matrix: Water
Analysis Batch: 259538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259282

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.02		mg/L		102	85 - 115
Magnesium	21.0	22.7		mg/L		108	85 - 115
Iron	1.00	1.06		mg/L		106	85 - 115
Manganese	1.00	1.02		mg/L		102	85 - 115

Lab Sample ID: LCSD 550-259282/3-A
Matrix: Water
Analysis Batch: 259538

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259282

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	1.02		mg/L		102	85 - 115	0	20
Magnesium	21.0	22.7		mg/L		108	85 - 115	0	20
Iron	1.00	1.09		mg/L		109	85 - 115	2	20
Manganese	1.00	1.02		mg/L		102	85 - 115	0	20

Lab Sample ID: 550-174641-28 MS
Matrix: Water
Analysis Batch: 259538

Client Sample ID: FC-CCR-SUMP18-1121
Prep Type: Total/NA
Prep Batch: 259282

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	4.6		1.00	5.47	M3	mg/L		92	70 - 130
Iron	0.31		1.00	1.34		mg/L		104	70 - 130
Manganese	0.032		1.00	0.823		mg/L		79	70 - 130

Lab Sample ID: 550-174641-28 MS
Matrix: Water
Analysis Batch: 259663

Client Sample ID: FC-CCR-SUMP18-1121
Prep Type: Total/NA
Prep Batch: 259282

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Magnesium	3200	M3	21.0	3300	M3	mg/L		328	70 - 130

Lab Sample ID: 550-174641-28 MSD
Matrix: Water
Analysis Batch: 259538

Client Sample ID: FC-CCR-SUMP18-1121
Prep Type: Total/NA
Prep Batch: 259282

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	4.6		1.00	5.53	M3	mg/L		98	70 - 130	1	20
Iron	0.31		1.00	1.43		mg/L		113	70 - 130	6	20
Manganese	0.032		1.00	0.860		mg/L		83	70 - 130	4	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-174641-28 MSD — **Client Sample ID: FC-CCR-SUMP18-1121**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 259663 — **Prep Batch: 259282**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Magnesium	3200	M3	21.0	3190	M3	mg/L		-207	70 - 130	3	20

Lab Sample ID: MB 280-558608/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558879 — **Prep Batch: 558608**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND	E8	0.020	0.0091	mg/L		11/26/21 06:11	11/26/21 13:54	1

Lab Sample ID: LCS 280-558608/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558879 — **Prep Batch: 558608**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	1.00	1.01		mg/L		101	90 - 112

Lab Sample ID: 550-174640-C-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558879 — **Prep Batch: 558608**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	1.0		1.00	2.08		mg/L		107	70 - 130

Lab Sample ID: 550-174640-C-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 558879 — **Prep Batch: 558608**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	1.0		1.00	2.12		mg/L		112	70 - 130	2	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-259250/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 259514 — **Prep Batch: 259250**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.000280	E4	0.00050	0.00026	mg/L		11/22/21 08:34	11/23/21 16:37	1
Lead	ND	E8	0.00050	0.00022	mg/L		11/22/21 08:34	11/23/21 16:37	1
Thallium	ND	E8	0.00010	0.000013	mg/L		11/22/21 08:34	11/23/21 16:37	1

Lab Sample ID: MB 550-259250/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 259885 — **Prep Batch: 259250**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0000510	E4	0.0010	0.000043	mg/L		11/22/21 08:34	11/29/21 17:41	1
Arsenic	ND	E8	0.00050	0.00025	mg/L		11/22/21 08:34	11/29/21 17:41	1
Cadmium	ND	E8	0.00010	0.000023	mg/L		11/22/21 08:34	11/29/21 17:41	1
Chromium	ND	E8	0.0010	0.00043	mg/L		11/22/21 08:34	11/29/21 17:41	1

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 550-259250/1-A
Matrix: Water
Analysis Batch: 259885

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259250

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	ND	E8	0.00050	0.000063	mg/L		11/22/21 08:34	11/29/21 17:41	1
Molybdenum	ND	E8	0.00050	0.00020	mg/L		11/22/21 08:34	11/29/21 17:41	1

Lab Sample ID: MB 550-259250/1-A
Matrix: Water
Analysis Batch: 260108

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259250

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND	E8	0.00050	0.000074	mg/L		11/22/21 08:34	12/01/21 17:19	1

Lab Sample ID: LCS 550-259250/2-A
Matrix: Water
Analysis Batch: 259514

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259250

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.100	0.106		mg/L		106	85 - 115
Lead	0.100	0.0974		mg/L		97	85 - 115
Thallium	0.100	0.0947		mg/L		95	85 - 115

Lab Sample ID: LCS 550-259250/2-A
Matrix: Water
Analysis Batch: 259885

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259250

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.101		mg/L		101	85 - 115
Arsenic	0.100	0.101		mg/L		101	85 - 115
Cadmium	0.100	0.101		mg/L		101	85 - 115
Chromium	0.100	0.101		mg/L		101	85 - 115
Cobalt	0.100	0.101		mg/L		101	85 - 115
Molybdenum	0.100	0.101		mg/L		101	85 - 115

Lab Sample ID: LCS 550-259250/2-A
Matrix: Water
Analysis Batch: 260108

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259250

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	0.100	0.0952		mg/L		95	85 - 115

Lab Sample ID: LCSD 550-259250/3-A
Matrix: Water
Analysis Batch: 259514

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259250

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.100	0.109		mg/L		109	85 - 115	2	20
Lead	0.100	0.0942		mg/L		94	85 - 115	3	20
Thallium	0.100	0.0928		mg/L		93	85 - 115	2	20

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 550-259250/3-A
Matrix: Water
Analysis Batch: 259885

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259250

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony			0.100	0.102		mg/L		102	85 - 115	1	20
Arsenic			0.100	0.101		mg/L		101	85 - 115	0	20
Cadmium			0.100	0.102		mg/L		102	85 - 115	1	20
Chromium			0.100	0.102		mg/L		102	85 - 115	1	20
Cobalt			0.100	0.103		mg/L		103	85 - 115	2	20
Molybdenum			0.100	0.100		mg/L		100	85 - 115	1	20

Lab Sample ID: LCSD 550-259250/3-A
Matrix: Water
Analysis Batch: 260108

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259250

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium			0.100	0.0964		mg/L					

Lab Sample ID: 550-174640-B-1-A MS
Matrix: Water
Analysis Batch: 259514

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 259250

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.015		0.100	0.123		mg/L		108	70 - 130
Lead	ND	E8	0.100	0.0876		mg/L		88	70 - 130
Thallium	0.00034		0.100	0.0845		mg/L		84	70 - 130

Lab Sample ID: 550-174640-B-1-A MS ^2
Matrix: Water
Analysis Batch: 259885

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 259250

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.00031	E4 D1	0.100	0.111		mg/L		111	70 - 130
Arsenic	ND	E8 D1	0.100	0.111		mg/L		111	70 - 130
Cadmium	0.00012	E4 D1	0.100	0.103		mg/L		103	70 - 130
Chromium	0.0011	E4 D1	0.100	0.106		mg/L		105	70 - 130
Cobalt	0.00055	E4 D1	0.100	0.105		mg/L		104	70 - 130
Molybdenum	0.0061	D1	0.100	0.117		mg/L		111	70 - 130

Lab Sample ID: 550-174640-B-1-A MS ^2
Matrix: Water
Analysis Batch: 260110

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 259250

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	0.0031		0.100	0.114		mg/L		110	70 - 130

Lab Sample ID: 550-174640-B-1-B MSD
Matrix: Water
Analysis Batch: 259514

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 259250

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.015		0.100	0.121		mg/L		107	70 - 130	1	20
Lead	ND	E8	0.100	0.0852		mg/L		85	70 - 130	3	20
Thallium	0.00034		0.100	0.0818		mg/L		81	70 - 130	3	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: 550-174640-B-1-B MSD ^2
Matrix: Water
Analysis Batch: 259885

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 259250

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.00031	E4 D1	0.100	0.112		mg/L		112	70 - 130	1	20
Arsenic	ND	E8 D1	0.100	0.110		mg/L		110	70 - 130	1	20
Cadmium	0.00012	E4 D1	0.100	0.106		mg/L		106	70 - 130	2	20
Chromium	0.0011	E4 D1	0.100	0.106		mg/L		105	70 - 130	0	20
Cobalt	0.00055	E4 D1	0.100	0.104		mg/L		103	70 - 130	1	20
Molybdenum	0.0061	D1	0.100	0.118		mg/L		112	70 - 130	1	20

Lab Sample ID: 550-174640-B-1-B MSD ^2
Matrix: Water
Analysis Batch: 260110

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 259250

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium	0.0031		0.100	0.104		mg/L		101	70 - 130	9	20

Lab Sample ID: MB 550-259251/1-A
Matrix: Water
Analysis Batch: 259886

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259251

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	ND	E8	0.00050	0.000063	mg/L		11/22/21 08:41	11/29/21 18:42	1
Molybdenum	ND	E8	0.00050	0.00020	mg/L		11/22/21 08:41	11/29/21 18:42	1

Lab Sample ID: LCS 550-259251/2-A
Matrix: Water
Analysis Batch: 259886

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259251

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.100	0.100		mg/L		100	85 - 115
Molybdenum	0.100	0.102		mg/L		102	85 - 115

Lab Sample ID: LCSD 550-259251/3-A
Matrix: Water
Analysis Batch: 259886

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259251

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	0.100	0.0998		mg/L		100	85 - 115	0	20
Molybdenum	0.100	0.0996		mg/L		100	85 - 115	2	20

Lab Sample ID: 550-174641-28 MS
Matrix: Water
Analysis Batch: 259886

Client Sample ID: FC-CCR-SUMP18-1121
Prep Type: Total/NA
Prep Batch: 259251

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.0010	E4 D1	0.100	0.103		mg/L		102	70 - 130

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: 550-174641-28 MS — **Client Sample ID: FC-CCR-SUMP18-1121**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 259965 — **Prep Batch: 259251**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	0.0038	D1	0.100	0.114	D1	mg/L		111	70 - 130

Lab Sample ID: 550-174641-28 MSD — **Client Sample ID: FC-CCR-SUMP18-1121**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 259886 — **Prep Batch: 259251**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	0.0010	E4 D1	0.100	0.103		mg/L		102	70 - 130	3	20

Lab Sample ID: 550-174641-28 MSD — **Client Sample ID: FC-CCR-SUMP18-1121**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 259965 — **Prep Batch: 259251**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Molybdenum	0.0038	D1	0.100	0.112	D1	mg/L		109	70 - 130	2	20

Lab Sample ID: MB 550-262690/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 263722 — **Prep Batch: 262690**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND	E8	0.00050	0.000074	mg/L		01/05/22 07:29	01/14/22 19:52	1

Lab Sample ID: LCS 550-262690/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 263722 — **Prep Batch: 262690**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	0.100	0.0946		mg/L		95	85 - 115

Lab Sample ID: LCSD 550-262690/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 263722 — **Prep Batch: 262690**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium	0.100	0.0887		mg/L		89	85 - 115	6	20

Lab Sample ID: 550-176651-B-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 263722 — **Prep Batch: 262690**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	ND	E8	0.100	0.0947		mg/L		95	70 - 130

Lab Sample ID: 550-176651-B-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 263722 — **Prep Batch: 262690**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium	ND	E8	0.100	0.0966		mg/L		97	70 - 130	2	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-259564/34
Matrix: Water
Analysis Batch: 259564

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/23/21 15:58	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/23/21 15:58	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/23/21 15:58	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/23/21 15:58	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/23/21 15:58	1

Lab Sample ID: LCS 550-259564/33
Matrix: Water
Analysis Batch: 259564

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	236		mg/L		94	90 - 110

Lab Sample ID: LCSD 550-259564/46
Matrix: Water
Analysis Batch: 259564

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	1	20

Lab Sample ID: 550-174641-1 DU
Matrix: Water
Analysis Batch: 259564

Client Sample ID: FC-CCR-DMX04-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity as CaCO3	340		340		mg/L		1	20
Bicarbonate Alkalinity as CaCO3	340		340		mg/L		1	20
Carbonate Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20
Alkalinity, Phenolphthalein	ND	E8	ND	E8	mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20

Lab Sample ID: MB 550-259777/1
Matrix: Water
Analysis Batch: 259777

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			11/28/21 13:20	1

Lab Sample ID: LCS 550-259777/2
Matrix: Water
Analysis Batch: 259777

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	226		mg/L		90	90 - 110

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCSD 550-259777/8
Matrix: Water
Analysis Batch: 259777

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	246		mg/L		98	90 - 110	8	20

Lab Sample ID: 550-174492-K-13 DU
Matrix: Water
Analysis Batch: 259777

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	730			758		mg/L				3	20
Bicarbonate Alkalinity as CaCO3	730			758		mg/L				3	20
Carbonate Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20
Alkalinity, Phenolphthalein	ND	E8		ND	E8	mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20

Lab Sample ID: 550-174392-A-2 DU
Matrix: Water
Analysis Batch: 259778

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	950	R8		750	R8	mg/L				24	20
Bicarbonate Alkalinity as CaCO3	950	R8		750	R8	mg/L				24	20
Carbonate Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20
Alkalinity, Phenolphthalein	ND	E8		ND	E8	mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 550-259493/1
Matrix: Water
Analysis Batch: 259493

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			11/23/21 18:25	1

Lab Sample ID: LCS 550-259493/2
Matrix: Water
Analysis Batch: 259493

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	1010		mg/L		101	90 - 110		

Lab Sample ID: LCSD 550-259493/3
Matrix: Water
Analysis Batch: 259493

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	2	10

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 550-174397-B-7 DU
Matrix: Water
Analysis Batch: 259493

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	1200			1250		mg/L				1	10

Lab Sample ID: MB 550-259495/1
Matrix: Water
Analysis Batch: 259495

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			11/23/21 18:27	1

Lab Sample ID: LCS 550-259495/2
Matrix: Water
Analysis Batch: 259495

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	970		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-259495/3
Matrix: Water
Analysis Batch: 259495

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	922		mg/L		92	90 - 110	5	10

Lab Sample ID: 550-174471-C-7 DU
Matrix: Water
Analysis Batch: 259495

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	5200	D2		5120	D2	mg/L				3	10

Lab Sample ID: MB 550-259496/1
Matrix: Water
Analysis Batch: 259496

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			11/23/21 18:29	1

Lab Sample ID: LCS 550-259496/2
Matrix: Water
Analysis Batch: 259496

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	968		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-259496/3
Matrix: Water
Analysis Batch: 259496

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	0	10

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: 550-174641-19 DU
Matrix: Water
Analysis Batch: 259496

Client Sample ID: FC-CCR-SUMP9-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	9800	D2		9500	D2	mg/L				3	10

Lab Sample ID: 550-174641-29 DU
Matrix: Water
Analysis Batch: 259496

Client Sample ID: FC-CCR-FD07-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	38000	D2		37400	D2	mg/L				2	10

Lab Sample ID: MB 550-259595/1
Matrix: Water
Analysis Batch: 259595

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			11/24/21 13:30	1

Lab Sample ID: LCS 550-259595/2
Matrix: Water
Analysis Batch: 259595

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	938		mg/L		94	90 - 110		

Lab Sample ID: LCSD 550-259595/3
Matrix: Water
Analysis Batch: 259595

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	926		mg/L		93	90 - 110	0	10

Lab Sample ID: 550-174559-J-5 DU
Matrix: Water
Analysis Batch: 259595

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	230			226		mg/L				2	10

Lab Sample ID: 550-174626-A-1 DU
Matrix: Water
Analysis Batch: 259595

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	R8		1220	R8	mg/L				11	10

Lab Sample ID: MB 550-259978/1
Matrix: Water
Analysis Batch: 259978

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND	E8	20	20	mg/L			11/30/21 16:38	1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: LCS 550-259978/2
Matrix: Water
Analysis Batch: 259978

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	1040		mg/L		104	90 - 110		

Lab Sample ID: LCSD 550-259978/3
Matrix: Water
Analysis Batch: 259978

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	1030		mg/L		103	90 - 110	1	10

Lab Sample ID: 550-174641-1 DU
Matrix: Water
Analysis Batch: 259978

Client Sample ID: FC-CCR-DMX04-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	12000	H1 D2		11100	D2	mg/L				4	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-259646/64
Matrix: Water
Analysis Batch: 259646

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 550-259646/75
Matrix: Water
Analysis Batch: 259646

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		100.3	98.5 - 101.5		

Lab Sample ID: 550-174640-A-1 DU
Matrix: Water
Analysis Batch: 259646

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	H5		7.5	H5	SU				0.1	5
Temperature	12.0	H5		12.3	H5	Degrees C				2	

Lab Sample ID: LCSSRM 550-259745/1
Matrix: Water
Analysis Batch: 259745

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		

Method: SM 4500 H+ B - pH (Continued)

Lab Sample ID: LCSSRM 550-259745/12
Matrix: Water
Analysis Batch: 259745

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 550-259745/23
Matrix: Water
Analysis Batch: 259745

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: 550-174420-R-1 DU
Matrix: Water
Analysis Batch: 259745

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.8	H5		7.9	H5	SU				0.3	5
Temperature	10.0	H5		10.2	H5	Degrees C				2	

Lab Sample ID: 550-174641-8 DU
Matrix: Water
Analysis Batch: 259745

Client Sample ID: FC-CCR-MW17R-1121
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.7	H5		7.7	H5	SU				0.1	5
Temperature	8.8	H5		9.1	H5	Degrees C				3	

Lab Sample ID: LCSSRM 550-260306/1
Matrix: Water
Analysis Batch: 260306

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 550-260306/5
Matrix: Water
Analysis Batch: 260306

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: 550-174264-A-3 DU
Matrix: Water
Analysis Batch: 260306

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	H5		7.3	H5	SU				0.3	5
Temperature	10.2	H5		10.4	H5	Degrees C				2	

HPLC/IC

Analysis Batch: 259395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-1	FC-CCR-DMX04-1121	Total/NA	Water	300.0	
550-174641-1	FC-CCR-DMX04-1121	Total/NA	Water	300.0	
550-174641-2	FC-CCR-DMX06-1121	Total/NA	Water	300.0	
550-174641-2	FC-CCR-DMX06-1121	Total/NA	Water	300.0	
550-174641-28	FC-CCR-SUMP18-1121	Total/NA	Water	300.0	
MB 550-259395/1030	Method Blank	Total/NA	Water	300.0	
LCS 550-259395/31	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-259395/32	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174641-28 MS	FC-CCR-SUMP18-1121	Total/NA	Water	300.0	
550-174641-28 MSD	FC-CCR-SUMP18-1121	Total/NA	Water	300.0	

Analysis Batch: 259397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-3	FC-CCR-MW05-1121	Total/NA	Water	300.0	
550-174641-3	FC-CCR-MW05-1121	Total/NA	Water	300.0	
550-174641-4	FC-CCR-MW06-1121	Total/NA	Water	300.0	
550-174641-4	FC-CCR-MW06-1121	Total/NA	Water	300.0	
550-174641-5	FC-CCR-MW11-1121	Total/NA	Water	300.0	
550-174641-5	FC-CCR-MW11-1121	Total/NA	Water	300.0	
550-174641-6	FC-CCR-MW15-1121	Total/NA	Water	300.0	
550-174641-6	FC-CCR-MW15-1121	Total/NA	Water	300.0	
550-174641-7	FC-CCR-MW16-1121	Total/NA	Water	300.0	
550-174641-7	FC-CCR-MW16-1121	Total/NA	Water	300.0	
550-174641-8	FC-CCR-MW17R-1121	Total/NA	Water	300.0	
550-174641-8	FC-CCR-MW17R-1121	Total/NA	Water	300.0	
MB 550-259397/2	Method Blank	Total/NA	Water	300.0	
LCS 550-259397/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-259397/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174492-I-11 MS ^5	Matrix Spike	Total/NA	Water	300.0	
550-174492-I-11 MSD ^5	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 259488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-5	FC-CCR-MW11-1121	Total/NA	Water	300.0	
MB 550-259488/2	Method Blank	Total/NA	Water	300.0	
LCS 550-259488/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-259488/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174447-K-1 MS ^20	Matrix Spike	Total/NA	Water	300.0	
550-174447-K-1 MSD ^20	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 259489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-4	FC-CCR-MW06-1121	Total/NA	Water	300.0	
MB 550-259489/2	Method Blank	Total/NA	Water	300.0	
LCS 550-259489/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-259489/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174378-B-2 MS	Matrix Spike	Total/NA	Water	300.0	
550-174378-B-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

HPLC/IC

Analysis Batch: 259637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-9	FC-CCR-MW18-1121	Total/NA	Water	300.0	
550-174641-9	FC-CCR-MW18-1121	Total/NA	Water	300.0	
550-174641-10	FC-CCR-MW24-1121	Total/NA	Water	300.0	
550-174641-10	FC-CCR-MW24-1121	Total/NA	Water	300.0	
550-174641-11	FC-CCR-MW38R-1121	Total/NA	Water	300.0	
550-174641-11	FC-CCR-MW38R-1121	Total/NA	Water	300.0	
550-174641-12	FC-CCR-MW56-1121	Total/NA	Water	300.0	
550-174641-12	FC-CCR-MW56-1121	Total/NA	Water	300.0	
550-174641-13	FC-CCR-MW57-1121	Total/NA	Water	300.0	
550-174641-13	FC-CCR-MW57-1121	Total/NA	Water	300.0	
550-174641-14	FC-CCR-SUMP1-1121	Total/NA	Water	300.0	
550-174641-15	FC-CCR-SUMP2-1121	Total/NA	Water	300.0	
550-174641-16	FC-CCR-SUMP3-1121	Total/NA	Water	300.0	
550-174641-17	FC-CCR-SUMP7-1121	Total/NA	Water	300.0	
550-174641-18	FC-CCR-SUMP8-1121	Total/NA	Water	300.0	
550-174641-19	FC-CCR-SUMP9-1121	Total/NA	Water	300.0	
550-174641-20	FC-CCR-SUMP10-1121	Total/NA	Water	300.0	
550-174641-21	FC-CCR-SUMP11-1121	Total/NA	Water	300.0	
550-174641-22	FC-CCR-SUMP12-1121	Total/NA	Water	300.0	
550-174641-23	FC-CCR-SUMP13-1121	Total/NA	Water	300.0	
550-174641-24	FC-CCR-SUMP14-1121	Total/NA	Water	300.0	
550-174641-25	FC-CCR-SUMP15-1121	Total/NA	Water	300.0	
550-174641-26	FC-CCR-SUMP16-1121	Total/NA	Water	300.0	
550-174641-27	FC-CCR-SUMP17-1121	Total/NA	Water	300.0	
550-174641-29	FC-CCR-FD07-1121	Total/NA	Water	300.0	
MB 550-259637/2	Method Blank	Total/NA	Water	300.0	
LCS 550-259637/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-259637/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174641-9 MS	FC-CCR-MW18-1121	Total/NA	Water	300.0	
550-174641-9 MS	FC-CCR-MW18-1121	Total/NA	Water	300.0	
550-174641-9 MSD	FC-CCR-MW18-1121	Total/NA	Water	300.0	
550-174641-9 MSD	FC-CCR-MW18-1121	Total/NA	Water	300.0	

Analysis Batch: 259733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-11	FC-CCR-MW38R-1121	Total/NA	Water	300.0	
MB 550-259733/2	Method Blank	Total/NA	Water	300.0	
LCS 550-259733/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-259733/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-174857-B-2 MS	Matrix Spike	Total/NA	Water	300.0	
550-174857-B-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 259250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-1	FC-CCR-DMX04-1121	Total/NA	Water	200.8	
550-174641-2	FC-CCR-DMX06-1121	Total/NA	Water	200.8	
550-174641-3	FC-CCR-MW05-1121	Total/NA	Water	200.8	
550-174641-4	FC-CCR-MW06-1121	Total/NA	Water	200.8	
550-174641-5	FC-CCR-MW11-1121	Total/NA	Water	200.8	

Metals (Continued)

Prep Batch: 259250 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-6	FC-CCR-MW15-1121	Total/NA	Water	200.8	
550-174641-7	FC-CCR-MW16-1121	Total/NA	Water	200.8	
550-174641-8	FC-CCR-MW17R-1121	Total/NA	Water	200.8	
550-174641-9	FC-CCR-MW18-1121	Total/NA	Water	200.8	
550-174641-10	FC-CCR-MW24-1121	Total/NA	Water	200.8	
550-174641-11	FC-CCR-MW38R-1121	Total/NA	Water	200.8	
550-174641-12	FC-CCR-MW56-1121	Total/NA	Water	200.8	
550-174641-13	FC-CCR-MW57-1121	Total/NA	Water	200.8	
550-174641-14	FC-CCR-SUMP1-1121	Total/NA	Water	200.8	
550-174641-15	FC-CCR-SUMP2-1121	Total/NA	Water	200.8	
550-174641-16	FC-CCR-SUMP3-1121	Total/NA	Water	200.8	
MB 550-259250/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-259250/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-259250/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-174640-B-1-A MS	Matrix Spike	Total/NA	Water	200.8	
550-174640-B-1-A MS ^2	Matrix Spike	Total/NA	Water	200.8	
550-174640-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	
550-174640-B-1-B MSD ^2	Matrix Spike Duplicate	Total/NA	Water	200.8	

Prep Batch: 259251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-17	FC-CCR-SUMP7-1121	Total/NA	Water	200.8	
550-174641-18	FC-CCR-SUMP8-1121	Total/NA	Water	200.8	
550-174641-19	FC-CCR-SUMP9-1121	Total/NA	Water	200.8	
550-174641-20	FC-CCR-SUMP10-1121	Total/NA	Water	200.8	
550-174641-21	FC-CCR-SUMP11-1121	Total/NA	Water	200.8	
550-174641-22	FC-CCR-SUMP12-1121	Total/NA	Water	200.8	
550-174641-23	FC-CCR-SUMP13-1121	Total/NA	Water	200.8	
550-174641-24	FC-CCR-SUMP14-1121	Total/NA	Water	200.8	
550-174641-25	FC-CCR-SUMP15-1121	Total/NA	Water	200.8	
550-174641-26	FC-CCR-SUMP16-1121	Total/NA	Water	200.8	
550-174641-27	FC-CCR-SUMP17-1121	Total/NA	Water	200.8	
550-174641-28	FC-CCR-SUMP18-1121	Total/NA	Water	200.8	
550-174641-29	FC-CCR-FD07-1121	Total/NA	Water	200.8	
MB 550-259251/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-259251/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-259251/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-174641-28 MS	FC-CCR-SUMP18-1121	Total/NA	Water	200.8	
550-174641-28 MSD	FC-CCR-SUMP18-1121	Total/NA	Water	200.8	

Prep Batch: 259281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-1	FC-CCR-DMX04-1121	Total/NA	Water	200.7	
550-174641-2	FC-CCR-DMX06-1121	Total/NA	Water	200.7	
550-174641-3	FC-CCR-MW05-1121	Total/NA	Water	200.7	
550-174641-4	FC-CCR-MW06-1121	Total/NA	Water	200.7	
550-174641-5	FC-CCR-MW11-1121	Total/NA	Water	200.7	
550-174641-6	FC-CCR-MW15-1121	Total/NA	Water	200.7	
550-174641-7	FC-CCR-MW16-1121	Total/NA	Water	200.7	
550-174641-8	FC-CCR-MW17R-1121	Total/NA	Water	200.7	
550-174641-9	FC-CCR-MW18-1121	Total/NA	Water	200.7	

Metals (Continued)

Prep Batch: 259281 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-10	FC-CCR-MW24-1121	Total/NA	Water	200.7	
550-174641-11	FC-CCR-MW38R-1121	Total/NA	Water	200.7	
550-174641-12	FC-CCR-MW56-1121	Total/NA	Water	200.7	
550-174641-13	FC-CCR-MW57-1121	Total/NA	Water	200.7	
550-174641-14	FC-CCR-SUMP1-1121	Total/NA	Water	200.7	
550-174641-15	FC-CCR-SUMP2-1121	Total/NA	Water	200.7	
550-174641-16	FC-CCR-SUMP3-1121	Total/NA	Water	200.7	
MB 550-259281/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-259281/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-259281/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-174640-B-2-B MS	Matrix Spike	Total/NA	Water	200.7	
550-174640-B-2-B MS ^5	Matrix Spike	Total/NA	Water	200.7	
550-174640-B-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
550-174640-B-2-C MSD ^5	Matrix Spike Duplicate	Total/NA	Water	200.7	

Prep Batch: 259282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-17	FC-CCR-SUMP7-1121	Total/NA	Water	200.7	
550-174641-18	FC-CCR-SUMP8-1121	Total/NA	Water	200.7	
550-174641-19	FC-CCR-SUMP9-1121	Total/NA	Water	200.7	
550-174641-20	FC-CCR-SUMP10-1121	Total/NA	Water	200.7	
550-174641-21	FC-CCR-SUMP11-1121	Total/NA	Water	200.7	
550-174641-22	FC-CCR-SUMP12-1121	Total/NA	Water	200.7	
550-174641-23	FC-CCR-SUMP13-1121	Total/NA	Water	200.7	
550-174641-24	FC-CCR-SUMP14-1121	Total/NA	Water	200.7	
550-174641-25	FC-CCR-SUMP15-1121	Total/NA	Water	200.7	
550-174641-26	FC-CCR-SUMP16-1121	Total/NA	Water	200.7	
550-174641-27	FC-CCR-SUMP17-1121	Total/NA	Water	200.7	
550-174641-28	FC-CCR-SUMP18-1121	Total/NA	Water	200.7	
550-174641-29	FC-CCR-FD07-1121	Total/NA	Water	200.7	
MB 550-259282/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-259282/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-259282/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-174641-28 MS	FC-CCR-SUMP18-1121	Total/NA	Water	200.7	
550-174641-28 MSD	FC-CCR-SUMP18-1121	Total/NA	Water	200.7	

Analysis Batch: 259514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-1	FC-CCR-DMX04-1121	Total/NA	Water	200.8 LL	259250
550-174641-2	FC-CCR-DMX06-1121	Total/NA	Water	200.8 LL	259250
550-174641-6	FC-CCR-MW15-1121	Total/NA	Water	200.8 LL	259250
550-174641-7	FC-CCR-MW16-1121	Total/NA	Water	200.8 LL	259250
550-174641-8	FC-CCR-MW17R-1121	Total/NA	Water	200.8 LL	259250
550-174641-11	FC-CCR-MW38R-1121	Total/NA	Water	200.8 LL	259250
550-174641-13	FC-CCR-MW57-1121	Total/NA	Water	200.8 LL	259250
MB 550-259250/1-A	Method Blank	Total/NA	Water	200.8 LL	259250
LCS 550-259250/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	259250
LCSD 550-259250/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	259250
550-174640-B-1-A MS	Matrix Spike	Total/NA	Water	200.8 LL	259250
550-174640-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	259250

Metals

Analysis Batch: 259537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-1	FC-CCR-DMX04-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-2	FC-CCR-DMX06-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-3	FC-CCR-MW05-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-4	FC-CCR-MW06-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-6	FC-CCR-MW15-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-7	FC-CCR-MW16-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-8	FC-CCR-MW17R-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-9	FC-CCR-MW18-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-10	FC-CCR-MW24-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-11	FC-CCR-MW38R-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-12	FC-CCR-MW56-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-13	FC-CCR-MW57-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-14	FC-CCR-SUMP1-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-15	FC-CCR-SUMP2-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-16	FC-CCR-SUMP3-1121	Total/NA	Water	200.7 Rev 4.4	259281
MB 550-259281/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	259281
LCS 550-259281/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	259281
LCSD 550-259281/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	259281
550-174640-B-2-B MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	259281
550-174640-B-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	259281

Analysis Batch: 259538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-17	FC-CCR-SUMP7-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-18	FC-CCR-SUMP8-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-19	FC-CCR-SUMP9-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-20	FC-CCR-SUMP10-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-21	FC-CCR-SUMP11-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-22	FC-CCR-SUMP12-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-28	FC-CCR-SUMP18-1121	Total/NA	Water	200.7 Rev 4.4	259282
MB 550-259282/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	259282
LCS 550-259282/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	259282
LCSD 550-259282/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-28 MS	FC-CCR-SUMP18-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-28 MSD	FC-CCR-SUMP18-1121	Total/NA	Water	200.7 Rev 4.4	259282

Analysis Batch: 259663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-18	FC-CCR-SUMP8-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-23	FC-CCR-SUMP13-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-24	FC-CCR-SUMP14-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-25	FC-CCR-SUMP15-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-26	FC-CCR-SUMP16-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-27	FC-CCR-SUMP17-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-28	FC-CCR-SUMP18-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-29	FC-CCR-FD07-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-28 MS	FC-CCR-SUMP18-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-28 MSD	FC-CCR-SUMP18-1121	Total/NA	Water	200.7 Rev 4.4	259282

Metals

Analysis Batch: 259664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-1	FC-CCR-DMX04-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-2	FC-CCR-DMX06-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-3	FC-CCR-MW05-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-3	FC-CCR-MW05-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-4	FC-CCR-MW06-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-5	FC-CCR-MW11-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-6	FC-CCR-MW15-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-7	FC-CCR-MW16-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-8	FC-CCR-MW17R-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-9	FC-CCR-MW18-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-9	FC-CCR-MW18-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-10	FC-CCR-MW24-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-11	FC-CCR-MW38R-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-12	FC-CCR-MW56-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-12	FC-CCR-MW56-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-13	FC-CCR-MW57-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-16	FC-CCR-SUMP3-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174640-B-2-B MS ^5	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	259281
550-174640-B-2-C MSD ^5	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	259281

Analysis Batch: 259790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-23	FC-CCR-SUMP13-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-24	FC-CCR-SUMP14-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-25	FC-CCR-SUMP15-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-25	FC-CCR-SUMP15-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-26	FC-CCR-SUMP16-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-27	FC-CCR-SUMP17-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-29	FC-CCR-FD07-1121	Total/NA	Water	200.7 Rev 4.4	259282
550-174641-29	FC-CCR-FD07-1121	Total/NA	Water	200.7 Rev 4.4	259282

Analysis Batch: 259794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-4	FC-CCR-MW06-1121	Total/NA	Water	200.7 Rev 4.4	259281
550-174641-5	FC-CCR-MW11-1121	Total/NA	Water	200.7 Rev 4.4	259281

Analysis Batch: 259885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-1	FC-CCR-DMX04-1121	Total/NA	Water	200.8 LL	259250
550-174641-2	FC-CCR-DMX06-1121	Total/NA	Water	200.8 LL	259250
550-174641-3	FC-CCR-MW05-1121	Total/NA	Water	200.8 LL	259250
550-174641-4	FC-CCR-MW06-1121	Total/NA	Water	200.8 LL	259250
550-174641-5	FC-CCR-MW11-1121	Total/NA	Water	200.8 LL	259250
550-174641-6	FC-CCR-MW15-1121	Total/NA	Water	200.8 LL	259250
550-174641-7	FC-CCR-MW16-1121	Total/NA	Water	200.8 LL	259250
550-174641-8	FC-CCR-MW17R-1121	Total/NA	Water	200.8 LL	259250
550-174641-9	FC-CCR-MW18-1121	Total/NA	Water	200.8 LL	259250
550-174641-10	FC-CCR-MW24-1121	Total/NA	Water	200.8 LL	259250
550-174641-11	FC-CCR-MW38R-1121	Total/NA	Water	200.8 LL	259250
550-174641-12	FC-CCR-MW56-1121	Total/NA	Water	200.8 LL	259250
550-174641-13	FC-CCR-MW57-1121	Total/NA	Water	200.8 LL	259250

Metals (Continued)

Analysis Batch: 259885 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-14	FC-CCR-SUMP1-1121	Total/NA	Water	200.8 LL	259250
550-174641-15	FC-CCR-SUMP2-1121	Total/NA	Water	200.8 LL	259250
550-174641-16	FC-CCR-SUMP3-1121	Total/NA	Water	200.8 LL	259250
MB 550-259250/1-A	Method Blank	Total/NA	Water	200.8 LL	259250
LCS 550-259250/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	259250
LCSD 550-259250/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	259250
550-174640-B-1-A MS ^2	Matrix Spike	Total/NA	Water	200.8 LL	259250
550-174640-B-1-B MSD ^2	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	259250

Analysis Batch: 259886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-17	FC-CCR-SUMP7-1121	Total/NA	Water	200.8 LL	259251
550-174641-18	FC-CCR-SUMP8-1121	Total/NA	Water	200.8 LL	259251
550-174641-19	FC-CCR-SUMP9-1121	Total/NA	Water	200.8 LL	259251
550-174641-20	FC-CCR-SUMP10-1121	Total/NA	Water	200.8 LL	259251
550-174641-21	FC-CCR-SUMP11-1121	Total/NA	Water	200.8 LL	259251
550-174641-22	FC-CCR-SUMP12-1121	Total/NA	Water	200.8 LL	259251
550-174641-23	FC-CCR-SUMP13-1121	Total/NA	Water	200.8 LL	259251
550-174641-24	FC-CCR-SUMP14-1121	Total/NA	Water	200.8 LL	259251
550-174641-25	FC-CCR-SUMP15-1121	Total/NA	Water	200.8 LL	259251
550-174641-26	FC-CCR-SUMP16-1121	Total/NA	Water	200.8 LL	259251
550-174641-27	FC-CCR-SUMP17-1121	Total/NA	Water	200.8 LL	259251
550-174641-28	FC-CCR-SUMP18-1121	Total/NA	Water	200.8 LL	259251
550-174641-29	FC-CCR-FD07-1121	Total/NA	Water	200.8 LL	259251
MB 550-259251/1-A	Method Blank	Total/NA	Water	200.8 LL	259251
LCS 550-259251/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	259251
LCSD 550-259251/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	259251
550-174641-28 MS	FC-CCR-SUMP18-1121	Total/NA	Water	200.8 LL	259251
550-174641-28 MSD	FC-CCR-SUMP18-1121	Total/NA	Water	200.8 LL	259251

Analysis Batch: 259965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-28	FC-CCR-SUMP18-1121	Total/NA	Water	200.8 LL	259251
550-174641-28 MS	FC-CCR-SUMP18-1121	Total/NA	Water	200.8 LL	259251
550-174641-28 MSD	FC-CCR-SUMP18-1121	Total/NA	Water	200.8 LL	259251

Analysis Batch: 259982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-5	FC-CCR-MW11-1121	Total/NA	Water	200.8 LL	259250

Analysis Batch: 260108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-259250/1-A	Method Blank	Total/NA	Water	200.8 LL	259250
LCS 550-259250/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	259250
LCSD 550-259250/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	259250

Analysis Batch: 260110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-B-1-A MS ^2	Matrix Spike	Total/NA	Water	200.8 LL	259250
550-174640-B-1-B MSD ^2	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	259250

Metals

Analysis Batch: 260164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-1	FC-CCR-DMX04-1121	Total/NA	Water	200.8 LL	259250
550-174641-2	FC-CCR-DMX06-1121	Total/NA	Water	200.8 LL	259250
550-174641-4	FC-CCR-MW06-1121	Total/NA	Water	200.8 LL	259250
550-174641-6	FC-CCR-MW15-1121	Total/NA	Water	200.8 LL	259250
550-174641-7	FC-CCR-MW16-1121	Total/NA	Water	200.8 LL	259250
550-174641-8	FC-CCR-MW17R-1121	Total/NA	Water	200.8 LL	259250
550-174641-11	FC-CCR-MW38R-1121	Total/NA	Water	200.8 LL	259250
550-174641-12	FC-CCR-MW56-1121	Total/NA	Water	200.8 LL	259250
550-174641-13	FC-CCR-MW57-1121	Total/NA	Water	200.8 LL	259250

Prep Batch: 262690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-6	FC-CCR-MW15-1121	Total/NA	Water	200.8	
550-174641-12	FC-CCR-MW56-1121	Total/NA	Water	200.8	
550-174641-13	FC-CCR-MW57-1121	Total/NA	Water	200.8	
MB 550-262690/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-262690/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-262690/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-176651-B-1-A MS	Matrix Spike	Total/NA	Water	200.8	
550-176651-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	

Analysis Batch: 263722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-12	FC-CCR-MW56-1121	Total/NA	Water	200.8 LL	262690
MB 550-262690/1-A	Method Blank	Total/NA	Water	200.8 LL	262690
LCS 550-262690/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	262690
LCSD 550-262690/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	262690
550-176651-B-1-A MS	Matrix Spike	Total/NA	Water	200.8 LL	262690
550-176651-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	262690

Analysis Batch: 264058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-6	FC-CCR-MW15-1121	Total/NA	Water	200.8 LL	262690
550-174641-13	FC-CCR-MW57-1121	Total/NA	Water	200.8 LL	262690

Prep Batch: 558608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-1	FC-CCR-DMX04-1121	Total/NA	Water	200.7	
550-174641-2	FC-CCR-DMX06-1121	Total/NA	Water	200.7	
550-174641-3	FC-CCR-MW05-1121	Total/NA	Water	200.7	
550-174641-4	FC-CCR-MW06-1121	Total/NA	Water	200.7	
550-174641-6	FC-CCR-MW15-1121	Total/NA	Water	200.7	
550-174641-7	FC-CCR-MW16-1121	Total/NA	Water	200.7	
550-174641-8	FC-CCR-MW17R-1121	Total/NA	Water	200.7	
550-174641-9	FC-CCR-MW18-1121	Total/NA	Water	200.7	
550-174641-10	FC-CCR-MW24-1121	Total/NA	Water	200.7	
550-174641-11	FC-CCR-MW38R-1121	Total/NA	Water	200.7	
550-174641-12	FC-CCR-MW56-1121	Total/NA	Water	200.7	
550-174641-13	FC-CCR-MW57-1121	Total/NA	Water	200.7	
MB 280-558608/1-A	Method Blank	Total/NA	Water	200.7	
LCS 280-558608/2-A	Lab Control Sample	Total/NA	Water	200.7	

Metals (Continued)

Prep Batch: 558608 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174640-C-1-B MS	Matrix Spike	Total/NA	Water	200.7	
550-174640-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	

Analysis Batch: 558879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-1	FC-CCR-DMX04-1121	Total/NA	Water	200.7 Rev 4.4	558608
550-174641-2	FC-CCR-DMX06-1121	Total/NA	Water	200.7 Rev 4.4	558608
550-174641-3	FC-CCR-MW05-1121	Total/NA	Water	200.7 Rev 4.4	558608
550-174641-4	FC-CCR-MW06-1121	Total/NA	Water	200.7 Rev 4.4	558608
550-174641-6	FC-CCR-MW15-1121	Total/NA	Water	200.7 Rev 4.4	558608
550-174641-7	FC-CCR-MW16-1121	Total/NA	Water	200.7 Rev 4.4	558608
550-174641-8	FC-CCR-MW17R-1121	Total/NA	Water	200.7 Rev 4.4	558608
550-174641-9	FC-CCR-MW18-1121	Total/NA	Water	200.7 Rev 4.4	558608
550-174641-10	FC-CCR-MW24-1121	Total/NA	Water	200.7 Rev 4.4	558608
550-174641-11	FC-CCR-MW38R-1121	Total/NA	Water	200.7 Rev 4.4	558608
550-174641-12	FC-CCR-MW56-1121	Total/NA	Water	200.7 Rev 4.4	558608
550-174641-13	FC-CCR-MW57-1121	Total/NA	Water	200.7 Rev 4.4	558608
MB 280-558608/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	558608
LCS 280-558608/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	558608
550-174640-C-1-B MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	558608
550-174640-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	558608

General Chemistry

Analysis Batch: 259493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-8	FC-CCR-MW17R-1121	Total/NA	Water	SM 2540C	
550-174641-11	FC-CCR-MW38R-1121	Total/NA	Water	SM 2540C	
MB 550-259493/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-259493/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-259493/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-174397-B-7 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 259495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-13	FC-CCR-MW57-1121	Total/NA	Water	SM 2540C	
550-174641-14	FC-CCR-SUMP1-1121	Total/NA	Water	SM 2540C	
550-174641-15	FC-CCR-SUMP2-1121	Total/NA	Water	SM 2540C	
550-174641-16	FC-CCR-SUMP3-1121	Total/NA	Water	SM 2540C	
550-174641-17	FC-CCR-SUMP7-1121	Total/NA	Water	SM 2540C	
550-174641-18	FC-CCR-SUMP8-1121	Total/NA	Water	SM 2540C	
MB 550-259495/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-259495/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-259495/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-174471-C-7 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 259496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-19	FC-CCR-SUMP9-1121	Total/NA	Water	SM 2540C	
550-174641-20	FC-CCR-SUMP10-1121	Total/NA	Water	SM 2540C	
550-174641-21	FC-CCR-SUMP11-1121	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 259496 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-22	FC-CCR-SUMP12-1121	Total/NA	Water	SM 2540C	
550-174641-23	FC-CCR-SUMP13-1121	Total/NA	Water	SM 2540C	
550-174641-24	FC-CCR-SUMP14-1121	Total/NA	Water	SM 2540C	
550-174641-26	FC-CCR-SUMP16-1121	Total/NA	Water	SM 2540C	
550-174641-27	FC-CCR-SUMP17-1121	Total/NA	Water	SM 2540C	
550-174641-28	FC-CCR-SUMP18-1121	Total/NA	Water	SM 2540C	
550-174641-29	FC-CCR-FD07-1121	Total/NA	Water	SM 2540C	
MB 550-259496/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-259496/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-259496/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-174641-19 DU	FC-CCR-SUMP9-1121	Total/NA	Water	SM 2540C	
550-174641-29 DU	FC-CCR-FD07-1121	Total/NA	Water	SM 2540C	

Analysis Batch: 259564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-1	FC-CCR-DMX04-1121	Total/NA	Water	SM 2320B	
550-174641-2	FC-CCR-DMX06-1121	Total/NA	Water	SM 2320B	
550-174641-4	FC-CCR-MW06-1121	Total/NA	Water	SM 2320B	
550-174641-6	FC-CCR-MW15-1121	Total/NA	Water	SM 2320B	
550-174641-7	FC-CCR-MW16-1121	Total/NA	Water	SM 2320B	
550-174641-8	FC-CCR-MW17R-1121	Total/NA	Water	SM 2320B	
550-174641-10	FC-CCR-MW24-1121	Total/NA	Water	SM 2320B	
MB 550-259564/34	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-259564/33	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-259564/46	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-174641-1 DU	FC-CCR-DMX04-1121	Total/NA	Water	SM 2320B	

Analysis Batch: 259595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-2	FC-CCR-DMX06-1121	Total/NA	Water	SM 2540C	
550-174641-4	FC-CCR-MW06-1121	Total/NA	Water	SM 2540C	
550-174641-5	FC-CCR-MW11-1121	Total/NA	Water	SM 2540C	
550-174641-6	FC-CCR-MW15-1121	Total/NA	Water	SM 2540C	
550-174641-7	FC-CCR-MW16-1121	Total/NA	Water	SM 2540C	
MB 550-259595/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-259595/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-259595/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-174559-J-5 DU	Duplicate	Total/NA	Water	SM 2540C	
550-174626-A-1 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 259646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-1	FC-CCR-DMX04-1121	Total/NA	Water	SM 4500 H+ B	
550-174641-2	FC-CCR-DMX06-1121	Total/NA	Water	SM 4500 H+ B	
550-174641-3	FC-CCR-MW05-1121	Total/NA	Water	SM 4500 H+ B	
550-174641-4	FC-CCR-MW06-1121	Total/NA	Water	SM 4500 H+ B	
550-174641-5	FC-CCR-MW11-1121	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259646/64	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259646/75	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-174640-A-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

General Chemistry

Analysis Batch: 259745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-6	FC-CCR-MW15-1121	Total/NA	Water	SM 4500 H+ B	
550-174641-7	FC-CCR-MW16-1121	Total/NA	Water	SM 4500 H+ B	
550-174641-8	FC-CCR-MW17R-1121	Total/NA	Water	SM 4500 H+ B	
550-174641-9	FC-CCR-MW18-1121	Total/NA	Water	SM 4500 H+ B	
550-174641-10	FC-CCR-MW24-1121	Total/NA	Water	SM 4500 H+ B	
550-174641-11	FC-CCR-MW38R-1121	Total/NA	Water	SM 4500 H+ B	
550-174641-12	FC-CCR-MW56-1121	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259745/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259745/12	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-259745/23	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-174420-R-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	
550-174641-8 DU	FC-CCR-MW17R-1121	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 259777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-11	FC-CCR-MW38R-1121	Total/NA	Water	SM 2320B	
550-174641-13	FC-CCR-MW57-1121	Total/NA	Water	SM 2320B	
MB 550-259777/1	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-259777/2	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-259777/8	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-174492-K-13 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 259778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-3	FC-CCR-MW05-1121	Total/NA	Water	SM 2320B	
550-174641-5	FC-CCR-MW11-1121	Total/NA	Water	SM 2320B	
550-174641-9	FC-CCR-MW18-1121	Total/NA	Water	SM 2320B	
550-174641-12	FC-CCR-MW56-1121	Total/NA	Water	SM 2320B	
550-174392-A-2 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 259978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-1	FC-CCR-DMX04-1121	Total/NA	Water	SM 2540C	
550-174641-3	FC-CCR-MW05-1121	Total/NA	Water	SM 2540C	
550-174641-9	FC-CCR-MW18-1121	Total/NA	Water	SM 2540C	
550-174641-10	FC-CCR-MW24-1121	Total/NA	Water	SM 2540C	
550-174641-12	FC-CCR-MW56-1121	Total/NA	Water	SM 2540C	
550-174641-25	FC-CCR-SUMP15-1121	Total/NA	Water	SM 2540C	
MB 550-259978/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-259978/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-259978/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-174641-1 DU	FC-CCR-DMX04-1121	Total/NA	Water	SM 2540C	

Analysis Batch: 260306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-174641-13	FC-CCR-MW57-1121	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-260306/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-260306/5	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-174264-A-3 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174641-1
SDG: APS Four Corners Power Plant (Other)

Client Sample ID: FC-CCR-DMX04-1121

Date Collected: 11/16/21 11:02
Date Received: 11/20/21 10:16

Lab Sample ID: 550-174641-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259395	11/23/21 05:53	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259395	11/23/21 06:11	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259537	11/23/21 19:11	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	259664	11/24/21 21:38	MGM	TAL PHX
Total/NA	Prep	200.7			558608	11/26/21 06:11	CJB	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558879	11/26/21 14:47	MAB	TAL DEN
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	259514	11/23/21 16:55	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 18:00	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	260164	12/02/21 11:12	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	259564	11/23/21 16:08	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259978		EJR	TAL PHX
					(Start)	11/30/21 16:38		
					(End)	12/03/21 14:10		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-DMX06-1121

Date Collected: 11/18/21 09:00
Date Received: 11/20/21 10:16

Lab Sample ID: 550-174641-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259395	11/23/21 06:30	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259395	11/23/21 06:48	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259537	11/23/21 19:14	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	259664	11/24/21 21:41	MGM	TAL PHX
Total/NA	Prep	200.7			558608	11/26/21 06:11	CJB	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558879	11/26/21 14:51	MAB	TAL DEN
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	259514	11/23/21 16:57	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 18:02	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	260164	12/02/21 11:14	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	259564	11/23/21 16:29	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259595		EJR	TAL PHX
					(Start)	11/24/21 13:30		
					(End)	11/30/21 12:55		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-MW05-1121

Lab Sample ID: 550-174641-3

Date Collected: 11/16/21 09:45
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259397	11/22/21 20:35	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259397	11/22/21 21:03	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259537	11/23/21 19:17	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	259664	11/24/21 21:44	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	259664	11/24/21 21:49	MGM	TAL PHX
Total/NA	Prep	200.7			558608	11/26/21 06:11	CJB	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558879	11/26/21 14:55	MAB	TAL DEN
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 18:04	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	259778	11/28/21 13:20	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259978		EJR	TAL PHX
					(Start)	11/30/21 16:38		
					(End)	12/03/21 14:10		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-MW06-1121

Lab Sample ID: 550-174641-4

Date Collected: 11/16/21 13:01
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259397	11/22/21 22:27	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259397	11/22/21 22:55	JNW	TAL PHX
Total/NA	Analysis	300.0		1000	259489	11/24/21 01:03	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259537	11/23/21 19:19	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	259664	11/24/21 21:59	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		20	259794	11/26/21 17:49	MGM	TAL PHX
Total/NA	Prep	200.7			558608	11/26/21 06:11	CJB	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558879	11/26/21 14:59	MAB	TAL DEN
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 18:06	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	260164	12/02/21 11:16	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	259564	11/23/21 16:55	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259595		EJR	TAL PHX
					(Start)	11/24/21 13:30		
					(End)	11/30/21 12:55		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-MW11-1121

Lab Sample ID: 550-174641-5

Date Collected: 11/18/21 13:45

Matrix: Water

Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2000	259488	11/23/21 20:53	JNW	TAL PHX
Total/NA	Analysis	300.0		2	259397	11/22/21 23:23	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259397	11/22/21 23:51	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	259664	11/24/21 22:02	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		50	259794	11/26/21 17:51	MGM	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 18:08	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	259982	11/30/21 16:39	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	259778	11/28/21 13:20	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259595		EJR	TAL PHX
					(Start)	11/24/21 13:30		
					(End)	11/30/21 12:55		
Total/NA	Analysis	SM 4500 H+ B		1	259646	11/23/21 14:19	CRK	TAL PHX

Client Sample ID: FC-CCR-MW15-1121

Lab Sample ID: 550-174641-6

Date Collected: 11/18/21 09:48

Matrix: Water

Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259397	11/23/21 00:19	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259397	11/23/21 00:47	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259537	11/23/21 19:24	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	259664	11/24/21 22:07	MGM	TAL PHX
Total/NA	Prep	200.7			558608	11/26/21 06:11	CJB	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558879	11/26/21 15:03	MAB	TAL DEN
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	259514	11/23/21 17:06	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 18:11	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	260164	12/02/21 11:22	ARE	TAL PHX
Total/NA	Prep	200.8			262690	01/05/22 07:29	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	264058	01/19/22 16:31	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	259564	11/23/21 17:21	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259595		EJR	TAL PHX
					(Start)	11/24/21 13:30		
					(End)	11/30/21 12:55		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Client Sample ID: FC-CCR-MW16-1121

Lab Sample ID: 550-174641-7

Date Collected: 11/18/21 10:47
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259397	11/23/21 01:15	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259397	11/23/21 01:43	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259537	11/23/21 19:32	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	259664	11/24/21 22:10	MGM	TAL PHX
Total/NA	Prep	200.7			558608	11/26/21 06:11	CJB	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558879	11/26/21 15:23	MAB	TAL DEN
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	259514	11/23/21 17:12	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 18:17	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	260164	12/02/21 11:24	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	259564	11/23/21 17:32	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259595		EJR	TAL PHX
					(Start)	11/24/21 13:30		
					(End)	11/30/21 12:55		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Client Sample ID: FC-CCR-MW17R-1121

Lab Sample ID: 550-174641-8

Date Collected: 11/16/21 15:01
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259397	11/23/21 02:11	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259397	11/23/21 02:39	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259537	11/23/21 19:35	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	259664	11/24/21 22:12	MGM	TAL PHX
Total/NA	Prep	200.7			558608	11/26/21 06:11	CJB	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558879	11/26/21 15:27	MAB	TAL DEN
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	259514	11/23/21 17:14	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 18:19	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	260164	12/02/21 11:27	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	259564	11/23/21 17:41	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259493		EJR	TAL PHX
					(Start)	11/23/21 18:25		
					(End)	11/30/21 08:40		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Client Sample ID: FC-CCR-MW18-1121

Lab Sample ID: 550-174641-9

Date Collected: 11/16/21 10:23
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259637	11/24/21 13:05	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259637	11/24/21 14:00	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259537	11/23/21 19:37	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	259664	11/24/21 22:15	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	259664	11/24/21 22:20	MGM	TAL PHX
Total/NA	Prep	200.7			558608	11/26/21 06:11	CJB	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558879	11/26/21 15:31	MAB	TAL DEN
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 18:21	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	259778	11/28/21 13:20	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259978		EJR	TAL PHX
					(Start)	11/30/21 16:38		
					(End)	12/03/21 14:10		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Client Sample ID: FC-CCR-MW24-1121

Lab Sample ID: 550-174641-10

Date Collected: 11/16/21 12:20
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259637	11/24/21 14:55	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259637	11/24/21 15:14	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259537	11/23/21 19:40	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	259664	11/24/21 22:23	MGM	TAL PHX
Total/NA	Prep	200.7			558608	11/26/21 06:11	CJB	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558879	11/26/21 15:36	MAB	TAL DEN
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 18:23	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	259564	11/23/21 18:06	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259978		EJR	TAL PHX
					(Start)	11/30/21 16:38		
					(End)	12/03/21 14:10		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Client Sample ID: FC-CCR-MW38R-1121

Lab Sample ID: 550-174641-11

Date Collected: 11/16/21 15:32
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259637	11/24/21 15:32	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259637	11/24/21 15:51	JNW	TAL PHX
Total/NA	Analysis	300.0		50	259733	11/26/21 18:44	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259537	11/23/21 19:43	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	259664	11/24/21 22:36	MGM	TAL PHX
Total/NA	Prep	200.7			558608	11/26/21 06:11	CJB	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558879	11/26/21 15:40	MAB	TAL DEN
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	259514	11/23/21 17:20	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 18:25	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	260164	12/02/21 11:29	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	259777	11/28/21 13:20	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259493		EJR	TAL PHX
					(Start)	11/23/21 18:25		
					(End)	11/30/21 08:40		
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Client Sample ID: FC-CCR-MW56-1121

Lab Sample ID: 550-174641-12

Date Collected: 11/16/21 14:10
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259637	11/24/21 16:46	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259637	11/24/21 17:04	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259537	11/23/21 19:45	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		10	259664	11/24/21 22:38	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	259664	11/24/21 22:41	MGM	TAL PHX
Total/NA	Prep	200.7			558608	11/26/21 06:11	CJB	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558879	11/26/21 15:44	MAB	TAL DEN
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 18:27	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	260164	12/02/21 11:31	ARE	TAL PHX
Total/NA	Prep	200.8			262690	01/05/22 07:29	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	263722	01/14/22 20:27	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	259778	11/28/21 13:20	DGS	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174641-1
SDG: APS Four Corners Power Plant (Other)

Client Sample ID: FC-CCR-MW56-1121

Lab Sample ID: 550-174641-12

Date Collected: 11/16/21 14:10
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	259978		EJR	TAL PHX
Total/NA	Analysis	SM 4500 H+ B		1	259745	11/24/21 10:35	CRK	TAL PHX

Client Sample ID: FC-CCR-MW57-1121

Lab Sample ID: 550-174641-13

Date Collected: 11/17/21 11:53
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	259637	11/24/21 17:23	JNW	TAL PHX
Total/NA	Analysis	300.0		200	259637	11/24/21 17:41	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259537	11/23/21 19:48	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	259664	11/24/21 22:43	MGM	TAL PHX
Total/NA	Prep	200.7			558608	11/26/21 06:11	CJB	TAL DEN
Total/NA	Analysis	200.7 Rev 4.4		1	558879	11/26/21 15:48	MAB	TAL DEN
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	259514	11/23/21 17:24	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 18:29	ARE	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	260164	12/02/21 11:33	ARE	TAL PHX
Total/NA	Prep	200.8			262690	01/05/22 07:29	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		1	264058	01/19/22 16:39	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	259777	11/28/21 13:20	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	259495		EJR	TAL PHX
					(Start)	11/23/21 18:27		
					(End)	11/30/21 11:00		
Total/NA	Analysis	SM 4500 H+ B		1	260306	12/03/21 17:20	CRK	TAL PHX

Client Sample ID: FC-CCR-SUMP1-1121

Lab Sample ID: 550-174641-14

Date Collected: 11/17/21 08:05
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	259637	11/24/21 18:18	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259537	11/23/21 19:50	MGM	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 18:31	ARE	TAL PHX
Total/NA	Analysis	SM 2540C		1	259495		EJR	TAL PHX
					(Start)	11/23/21 18:27		
					(End)	11/30/21 11:00		

Client Sample ID: FC-CCR-SUMP2-1121

Lab Sample ID: 550-174641-15

Date Collected: 11/17/21 08:12
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	259637	11/24/21 18:55	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259537	11/23/21 19:53	MGM	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 18:33	ARE	TAL PHX
Total/NA	Analysis	SM 2540C		1	259495		EJR	TAL PHX
						(Start) 11/23/21 18:27		
						(End) 11/30/21 11:00		

Client Sample ID: FC-CCR-SUMP3-1121

Lab Sample ID: 550-174641-16

Date Collected: 11/17/21 08:12
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	259637	11/24/21 19:32	JNW	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259537	11/23/21 19:55	MGM	TAL PHX
Total/NA	Prep	200.7			259281	11/22/21 10:18	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	259664	11/24/21 22:46	MGM	TAL PHX
Total/NA	Prep	200.8			259250	11/22/21 08:34	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259885	11/29/21 18:35	ARE	TAL PHX
Total/NA	Analysis	SM 2540C		1	259495		EJR	TAL PHX
						(Start) 11/23/21 18:27		
						(End) 11/30/21 11:00		

Client Sample ID: FC-CCR-SUMP7-1121

Lab Sample ID: 550-174641-17

Date Collected: 11/17/21 08:37
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	259637	11/24/21 20:45	JNW	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259538	11/23/21 20:19	MGM	TAL PHX
Total/NA	Prep	200.8			259251	11/22/21 08:41	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259886	11/29/21 18:54	ARE	TAL PHX
Total/NA	Analysis	SM 2540C		1	259495		EJR	TAL PHX
						(Start) 11/23/21 18:27		
						(End) 11/30/21 11:00		

Client Sample ID: FC-CCR-SUMP8-1121

Lab Sample ID: 550-174641-18

Date Collected: 11/17/21 08:33
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	259637	11/24/21 21:22	JNW	TAL PHX

Client Sample ID: FC-CCR-SUMP8-1121
Date Collected: 11/17/21 08:33
Date Received: 11/20/21 10:16

Lab Sample ID: 550-174641-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259538	11/23/21 20:21	MGM	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		2	259663	11/24/21 21:02	MGM	TAL PHX
Total/NA	Prep	200.8			259251	11/22/21 08:41	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259886	11/29/21 18:56	ARE	TAL PHX
Total/NA	Analysis	SM 2540C		1	259495		EJR	TAL PHX
					(Start)	11/23/21 18:27		
					(End)	11/30/21 11:00		

Client Sample ID: FC-CCR-SUMP9-1121
Date Collected: 11/17/21 08:47
Date Received: 11/20/21 10:16

Lab Sample ID: 550-174641-19
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	259637	11/24/21 21:59	JNW	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259538	11/23/21 20:24	MGM	TAL PHX
Total/NA	Prep	200.8			259251	11/22/21 08:41	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259886	11/29/21 18:58	ARE	TAL PHX
Total/NA	Analysis	SM 2540C		1	259496		EJR	TAL PHX
					(Start)	11/23/21 18:29		
					(End)	11/29/21 21:05		

Client Sample ID: FC-CCR-SUMP10-1121
Date Collected: 11/17/21 08:55
Date Received: 11/20/21 10:16

Lab Sample ID: 550-174641-20
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	259637	11/24/21 22:36	JNW	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259538	11/23/21 20:27	MGM	TAL PHX
Total/NA	Prep	200.8			259251	11/22/21 08:41	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259886	11/29/21 19:00	ARE	TAL PHX
Total/NA	Analysis	SM 2540C		1	259496		EJR	TAL PHX
					(Start)	11/23/21 18:29		
					(End)	11/29/21 21:05		

Client Sample ID: FC-CCR-SUMP11-1121
Date Collected: 11/17/21 09:05
Date Received: 11/20/21 10:16

Lab Sample ID: 550-174641-21
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	259637	11/24/21 23:12	JNW	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174641-1
SDG: APS Four Corners Power Plant (Other)

Client Sample ID: FC-CCR-SUMP11-1121

Lab Sample ID: 550-174641-21
Matrix: Water
Date Collected: 11/17/21 09:05
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259538	11/23/21 20:29	MGM	TAL PHX
Total/NA	Prep	200.8			259251	11/22/21 08:41	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259886	11/29/21 19:03	ARE	TAL PHX
Total/NA	Analysis	SM 2540C		1	259496		EJR	TAL PHX
						(Start) 11/23/21 18:29		
						(End) 11/29/21 21:05		

Client Sample ID: FC-CCR-SUMP12-1121

Lab Sample ID: 550-174641-22
Matrix: Water
Date Collected: 11/17/21 09:11
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	259637	11/25/21 00:26	JNW	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259538	11/23/21 20:32	MGM	TAL PHX
Total/NA	Prep	200.8			259251	11/22/21 08:41	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259886	11/29/21 19:09	ARE	TAL PHX
Total/NA	Analysis	SM 2540C		1	259496		EJR	TAL PHX
						(Start) 11/23/21 18:29		
						(End) 11/29/21 21:05		

Client Sample ID: FC-CCR-SUMP13-1121

Lab Sample ID: 550-174641-23
Matrix: Water
Date Collected: 11/17/21 09:16
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	259637	11/25/21 01:03	JNW	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259663	11/24/21 21:05	MGM	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259790	11/26/21 18:02	MGM	TAL PHX
Total/NA	Prep	200.8			259251	11/22/21 08:41	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259886	11/29/21 19:11	ARE	TAL PHX
Total/NA	Analysis	SM 2540C		1	259496		EJR	TAL PHX
						(Start) 11/23/21 18:29		
						(End) 11/29/21 21:05		

Client Sample ID: FC-CCR-SUMP14-1121

Lab Sample ID: 550-174641-24
Matrix: Water
Date Collected: 11/17/21 09:26
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	259637	11/25/21 01:40	JNW	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174641-1
SDG: APS Four Corners Power Plant (Other)

Client Sample ID: FC-CCR-SUMP14-1121
Date Collected: 11/17/21 09:26
Date Received: 11/20/21 10:16

Lab Sample ID: 550-174641-24
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259663	11/24/21 21:07	MGM	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259790	11/26/21 18:04	MGM	TAL PHX
Total/NA	Prep	200.8			259251	11/22/21 08:41	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259886	11/29/21 19:13	ARE	TAL PHX
Total/NA	Analysis	SM 2540C		1	259496		EJR	TAL PHX
						(Start) 11/23/21 18:29		
						(End) 11/29/21 21:05		

Client Sample ID: FC-CCR-SUMP15-1121
Date Collected: 11/17/21 09:32
Date Received: 11/20/21 10:16

Lab Sample ID: 550-174641-25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	259637	11/25/21 02:16	JNW	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259663	11/24/21 21:10	MGM	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	259790	11/26/21 18:07	MGM	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259790	11/26/21 18:09	MGM	TAL PHX
Total/NA	Prep	200.8			259251	11/22/21 08:41	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259886	11/29/21 19:15	ARE	TAL PHX
Total/NA	Analysis	SM 2540C		1	259978		EJR	TAL PHX
						(Start) 11/30/21 16:38		
						(End) 12/03/21 14:10		

Client Sample ID: FC-CCR-SUMP16-1121
Date Collected: 11/17/21 09:37
Date Received: 11/20/21 10:16

Lab Sample ID: 550-174641-26
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	259637	11/25/21 02:53	JNW	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259663	11/24/21 21:12	MGM	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259790	11/26/21 18:12	MGM	TAL PHX
Total/NA	Prep	200.8			259251	11/22/21 08:41	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259886	11/29/21 19:17	ARE	TAL PHX
Total/NA	Analysis	SM 2540C		1	259496		EJR	TAL PHX
						(Start) 11/23/21 18:29		
						(End) 11/29/21 21:05		

Client Sample ID: FC-CCR-SUMP17-1121

Lab Sample ID: 550-174641-27

Date Collected: 11/17/21 09:43
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	259637	11/25/21 04:07	JNW	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259663	11/24/21 21:15	MGM	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259790	11/26/21 18:14	MGM	TAL PHX
Total/NA	Prep	200.8			259251	11/22/21 08:41	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259886	11/29/21 19:19	ARE	TAL PHX
Total/NA	Analysis	SM 2540C		1	259496		EJR	TAL PHX
						(Start) 11/23/21 18:29		
						(End) 11/29/21 21:05		

Client Sample ID: FC-CCR-SUMP18-1121

Lab Sample ID: 550-174641-28

Date Collected: 11/17/21 09:50
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	259395	11/23/21 01:17	JNW	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259538	11/23/21 20:16	MGM	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	259663	11/24/21 20:59	MGM	TAL PHX
Total/NA	Prep	200.8			259251	11/22/21 08:41	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259886	11/29/21 18:52	ARE	TAL PHX
Total/NA	Prep	200.8			259251	11/22/21 08:41	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		4	259965	11/30/21 15:34	ARE	TAL PHX
Total/NA	Analysis	SM 2540C		1	259496		EJR	TAL PHX
						(Start) 11/23/21 18:29		
						(End) 11/29/21 21:05		

Client Sample ID: FC-CCR-FD07-1121

Lab Sample ID: 550-174641-29

Date Collected: 11/17/21 09:50
Matrix: Water
Date Received: 11/20/21 10:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		200	259637	11/25/21 04:44	JNW	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259663	11/24/21 21:18	MGM	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	259790	11/26/21 18:17	MGM	TAL PHX
Total/NA	Prep	200.7			259282	11/22/21 10:34	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	259790	11/26/21 18:20	MGM	TAL PHX
Total/NA	Prep	200.8			259251	11/22/21 08:41	SGO	TAL PHX
Total/NA	Analysis	200.8 LL		2	259886	11/29/21 19:21	ARE	TAL PHX

Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174641-1
SDG: APS Four Corners Power Plant (Other)

Client Sample ID: FC-CCR-FD07-1121
Date Collected: 11/17/21 09:50
Date Received: 11/20/21 10:16

Lab Sample ID: 550-174641-29
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	259496		EJR	TAL PHX

Laboratory References:

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Building #3 Suite #189, Phoenix, AZ 85040, TEL (866)772-5227

Accreditation/Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174641-1
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	06-10-22

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 2320B		Water	Alkalinity, Phenolphthalein
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	11-30-21
A2LA	ISO/IEC 17025	2907.01	11-30-21
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-28-22
Arizona	State	AZ0713	12-19-21
Arkansas DEQ	State	19-047-0	06-01-22
California	State	2513	01-08-22
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-22
Georgia	State	4025-011	01-08-22
Illinois	NELAP	2000172019-1	04-30-22
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	04-30-22
Kentucky (WW)	State	KY98047	12-31-21
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-22
Minnesota	NELAP	1788752	12-26-21
Nevada	State	CO000262020-1	07-31-22
New Hampshire	NELAP	205319	04-29-22
New Jersey	NELAP	190002	12-14-21
New York	NELAP	59923	04-01-22
North Carolina (WW/SW)	State	358	12-31-21
North Dakota	State	R-034	01-08-22
Oklahoma	State	2018-006	08-31-22
Oregon	NELAP	4025-011	01-08-22
Pennsylvania	NELAP	013	07-31-22
South Carolina	State	72002001	01-08-22
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-22
Virginia	NELAP	10490	06-14-22
Washington	State	C583-19	08-03-22
West Virginia DEP	State	354	11-29-21
Wisconsin	State	999615430	08-31-22
Wyoming (UST)	A2LA	2907.01	11-30-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Arizona Public Service Company
Project/Site: CCR Groundwater Monitoring

Job ID: 550-174641-1
SDG: APS Four Corners Power Plant (Other)

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
200.8 LL	Metals (ICP/MS)	EPA	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 4500 H+ B	pH	SM	TAL PHX
200.7	Preparation, Total Metals	EPA	TAL DEN
200.7	Preparation, Total Metals	EPA	TAL PHX
200.8	Preparation, Total Metals	EPA	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
TAL PHX = Eurofins Phoenix, 4625 East Cotton Center Boulevard, Building #3 Suite #189, Phoenix, AZ 85040, TEL (866)772-5227

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

Chain of Custody Record

174641

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	Carrier:	1 of 5 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 #: 100613442	☐ 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, SO4)	EPA 200.7 - Total (B)	EPA 200.7 - Total (B, Ca, Ba, Li)	EPA 200.7 - Total (B, Ca, Be, Li, K, Mg, Na)	EPA 200.7 - Total (B, Ca, K, Mg, Na)	EPA 200.7 - Total (B, Ca, Li, K, Mg, Na, Mn, Fe)	EPA 200.7 - Total (B, Ca, Be, Li, K, Mg, Na, Mn, Fe)	EPA 200.8 - Total (Sb, As, Ba, Cd, Co, Cr, Pb, Mo, Se, Tl)	EPA 200.8 - Total (Co, Mo)	EPA 245.1 - Total (Hg)	SM 4500-H+B (pH)	SM 2540C (TDS)	SM 2320B (CO3 Alkalinity as CaCO3, HCO3 Alkalinity as CaCO3)		Sample Specific Notes:
FC-CCR-DMX04-1121	11/16/2021	11:02	G	W	2	N		X						X	X			X	X	X	-01	Low Flow
FC-CCR-DMX06-1121	11/18/2021	9:00	G	W	2	N		X						X	X			X	X	X	-02	"
FC-CCR-MW05-1121	11/16/2021	9:45	G	W	2	N		X						X		X		X	X	X	-03	"
FC-CCR-MW06-1121	11/16/2021	13:01	G	W	2	N		X						X	X			X	X	X	-04	"
FC-CCR-MW11-1121	11/18/2021	13:45	G	W	2	N		X				X				X		X	X	X	-05	"
FC-CCR-MW15-1121	11/18/2021	9:48	G	W	2	N		X						X	X			X	X	X	-06	"
FC-CCR-MW16-1121	11/18/2021	10:47	G	W	2	N		X						X	X			X	X	X	-07	"
								1	4	4	4	4	4	4	4	4	4	1	1	1		

550-174641 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, 0.4°C, 3.2°C, 1.0°C ddo

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____		
Relinquished by:	Company: Wood	Date/Time: 11/20/21 10:16	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:	Date/Time: 11-20-21 1015

1/21/2022 (Rev. 1)

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

174641

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	Carrier:	2 of 5 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 #: 100613442	☐ 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)	00.0 (Cl, F, SO4)	00.7 - Totals (B)	00.7 - Totals (B, Ca, Li)	00.7 - Totals (B, Li, Na)	00.7 - Totals (B, Mg)	00.7 - Totals (B, K, Mg, Na, Mn, Fe)	EPA 200.7 - Totals (B, Li, K, Mg, Na, Mn, Fe)	EPA 200.8 - Totals (Sb, Ba, Cd, Co, Cr, Pb, Mo, Se)	EPA 200.8 - Totals (Co)	EPA 245.1 - Totals (Hg)	[illegible]	[illegible]	[illegible]	Sample Specific Notes:
FC-CCR-MW17R-1121	11/16/2021	15:01	G	W	2	N		X						X	X			X	X	X	-08 Low Flow
FC-CCR-MW18-1121	11/16/2021	10:23	G	W	2	N		X						X		X		X	X	X	-09 "
FC-CCR-MW24-1121	11/16/2021	12:20	G	W	2	N		X						X		X		X	X	X	-10 "
FC-CCR-MW38R-1121	11/16/2021	15:32	G	W	2	N		X						X	X			X	X	X	-11 "
FC-CCR-MW56-1121	11/16/2021	14:10	G	W	2	N		X						X	X			X	X	X	-12 "
								1	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

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]	Wood	11/20/21 10:16	[signature]		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: [signature]	Date/Time: 11-20-21 1016

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

174641

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: **CCR**

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	Carrier:	3 of 5 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 #: 100613442	☐ 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)	[redacted]																Sample Specific Notes:
FC-CCR-MW57-1121	11/17/2021	11:53	G	W	2	N		X						X	X			X	X	X			-13	Low Flow
								1	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

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]	Wood	11/20/21 10:16	[signature]		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: [signature]	Date/Time: 11-20.21 1016

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

174641

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	Carrier:	4 of 5 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 #: 100613442	☐ 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)	A 200.7 - Totals (B, Mg,	A 200.8 - Totals (Co, Mo			Sample Specific Notes:
FC-CCR-SUMP1-1121	11/17/2021	08:05	G	W	2	N		X	X	X	X	-14 Port sample
FC-CCR-SUMP2-1121	11/17/2021	08:12	G	W	2	N		X	X	X	X	-15 "
FC-CCR-SUMP3-1121	11/18/2021	08:12	G	W	2	N		X	X	X	X	-16 "
FC-CCR-SUMP7-1121	11/17/2021	08:37	G	W	2	N		X	X	X	X	-17 "
FC-CCR-SUMP8-1121	11/17/2021	08:33	G	W	2	N		X	X	X	X	-18 "
FC-CCR-SUMP9-1121	11/17/2021	08:47	G	W	2	N		X	X	X	X	-19 "
FC-CCR-SUMP10-1121	11/17/2021	08:55	G	W	2	N		X	X	X	X	-20 "
FC-CCR-SUMP11-1121	11/17/2021	09:05	G	W	2	N		X	X	X	X	-21 "
FC-CCR-SUMP12-1121	11/17/2021	09:11	G	W	2	N		X	X	X	X	-22 "
FC-CCR-SUMP13-1121	11/17/2021	09:16	G	W	2	N		X	X	X	X	-23 "
FC-CCR-SUMP14-1121	11/17/2021	09:26	G	W	2	N		X	X	X	X	-24 "
FC-CCR-SUMP15-1121	11/17/2021	09:32	G	W	2	N		X	X	X	X	-25 "
								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

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company: Wood	Date/Time: 11/19/21 10:16	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:	Date/Time:

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

174641

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other: CCR

TestAmerica Laboratories, Inc.

Client Contact	Natalie Chrisman	Jim Edwards / (928) 288-1241	Date:	COC No:
Arizona Public Service	602-250-3608	Lab Contact: Ken Baker	Carrier:	5 of 5 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 #: 100613442	☐ 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)	A (C	A (B, Mg,	A (Co, Mo	2540C (TDS)		Sample Specific Notes:
FC-CCR-SUMP16-1121	11/17/2021	09:37	G	W	2	N		X	X	X	X	-26	Port Sample
FC-CCR-SUMP17-1121	11/17/2021	09:43	G	W	2	N		X	X	X	X	-27	"
FC-CCR-SUMP18-1121	11/17/2021	09:50	G	W	2	N		X	X	X	X	-28	"
FC-CCR-FD07-1121	11/17/2021	09:50	G	W	2	N		X	X	X	X	-29	"
FC-CCR-SUMP18-1121-MS	11/17/2021	09:50	G	W	2	N		X	X	X	X	~~-30~~	28
FC-CCR-SUMP18-1121-SD	11/17/2021	09:50	G	W	2	N		X	X	X	X	~~-31~~	AL -28
								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

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]	Wood	11/20/21 10:16	[signature]		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: [signature]	Date/Time: 11-22-21 1130

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd Suite 189
Phoenix, AZ 85040
Phone: 602-437-3340 Fax: 602-454-9303

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Baker, Ken	Carrier Tracking No(s):	COC No: 550-32425.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Ken.Baker@Eurofinset.com	State of Origin: Arizona	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Arizona		Job #: 550-174641-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 12/6/2021			
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 #: 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, 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_TOT Total Lithium	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
FC-CCR-DMX04-1121 (550-174641-1)	11/16/21	11:02 Arizona		Water			X	1	AZ Sample
FC-CCR-DMX06-1121 (550-174641-2)	11/18/21	09:00 Arizona		Water			X	1	AZ Sample
FC-CCR-MW05-1121 (550-174641-3)	11/16/21	09:45 Arizona		Water			X	1	AZ Sample
FC-CCR-MW06-1121 (550-174641-4)	11/18/21	13:01 Arizona		Water			X	1	AZ Sample
FC-CCR-MW15-1121 (550-174641-6)	11/18/21	09:48 Arizona		Water			X	1	AZ Sample
FC-CCR-MW16-1121 (550-174641-7)	11/18/21	10:47 Arizona		Water			X	1	AZ Sample
FC-CCR-MW17R-1121 (550-174641-8)	11/16/21	15:01 Arizona		Water			X	1	AZ Sample
FC-CCR-MW18-1121 (550-174641-9)	11/16/21	10:23 Arizona		Water			X	1	AZ Sample
FC-CCR-MW24-1121 (550-174641-10)	11/16/21	12:20 Arizona		Water			X	1	AZ Sample

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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 TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

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: Nicole Grewel	Date/Time: ~~11/22/21~~ 11/22/21 1400	Company: ETA DMX	Received by: FED EX	Date/Time:	Company
Relinquished by: Fedex	Date/Time:	Company	Received by: [signature]	Date/Time: 11/23/21 1030	Company: ETA/DEN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: ☒ Yes Δ No	Custody Seal No.: 1754972		Cooler Temperature(s) °C and Other Remarks: 0.9 IR 9 ~~CF 0.1~~ CF -0.1		

JL 11/23/21

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-174641-1
SDG Number: APS Four Corners Power Plant (Other)

Login Number: 174641
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: 550-174641-1
SDG Number: APS Four Corners Power Plant (Other)

Login Number: 174641
List Number: 2
Creator: Lee, Jerry

List Source: Eurofins Denver
List Creation: 11/23/21 01:45 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.	False	
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	

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 14, 2021
Sample Received: November 22, 2021
Analysis Completed: December 10, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-DMX03-1121	0.6 ± 0.2	0.8 ± 0.3	1.4 ± 0.4

Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/10/2021
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, 2021 (Sample Date) 14:16 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	1.4 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	0.8 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67846

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. (480) 897-9459

Comments: FC-CCR-DMX03-1121

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, 2021
Sample Received: November 22, 2021
Analysis Completed: December 10, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-DMX04-1121	< 0.4	0.7 ± 0.3	0.7 ± 0.3
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/10/2021
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, 2021 (Sample Date) 11:02 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	0.7 ± 0.3		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	0.7 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67847

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. (480) 897-9459

Comments: FC-CCR-DMX04-1121

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 18, 2021
Sample Received: November 22, 2021
Analysis Completed: December 10, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-DMX06-1121	< 0.4	< 0.6	< 0.6
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/10/2021
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 18, 2021 (Sample Date) 9:00 (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

☐ 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	< 0.6		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	< 0.4		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	< 0.6		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

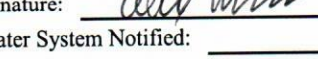
Specimen Number: RSE67848

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. (480) 897-9459

Comments: FC-CCR-DMX06-1121

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, 2021
Sample Received: November 22, 2021
Analysis Completed: December 10, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW06-1121	0.4 ± 0.2	< 0.6	0.4 ± 0.2
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/10/2021
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, 2021 (Sample Date) 13:01 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	0.4 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.4 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	< 0.6		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67849

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. (480) 897-9459

Comments: FC-CCR-MW06-1121

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 18, 2021
Sample Received: November 22, 2021
Analysis Completed: December 10, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW15-1121	0.6 ± 0.2	< 0.6	0.6 ± 0.2
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. — 12/10/2021 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 18, 2021 (Sample Date) 9:48 (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

☐ 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	< 0.6		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67850

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. (480) 897-9459

Comments: FC-CCR-MW15-1121

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 18, 2021
Sample Received: November 22, 2021
Analysis Completed: December 10, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW16-1121	0.6 ± 0.2	1.9 ± 0.3	2.5 ± 0.4
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/10/2021
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 18, 2021 (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 — 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	2.5 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.6 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	1.9 ± 0.3		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67851

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. (480) 897-9459

Comments: FC-CCR-MW16-1121

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, 2021
Sample Received: November 22, 2021
Analysis Completed: December 10, 2021

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-1121	1.4 ± 0.2	1.8 ± 0.3	3.2 ± 0.4
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/10/2021
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, 2021 (Sample Date) 15:01 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	3.2 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	1.4 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	1.8 ± 0.3		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67852

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. (480) 897-9459

Comments: FC-CCR-MW17R-1121

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, 2021
Sample Received: November 22, 2021
Analysis Completed: December 10, 2021

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-1121	0.4 ± 0.2	< 0.6	0.4 ± 0.2
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. 12/10/2021
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, 2021 (Sample Date) 15:32 (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

☐ 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	0.4 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.4 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	< 0.6		

*****LABORATORY INFORMATION*****

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67853

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. (480) 897-9459

Comments: FC-CCR-MW38R-1121

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, 2021
Sample Received: November 22, 2021
Analysis Completed: December 10, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW56-1121	0.7 ± 0.2	2.4 ± 0.4	3.1 ± 0.4
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

12/10/2021

Alex Myers, Ph.D. 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, 2021 (Sample Date) 14:10 (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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	3.1 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	2.4 ± 0.4		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67854

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. (480) 897-9459

Comments: FC-CCR-MW56-1121

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 17, 2021
Sample Received: November 22, 2021
Analysis Completed: December 10, 2021

Sample ID	Radium 226 Activity Method GammaRay HPGE (pCi/L)	Radium 228 Activity Method GammaRay HPGE (pCi/L)	Total Radium (pCi/L)
FC-CCR-MW57-1121	0.7 ± 0.2	0.7 ± 0.3	1.4 ± 0.4
Date of Analysis	11/24/2021	11/24/2021	11/24/2021

Alex Myers, Ph.D. — 12/10/2021 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 17, 2021 (Sample Date) 11:53 (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

☐ 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
	15 pCi/L		Adjusted Gross Alpha	4000				
600/00-02		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	11/24/2021	1.4 ± 0.4		
GammaRay HPGE		1 pCi/L	Radium 226	4020	11/24/2021	0.7 ± 0.2		
GammaRay HPGE		1 pCi/L	Radium 228	4030	11/24/2021	0.7 ± 0.3		

LABORATORY INFORMATION

>>>To be filled out by laboratory personnel<<<

Specimen Number: RSE67855

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. (480) 897-9459

Comments: FC-CCR-MW57-1121

Authorized Signature: _____

Date Public Water System Notified: _____

DWAR 6: 11/2007

Client Information	
Name:	Natalie Chrisman/602-250-3608 Jim Edwards/928-288-1241
Company	Arizona Public Service
Address	PO Box 355, MS 4915 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-DMX03-1121	11/14/2021	14:16	GW						X	X	X						67846
FC-CCR-DMX04-1121	11/16/2021	11:02	GW						X	X	X						67847
FC-CCR-DMX06-1121	11/18/2021	9:00	GW						X	X	X						67848
FC-CCR-MW06-1121	11/16/2021	13:01	GW						X	X	X						67849
FC-CCR-MW15-1121	11/18/2021	9:48	GW						X	X	X						67850
FC-CCR-MW16-1121	11/18/2021	10:47	GW						X	X	X						67851
FC-CCR-MW17R-1121	11/16/2021	15:01	GW						X	X	X						67852
FC-CCR-MW38R-1121	11/16/2021	15:32	GW						X	X	X						67853
FC-CCR-MW56-1121	11/16/2021	14:10	GW						X	X	X						67854
FC-CCR-MW57-1121	11/17/2021	11:53	GW						X	X	X						67855

Sample Receipt	
Total No. of Containers	
Chain of Custody Seals	
Container Condition	
Lab No.	

Invoice to:
PO#: 100611133

Instructions/Comments
Method HPGe

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* DW = Drinking Water, WW = Waste Water, GW = Groundwater.

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Appendix E

2021 Validation Report

2021 Data Validation Report

CCR Rule Compliance Groundwater Monitoring Data – APS Cholla

Arizona Public Service Cholla Power Plant
Farmington, New Mexico
Project # 14-2021-2005

Prepared for:

Arizona Public Service Company
400 North 5th Street, Phoenix, Arizona 85004

January 31, 2022

2021 Data Validation Report

CCR Rule Compliance Groundwater Monitoring Data – APS Cholla
Arizona Public Service Cholla Power Plant
Farmington, New Mexico
Project # 14-2021-2005

Prepared for:

Arizona Public Service Company
400 North 5th Street, Phoenix, Arizona 85004

Prepared by:

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January 31, 2022

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Appendix A Data Assessment Checklists by Sample Delivery Group

List of Acronyms and Abbreviations

%	percent
APS	Arizona Public Service Company
BTV(s)	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)
ID	identification
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.

1.0 Introduction

Arizona Public Service (APS) collected groundwater Detection and Assessment Monitoring samples to support Coal Combustion Residuals (CCR) Rule Compliance during the 2021 calendar year (the reporting period) at the APS Four Corners Power Plant, located near Farmington, 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.

2.0 Data Validation Methodology

Wood Environment & Infrastructure Solutions, Inc. (Wood) performed a United States Environmental Protection Agency (EPA) Stage 2A validation on samples collected by APS during the 2021 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:

- APS, 2018. Sampling and Analysis Plan, Coal Combustion Residual (CCR) Groundwater Monitoring, Four Corners Power Plant, Arizona Public Service, Farmington, New Mexico, (originally prepared by AECOM, Inc. in December 2015 and updated by APS in January 2018).
- 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.

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.

3.0 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.

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.

4.0 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.

R The sample result is rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

NJ The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the sample.

U The analyte was analyzed for but was not detected above the reported sample quantitation limit.

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 accurately and precisely measure the analyte in the sample.

5.0 Chain of Custody And Sample Receipt Condition Documentation

Unless otherwise noted in the Data Assessment Checklists included in Appendix A, 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.

6.0 Specific Data Validation Findings

Results for groundwater monitoring samples collected in 2021 may be considered usable with the limitations and exceptions summarized in Table 3. Samples FC-CCR-MW15-1121, FC-CCR-MW56-1121, and FC-CCR-MW57-1121 were re-digested and reanalyzed for selenium on January 5, 2022. The results from the re-digestion were found to be more consistent with historical findings and the original results were excluded from the dataset.

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.

6.1.2 Laboratory Blanks

Target analytes must not be detected in the laboratory blanks associated with the analysis of site samples.

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.

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.

6.1.5 Analytical Sensitivity

RLs for antimony, arsenic, barium, beryllium, cadmium, chromium, mercury, selenium, and thallium must be sufficiently low to meet the National Primary Drinking Water Regulation Maximum Contamination Limits (MCLs). RLs or cobalt, lead, lithium, and molybdenum must be sufficiently low to meet alternative Groundwater Protection Standards (GWPSs).

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.

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.

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.

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 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.

There are applicable CCR Groundwater Monitoring Program Background Threshold Values (BTVs) for fluoride, chloride, and sulfate for the site. Analytical sensitivity must also be evaluated for these site-specific comparison criteria.

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.

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 Time

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.

7.0 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. Precision values must be less than the SAP-specified maximum of 20%, or the differences between the detected concentrations must be less than the RLs.

8.0 Summary and Conclusions

Data are usable with the addition of qualifiers as presented in Table 3. Considerably more qualified data is included for the 2021 reporting period data when compared to historical data validation findings.

The results from the re-digestion of samples FC-CCR-MW15-1121, FC-CCR-MW56-1121, and FC-CCR-MW57-1121 were found to be more consistent with historical findings and the original results were excluded from the dataset. Wood recommends using the results from the re-digestion and reanalysis for reporting purposes.

9.0 References

APS, 2018. Sampling and Analysis Plan CCR Groundwater Monitoring Four Corners Power Plant Arizona Public Service, Farmington, New Mexico. Originally prepared by AECOM in December 2015 and updated by APS in January 2018.

EPA, 2017. EPA Contract Laboratory Program (CLP) National Functional Guidelines for Inorganic Superfund Data Review, EPA 540-R-2017-001.

EPA, 2004. SW 846 Test Methods for Evaluating Solid Wastes, Update IIIB.

10.0 Limitations

This report was prepared exclusively for Arizona Public Service by Wood Environment & Infrastructure Solutions, Inc. The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in Wood 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 Arizona Public Service for the Four Corners Power Plant site only, subject to the terms and conditions of its contract with Wood. Any other use of, or reliance on, this report by any third party is at that party's sole risk.

Tables

TABLE 1
FIELD SAMPLES SUBMITTED TO ANALYTICAL LABORATORIES
Coal Combustion Residuals Rule
2021 Compliance Monitoring Groundwater Data

Sampling Program	CCR Unit	Collection Date and Time	Field Sample Identification	Eurofins TestAmerica Phoenix Sample Identification	Radiation Safety Engineering Sample Identification	Notes
Detection	CWTP	6/19/2020 15:43	FC-CCR-MW62-0620	550-143999-1	--	
Detection	CWTP	6/19/2020 16:49	FC-CCR-MW63-0620	550-143999-2	--	
Detection	CWTP	6/19/2020 16:10	FC-CCR-MW64-0620	550-143999-3	--	
Detection	CWTP	6/19/2020 9:11	FC-CCR-MW65-0620	550-143999-4	--	
Detection	CWTP	4/22/2021 13:02	FC-CCR-MW62-0421	550-162767-1	66471	
Detection	CWTP	4/22/2021 14:09	FC-CCR-MW63-0421	550-162767-2	66472	
Detection	CWTP	4/22/2021 14:50	FC-CCR-MW64-0421	550-162767-3	66473	
Detection	CWTP	4/22/2021 12:16	FC-CCR-MW65-0421	550-162767-4	66474	
Assessment	Multiunit 1	4/27/2021 14:09	FC-CCR-MW07-0421	550-162768-1	66489	
Assessment	Multiunit 1	4/27/2021 12:58	FC-CCR-MW08-0421	550-162768-2	66490	
Assessment	Multiunit 1	4/26/2021 10:22	FC-CCR-MW40R-0421	550-162768-3	66491	
Assessment	Multiunit 1	4/27/2021 15:16	FC-CCR-MW49A-0421	550-162768-4	66492	
Assessment	Multiunit 1	4/23/2021 14:54	FC-CCR-MW52-0421	550-162768-5	--	
Assessment	Multiunit 1	4/23/2021 15:34	FC-CCR-MW61-0421	550-162768-6	66493	
Assessment	Multiunit 1	4/23/2021 13:45	FC-CCR-MW74-0421	550-162768-7	66494	
Assessment	Multiunit 1	4/23/2021 16:14	FC-CCR-MW75-0421	550-162768-8	66495	
Assessment	Multiunit 1	4/26/2021 16:37	FC-CCR-MW76-0421	550-162768-9	66496	
Assessment	Multiunit 1	4/27/2021 9:17	FC-CCR-MW87-0421	550-162768-10	66497	
Assessment	Multiunit 1	4/27/2021 14:09	FC-CCR-FD04-0421	550-162768-11	66498	Field duplicate of FC-CCR-MW07-0421
Assessment	URS	4/21/2021 16:02	FC-CCR-MW66-0421	550-162769-1	66475	
Assessment	URS	4/21/2021 9:41	FC-CCR-MW67-0421	550-162769-2	66476	
Assessment	URS	4/22/2021 7:30	FC-CCR-MW68-0421	550-162769-3	66477	
Assessment	URS	4/21/2021 10:38	FC-CCR-MW69-0421	550-162769-4	66478	
Assessment	URS	4/21/2021 13:54	FC-CCR-MW70-0421	550-162769-5	66479	
Assessment	URS	4/22/2021 8:32	FC-CCR-MW71-0421	550-162769-6	66480	
Assessment	URS	4/22/2021 9:22	FC-CCR-MW72-0421	550-162769-7	66481	
Assessment	URS	4/22/2021 11:19	FC-CCR-MW73-0421	550-162769-8	66482	
Assessment	URS	4/21/2021 12:11	FC-CCR-MW83-0421	550-162769-9	66483	
Assessment	URS	4/21/2021 11:27	FC-CCR-MW84-0421	550-162769-10	66484	
Assessment	URS	4/21/2021 9:41	FC-CCR-FD01-0421	550-162769-11	66487	Field duplicate of FC-CCR-MW67-0421
Assessment	URS	4/21/2021 8:59	FC-CCR-MW85-0421	550-162769-12	66485	
Assessment	URS	4/21/2021 15:20	FC-CCR-MW86-0421	550-162769-13	66486	
Assessment	URS	4/21/2021 15:20	FC-CCR-FD02-0421	550-162769-14	66488	Field duplicate of FC-CCR-MW86-0421

TABLE 1
FIELD SAMPLES SUBMITTED TO ANALYTICAL LABORATORIES
Coal Combustion Residuals Rule
2021 Compliance Monitoring Groundwater Data

Sampling Program	CCR Unit	Collection Date and Time	Field Sample Identification	Eurofins TestAmerica Phoenix Sample Identification	Radiation Safety Engineering Sample Identification	Notes
Assessment	URS	4/21/2021 15:20	FC-CCR-MW86-0421-MS01	--	66567	Assessed as a field duplicate pair
Assessment	URS	4/21/2021 15:20	FC-CCR-MW86-0421-SD01	--	66568	
Assessment	Additional	4/25/2021 10:04	FC-CCR-DMX01-0421	550-162771-1	--	
Assessment	Additional	4/25/2021 13:45	FC-CCR-DMX03-0421	550-162771-2	66499	
Assessment	Additional	4/25/2021 15:24	FC-CCR-DMX04-0421	550-162771-3	66500	
Assessment	Additional	4/27/2021 10:12	FC-CCR-DMX06-0421	550-162771-4	66501	
Assessment	Additional	4/24/2021 10:03	FC-CCR-MW01-0421	550-162771-5	--	
Assessment	Additional	4/24/2021 10:46	FC-CCR-MW03-0421	550-162771-6	--	
Assessment	Additional	4/25/2021 14:37	FC-CCR-MW05-0421	550-162771-7	--	
Assessment	Additional	4/26/2021 14:44	FC-CCR-MW06-0421	550-162771-8	66502	
Assessment	Additional	4/27/2021 10:56	FC-CCR-MW15-0421	550-162771-9	66503	
Assessment	Additional	4/27/2021 11:43	FC-CCR-MW16-0421	550-162771-10	66504	
Assessment	Additional	4/24/2021 10:03	FC-CCR-FD03-0421	550-162771-11	--	Field duplicate of FC-CCR-MW01-0421
Assessment	Additional	4/25/2021 16:53	FC-CCR-MW17R-0421	550-162771-12	66505	
Assessment	Additional	4/25/2021 16:18	FC-CCR-MW18-0421	550-162771-13	--	
Assessment	Additional	4/25/2021 10:53	FC-CCR-MW19-0421	550-162771-14	--	
Assessment	Additional	4/24/2021 11:36	FC-CCR-MW21-0421	550-162771-15	--	
Assessment	Additional	4/25/2021 12:06	FC-CCR-MW23R-0421	550-162771-16	--	
Assessment	Additional	4/26/2021 13:50	FC-CCR-MW24-0421	550-162771-17	--	
Assessment	Additional	4/25/2021 9:24	FC-CCR-MW30-0421	550-162771-18	--	
Assessment	Additional	4/25/2021 13:00	FC-CCR-MW36R-0421	550-162771-19	--	
Assessment	Additional	4/27/2021 7:36	FC-CCR-MW38R-0421	550-162771-20	66506	Logged in as FC-CCR-MW384R-0421 (Eurofins)
Assessment	Additional	4/26/2021 11:41	FC-CCR-MW56-0421	550-162771-21	66507	
Assessment	Additional	4/25/2021 10:53	FC-CCR-FD05-0421	550-162771-22	--	Field duplicate of FC-CCR-MW19-0421
Assessment	Additional	4/27/2021 8:26	FC-CCR-MW57-0421	550-162771-23	66508	
Assessment	Additional	4/24/2021 9:30	FC-CCR-MW60-0421	550-162771-24	--	
Assessment	Additional	4/24/2021 13:51	FC-CCR-MW77S-0421	550-162771-25	--	
Assessment	Additional	4/24/2021 14:57	FC-CCR-MW78S-0421	550-162771-26	--	
Assessment	Additional	4/24/2021 16:29	FC-CCR-MW79S-0421	550-162771-27	--	
Assessment	Additional	4/24/2021 15:38	FC-CCR-MW81-0421	550-162771-28	--	
Assessment	Additional	4/24/2021 15:38	FC-CCR-FD06-0421	550-162771-29	--	Field duplicate of FC-CCR-MW81-0421 Logged in as FC-CCR-FD061-0421
Assessment	Additional	4/23/2021 8:01	FC-CCR-SUMP1-0421	550-162771-30	--	

TABLE 1
FIELD SAMPLES SUBMITTED TO ANALYTICAL LABORATORIES
Coal Combustion Residuals Rule
2021 Compliance Monitoring Groundwater Data

Sampling Program	CCR Unit	Collection Date and Time	Field Sample Identification	Eurofins TestAmerica Phoenix Sample Identification	Radiation Safety Engineering Sample Identification	Notes
Assessment	Additional	4/23/2021 9:38	FC-CCR-SUMP2-0421	550-162771-31	--	
Assessment	Additional	4/23/2021 9:10	FC-CCR-SUMP3-0421	550-162771-32	--	
Assessment	Additional	4/23/2021 10:17	FC-CCR-SUMP7-0421	550-162771-33	--	
Assessment	Additional	4/23/2021 9:55	FC-CCR-SUMP8-0421	550-162771-34	--	
Assessment	Additional	4/23/2021 10:27	FC-CCR-SUMP9-0421	550-162771-35	--	
Assessment	Additional	4/23/2021 10:42	FC-CCR-SUMP11-0421	550-162771-37	--	
Assessment	Additional	4/23/2021 10:51	FC-CCR-SUMP12-0421	550-162771-38	--	
Assessment	Additional	4/23/2021 11:01	FC-CCR-SUMP13-0421	550-162771-39	--	
Assessment	Additional	4/23/2021 11:10	FC-CCR-SUMP14-0421	550-162771-40	--	
Assessment	Additional	4/23/2021 11:18	FC-CCR-SUMP15-0421	550-162771-41	--	Logged in with a time of 11:08
Assessment	Additional	4/23/2021 11:29	FC-CCR-SUMP16-0421	550-162771-42	--	
Assessment	Additional	4/23/2021 11:36	FC-CCR-SUMP17-0421	550-162771-43	--	
Assessment	Additional	4/23/2021 11:46	FC-CCR-SUMP18-0421	550-162771-44	--	
Assessment	LDWP	7/8/2021 11:22	FC-CCR-LDWP-0721	550-166823-1	66920	
Assessment	LDWP	7/8/2021 11:22	FC-CCR-LDWP-BCH-0721	550-166823-2	--	
Assessment	LDWP	7/8/2021 11:22	FC-CCR-LDWP-SUB-0721	550-166823-3	--	
Detection	CWTP	7/8/2021 10:41	FC-CCR-MW63-0721	550-166823-4	--	
Detection	CWTP	7/8/2021 9:54	FC-CCR-MW65-0721	550-166823-5	--	
Assessment	Multiunit 1	11/15/2021 8:43	FC-CCR-MW49A-1121	550-174372-1	67834	
Assessment	Multiunit 1	11/13/2021 9:23	FC-CCR-MW52-1121	550-174372-2	--	
Assessment	Multiunit 1	11/13/2021 10:35	FC-CCR-MW61-1121	550-174372-3	67835	
Assessment	Multiunit 1	11/13/2021 11:23	FC-CCR-MW75-1121	550-174372-4	67836	
Assessment	Multiunit 1	11/13/2021 9:23	FC-CCR-FD03-1121	550-174372-5	--	Field Duplicate of FC-CCR-MW52-1121
Assessment	URS	11/12/2021 16:08	FC-CCR-MW66-1121	550-174373-1	67816	
Assessment	URS	11/12/2021 8:13	FC-CCR-MW67-1121	550-174373-2	67817	
Assessment	URS	11/12/2021 16:14	FC-CCR-MW68-1121	550-174373-3	67818	
Assessment	URS	11/12/2021 15:27	FC-CCR-MW69-1121	550-174373-4	67819	
Assessment	URS	11/12/2021 14:44	FC-CCR-MW70-1121	550-174373-5	67820	
Assessment	URS	11/12/2021 12:40	FC-CCR-MW71-1121	550-174373-6	67821	
Assessment	URS	11/12/2021 13:31	FC-CCR-MW72-1121	550-174373-7	67822	
Assessment	URS	11/13/2021 8:31	FC-CCR-MW73-1121	550-174373-8	67823	
Assessment	URS	11/12/2021 10:13	FC-CCR-MW83-1121	550-174373-9	67824	
Assessment	URS	11/12/2021 9:09	FC-CCR-MW84-1121	550-174373-10	67825	
Assessment	URS	11/12/2021 11:27	FC-CCR-MW85-1121	550-174373-12	67826	

TABLE 1
FIELD SAMPLES SUBMITTED TO ANALYTICAL LABORATORIES
Coal Combustion Residuals Rule
2021 Compliance Monitoring Groundwater Data

Sampling Program	CCR Unit	Collection Date and Time	Field Sample Identification	Eurofins TestAmerica Phoenix Sample Identification	Radiation Safety Engineering Sample Identification	Notes
Assessment	URS	11/12/2021 15:31	FC-CCR-MW86-1121	550-174373-13	67827	
Assessment	URS	11/12/2021 9:09	FC-CCR-FD01-1121	550-174373-11	67828	Field duplicate of FC-CCR-MW84-1121
Assessment	URS	11/12/2021 15:31	FC-CCR-FD02-1121	550-174373-14	67829	Field duplicate of FC-CCR-MW86-1121
Assessment	URS	11/12/2021 9:09	FC-CCR-MW84-1121-MS	--	67830	
Assessment	URS	11/12/2021 9:09	FC-CCR-MW84-1121-SD	--	67831	
Assessment	Additional	11/14/2021 11:22	FC-CCR-DMX01-1121	550-174392-1	--	
Assessment	Additional	11/14/2021 14:16	FC-CCR-DMX03-1121	550-174392-2	67846	
Assessment	Additional	11/13/2021 13:35	FC-CCR-MW01-1121	550-174392-3	--	
Assessment	Additional	11/13/2021 14:06	FC-CCR-MW03-1121	550-174392-4	--	
Assessment	Additional	11/14/2021 10:18	FC-CCR-FD05-1121	550-174392-5	--	Field duplicate of FC-CCR-MW81
Assessment	Additional	11/14/2021 13:12	FC-CCR-MW19-1121	550-174392-6	--	
Assessment	Additional	11/13/2021 14:40	FC-CCR-MW21-1121	550-174392-7	--	
Assessment	Multiunit 1	11/14/2021 13:44	FC-CCR-MW23R-1121	550-174392-8	--	
Assessment	Additional	11/13/2021 15:57	FC-CCR-MW30-1121	550-174392-9	--	
Assessment	Multiunit 1	11/14/2021 14:54	FC-CCR-MW36R-1121	550-174392-10	--	
Assessment	Additional	11/14/2021 11:22	FC-CCR-FD06-1121	550-174392-11	--	Field Duplicate of FC-CCR-DMX01-1121
Assessment	Multiunit 1	11/13/2021 13:06	FC-CCR-MW60-1121	550-174392-12	--	
Assessment	Additional	11/13/2021 15:23	FC-CCR-MW77S-1121	550-174392-13	--	
Assessment	Additional	11/14/2021 8:58	FC-CCR-MW78S-1121	550-174392-14	--	
Assessment	Additional	11/14/2021 10:50	FC-CCR-MW79S-1121	550-174392-15	--	
Assessment	Additional	11/14/2021 10:18	FC-CCR-MW81-1121	550-174392-16	--	
Assessment	Additional	11/14/2021 12:35	FC-CCR-MW82S-1121	550-174392-17	--	
Assessment	Additional	11/13/2021 15:23	FC-CCR-FD07	550-174392-18	--	Field Duplicate of FC-CCR-MW77S-1121
Detection	CWTP	11/15/2021 11:28	FC-CCR-MW62-1121	550-174394-1	67839	
Detection	CWTP	11/15/2021 12:58	FC-CCR-MW63-1121	550-174394-2	67840	
Detection	CWTP	11/15/2021 13:58	FC-CCR-MW64-1121	550-174394-3	67841	
Detection	CWTP	11/15/2021 10:47	FC-CCR-MW65-1121	550-174394-4	67842	
Detection	CWTP	11/15/2021 9:28	FC-CCR-SW1-1121	550-174394-5	67843	
Detection	CWTP	11/15/2021 12:22	FC-CCR-SW2-1121	550-174394-6	67844	
Detection	CWTP	11/15/2021 13:22	FC-CCR-SW3-1121	550-174394-7	67845	
Assessment	Multiunit 1	11/18/2021 12:51	FC-CCR-MW07-1121	550-174640-1	67832	
Assessment	Multiunit 1	11/18/2021 11:54	FC-CCR-MW08-1121	550-174640-2	67833	
Assessment	Multiunit 1	11/17/2021 12:56	FC-CCR-MW87-1121	550-174640-3	67837	
Assessment	Multiunit 1	11/17/2021 12:56	FC-CCR-FD04-1121	550-174640-4	67838	Field Duplicate of FC-CCR-MW87-1121

TABLE 1
FIELD SAMPLES SUBMITTED TO ANALYTICAL LABORATORIES
Coal Combustion Residuals Rule
2021 Compliance Monitoring Groundwater Data

Sampling Program	CCR Unit	Collection Date and Time	Field Sample Identification	Eurofins TestAmerica Phoenix Sample Identification	Radiation Safety Engineering Sample Identification	Notes
Assessment	Multiunit 1	11/16/2021 11:02	FC-CCR-DMX04-1121	550-174641-1	67847	
Assessment	Multiunit 1	11/18/2021 9:00	FC-CCR-DMX06-1121	550-174641-2	67848	
Assessment	Multiunit 1	11/16/2021 9:45	FC-CCR-MW05-1121	550-174641-3	--	
Assessment	Multiunit 1	11/16/2021 13:01	FC-CCR-MW06-1121	550-174641-4	67849	Resolved
Assessment	Additional	11/18/2021 13:45	FC-CCR-MW11-1121	550-174641-5	--	
Assessment	Multiunit 1	11/18/2021 9:48	FC-CCR-MW15-1121	550-174641-6	67850	
Assessment	Multiunit 1	11/18/2021 10:47	FC-CCR-MW16-1121	550-174641-7	67851	
Assessment	Multiunit 1	11/16/2021 15:01	FC-CCR-MW17R-1121	550-174641-8	67852	
Assessment	Multiunit 1	11/16/2021 10:23	FC-CCR-MW18-1121	550-174641-9	--	
Assessment	Multiunit 1	11/16/2021 12:20	FC-CCR-MW24-1121	550-174641-10	--	
Assessment	Multiunit 1	11/16/2021 15:32	FC-CCR-MW38R-1121	550-174641-11	67853	
Assessment	Multiunit 1	11/16/2021 14:10	FC-CCR-MW56-1121	550-174641-12	67854	
Assessment	Multiunit 1	11/17/2021 11:53	FC-CCR-MW57-1121	550-174641-13	67855	
Assessment	Additional	11/17/2021 8:05	FC-CCR-SUMP1-1121	550-174641-14	--	
Assessment	Additional	11/17/2021 8:12	FC-CCR-SUMP2-1121	550-174641-15	--	
Assessment	Additional	11/17/2021 8:12	FC-CCR-SUMP3-1121	550-174641-16	--	
Assessment	Additional	11/17/2021 8:37	FC-CCR-SUMP7-1121	550-174641-17	--	
Assessment	Additional	11/17/2021 8:33	FC-CCR-SUMP8-1121	550-174641-18	--	
Assessment	Additional	11/17/2021 8:47	FC-CCR-SUMP9-1121	550-174641-19	--	
Assessment	Additional	11/17/2021 8:55	FC-CCR-SUMP10-1121	550-174641-20	--	
Assessment	Additional	11/17/2021 9:05	FC-CCR-SUMP11-1121	550-174641-21	--	
Assessment	Additional	11/17/2021 9:11	FC-CCR-SUMP12-1121	550-174641-22	--	
Assessment	Additional	11/17/2021 9:16	FC-CCR-SUMP13-1121	550-174641-23	--	
Assessment	Additional	11/17/2021 9:26	FC-CCR-SUMP14-1121	550-174641-24	--	
Assessment	Additional	11/17/2021 9:32	FC-CCR-SUMP15-1121	550-174641-25	--	
Assessment	Additional	11/17/2021 9:37	FC-CCR-SUMP16-1121	550-174641-26	--	
Assessment	Additional	11/17/2021 9:43	FC-CCR-SUMP17-1121	550-174641-27	--	
Assessment	Additional	11/17/2021 9:50	FC-CCR-SUMP18-1121	550-174641-28	--	
Assessment	Additional	11/17/2021 9:50	FC-CCR-FD07-1121	550-174641-29	--	Field Duplicate of FC-CCR-SUMP18-1121

TABLE 2
FIELD DUPLICATE DETECTIONS
Coal Combustion Residuals Rule
2021 Compliance Monitoring Groundwater Data

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
FC-CCR-MW67-0421 and FC-CCR-FD01-0421					
Chloride	400 mg/L	1,800	1,800	0.0%	
Fluoride	0.80 mg/L	12	12	0.0%	
Sulfate	400 mg/L	13,000	13,000	0.0%	
Lithium	0.020 mg/L	0.39	0.39	0.0%	
Boron	0.10 mg/L	160	160	0.0%	
Calcium	2.0 mg/L	490	490	0.0%	
Arsenic	0.0020 mg/L	0.0018 J	0.0020	11%	
Barium	0.0020 mg/L	0.019	0.018	5.4%	
Cadmium	0.00040 mg/L	0.00027 J	0.00026 J	3.8%	
Cobalt	0.0020 mg/L	0.012	0.011	8.7%	
Molybdenum	0.0020 mg/L	0.044	0.041	7.1%	
Selenium	0.0020 mg/L	0.0042	0.0044	4.7%	
Thallium	0.00040 mg/L	0.0011	0.0011	0.0%	
Total Dissolved Solids	200 mg/L	19,000	20,000	5.1%	
pH	1.7 SU	7.4	7.4	0.0%	
Radium 226	0.4 pCi/L	1.3 ± 0.2	0.4 U	NC	J/UJ-FD
Radium 228	0.8 pCi/L	3.1 ± 0.4	2.0 ± 0.4	43%	J-FD
Total Radium	0.8 pCi/L	4.4 ± 0.4	2.0 ± 0.4	75%	J-FD
FC-CCR-MW86-0421 and FC-CCR-FD02-0421					
Chloride	400 mg/L	1,300	1,300	0.0%	
Fluoride	0.80 mg/L	0.58 J	0.60 J	3.4%	
Sulfate	400 mg/L	8,900	8,700	2.3%	
Lithium	0.020 mg/L	0.3	0.31	3.3%	
Boron	0.18 mg/L	110	110	0.0%	
Calcium	2.0 mg/L	500	510	2.0%	
Arsenic	0.0020 mg/L	0.0012 J	0.0017 J	34%	± RL
Barium	0.0020 mg/L	0.015	0.014	6.9%	
Cadmium	0.00040 mg/L	0.00028 J	0.00016 J	55%	± RL
Cobalt	0.0020 mg/L	0.0052	0.0049	5.9%	
Molybdenum	0.0020 mg/L	0.0022	0.0018	20%	
Selenium	0.0020 mg/L	0.0046	0.0042	9.1%	
Thallium	0.00040 mg/L	0.00080	0.0007	13%	
Total Dissolved Solids	100 mg/L	14,000	14,000	0.0%	
pH	1.7 SU	7.2	7.3	1.4%	
Radium 226	0.6 pCi/L	0.6 U	0.7 ± 0.2	NC	± RL
Radium 228	1.2 pCi/L	1.6 ± 0.4	3.2 ± 0.5	67%	J-FD
Total Radium	1.2 pCi/L	1.6 ± 0.4	3.9 ± 0.5	84%	J-FD
Sample FC-CCR-MW86-0421-MS01 and FC-CCR-MW86-0421-SD01					
Radium 228	0.8 pCi/L	0.8 U	0.8 ± 0.4	NC	± RL
Total Radium	0.8 pCi/L	0.8 U	0.8 ± 0.4	NC	± RL

TABLE 2
FIELD DUPLICATE DETECTIONS
Coal Combustion Residuals Rule
2021 Compliance Monitoring Groundwater Data

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
FC-CCR-MW01-0421 and FC-CCR-FD03-0421					
Boron	0.050 mg/L	56	56	0.0%	
Cobalt	0.0020 mg/L	0.066	0.070	5.9%	
Molybdenum	0.0020 mg/L	0.031	0.034	9.2%	
FC-CCR-MW07-0421 and FC-CCR-FD04-0421					
Chloride	400 mg/L	340 J	320 J	6.1%	
Fluoride	0.80 mg/L	0.25 J	0.26 J	3.9%	
Sulfate	400 mg/L	5,700	5,700	0.0%	
Lithium	0.020 mg/L	0.87	0.86	1.2%	
Boron	0.050 mg/L	8.6	8.6	0.0%	
Calcium	2.0 mg/L	470	470	0.0%	
Antimony	0.0010 mg/L	0.00021 J	0.00020 J	4.9%	
Barium	0.00050 mg/L	0.019	0.017	11%	
Chromium	0.0010 mg/L	0.00073 J	0.00055 J	28%	± RL
Cobalt	0.00050 mg/L	0.000094 J	0.00050 U	NC	± RL
Molybdenum	0.00050 mg/L	0.0022	0.0022	0.0%	
Selenium	0.00050 mg/L	0.027	0.025	7.7%	
Total Dissolved Solids	100 mg/L	8,900	8,900	0.0%	
pH	1.7 SU	7.6	7.6	0.0%	
Radium 228	0.8 pCi/L	2.4 ± 0.4	0.9 ± 0.4	91%	J-FD
Total Radium	0.8 pCi/L	2.4 ± 0.4	0.9 ± 0.4	91%	J-FD
FC-CCR-MW19-0421 and FC-CCR-FD05-0421					
Boron	0.050 mg/L	2.0	2.0	0.0%	
Cobalt	0.0013 mg/L	0.00052	0.0013 J	86%	± RL
Molybdenum	0.0013 mg/L	0.0030	0.0040	29%	± RL
FC-CCR-MW81-0421 and FC-CCR-FD06-0421					
Boron	0.050 mg/L	38	40	5.1%	
Cobalt	0.0020 mg/L	0.020	0.020	0.0%	
Molybdenum	0.0020 mg/L	0.0072	0.0073	1.4%	

TABLE 2
FIELD DUPLICATE DETECTIONS
Coal Combustion Residuals Rule
2021 Compliance Monitoring Groundwater Data

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
Samples FC-CCR-MW84-1121 and FC-CCR-FD01-1121					
Chloride	400 mg/L	1,300	1,200	8.0%	
Fluoride	0.80 mg/L	0.12	0.12	0.0%	
Sulfate	400 mg/L	10,000	9,800	2.0%	
Lithium	0.020 mg/L	0.24	0.24	0.0%	
Boron	0.050 mg/L	92	96	4.3%	
Calcium	2.0 mg/L	450	500	11%	
Antimony	0.0020 mg/L	0.00013	0.0020 U	NC	± RL
Barium	0.0010 mg/L	0.019	0.017	11%	
Cadmium	0.00020 mg/L	0.00031	0.00027	14%	
Cobalt	0.0010 mg/L	0.0079	0.0078	1.3%	
Molybdenum	0.0010 mg/L	0.0014	0.0012	15%	
Selenium	0.0010 mg/L	0.030	0.032	6.5%	
Thallium	0.00020 mg/L	0.00071	0.00041	54%	J-FD
Total Dissolved Solids	100 mg/L	13,000	13,000	0.0%	
pH	1.7 SU	7.1	7.2	1.4%	
Radium 226	1 pCi/L	1.4 ± 0.2	1.2 ± 0.2	15.4%	
Radium 228	1 pCi/L	0.7 ± 0.3	1.1 ± 0.3	44%	± RL
Total Radium	1 pCi/L	2.1 ± 0.4	2.3 ± 0.4	9%	
Samples FC-CCR-MW86-1121 and FC-CCR-FD02-1121					
Chloride	400 mg/L	1,600	1,600	0.0%	
Fluoride	0.80 mg/L	0.56	0.55	1.8%	
Sulfate	400 mg/L	11,000	11,000	0.0%	
Lithium	0.020 mg/L	0.35	0.36	2.8%	
Boron	0.050 mg/L	120	120	0.0%	
Calcium	2.0 mg/L	510	490	4.0%	
Antimony	0.0020 mg/L	0.00010	0.000090	11%	
Barium	0.0010 mg/L	0.017	0.017	0.0%	
Cadmium	0.00020 mg/L	0.00020	0.00017	16%	
Chromium	0.0020 mg/L	0.0014	0.0014	0.0%	
Cobalt	0.0010 mg/L	0.0065	0.0063	3.1%	
Lead	0.0010 mg/L	0.00056	0.0010 U	NC	± RL
Molybdenum	0.0010 mg/L	0.0011	0.0011	0.0%	
Selenium	0.0010 mg/L	0.0013	0.0021	47%	± RL
Thallium	0.00020 mg/L	0.00085	0.00083	2.4%	
Total Dissolved Solids	100 mg/L	15,000	14,000	6.9%	
pH	1.7 SU	7.2	7.2	0.0%	
Radium 226	1 pCi/L	0.5 ± 0.2	0.5 ± 0.2	0.0%	
Radium 228	1 pCi/L	0.6 U	1.4 ± 0.3	NC	± RL
Total Radium	1 pCi/L	0.5 ± 0.2	1.9 ± 0.4	117%	J-FD

TABLE 2
FIELD DUPLICATE DETECTIONS
Coal Combustion Residuals Rule
2021 Compliance Monitoring Groundwater Data

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
Samples FC-CCR-MW52-1121 and FC-CCR-FD03-1121					
Lithium	0.02 mg/L	0.65	0.65	0.0%	
Boron	0.05 mg/L	11	9.7	13%	
Calcium	2.0 mg/L	450	420	6.9%	
Cobalt	0.001 mg/L	0.12	0.12	0.0%	
Molybdenum	0.001 mg/L	0.0031	0.0031	0.0%	
Samples FC-CCR-MW87-1121 and FC-CCR-FD04-1121					
Chloride	400 mg/L	4,100	4,100	0.0%	
Fluoride	0.80 mg/L	0.17	0.16	6.1%	
Sulfate	2000 mg/L	34,000	34,000	0.0%	
Lithium	0.020 mg/L	2.7	2.7	0.0%	
Boron	0.10 mg/L	1.6	1.6	0.0%	
Calcium	4.0 mg/L	520	520	0.0%	
Iron	0.20 mg/L	1.6	1.5	6.5%	
Magnesium	10 mg/L	3,500	3,500	0.0%	
Manganese	0.020 mg/L	0.43	0.43	0.0%	
Potassium	1.0 mg/L	130	130	0.0%	
Sodium	10 mg/L	14,000	13,000	7.4%	
Antimony	0.0020 mg/L	0.0016	0.0016	0.0%	
Arsenic	0.0010 mg/L	0.0024	0.0032	29%	± RL
Barium	0.0010 mg/L	0.014	0.014	0.0%	
Cadmium	0.00020 mg/L	0.00017	0.00017	0.0%	
Chromium	0.0020 mg/L	0.0021	0.0023	9.1%	
Cobalt	0.0010 mg/L	0.0078	0.0082	5.0%	
Lead	0.00050 mg/L	0.00080	0.00081	1.2%	
Molybdenum	0.0010 mg/L	0.065	0.067	3.0%	
Selenium	0.0010 mg/L	0.0290	0.027	7.1%	
Thallium	0.00010 mg/L	0.00016	0.00016	0.0%	
Alkalinity as CaCO3	6.0 mg/L	1,200	1,100	8.7%	
Bicarbonate Alkalinity as CaCO3	6.0 mg/L	1,200	1,100	8.7%	
Total Dissolved Solids	1,000 mg/L	40,000	40,000	0.0%	
pH	1.7 SU	7.7	7.7	0.0%	
Radium 226	1 pCi/L	0.6 ± 0.2	0.7 ± 0.2	15%	
Total Radium	1 pCi/L	0.6 ± 0.2	0.7 ± 0.2	15%	
Samples FC-CCR-MW81 and FC-CCR-FD05					
Boron	0.050 mg/L	45	43	4.5%	
Cobalt	0.0010 mg/L	0.023	0.022	4.4%	
Molybdenum	0.0010 mg/L	0.0035	0.0034	2.9%	
Samples FC-CCR-DMX01 and FC-CCR-FD06					
Boron	0.050 mg/L	99	100	1.0%	
Cobalt	0.0010 mg/L	0.00073 J	0.0010 J	31%	± RL
Molybdenum	0.0010 mg/L	0.019	0.021	10%	

TABLE 2
FIELD DUPLICATE DETECTIONS
Coal Combustion Residuals Rule
2021 Compliance Monitoring Groundwater Data

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
Samples FC-CCR-SUMP18-1121 and FC-CCR-FD07-1121					
Chloride	400 mg/L	1,700	1,700	0.0%	
Boron	0.050 mg/L	4.6	5.4	16%	
Iron	0.10 mg/L	0.31	0.33	6.3%	
Magnesium	10 mg/L	3,200	3,500	9.0%	
Manganese	0.010 mg/L	0.032	0.040	22%	± RL
Cobalt	0.0010 mg/L	0.0013	0.0011	17%	
Molybdenum	0.0020 mg/L	0.0036	0.0032	12%	
Total Dissolved Solids	200 mg/L	37,000	38,000	2.7%	
Samples FC-CCR-MW77S and FC-CCR-FD07					
Boron	0.050 mg/L	11	12	8.7%	
Cobalt	0.0010 mg/L	0.0058	0.0057	1.7%	
Molybdenum	0.0010 mg/L	0.02	0.02	0.0%	

Notes:
± RL = the difference between analyte concentrations is less than the reporting limit, indicating acceptable sampling and analytical precisions.
FD = Imprecision between primary and field duplicate results.
mg/L = milligrams per liter
NC = not calculable
pCi/L = picoCuries per liter
S.U. = standard units

Qualifier Definitions:
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.

TABLE 3
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Sample Identification	Sample Delivery Group	Analyte	Result	Qualifier and Reason Code
FC-CCR-MW62-0421	J162767-1	Antimony	0.0010 mg/L	U MB
FC-CCR-MW62-0421	J162767-1	Arsenic	0.0019 mg/L	U MB
FC-CCR-MW62-0421	J162767-1	pH	7.3 SU	J HT
FC-CCR-MW62-0421	J162767-1	Selenium	0.00080 mg/L	U MB
FC-CCR-MW63-0421	J162767-1	Antimony	0.0010 mg/L	U MB
FC-CCR-MW63-0421	J162767-1	Arsenic	0.0013 mg/L	U MB
FC-CCR-MW63-0421	J162767-1	pH	7.5 SU	J HT
FC-CCR-MW63-0421	J162767-1	Selenium	0.00050 mg/L	U MB
FC-CCR-MW64-0421	J162767-1	Antimony	0.0010 mg/L	U MB
FC-CCR-MW64-0421	J162767-1	Arsenic	0.00096 mg/L	U MB
FC-CCR-MW64-0421	J162767-1	Lithium	0.019 mg/L	J DL
FC-CCR-MW64-0421	J162767-1	pH	7.9 SU	J HT
FC-CCR-MW64-0421	J162767-1	Selenium	0.00050 mg/L	U MB
FC-CCR-MW65-0421	J162767-1	Antimony	0.0010 mg/L	U MB
FC-CCR-MW65-0421	J162767-1	Arsenic	0.00099 mg/L	U MB
FC-CCR-MW65-0421	J162767-1	pH	7.7 SU	J HT
FC-CCR-MW65-0421	J162767-1	Selenium	0.00059 mg/L	U MB
FC-CCR-FD04-0421	J162768-1	Antimony	0.0010 mg/L	U MB
FC-CCR-FD04-0421	J162768-1	Arsenic	0.0018 mg/L	U MB
FC-CCR-FD04-0421	J162768-1	Chloride	320 mg/L	J DL
FC-CCR-FD04-0421	J162768-1	Chromium	0.00055 mg/L	J DL
FC-CCR-FD04-0421	J162768-1	Fluoride	0.26 mg/L	J DL
FC-CCR-FD04-0421	J162768-1	pH	7.6 SU	J HT
FC-CCR-MW07-0421	J162768-1	Antimony	0.0010 mg/L	U MB
FC-CCR-MW07-0421	J162768-1	Arsenic	0.0013 mg/L	U MB
FC-CCR-MW07-0421	J162768-1	Chloride	340 mg/L	J DL
FC-CCR-MW07-0421	J162768-1	Chromium	0.00073 mg/L	J DL
FC-CCR-MW07-0421	J162768-1	Cobalt	0.000094 mg/L	J DL
FC-CCR-MW07-0421	J162768-1	Fluoride	0.25 mg/L	J DL
FC-CCR-MW07-0421	J162768-1	pH	7.6 SU	J HT
FC-CCR-MW07-0421	J162768-1	Thallium	0.00010 mg/L	U MB
FC-CCR-MW08-0421	J162768-1	Antimony	0.0010 mg/L	U MB
FC-CCR-MW08-0421	J162768-1	Arsenic	0.0015 mg/L	U MB
FC-CCR-MW08-0421	J162768-1	Cadmium	0.00010 mg/L	U MB
FC-CCR-MW08-0421	J162768-1	Fluoride	0.42 mg/L	J DL
FC-CCR-MW08-0421	J162768-1	pH	7.3 SU	J HT
FC-CCR-MW08-0421	J162768-1	Selenium	0.0010 mg/L	U MB
FC-CCR-MW40R-0421	J162768-1	Antimony	0.0010 mg/L	U MB
FC-CCR-MW40R-0421	J162768-1	Fluoride	0.28 mg/L	J DL
FC-CCR-MW40R-0421	J162768-1	pH	7.0 SU	J HT
FC-CCR-MW40R-0421	J162768-1	Thallium	0.00010 mg/L	U MB
FC-CCR-MW49A-0421	J162768-1	Antimony	0.0010 mg/L	U MB

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FC-CCR-MW49A-0421	J162768-1	Arsenic	0.0020 mg/L	U MB
FC-CCR-MW49A-0421	J162768-1	Chromium	0.00082 mg/L	J DL
FC-CCR-MW49A-0421	J162768-1	Fluoride	0.47 mg/L	J DL
FC-CCR-MW49A-0421	J162768-1	pH	7.5 SU	J HT
FC-CCR-MW61-0421	J162768-1	Antimony	0.0010 mg/L	U MB
FC-CCR-MW61-0421	J162768-1	Arsenic	0.0016 mg/L	U MB
FC-CCR-MW61-0421	J162768-1	pH	8.7 SU	J HT
FC-CCR-MW61-0421	J162768-1	Selenium	0.00097 mg/L	U MB
FC-CCR-MW74-0421	J162768-1	Antimony	0.0020 mg/L	U MB
FC-CCR-MW74-0421	J162768-1	Arsenic	0.0035 mg/L	U MB
FC-CCR-MW74-0421	J162768-1	Cadmium	0.00020 mg/L	U MB
FC-CCR-MW74-0421	J162768-1	Cobalt	0.00056 mg/L	J DL
FC-CCR-MW74-0421	J162768-1	pH	7.7 SU	J HT
FC-CCR-MW74-0421	J162768-1	Thallium	0.00040 mg/L	U MB
FC-CCR-MW75-0421	J162768-1	Antimony	0.0010 mg/L	U MB
FC-CCR-MW75-0421	J162768-1	Arsenic	0.0016 mg/L	U MB
FC-CCR-MW75-0421	J162768-1	pH	8.4 SU	J HT
FC-CCR-MW75-0421	J162768-1	Thallium	0.00010 mg/L	U MB
FC-CCR-MW76-0421	J162768-1	Antimony	0.0010 mg/L	U MB
FC-CCR-MW76-0421	J162768-1	Arsenic	0.0018 mg/L	U MB
FC-CCR-MW76-0421	J162768-1	Cadmium	0.00010 mg/L	U MB
FC-CCR-MW76-0421	J162768-1	Fluoride	0.44 mg/L	J DL
FC-CCR-MW76-0421	J162768-1	pH	7.3 SU	J HT
FC-CCR-MW76-0421	J162768-1	Thallium	0.00010 mg/L	U MB
FC-CCR-MW87-0421	J1762768-1	Antimony	0.0014 mg/L	U MB
FC-CCR-MW87-0421	J162768-1	Arsenic	0.0024 mg/L	U MB
FC-CCR-MW87-0421	J162768-1	Cadmium	0.00020 mg/L	U MB
FC-CCR-MW87-0421	J162768-1	Fluoride	0.42 mg/L	J DL
FC-CCR-MW87-0421	J162768-1	pH	7.6 SU	J HT
FC-CCR-MW87-0421	J162768-1	Thallium	0.00016 mg/L	U MB
FC-CCR-FD01-0421	J162769-1	Antimony	0.0040 mg/L	U MB
FC-CCR-FD01-0421	J162769-1	Cadmium	0.00026 mg/L	J DL
FC-CCR-FD01-0421	J162769-1	pH	7.4 SU	J HT
FC-CCR-FD01-0421	J162769-1	Total Dissolved Solids	20,000 mg/L	J HT
FC-CCR-FD02-0421	J162769-1	Arsenic	0.0017 mg/L	J DL
FC-CCR-FD02-0421	J162769-1	Barium	0.014 mg/L	J HM
FC-CCR-FD02-0421	J162769-1	Cadmium	0.00016 mg/L	J DL
FC-CCR-FD02-0421	J162769-1	Fluoride	0.60 mg/L	J DL
FC-CCR-FD02-0421	J162769-1	Molybdenum	0.0018 mg/L	J DL
FC-CCR-FD02-0421	J162769-1	pH	7.3 SU	J HT
FC-CCR-FD02-0421	J162769-1	Selenium	0.0042 mg/L	J HM
FC-CCR-FD02-0421	J162769-1	Total Dissolved Solids	14,000 mg/L	J HT

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FC-CCR-MW66-0421	J162769-1	Antimony	0.0040 mg/L	U MB
FC-CCR-MW66-0421	J162769-1	Arsenic	0.0014 mg/L	J DL
FC-CCR-MW66-0421	J162769-1	Cadmium	0.00013 mg/L	J DL
FC-CCR-MW66-0421	J162769-1	pH	7.4 SU	J HT
FC-CCR-MW66-0421	J162769-1	Total Dissolved Solids	19,000 mg/L	J HT
FC-CCR-MW67-0421	J162769-1	Antimony	0.0040 mg/L	U MB
FC-CCR-MW67-0421	J162769-1	Arsenic	0.0018 mg/L	J DL
FC-CCR-MW67-0421	J162769-1	Cadmium	0.00027 mg/L	J DL
FC-CCR-MW67-0421	J162769-1	pH	7.4 SU	J HT
FC-CCR-MW67-0421	J162769-1	Total Dissolved Solids	19,000 mg/L	J HT
FC-CCR-MW68-0421	J162769-1	Antimony	0.0040 mg/L	U MB
FC-CCR-MW68-0421	J162769-1	Arsenic	0.0017 mg/L	J DL
FC-CCR-MW68-0421	J162769-1	Cadmium	0.00016 mg/L	J DL
FC-CCR-MW68-0421	J162769-1	pH	727 SU	J HT
FC-CCR-MW69-0421	J162769-1	Antimony	0.0040 mg/L	U MB
FC-CCR-MW69-0421	J162769-1	pH	7.4 SU	J HT
FC-CCR-MW69-0421	J162769-1	Thallium	0.00030 mg/L	J DL
FC-CCR-MW69-0421	J162769-1	Total Dissolved Solids	8,300 mg/L	J HT
FC-CCR-MW70-0421	J162769-1	pH	7.0 SU	J HT
FC-CCR-MW70-0421	J162769-1	Thallium	0.00024 mg/L	J DL
FC-CCR-MW70-0421	J162769-1	Total Dissolved Solids	11,000 mg/L	J HT
FC-CCR-MW71-0421	J162769-1	Arsenic	0.0013 mg/L	J DL
FC-CCR-MW71-0421	J162769-1	Cadmium	0.00012 mg/L	J DL
FC-CCR-MW71-0421	J162769-1	Cobalt	0.00030 mg/L	J DL
FC-CCR-MW71-0421	J162769-1	Fluoride	3.8 mg/L	NJ MI
FC-CCR-MW71-0421	J162769-1	pH	7.2 SU	J HT
FC-CCR-MW72-0421	J162769-1	Cadmium	0.00012 mg/L	J DL
FC-CCR-MW72-0421	J162769-1	Molybdenum	0.0011 mg/L	J DL
FC-CCR-MW72-0421	J162769-1	pH	7.2 SU	J HT
FC-CCR-MW73-0421	J162769-1	Cadmium	0.00016 mg/L	J DL
FC-CCR-MW73-0421	J162769-1	Molybdenum	0.0011 mg/L	J DL
FC-CCR-MW73-0421	J162769-1	pH	7.1 SU	J HT
FC-CCR-MW73-0421	J162769-1	Thallium	0.00026 mg/L	J DL
FC-CCR-MW83-0421	J162769-1	pH	7.3 SU	J HT
FC-CCR-MW83-0421	J162769-1	Selenium	0.00042 mg/L	J DL
FC-CCR-MW83-0421	J162769-1	Total Dissolved Solids	2,100 mg/L	J HT
FC-CCR-MW84-0421	J162769-1	Antimony	0.0040 mg/L	U MB
FC-CCR-MW84-0421	J162769-1	Arsenic	0.0010 mg/L	J DL
FC-CCR-MW84-0421	J162769-1	Cadmium	0.00016 mg/L	J DL
FC-CCR-MW84-0421	J162769-1	Cobalt	0.0010 mg/L	J DL
FC-CCR-MW84-0421	J162769-1	pH	7.2 SU	J HT
FC-CCR-MW84-0421	J162769-1	Total Dissolved Solids	11,000 mg/L	J HT

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FC-CCR-MW85-0421	J162769-1	Fluoride	0.22 mg/L	J DL
FC-CCR-MW85-0421	J162769-1	pH	7.2 SU	J HT
FC-CCR-MW85-0421	J162769-1	Thallium	0.00022 mg/L	J DL
FC-CCR-MW85-0421	J162769-1	Total Dissolved Solids	8,300 mg/L	J HT
FC-CCR-MW86-0421	J162769-1	Antimony	0.0040 mg/L	U MB
FC-CCR-MW86-0421	J162769-1	Arsenic	0.0012 mg/L	J DL
FC-CCR-MW86-0421	J162769-1	Barium	0.015 mg/L	J HM
FC-CCR-MW86-0421	J162769-1	Cadmium	0.00028 mg/L	J DL
FC-CCR-MW86-0421	J162769-1	Fluoride	0.58 mg/L	J DL
FC-CCR-MW86-0421	J162769-1	pH	7.2 SU	J HT
FC-CCR-MW86-0421	J162769-1	Selenium	0.0046 mg/L	J HM
FC-CCR-MW86-0421	J162769-1	Total Dissolved Solids	14,000 mg/L	J HT
FC-CCR-DMX01-0421	J162771-1	Cobalt	0.00089 mg/L	J DL
FC-CCR-DMX03-0421	J162771-1	Antimony	0.0040 mg/L	U MB
FC-CCR-DMX03-0421	J162771-1	Cadmium	0.00012 mg/L	J DL
FC-CCR-DMX03-0421	J162771-1	Chloride	1,100 mg/L	J HL
FC-CCR-DMX03-0421	J162771-1	Cobalt	0.0015 mg/L	J DL
FC-CCR-DMX03-0421	J162771-1	Fluoride	0.17 mg/L	J DL
FC-CCR-DMX03-0421	J162771-1	Molybdenum	0.0011 mg/L	J DL
FC-CCR-DMX03-0421	J162771-1	pH	7.4 SU	J HT
FC-CCR-DMX04-0421	J162771-1	Antimony	0.0040 mg/L	U MB
FC-CCR-DMX04-0421	J162771-1	Cadmium	0.00020 mg/L	J DL
FC-CCR-DMX04-0421	J162771-1	Chloride	660 mg/L	J HL
FC-CCR-DMX04-0421	J162771-1	Cobalt	0.00058 mg/L	J DL
FC-CCR-DMX04-0421	J162771-1	Lead	0.0019 mg/L	J DL
FC-CCR-DMX04-0421	J162771-1	pH	7.7 SU	J HT
FC-CCR-DMX04-0421	J162771-1	Thallium	0.00040 mg/L	U MB
FC-CCR-DMX06-0421	J162771-1	Antimony	0.0040 mg/L	U MB
FC-CCR-DMX06-0421	J162771-1	Cadmium	0.00022 mg/L	J DL
FC-CCR-DMX06-0421	J162771-1	Chloride	630 mg/L	J HL
FC-CCR-DMX06-0421	J162771-1	Cobalt	0.00046 mg/L	J DL
FC-CCR-DMX06-0421	J162771-1	Fluoride	0.36 mg/L	J DL
FC-CCR-DMX06-0421	J162771-1	Lead	0.0018 mg/L	J DL
FC-CCR-DMX06-0421	J162771-1	pH	7.3 SU	J HT
FC-CCR-DMX06-0421	J162771-1	Thallium	0.00040 mg/L	U MB
FC-CCR-FD05-0421	J162771-1	Cobalt	0.0013 mg/L	J DL
FC-CCR-MW03-0421	J162771-1	Cobalt	0.00054 mg/L	J DL
FC-CCR-MW05-0421	J162771-1	Chloride	4,400 mg/L	J HL
FC-CCR-MW05-0421	J162771-1	Fluoride	0.52 mg/L	J DL
FC-CCR-MW05-0421	J162771-1	pH	7.2 SU	J HT
FC-CCR-MW06-0421	J162771-1	Antimony	0.0040 mg/L	U MB
FC-CCR-MW06-0421	J162771-1	Arsenic	0.0014 mg/L	J DL

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FC-CCR-MW06-0421	J162771-1	Fluoride	0.58 mg/L	J DL
FC-CCR-MW06-0421	J162771-1	Lead	0.0019 mg/L	J DL
FC-CCR-MW06-0421	J162771-1	pH	7.5 SU	J HT
FC-CCR-MW15-0421	J162771-1	Cobalt	0.0017 mg/L	J DL
FC-CCR-MW15-0421	J162771-1	Fluoride	0.27 mg/L	J LM, DL
FC-CCR-MW15-0421	J162771-1	Lead	0.0019 mg/L	J DL
FC-CCR-MW15-0421	J162771-1	Molybdenum	0.0016 mg/L	J DL
FC-CCR-MW15-0421	J162771-1	pH	7.2 SU	J HT
FC-CCR-MW15-0421	J162771-1	Thallium	0.00040 mg/L	U MB
FC-CCR-MW16-0421	J162771-1	Cadmium	0.00020 mg/L	J DL
FC-CCR-MW16-0421	J162771-1	Fluoride	0.19 mg/L	J DL
FC-CCR-MW16-0421	J162771-1	Molybdenum	0.00088 mg/L	J DL
FC-CCR-MW16-0421	J162771-1	pH	7.3 SU	J HT
FC-CCR-MW17R-0421	J162771-1	Antimony	0.0040 mg/L	U MB
FC-CCR-MW17R-0421	J162771-1	Iron	0.094 mg/L	J DL
FC-CCR-MW17R-0421	J162771-1	Molybdenum	0.0014 mg/L	J DL
FC-CCR-MW17R-0421	J162771-1	pH	7.6 SU	J HT
FC-CCR-MW17R-0421	J162771-1	Selenium	0.0012 mg/L	J DL
FC-CCR-MW17R-0421	J162771-1	Thallium	0.00040 mg/L	U MB
FC-CCR-MW18-0421	J162771-1	pH	7.2 SU	J HT
FC-CCR-MW23R-0421	J162771-1	Cobalt	0.00092 mg/L	J DL
FC-CCR-MW23R-0421	J162771-1	Fluoride	0.27 mg/L	J DL
FC-CCR-MW23R-0421	J162771-1	pH	7.4 SU	J HT
FC-CCR-MW24-0421	J162771-1	Fluoride	0.66 mg/L	J DL
FC-CCR-MW24-0421	J162771-1	pH	7.6 SU	J HT
FC-CCR-MW36R-0421	J162771-1	Fluoride	0.29 mg/L	J DL
FC-CCR-MW36R-0421	J162771-1	Iron	0.072 mg/L	J DL
FC-CCR-MW36R-0421	J162771-1	Molybdenum	0.0012 mg/L	J DL
FC-CCR-MW36R-0421	J162771-1	pH	7.6 SU	J HT
FC-CCR-MW38R-0421	J162771-1	Cadmium	0.00013 mg/L	J DL
FC-CCR-MW38R-0421	J162771-1	Chloride	310 mg/L	J DL
FC-CCR-MW38R-0421	J162771-1	Fluoride	0.33 mg/L	J DL
FC-CCR-MW38R-0421	J162771-1	Iron	0.080 mg/L	J DL
FC-CCR-MW38R-0421	J162771-1	pH	7.3 SU	J HT
FC-CCR-MW38R-0421	J162771-1	Selenium	0.0016 mg/L	J DL
FC-CCR-MW56-0421	J162771-1	Antimony	0.0040 mg/L	U MB
FC-CCR-MW56-0421	J162771-1	Arsenic	0.0013 mg/L	J DL
FC-CCR-MW56-0421	J162771-1	Cadmium	0.00029 mg/L	J DL
FC-CCR-MW56-0421	J162771-1	Cobalt	0.00051 mg/L	J DL
FC-CCR-MW56-0421	J162771-1	Lead	0.0019 mg/L	J DL
FC-CCR-MW56-0421	J162771-1	pH	7.4 SU	J HT
FC-CCR-MW57-0421	J162771-1	Antimony	0.0040 mg/L	U MB

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FC-CCR-MW57-0421	J162771-1	Beryllium	0.00013 mg/L	J DL
FC-CCR-MW57-0421	J162771-1	Cadmium	0.00012 mg/L	J DL
FC-CCR-MW57-0421	J162771-1	Cobalt	0.0019 mg/L	J DL
FC-CCR-MW57-0421	J162771-1	Lead	0.0019 mg/L	J DL
FC-CCR-MW57-0421	J162771-1	pH	7.5 SU	J HT
FC-CCR-MW57-0421	J162771-1	Thallium	0.00040 mg/L	U MB
FC-CCR-SUMP10-0421	J162771-1	Molybdenum	0.00085 mg/L	J DL
FC-CCR-SUMP1-0421	J162771-1	Manganese	0.0088 mg/L	J DL
FC-CCR-SUMP11-0421	J162771-1	Manganese	0.0011 mg/L	J DL
FC-CCR-SUMP13-0421	J162771-1	Manganese	0.0018 mg/L	J DL
FC-CCR-SUMP16-0421	J162771-1	Molybdenum	0.0011 mg/L	J DL
FC-CCR-SUMP17-0421	J162771-1	Cobalt	0.0013 mg/L	J DL
FC-CCR-SUMP17-0421	J162771-1	Manganese	0.0012 mg/L	J DL
FC-CCR-SUMP17-0421	J162771-1	Molybdenum	0.0015 mg/L	J DL
FC-CCR-SUMP18-0421	J162771-1	Cobalt	0.0011 mg/L	J DL
FC-CCR-SUMP9-0421	J162771-1	Manganese	0.0019 mg/L	J DL
FC-CCR-LDWP-0721	J166823-1	Beryllium	0.0036 mg/L	J DL
FC-CCR-LDWP-0721	J166823-1	Chloride	4.0 mg/L	R LM
FC-CCR-LDWP-0721	J166823-1	Lead	0.0015 mg/L	J DL
FC-CCR-LDWP-0721	J166823-1	pH	6.1 SU	J HT
FC-CCR-LDWP-0721	J166823-1	Sulfate	4.0 mg/L	R LM
FC-CCR-LDWP-BCH-0721	J166823-1	Barium	42 mg/kg	J HD
FC-CCR-LDWP-BCH-0721	J166823-1	Copper	0.97 mg/kg	J LM, DL
FC-CCR-LDWP-BCH-0721	J166823-1	Selenium	4.5 mg/kg	J LM
FC-CCR-LDWP-BCH-0721	J166823-1	Silver	0.011 mg/kg	J LM, DL
FC-CCR-LDWP-BCH-0721	J166823-1	Thallium	0.031 mg/kg	J DL
FC-CCR-LDWP-BCH-0721	J166823-1	Zinc	0.98 mg/kg	J LM, DL
FC-CCR-LDWP-SUB-0721	J166823-1	Beryllium	0.032 mg/kg	J DL
FC-CCR-LDWP-SUB-0721	J166823-1	Copper	0.62 mg/kg	J DL
FC-CCR-LDWP-SUB-0721	J166823-1	Thallium	0.013 mg/kg	J DL
FC-CCR-LDWP-SUB-0721	J166823-1	Zinc	0.65 mg/kg	J DL
FC-CCR-MW63-0721	J166823-1	pH	7.2 SU	J HT
FC-CCR-MW49A-1121	J174372-1	Antimony	0.00018 mg/L	J DL
FC-CCR-MW49A-1121	J174372-1	Fluoride	0.51 mg/L	J DL
FC-CCR-MW49A-1121	J174372-1	pH	7.4 SU	J HT
FC-CCR-MW61-1121	J174372-1	Antimony	0.00026 mg/L	J DL
FC-CCR-MW61-1121	J174372-1	pH	8.3 SU	J HT
FC-CCR-MW75-1121	J174372-1	Antimony	0.00013 mg/L	J DL
FC-CCR-MW75-1121	J174372-1	pH	8.3 SU	J HT
FC-CCR-FD01-1121	J174373-1	Barium	0.017 mg/L	J HM
FC-CCR-FD01-1121	J174373-1	Fluoride	0.12 mg/L	J DL
FC-CCR-FD01-1121	J174373-1	pH	7.2 SU	J HT

TABLE 3
QUALIFIERS ADDED DURING DATA VALIDATION
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Sample Identification	Sample Delivery Group	Analyte	Result	Qualifier and Reason Code
FC-CCR-FD01-1121	J174373-1	Sulfate	9,800 mg/L	J LM
FC-CCR-FD01-1121	J174373-1	Thallium	0.00041 mg/L	J FD
FC-CCR-FD02-1121	J174373-1	Antimony	0.000090 mg/L	J DL
FC-CCR-FD02-1121	J174373-1	Cadmium	0.00017 mg/L	J DL
FC-CCR-FD02-1121	J174373-1	Chromium	0.0014 mg/L	J DL
FC-CCR-FD02-1121	J174373-1	Fluoride	0.55 mg/L	J DL
FC-CCR-FD02-1121	J174373-1	pH	7.2 SU	J HT
FC-CCR-MW66-1121	J174373-1	Antimony	0.00012 mg/L	J DL
FC-CCR-MW66-1121	J174373-1	Cadmium	0.000068 mg/L	J DL
FC-CCR-MW66-1121	J174373-1	pH	7.4 SU	J HT
FC-CCR-MW67-1121	J174373-1	Antimony	0.000088 mg/L	J DL
FC-CCR-MW67-1121	J174373-1	Hg	0.00020 mg/L	UJ LL
FC-CCR-MW67-1121	J174373-1	pH	7.5 SU	J HT
FC-CCR-MW68-1121	J174373-1	Barium	0.0097 mg/L	J DL
FC-CCR-MW68-1121	J174373-1	Cadmium	0.000090 mg/L	J DL
FC-CCR-MW68-1121	J174373-1	pH	7.3 SU	J HT
FC-CCR-MW69-1121	J174373-1	Antimony	0.00022 mg/L	J DL
FC-CCR-MW69-1121	J174373-1	Cadmium	0.000074 mg/L	J DL
FC-CCR-MW69-1121	J174373-1	pH	7.4 SU	J HT
FC-CCR-MW70-1121	J174373-1	Cadmium	0.00010 mg/L	J DL
FC-CCR-MW70-1121	J174373-1	Hg	0.00020 mg/L	UJ LL
FC-CCR-MW70-1121	J174373-1	pH	7.1 SU	J HT
FC-CCR-MW71-1121	J174373-1	Cadmium	0.00010 mg/L	J DL
FC-CCR-MW71-1121	J174373-1	Cobalt	0.00013 mg/L	J DL
FC-CCR-MW71-1121	J174373-1	Fluoride	0.14 mg/L	J DL
FC-CCR-MW71-1121	J174373-1	Hg	0.00020 mg/L	UJ LL
FC-CCR-MW71-1121	J174373-1	pH	7.4 SU	J HT
FC-CCR-MW72-1121	J174373-1	Cadmium	0.000060 mg/L	J DL
FC-CCR-MW72-1121	J174373-1	Molybdenum	0.00055 mg/L	J DL
FC-CCR-MW72-1121	J174373-1	pH	7.1 SU	J HT
FC-CCR-MW73-1121	J174373-1	Antimony	0.00017 mg/L	J DL
FC-CCR-MW73-1121	J174373-1	Cadmium	0.00018 mg/L	J DL
FC-CCR-MW73-1121	J174373-1	Fluoride	0.12 mg/L	J DL
FC-CCR-MW73-1121	J174373-1	Hg	0.00020 mg/L	UJ LL
FC-CCR-MW73-1121	J174373-1	Molybdenum	0.00093 mg/L	J DL
FC-CCR-MW73-1121	J174373-1	pH	7 SU	J HT
FC-CCR-MW83-1121	J174373-1	Antimony	0.000096 mg/L	J DL
FC-CCR-MW83-1121	J174373-1	Cadmium	0.000060 mg/L	J DL
FC-CCR-MW83-1121	J174373-1	pH	7.4 SU	J HT
FC-CCR-MW83-1121	J174373-1	Thallium	0.000042 mg/L	J DL
FC-CCR-MW84-1121	J174373-1	Antimony	0.00013 mg/L	J DL
FC-CCR-MW84-1121	J174373-1	Barium	0.019 mg/L	J HM

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Sample Identification	Sample Delivery Group	Analyte	Result	Qualifier and Reason Code
FC-CCR-MW84-1121	J174373-1	Fluoride	0.12 mg/L	J DL
FC-CCR-MW84-1121	J174373-1	pH	7.1 SU	J HT
FC-CCR-MW84-1121	J174373-1	Sulfate	10,000 mg/L	J LM
FC-CCR-MW84-1121	J174373-1	Thallium	0.00071 mg/L	J FD
FC-CCR-MW85-1121	J174373-1	Arsenic	0.00094 mg/L	J DL
FC-CCR-MW85-1121	J174373-1	Cobalt	0.00020 mg/L	J DL
FC-CCR-MW85-1121	J174373-1	Fluoride	0.27 mg/L	J DL
FC-CCR-MW85-1121	J174373-1	pH	7.3 SU	J HT
FC-CCR-MW86-1121	J174373-1	Antimony	0.00010 mg/L	J DL
FC-CCR-MW86-1121	J174373-1	Chromium	0.0014 mg/L	J DL
FC-CCR-MW86-1121	J174373-1	Fluoride	0.56 mg/L	J DL
FC-CCR-MW86-1121	J174373-1	Lead	0.00056 mg/L	J DL
FC-CCR-MW86-1121	J174373-1	pH	7.2 SU	J HT
FC-CCR-DMX01	J174392-1	Cobalt	0.00073 mg/L	J DL
FC-CCR-DMX03	J174392-1	Alkalinity as CaCO3	950 mg/L	J HD
FC-CCR-DMX03	J174392-1	Antimony	0.0020 mg/L	U MB
FC-CCR-DMX03	J174392-1	Bicarbonate Alkalinity	950 mg/L	J HD
FC-CCR-DMX03	J174392-1	Chromium	0.0015 mg/L	J DL
FC-CCR-DMX03	J174392-1	Molybdenum	0.00095 mg/L	J DL
FC-CCR-DMX03	J174392-1	pH	7.4 SU	J HT
FC-CCR-FD06	J174392-1	Cobalt	0.0010 mg/L	J DL
FC-CCR-MW03	J174392-1	Cobalt	0.00031 mg/L	J DL
FC-CCR-MW23R	J174392-1	Cobalt	0.00068 mg/L	J DL
FC-CCR-MW23R	J174392-1	Fluoride	0.28 mg/L	J DL
FC-CCR-MW23R	J174392-1	pH	7.4 SU	J HT
FC-CCR-MW36R	J174392-1	Molybdenum	0.00056 mg/L	J DL
FC-CCR-MW82S	J174392-1	Fluoride	0.35 mg/L	J DL
FC-CCR-MW82S	J174392-1	Molybdenum	0.00048 mg/L	J DL
FC-CCR-MW82S	J174392-1	pH	7.3 SU	J HT
FC-CCR-MW62-1121	J174394-1	pH	7.7 SU	J HT
FC-CCR-MW62-1121	J174394-1	Thallium	0.000098 mg/L	J DL
FC-CCR-MW63-1121	J174394-1	Antimony	0.0020 mg/L	U MB
FC-CCR-MW63-1121	J174394-1	Beryllium	0.0010 mg/L	U MB
FC-CCR-MW63-1121	J174394-1	Cadmium	0.000064 mg/L	J DL
FC-CCR-MW63-1121	J174394-1	Chloride	81 mg/L	J DL
FC-CCR-MW63-1121	J174394-1	Fluoride	0.28 mg/L	J DL
FC-CCR-MW63-1121	J174394-1	pH	7.7 SU	J HT
FC-CCR-MW63-1121	J174394-1	Thallium	0.00015 mg/L	J DL
FC-CCR-MW64-1121	J174394-1	Barium	0.024 mg/L	J HM
FC-CCR-MW64-1121	J174394-1	Beryllium	0.0010 mg/L	U MB
FC-CCR-MW64-1121	J174394-1	Cadmium	0.000058 mg/L	J DL
FC-CCR-MW64-1121	J174394-1	Lithium	0.019 mg/L	J DL

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Sample Identification	Sample Delivery Group	Analyte	Result	Qualifier and Reason Code
FC-CCR-MW64-1121	J174394-1	pH	7.1 SU	J HT
FC-CCR-MW65-1121	J174394-1	Beryllium	0.0010 mg/L	U MB
FC-CCR-MW65-1121	J174394-1	pH	8.0 SU	J HT
FC-CCR-MW65-1121	J174394-1	Thallium	0.000072 mg/L	J DL
FC-CCR-SW1-1121	J174394-1	Antimony	0.00068 mg/L	J DL
FC-CCR-SW1-1121	J174394-1	Beryllium	0.0010 mg/L	U MB
FC-CCR-SW1-1121	J174394-1	Cobalt	0.00023 mg/L	J DL
FC-CCR-SW1-1121	J174394-1	pH	8.5 SU	J HT
FC-CCR-SW1-1121	J174394-1	Thallium	0.00020 mg/L	U MB
FC-CCR-SW2-1121	J174394-1	Antimony	0.00064 mg/L	J DL
FC-CCR-SW2-1121	J174394-1	Cobalt	0.00013 mg/L	J DL
FC-CCR-SW2-1121	J174394-1	pH	8 SU	J HT
FC-CCR-SW2-1121	J174394-1	Total Dissolved Solids	670 mg/L	J HD
FC-CCR-SW3-1121	J174394-1	Antimony	0.00082 mg/L	J DL
FC-CCR-SW3-1121	J174394-1	Arsenic	0.00054 mg/L	J DL
FC-CCR-SW3-1121	J174394-1	Beryllium	0.0010 mg/L	U MB
FC-CCR-SW3-1121	J174394-1	Cobalt	0.00024 mg/L	J DL
FC-CCR-SW3-1121	J174394-1	Lead	0.00044 mg/L	J DL
FC-CCR-SW3-1121	J174394-1	pH	7.9 SU	J HT
FC-CCR-FD04-1121	J174640-1	Antimony	0.0016 mg/L	J DL
FC-CCR-FD04-1121	J174640-1	Cadmium	0.00017 mg/L	J DL
FC-CCR-FD04-1121	J174640-1	Fluoride	0.16 mg/L	J DL
FC-CCR-FD04-1121	J174640-1	pH	7.7 SU	J HT
FC-CCR-MW07-1121	J174640-1	Antimony	0.00031 mg/L	J DL
FC-CCR-MW07-1121	J174640-1	Cadmium	0.00012 mg/L	J DL
FC-CCR-MW07-1121	J174640-1	Chromium	0.0011 mg/L	J DL
FC-CCR-MW07-1121	J174640-1	Cobalt	0.00055 mg/L	J DL
FC-CCR-MW07-1121	J174640-1	Fluoride	0.25 mg/L	J DL
FC-CCR-MW07-1121	J174640-1	pH	7.5 SU	J HT
FC-CCR-MW08-1121	J174640-1	Antimony	0.00033 mg/L	J DL
FC-CCR-MW08-1121	J174640-1	Cobalt	0.00062 mg/L	J DL
FC-CCR-MW08-1121	J174640-1	Fluoride	0.56 mg/L	J DL
FC-CCR-MW08-1121	J174640-1	pH	7.5 SU	J HT
FC-CCR-MW08-1121	J174640-1	Selenium	0.00050 mg/L	J DL
FC-CCR-MW87-1121	J174640-1	Antimony	0.0016 mg/L	J DL
FC-CCR-MW87-1121	J174640-1	Cadmium	0.00017 mg/L	J DL
FC-CCR-MW87-1121	J174640-1	Fluoride	0.17 mg/L	J DL
FC-CCR-MW87-1121	J174640-1	pH	7.7 SU	J HT
FC-CCR-DMX04-1121	J174641-1	Antimony	0.00034 mg/L	J DL
FC-CCR-DMX04-1121	J174641-1	Arsenic	0.00099 mg/L	J DL
FC-CCR-DMX04-1121	J174641-1	Chromium	0.0011 mg/L	J DL
FC-CCR-DMX04-1121	J174641-1	Cobalt	0.00055 mg/L	J DL

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Sample Identification	Sample Delivery Group	Analyte	Result	Qualifier and Reason Code
FC-CCR-DMX04-1121	J174641-1	Iron	0.089 mg/L	J DL
FC-CCR-DMX04-1121	J174641-1	pH	7.8 SU	J HT
FC-CCR-DMX04-1121	J174641-1	Total Dissolved Solids	12,000 mg/L	J HT
FC-CCR-DMX06-1121	J174641-1	Antimony	0.0020 mg/L	U MB
FC-CCR-DMX06-1121	J174641-1	Arsenic	0.00062 mg/L	J DL
FC-CCR-DMX06-1121	J174641-1	Cadmium	0.00019 mg/L	J DL
FC-CCR-DMX06-1121	J174641-1	Chromium	0.0019 mg/L	J DL
FC-CCR-DMX06-1121	J174641-1	Cobalt	0.00054 mg/L	J DL
FC-CCR-DMX06-1121	J174641-1	Fluoride	0.27 mg/L	J DL
FC-CCR-DMX06-1121	J174641-1	Iron	0.085 mg/L	J DL
FC-CCR-DMX06-1121	J174641-1	pH	7.5 SU	J HT
FC-CCR-DMX06-1121	J174641-1	Thallium	0.000073 mg/L	J DL
FC-CCR-MW05-1121	J174641-1	Fluoride	0.51 mg/L	J DL
FC-CCR-MW05-1121	J174641-1	pH	7.2 SU	J HT
FC-CCR-MW05-1121	J174641-1	Total Dissolved Solids	28,000 mg/L	J HT
FC-CCR-MW06-1121	J174641-1	Antimony	0.00029 mg/L	J DL
FC-CCR-MW06-1121	J174641-1	Cadmium	0.00013 mg/L	J DL
FC-CCR-MW06-1121	J174641-1	Cobalt	0.00056 mg/L	J DL
FC-CCR-MW06-1121	J174641-1	Fluoride	0.58 mg/L	J DL
FC-CCR-MW06-1121	J174641-1	Lead	0.00057 mg/L	J DL
FC-CCR-MW06-1121	J174641-1	pH	7.7 SU	J HT
FC-CCR-MW06-1121	J174641-1	Thallium	0.000040 mg/L	J DL
FC-CCR-MW11-1121	J174641-1	pH	7.1 SU	J HT
FC-CCR-MW15-1121	J174641-1	Antimony	0.0020 mg/L	U MB
FC-CCR-MW15-1121	J174641-1	Cadmium	0.000076 mg/L	J DL
FC-CCR-MW15-1121	J174641-1	Selenium	0.73 mg/L	R EXC
FC-CCR-MW15-1121	J174641-1	Fluoride	0.37 mg/L	J DL
FC-CCR-MW15-1121	J174641-1	pH	7.4 SU	J HT
FC-CCR-MW16-1121	J174641-1	Antimony	0.00022 mg/L	U MB
FC-CCR-MW16-1121	J174641-1	Arsenic	0.00085 mg/L	J DL
FC-CCR-MW16-1121	J174641-1	Cadmium	0.00018 mg/L	J DL
FC-CCR-MW16-1121	J174641-1	Fluoride	0.39 mg/L	J DL
FC-CCR-MW16-1121	J174641-1	Molybdenum	0.00079 mg/L	J DL
FC-CCR-MW16-1121	J174641-1	pH	7.5 SU	J HT
FC-CCR-MW17R-1121	J174641-1	Antimony	0.0020 mg/L	U MB
FC-CCR-MW17R-1121	J174641-1	Arsenic	0.00051 mg/L	J DL
FC-CCR-MW17R-1121	J174641-1	Fluoride	0.62 mg/L	J DL
FC-CCR-MW17R-1121	J174641-1	Iron	0.048 mg/L	J DL
FC-CCR-MW17R-1121	J174641-1	pH	7.7 SU	J HT
FC-CCR-MW18-1121	J174641-1	pH	7.6 SU	J HT
FC-CCR-MW18-1121	J174641-1	Total Dissolved Solids	28,000 mg/L	J HT
FC-CCR-MW24-1121	J174641-1	Fluoride	0.21 mg/L	J DL

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FC-CCR-MW24-1121	J174641-1	pH	7.7 SU	J HT
FC-CCR-MW24-1121	J174641-1	Total Dissolved Solids	23,000 mg/L	J HT
FC-CCR-MW38R-1121	J174641-1	Antimony	0.0020 mg/L	U MB
FC-CCR-MW38R-1121	J174641-1	Arsenic	0.00072 mg/L	J DL
FC-CCR-MW38R-1121	J174641-1	Chromium	0.0012 mg/L	J DL
FC-CCR-MW38R-1121	J174641-1	Fluoride	0.40 mg/L	J DL
FC-CCR-MW38R-1121	J174641-1	Iron	0.078 mg/L	J DL
FC-CCR-MW38R-1121	J174641-1	Manganese	0.0027 mg/L	J DL
FC-CCR-MW38R-1121	J174641-1	pH	7.6 SU	J HT
FC-CCR-MW38R-1121	J174641-1	Selenium	0.0012 mg/L	J DL
FC-CCR-MW38R-1121	J174641-1	Thallium	0.000049 mg/L	J DL
FC-CCR-MW56-1121	J174641-1	Antimony	0.0020 mg/L	U MB
FC-CCR-MW56-1121	J174641-1	Chromium	0.0017 mg/L	J DL
FC-CCR-MW56-1121	J174641-1	Cobalt	0.00062 mg/L	J DL
FC-CCR-MW56-1121	J174641-1	pH	7.8 SU	J HT
FC-CCR-MW56-1121	J174641-1	Selenium	0.00070 mg/L	R EXC
FC-CCR-MW56-1121	J174641-1	Total Dissolved Solids	30,000 mg/L	J HT
FC-CCR-MW57-1121	J174641-1	Antimony	0.00041 mg/L	J DL
FC-CCR-MW57-1121	J174641-1	Cadmium	0.000078 mg/L	J DL
FC-CCR-MW57-1121	J174641-1	Chromium	0.0015 mg/L	J DL
FC-CCR-MW57-1121	J174641-1	Fluoride	0.19 mg/L	J DL
FC-CCR-MW57-1121	J174641-1	pH	7.9 SU	J HT
FC-CCR-MW57-1121	J174641-1	Selenium	0.24 mg/L	R EXC
FC-CCR-MW57-1121	J174641-1	Thallium	0.000068 mg/L	J DL
FC-CCR-SUMP10-1121	J174641-1	Molybdenum	0.00089 mg/L	J DL
FC-CCR-SUMP12-1121	J174641-1	Molybdenum	0.00088 mg/L	J DL
FC-CCR-SUMP13-1121	J174641-1	Manganese	0.0087 mg/L	J DL
FC-CCR-SUMP13-1121	J174641-1	Molybdenum	0.00097 mg/L	J DL
FC-CCR-SUMP15-1121	J174641-1	Total Dissolved Solids	38,000 mg/L	J HT
FC-CCR-SUMP17-1121	J174641-1	Manganese	0.00042 mg/L	J DL
FC-CCR-SUMP2-1121	J174641-1	Cobalt	0.00018 mg/L	J DL
FC-CCR-SUMP2-1121	J174641-1	Manganese	0.0047 mg/L	J DL
FC-CCR-SUMP8-1121	J174641-1	Manganese	0.0037 mg/L	J DL
FC-CCR-FD01-0421	RSE	Radium 226	0.40 pCi/L	UJ FD
FC-CCR-FD01-0421	RSE	Radium 228	2.0 pCi/L	J FD
FC-CCR-FD01-0421	RSE	Total Radium	2.0 pCi/L	J FD
FC-CCR-FD02-0421	RSE	Radium 228	3.2 pCi/L	J FD
FC-CCR-FD02-0421	RSE	Total Radium	3.9 pCi/L	J FD
FC-CCR-FD04-0421	RSE	Radium 228	0.90 pCi/L	J FD
FC-CCR-FD04-0421	RSE	Total Radium	0.90 pCi/L	J FD
FC-CCR-MW07-0421	RSE	Radium 228	2.4 pCi/L	J FD
FC-CCR-MW07-0421	RSE	Total Radium	2.4 pCi/L	J FD

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Sample Identification	Sample Delivery Group	Analyte	Result	Qualifier and Reason Code
FC-CCR-MW67-0421	RSE	Radium 226	1.3 pCi/L	J FD
FC-CCR-MW67-0421	RSE	Radium 228	3.1 pCi/L	J FD
FC-CCR-MW67-0421	RSE	Total Radium	4.4 pCi/L	J FD
FC-CCR-MW86-0421	RSE	Radium 228	1.6 pCi/L	J FD
FC-CCR-MW86-0421	RSE	Total Radium	1.6 pCi/L	J FD

Notes:
mg/kg = milligrams per kilogram
mg/L = milligrams per liter
pCi/L = picoCuries per liter
S.U. = standard units

Qualifier Definitions:
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.
R = The data are unusable. The sample results are rejected due to serious deficiencies in meeting quality control 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.

Reason Code:
DL = The detected concentrations is less than the reporting limit.
EXC = There are multiple datasets for the same analyte in the same sample. This result should not be used for reporting purposes.
FD = Imprecision between primary and field duplicate results. Potential sampling and/or anaytical imprecision.
HL = High laboratory control sample recovery. Result may be biased high.
HD = Imprecision between matrix spike (MS) and MS duplicate results.
HM = High matrix spike recovery. Result may be biased high.
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 MS recovery. Result may be biased low.
MB = The same analyte was detcted in the field sample and its associated blank and the concentration detcted in the sample is less than five times the concentration detected in the blank.
MI = The result is affected by an unknown interferent.

Appendix A

Data Assessment Checklists by Sample Delivery Group

APS Four Corners CCR Data Review

Laboratory Name:	Radiation Safety Engineering, Inc.		
Sample Delivery Group:	--	**Review Date:**	27 May 2021
Validator's Name:	Marie Bevier/Rebecca Enzor	**Reviewed By:**	Denise King/Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-MW62-0421	04/22/21 13:02	66471	
FC-CCR-MW63-0421	04/22/21 14:09	66472	
FC-CCR-MW64-0421	04/22/21 14:50	66473	
FC-CCR-MW65-0421	04/22/21 12:16	66474	
FC-CCR-MW66-0421	04/21/21 16:02	66475	
FC-CCR-MW67-0421	04/21/21 09:41	66476	
FC-CCR-MW68-0421	04/22/21 07:30	66477	
FC-CCR-MW69-0421	04/21/21 10:38	66478	
FC-CCR-MW70-0421	04/21/21 13:54	66479	
FC-CCR-MW71-0421	04/22/21 08:32	66480	
FC-CCR-MW72-0421	04/22/21 09:22	66481	
FC-CCR-MW73-0421	04/22/21 11:19	66482	
FC-CCR-MW83-0421	04/21/21 12:11	66483	
FC-CCR-MW84-0421	04/21/21 11:27	66484	
FC-CCR-MW85-0421	04/21/21 08:59	66485	
FC-CCR-MW86-0421	04/21/21 15:20	66486	
FC-CCR-FD01-0421	04/21/21 09:41	66487	Field duplicate of FC-CCR-MW67-0421
FC-CCR-FD02-0421	04/21/21 15:20	66488	Field duplicate of FC-CCR-MW86-0421
FC-CCR-MW07-0421	04/27/21 14:09	66489	
FC-CCR-MW08-0421	04/27/21 12:58	66490	
FC-CCR-MW40R-0421	04/26/21 10:22	66491	
FC-CCR-MW49A-0421	04/27/21 15:16	66492	
FC-CCR-MW61-0421	04/23/21 15:34	66493	
FC-CCR-MW74-0421	04/23/21 13:45	66494	
FC-CCR-MW75-0421	04/23/21 16:14	66495	
FC-CCR-MW76-0421	04/26/21 16:37	66496	
FC-CCR-MW87-0421	04/27/21 09:17	66497	
FC-CCR-FD04-0421	04/27/21 14:09	66498	Field duplicate of FC-CCR-MW07-0421
FC-CCR-DMX03-0421	04/25/21 13:45	66499	
FC-CCR-DMX04-0421	04/25/21 15:24	66500	
FC-CCR-DMX06-0421	04/27/21 10:12	66501	
FC-CCR-MW06-0421	04/26/21 14:44	66502	
FC-CCR-MW15-0421	04/27/21 10:56	66503	
FC-CCR-MW16-0421	04/27/21 11:43	66504	
FC-CCR-MW17R-0421	04/25/21 16:53	66505	
FC-CCR-MW38R-0421	04/27/21 07:36	66506	
FC-CCR-MW56-0421	04/26/21 11:41	66507	

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-MW57-0421	04/27/21 08:26	66508	
FC-CCR-MW86-0421-MS01	04/21/21 15:20	66567	Assessed as a field duplicate pair
FC-CCR-MW86-0421-SD01	04/21/21 15:20	66568	

Analytical Methods:

Analyte	Analyte Group	Method
Radium 226, Radium 228, Total Radium	Radiological	Gamma Ray 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 pH within 15 minutes of sampling? Yes No (N/A)
2. Samples analyzed for TDS within 7 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 chloride, fluoride, mercury, and sulfate within 28 days of sampling?
   Yes No (N/A)
5. Samples analyzed for other metals or radium within 180 days 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 blank? Yes No (N/A)

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection (U-MB)

7. LCS recoveries and/or precision within laboratory-specified limits?
   Yes No (N/A)

If No:

Analyte	RPD or Recovery	Accuracy or Recovery Limits	Affected Samples

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-MW67-0421	FC-CCR-FD01-0421
FC-CCR-MW86-0421	FC-CCR-FD02-0421
FC-CCR-MW07-0421	FC-CCR-FD04-0421
FC-CCR-MW86-0421-MS01	FC-CCR-MW86-0421-SD01

a. Is the RPD between primary and duplicate results ≤ 20% or is the difference between analyte concentrations ≤ the reporting limit?

Yes (No) N/A

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
FC-CCR-MW07-0421 and FC-CCR-FD04-0421					
Radium 228	0.8 pCi/L	2.4 ± 0.4	0.9 ± 0.4	91%	J-FD
Total Radium	0.8 pCi/L	2.4 ± 0.4	0.9 ± 0.4	91%	J-FD
FC-CCR-MW67-0421 and FC-CCR-FD01-0421					
Radium 226	0.4 pCi/L	1.3 ± 0.2	0.4 U	NC	J/UJ-FD
Radium 228	0.8 pCi/L	3.1 ± 0.4	2.0 ± 0.4	43%	J-FD
Total Radium	0.8 pCi/L	4.4 ± 0.4	2.0 ± 0.4	75%	J-FD
FC-CCR-MW86-0421 and FC-CCR-FD02-0421					
Radium 226	0.4 pCi/L	0.6 U	0.7 ± 0.2	NC	± RL
Radium 228	0.8 pCi/L	1.6 ± 0.4	3.2 ± 0.5	67%	J-FD
Total Radium	0.8 pCi/L	1.6 ± 0.4	3.9 ± 0.5	84%	J-FD
FC-CCR-MW86-0421-MS01 and FC-CCR-MW86-0421-SD01					
Radium 228	0.8 pCi/L	0.8 U	0.8 ± 0.4	NC	± RL
Total Radium	0.8 pCi/L	0.8 U	0.8 ± 0.4	NC	± RL

Notes:

± RL = The difference between analyte concentrations is less than the reporting limit, indicating acceptable sampling and analytical precision.
FD = Imprecision between primary and field duplicate results.
pCi/L = picoCuries per liter
NC = not calculable
RPD = relative percent difference

Wood contacted RSE to confirm that results for samples FC-CCR-FD01-0421 and FC-CCR-FD02-0421 were not inadvertently switched during reporting since the results from sample FC-CCR-FD01-0421 seem to match results from sample FC-CCR-MW86-0421 better than they match results from sample FC-CCR-MW67-0421 and results from sample FC-CCR-FD02-0421 seem to match results from sample FC-CCR-MW67-0421 better than they match results from sample FC-CCR-MW86-0421. RSE confirmed that the results were corrected reported per their records.

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes No (N/A)

If Yes:

Sample ID	Analysis

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 non-detect results sufficiently low to meet EPA primary drinking water criteria and/or Alternative GWPS?

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	0.8	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	--	--	SU
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

APS Four Corners CCR Data Review

Laboratory Name:	Eurofins Environment Testing America		
Sample Delivery Group:	J162767-1	**Review Date:**	13 May 2021
Validator's Name:	Marie Bevier	**Reviewed By:**	Denise King

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-MW62-0421	04/22/21 13:02	550-162767-1	
FC-CCR-MW63-0421	04/22/21 14:09	550-162767-2	
FC-CCR-MW64-0421	04/22/21 14:50	550-162767-3	
FC-CCR-MW65-0421	04/22/21 12:16	550-162767-4	

Analytical Methods:

Analyte	Analyte Group	Method
Beryllium, Boron, Calcium, Lithium	Metals	EPA Method 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA Method 200.8
Mercury	Metals	EPA Method 245.1
Chloride, Fluoride, Sulfate	Anions	EPA Method 300.0
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 pH within 15 minutes of sampling? Yes (No)
2. Samples analyzed for TDS within 7 days of sampling? (Yes) No
3. Samples analyzed for chloride, fluoride, mercury, and sulfate within 28 days of sampling? (Yes) No
4. Samples analyzed for other metals within 180 days of sampling? (Yes) No

If No:

Sample ID	Analysis	Time Between Collection And Analysis	Effect on Data Usability
FC-CCR-MW62-0421	pH	13 days, 4 hours	J-HT
FC-CCR-MW63-0421	pH	13 days, 2 hours, 53 minutes	J-HT
FC-CCR-MW64-0421	pH	13 days, 2 hours, 12 minutes	J-HT
FC-CCR-MW65-0421	pH	13 days, 4 hours, 46 minutes	J-HT

Note:

HT = The maximum recommended hold time was exceeded, and the result should be considered an estimated value.

5. Target analytes detected in the blank? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection (U-MB)
Sulfate	0.990 mg/L	
Boron	0.00845 mg/L	
Calcium	0.0418 mg/L	
Antimony	0.000166 mg/L	FC-CCR-MW62-0421, FC-CCR-MW63-0421, FC-CCR-MW64-0421, FC-CCR-MW65-0421
Arsenic	0.000457 mg/L	FC-CCR-MW62-0421, FC-CCR-MW63-0421, FC-CCR-MW64-0421, FC-CCR-MW65-0421
Barium	0.000370 mg/L	
Cadmium	0.0000900 mg/L	
Selenium	0.000295 mg/L	FC-CCR-MW62-0421, FC-CCR-MW63-0421, FC-CCR-MW64-0421, FC-CCR-MW65-0421
Thallium	0.0000900 mg/L	

Notes:

MB = The same analyte was detected in the sample and its associated blank and the concentration detected in the sample is less than five times the concentration detected in the blank.
mg/L = milligrams per liter

6. LCS recoveries and/or precision within laboratory-specified limits?

(Yes) No N/A

If No:

Analyte	Recovery/Precision	Affected Samples

7. MS performed on a project-specific sample? Yes (No)

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

8. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

a. Is the RPD between primary and duplicate results ≤ 20% or is the difference between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

9. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No

If Yes:

Sample ID	Analysis
FC-CCR-MW62-0421	pH and 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

10. Are non-detect results sufficiently low to meet EPA primary drinking water criteria and/or Alternative GWPS?

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	0.8	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	--	--	SU
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

APS Four Corners CCR Data Review

Laboratory Name:	Eurofins Environment Testing America		
Sample Delivery Group:	J162768-1	**Review Date:**	13 May 2021
Validator's Name:	Marie Bevier	**Reviewed By:**	Denise King

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-MW07-0421	04/27/21 14:09	550-162768-1	
FC-CCR-MW08-0421	04/27/21 12:58	550-162768-2	
FC-CCR-MW40R-0421	04/26/21 10:22	550-162768-3	
FC-CCR-MW49A-0421	04/27/21 15:16	550-162768-4	
FC-CCR-MW52-0421	04/23/21 14:54	550-162768-5	
FC-CCR-MW61-0421	04/23/21 15:34	550-162768-6	
FC-CCR-MW74-0421	04/23/21 13:45	550-162768-7	
FC-CCR-MW75-0421	04/23/21 16:14	550-162768-8	
FC-CCR-MW76-0421	04/26/21 16:37	550-162768-9	
FC-CCR-MW87-0421	04/27/21 09:17	550-162768-10	
FC-CCR-FD04-0421	04/27/21 14:09	550-162768-11	Field duplicate of FC-CCR-MW07-0421

Analytical Methods:

Analyte	Analyte Group	Method
Beryllium, Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium	Metals	EPA Method 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA Method 200.8
Mercury	Metals	EPA Method 245.1
Chloride, Fluoride, Sulfate	Anions	EPA Method 300.0
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 pH within 15 minutes of sampling? Yes (No)
2. Samples analyzed for TDS within 7 days of sampling? (Yes) No
3. Samples analyzed for alkalinity within 14 days of sampling? (Yes) No
4. Samples analyzed for chloride, fluoride, mercury, and sulfate within 28 days of sampling?
   (Yes) No
5. Samples analyzed for other metals within 180 days of sampling?
   (Yes) No

If No:

Sample ID	Analysis	Time Between Collection And Analysis	Effect on Data Usability
FC-CCR-MW07-0421	pH	8 Days, 2 Hours, 53 Minutes	J-HT
FC-CCR-MW08-0421	pH	8 Days, 4 Hours, 4 Minutes	J-HT
FC-CCR-MW40R-0421	pH	9 Days, 6 Hours, 40 Minutes	J-HT
FC-CCR-MW49A-0421	pH	8 Days, 1 Hour, 46 Minutes	J-HT
FC-CCR-MW61-0421	pH	12 Days, 1 Hour, 28 Minutes	J-HT
FC-CCR-MW74-0421	pH	12 Days, 3 Hours, 17 Minutes	J-HT
FC-CCR-MW75-0421	pH	12 Days, 48 Minutes	J-HT
FC-CCR-MW76-0421	pH	9 Days, 25 Minutes	J-HT
FC-CCR-MW87-0421	pH	8 Days, 7 Hours, 45 Minutes	J-HT
FC-CCR-FD04-0421	pH	8 Days, 2 Hours, 53 Minutes	J-HT

Note:

HT = The maximum recommended hold time was exceeded, and the result should be considered an estimated value.

6. Target analytes detected in the blank? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection (U-MB)
Sulfate	0.990 mg/L	
Boron	0.00845 mg/L	
Calcium	0.0418 mg/L	
Magnesium	0.337 mg/L	
Manganese	0.000280 mg/L	
Potassium	0.796 mg/L	
Sodium	1.32 mg/L	
Boron	0.0203 mg/L	
Calcium	0.0624 mg/L	
Magnesium	0.129 mg/L	
Manganese	0.000360 mg/L	
Sodium	0.433 mg/L	
Antimony	0.000166 mg/L	FC-CCR-MW07-0421, FC-CCR-MW08-0421, FC-CCR-MW40R-0421, FC-CCR-MW49A-0421, FC-CCR-MW61-0421, FC-CCR-MW74-0421, FC-CCR-MW75-0421, FC-CCR-MW76-0421, FC-CCR-MW87-0421, FC-CCR-FD04-0421
Arsenic	0.000457 mg/L	FC-CCR-MW07-0421, FC-CCR-MW08-0421, FC-CCR-MW49A-0421, FC-CCR-MW61-0421, FC-CCR-MW74-0421, FC-CCR-MW75-0421, FC-CCR-MW76-0421, FC-CCR-MW87-0421, FC-CCR-FD04-0421
Barium	0.000370 mg/L	
Cadmium	0.0000900 mg/L	FC-CCR-MW08-0421, FC-CCR-MW74-0421, FC-CCR-MW76-0421, FC-CCR-MW87-0421
Selenium	0.000295 mg/L	FC-CCR-MW08-0421, FC-CCR-MW61-0421
Thallium	0.0000900 mg/L	FC-CCR-MW07-0421, FC-CCR-MW40R-0421, FC-CCR-MW74-0421, FC-CCR-MW75-0421, FC-CCR-MW76-0421, FC-CCR-MW87-0421

Notes:

MB = The same analyte was detected in the sample and its associated blank and the concentration detected in the sample is less than five times the concentration detected in the blank.
mg/L = milligrams per liter

7. LCS recoveries and/or precision within laboratory-specified limits?

(Yes) No N/A

If No:

Analyte	Recovery/Precision	Affected Samples

8. MS performed on a project-specific sample? (Yes) No

If Yes:

Spiked Sample ID	Spiked Analyte(s)
FC-CCR-MW49A-0421	Chloride, Fluoride, Sulfate

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-MW49A-0421	Sulfate	-12%, 13%	80 to 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 for this analyte in this sample based on MS recovery.

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
FC-CCR-MW07-0421	FC-CCR-FD04-0421

a. Is the RPD between primary and duplicate results ≤ 20% or is the difference between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
FC-CCR-MW07-0421 and FC-CCR-FD04-0421					
Chloride	400 mg/L	340 J	320 J	6.1%	
Fluoride	0.80 mg/L	0.25 J	0.26 J	3.9%	
Sulfate	400 mg/L	5,700	5,700	0.0%	
Lithium	0.020 mg/L	0.87	0.86	1.2%	
Boron	0.050 mg/L	8.6	8.6	0.0%	
Calcium	2.0 mg/L	470	470	0.0%	
Barium	0.00050 mg/L	0.019	0.017	11%	
Chromium	0.0010 mg/L	0.00073 J	0.00055 J	28%	± RL
Cobalt	0.00050 mg/L	0.000094 J	0.00050 U	NC	± RL
Molybdenum	0.00050 mg/L	0.0022	0.0022	0.0%	
Selenium	0.00050 mg/L	0.027	0.025	7.7%	
Total Dissolved Solids	100 mg/L	8,900	8,900	0.0%	
pH	1.7 SU	7.6	7.6	0.0%	

Notes:

NC = not calculable
± RL = the difference between analyte concentrations is less than the reporting limit, indicating acceptable sampling and analytical precisions.
RPD = relative percent difference
SU = standard pH units

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No

If Yes:

Sample ID	Analysis
FC-CCR-MW07-0421, FC-CCR-MW75-0421	Total dissolved solids
FC-CCR-MW87-0421	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 non-detect results sufficiently low to meet EPA primary drinking water criteria and/or Alternative GWPS?

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	0.8	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	--	--	SU
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

APS Four Corners CCR Data Review

Laboratory Name:	Eurofins Environment Testing America		
Sample Delivery Group:	J162769-1	**Review Date:**	13 May 2021 23 November 2021
Validator's Name:	Marie Bevier	**Reviewed By:**	Denise King

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-MW66-0421	04/21/21 16:02	550-162769-1	
FC-CCR-MW67-0421	04/21/21 09:41	550-162769-2	
FC-CCR-MW68-0421	04/22/21 07:30	550-162769-3	
FC-CCR-MW69-0421	04/21/21 10:38	550-162769-4	
FC-CCR-MW70-0421	04/21/21 13:54	550-162769-5	
FC-CCR-MW71-0421	04/22/21 08:32	550-162769-6	
FC-CCR-MW72-0421	04/22/21 09:22	550-162769-7	
FC-CCR-MW73-0421	04/22/21 11:19	550-162769-8	
FC-CCR-MW83-0421	04/21/21 12:11	550-162769-9	
FC-CCR-MW84-0421	04/21/21 11:27	550-162769-10	
FC-CCR-FD01-0421	04/21/21 09:41	550-162769-11	Field duplicate of FC-CCR-MW67-0421
FC-CCR-MW85-0421	04/21/21 08:59	550-162769-12	
FC-CCR-MW86-0421	04/21/21 15:20	550-162769-13	
FC-CCR-FD02-0421	04/21/21 15:20	550-162769-14	Field duplicate of FC-CCR-MW86-0421

Analytical Methods:

Analyte	Analyte Group	Method
Beryllium, Boron, Calcium, Lithium	Metals	EPA Method 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA Method 200.8
Mercury	Metals	EPA Method 245.1
Chloride, Fluoride, Sulfate	Anions	EPA Method 300.0
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.

NJ The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration 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 pH within 15 minutes of sampling? Yes (No)
2. Samples analyzed for TDS within 7 days of sampling? Yes (No)
3. Samples analyzed for alkalinity within 14 days of sampling? Yes No (N/A)
4. Samples analyzed for chloride, fluoride, mercury, and sulfate within 28 days of sampling?
   (Yes) No
5. Samples analyzed for other metals within 180 days of sampling?
   (Yes) No

If No:

Sample ID	Analysis	Time Between Collection And Analysis	Effect on Data Usability
FC-CCR-MW66-0421	pH	14 Days, 1 Hour	J-HT
FC-CCR-MW67-0421	pH	14 Days, 7 Hours, 21 Minutes	J-HT
FC-CCR-MW68-0421	pH	13 Days, 9 Hours, 32 Minutes	J-HT
FC-CCR-MW69-0421	pH	14 Days, 6 Hours, 24 Minutes	J-HT
FC-CCR-MW70-0421	pH	14 Days, 3 Hours, 8 Minutes	J-HT
FC-CCR-MW71-0421	pH	13 Days, 8 Hours, 30 Minutes	J-HT
FC-CCR-MW72-0421	pH	13 Days, 7 Hours, 40 Minutes	J-HT
FC-CCR-MW73-0421	pH	13 Days, 5 Hours, 43 Minutes	J-HT
FC-CCR-MW83-0421	pH	14 Days, 4 Hours, 51 Minutes	J-HT
FC-CCR-MW84-0421	pH	14 Days, 5 Hours, 35 Minutes	J-HT
FC-CCR-FD01-0421	pH	14 Days, 7 Hours, 21 Minutes	J-HT
FC-CCR-MW85-0421	pH	14 Days, 8 Hours, 3 Minutes	J-HT
FC-CCR-MW86-0421	pH	14 Days, 1 Hour, 42 Minutes	J-HT
FC-CCR-FD02-0421	pH	14 Days, 1 Hour, 42 Minutes	J-HT
FC-CCR-MW66-0421	TDS	15 Days	J-HT
FC-CCR-MW67-0421	TDS	15 Days	J-HT
FC-CCR-MW69-0421	TDS	15 Days	J-HT
FC-CCR-MW70-0421	TDS	15 Days	J-HT
FC-CCR-MW83-0421	TDS	15 Days	J-HT
FC-CCR-MW84-0421	TDS	15 Days	J-HT
FC-CCR-FD01-0421	TDS	15 Days	J-HT
FC-CCR-MW85-0421	TDS	15 Days	J-HT
FC-CCR-MW86-0421	TDS	15 Days	J-HT
FC-CCR-FD02-0421	TDS	15 Days	J-HT

Note:

HT = The maximum recommended hold time was exceeded and the result should be considered an estimated value.

6. Target analytes detected in the blank? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection (U-MB)
Sulfate	0.990 mg/L	
Boron	0.0225 mg/L	
Calcium	0.0815 mg/L	
Magnesium	0.0825 mg/L	
Sodium	0.595 mg/L	
Boron	0.00319 mg/L	
Antimony	0.0000670 mg/L	FC-CCR-FD01-0421, FC-CCR-MW66-0421, FC-CCR-MW67-0421, FC-CCR-MW68-0421, FC-CCR-MW69-0421, FC-CCR-MW84-0421, FC-CCR-MW86-0421
Thallium	0.0000210 mg/L	

Notes:

MB = The same analyte was detected in the sample and its associated blank and the concentration detected in the sample is less than five times the concentration detected in the blank.
mg/L = milligrams per liter

7. LCS recoveries and/or precision within laboratory-specified limits?

(Yes) No N/A

If No:

Analyte	Recovery/Precision	Affected Samples

8. MS performed on a project-specific sample? (Yes) No

If Yes:

Spiked Sample ID	Spiked Analyte(s)
FC-CCR-MW66-0421	Chloride, Fluoride, Sulfate
FC-CCR-MW70-0421	Chloride, Fluoride
FC-CCR-MW86-0421	Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chloride, Chromium, Cobalt, Fluoride, Lead, Lithium, Magnesium, Mercury, Molybdenum, Potassium, Selenium, Sodium, Sulfate

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-MW86-0421 (FC-CCR-FD02-0421)	Barium	140%, MSD	70 to 130%	J-HM
FC-CCR-MW86-0421	Boron	-517%, -691%	70 to 130%	NA4
FC-CCR-MW86-0421	Calcium	16%, 8%	70 to 130%	NA4
FC-CCR-MW86-0421	Magnesium	-938%, -1631%	70 to 130%	NA4
FC-CCR-MW86-0421 (FC-CCR-FD02-0421)	Selenium	138%, 139%	70 to 130%	J-HM
FC-CCR-MW86-0421	Sodium	-39%, -44%	70 to 130%	NA4

Notes:

HM = High matrix spike recovery. Result may be biased high.
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 for this analyte in this sample based on MS recovery.

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
FC-CCR-MW67-0421	FC-CCR-FD01-0421
FC-CCR-MW86-0421	FC-CCR-FD02-0421

a. Is the RPD between primary and duplicate results ≤ 20% or is the difference between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
FC-CCR-MW67-0421 and FC-CCR-FD01-0421					
Chloride	400 mg/L	1,800	1,800	0.0%	
Fluoride	0.80 mg/L	12	12	0.0%	
Sulfate	400 mg/L	13,000	13,000	0.0%	
Lithium	0.020 mg/L	0.39	0.39	0.0%	
Boron	0.10 mg/L	160	160	0.0%	
Calcium	2.0 mg/L	490	490	0.0%	
Arsenic	0.0020 mg/L	0.0018 J	0.0020	11%	
Barium	0.0020 mg/L	0.019	0.018	5.4%	
Cadmium	0.00040 mg/L	0.00027 J	0.00026 J	3.8%	
Cobalt	0.0020 mg/L	0.012	0.011	8.7%	
Molybdenum	0.0020 mg/L	0.044	0.041	7.1%	
Selenium	0.0020 mg/L	0.0042	0.0044	4.7%	
Thallium	0.00040 mg/L	0.0011	0.0011	0.0%	
Total Dissolved Solids	200 mg/L	19,000	20,000	5.1%	
pH	1.7 SU	7.4	7.4	0.0%	
FC-CCR-MW86-0421 and FC-CCR-FD02-0421					
Chloride	400 mg/L	1,300	1,300	0.0%	
Fluoride	0.80 mg/L	0.58 J	0.60 J	3.4%	
Sulfate	400 mg/L	8,900	8,700	2.3%	
Lithium	0.020 mg/L	0.3	0.31	3.3%	
Boron	0.18 mg/L	110	110	0.0%	
Calcium	2.0 mg/L	500	510	2.0%	
Arsenic	0.0020 mg/L	0.0012 J	0.0017 J	34%	± RL
Barium	0.0020 mg/L	0.015	0.014	6.9%	
Cadmium	0.00040 mg/L	0.00028 J	0.00016 J	55%	± RL
Cobalt	0.0020 mg/L	0.0052	0.0049	5.9%	
Molybdenum	0.0020 mg/L	0.0022	0.0018	20%	
Selenium	0.0020 mg/L	0.0046	0.0042	9.1%	
Thallium	0.00040 mg/L	0.00080	0.0007	13%	
Total Dissolved Solids	100 mg/L	14,000	14,000	0.0%	

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
pH	1.7 SU	7.2	7.3	1.4%	

Notes:

± RL = the difference between analyte concentrations is less than the reporting limit, indicating acceptable sampling and analytical precisions.
RPD = relative percent difference
SU = standard pH units

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No

If Yes:

Sample ID	Analysis
FC-CCR-MW86-0421	TDS, pH
FC-CCR-MW83-0421	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 non-detect results sufficiently low to meet EPA primary drinking water criteria and/or Alternative GWPS?

(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	0.8	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	--	--	SU
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

12. Other QC Issues:

At APS' request, Wood reviewed the raw data for the fluoride detection in sample FC-CCR-MW71-0421. The peak appears to be affected by an unknown interferent that shifted the retention time making analyte identification uncertain and may be positively or negatively interfering with the peak are making quantification an estimate. Wood NJ qualified the fluoride result from this sample to indicate that it should be considered both presumptively identified and an estimated value. (NJ-MI)

Note:

MI = The result is affected by an unknown interferent.

APS Four Corners CCR Data Review

Laboratory Name:	Eurofins Environment Testing America		
Sample Delivery Group:	J162771-1	**Review Date:**	14 May 2021
Validator's Name:	Marie Bevier	**Reviewed By:**	Denise King

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-DMX01-0421	04/25/21 10:04	550-162771-1	
FC-CCR-DMX03-0421	04/25/21 13:45	550-162771-2	
FC-CCR-DMX04-0421	04/25/21 15:24	550-162771-3	
FC-CCR-DMX06-0421	04/27/21 10:12	550-162771-4	
FC-CCR-MW01-0421	04/24/21 10:03	550-162771-5	
FC-CCR-MW03-0421	04/24/21 10:46	550-162771-6	
FC-CCR-MW05-0421	04/25/21 14:37	550-162771-7	
FC-CCR-MW06-0421	04/26/21 14:44	550-162771-8	
FC-CCR-MW15-0421	04/27/21 10:56	550-162771-9	
FC-CCR-MW16-0421	04/27/21 11:43	550-162771-10	
FC-CCR-FD03-0421	04/24/21 10:03	550-162771-11	Field duplicate of FC-CCR-MW01-0421
FC-CCR-MW17R-0421	04/25/21 16:53	550-162771-12	
FC-CCR-MW18-0421	04/25/21 16:18	550-162771-13	
FC-CCR-MW19-0421	04/25/21 10:53	550-162771-14	
FC-CCR-MW21-0421	04/24/21 11:36	550-162771-15	
FC-CCR-MW23R-0421	04/25/21 12:06	550-162771-16	
FC-CCR-MW24-0421	04/26/21 13:50	550-162771-17	
FC-CCR-MW30-0421	04/25/21 09:24	550-162771-18	
FC-CCR-MW36R-0421	04/25/21 13:00	550-162771-19	
FC-CCR-MW38R-0421	04/27/21 07:36	550-162771-20	Logged in as FC-CCR-MW384R-0421
FC-CCR-MW56-0421	04/26/21 11:41	550-162771-21	
FC-CCR-FD05-0421	04/25/21 10:53	550-162771-22	Field duplicate of FC-CCR-MW19-0421
FC-CCR-MW57-0421	04/27/21 08:26	550-162771-23	
FC-CCR-MW60-0421	04/24/21 09:30	550-162771-24	
FC-CCR-MW77S-0421	04/24/21 13:51	550-162771-25	
FC-CCR-MW78S-0421	04/24/21 14:57	550-162771-26	
FC-CCR-MW79S-0421	04/24/21 16:29	550-162771-27	
FC-CCR-MW81-0421	04/24/21 15:38	550-162771-28	
FC-CCR-FD06-0421	04/24/21 15:38	550-162771-29	Field duplicate of FC-CCR-MW81-0421, Logged in as FC-CCR-FD061-0421
FC-CCR-SUMP1-0421	04/23/21 08:01	550-162771-30	
FC-CCR-SUMP2-0421	04/23/21 09:38	550-162771-31	
FC-CCR-SUMP3-0421	04/23/21 09:10	550-162771-32	
FC-CCR-SUMP7-0421	04/23/21 10:17	550-162771-33	
FC-CCR-SUMP8-0421	04/23/21 09:55	550-162771-34	
FC-CCR-SUMP9-0421	04/23/21 10:27	550-162771-35	
FC-CCR-SUMP10-0421	04/23/21 10:35	550-162771-36	

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-SUMP11-0421	04/23/21 10:42	550-162771-37	
FC-CCR-SUMP12-0421	04/23/21 10:51	550-162771-38	
FC-CCR-SUMP13-0421	04/23/21 11:01	550-162771-39	
FC-CCR-SUMP14-0421	04/23/21 11:10	550-162771-40	
FC-CCR-SUMP15-0421	04/23/21 11:18	550-162771-41	Logged in with a time of 11:08
FC-CCR-SUMP16-0421	04/23/21 11:29	550-162771-42	
FC-CCR-SUMP17-0421	04/23/21 11:36	550-162771-43	
FC-CCR-SUMP18-0421	04/23/21 11:46	550-162771-44	

Analytical Methods:

Analyte	Analyte Group	Method
Beryllium, Boron, Calcium, Iron, Lithium, Magnesium, Manganese, Potassium, Sodium	Metals	EPA Method 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA Method 200.8
Chloride, Fluoride, Sulfate	Anions	EPA Method 300.0
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.

Eurofins logged in the samples recorded on the COC as FC-CCR-MW38R-0421 and FC-CCR-FD06-0421 as FC-CCR-MW384R-0421 and FC-CCR-FD061-0421, respectively. The collection time for sample FC-CCR-SUMP15-0421 was recorded as 11:18 on the COC but Eurofins logged in the sample with a collection time of 11:08. According to the COC, samples FC-CCR-MW05-0421, FC-CCR-MW18-0421, FC-CCR-MW23-0421, FC-CCR-MW24-0421, and FC-CCR-MW36R-0421 should not have been analyzed for beryllium.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

1. Samples analyzed for pH within 15 minutes of sampling? Yes (No)
2. Samples analyzed for TDS within 7 days of sampling? (Yes) No
3. Samples analyzed for alkalinity within 14 days of sampling? (Yes) No N/A
4. Samples analyzed for chloride, fluoride, mercury, and sulfate within 28 days of sampling? (Yes) No
5. Samples analyzed for other metals within 180 days of sampling? (Yes) No

If No:

Sample ID	Analysis	Time Between Collection And Analysis	Effect on Data Usability
FC-CCR-DMX03-0421	pH	10 Days, 3 Hours, 17 Minutes	J-HT
FC-CCR-DMX04-0421	pH	10 Days, 1 Hour, 38 Minutes	J-HT
FC-CCR-DMX06-0421	pH	8 Days, 6 Hours, 50 Minutes	J-HT
FC-CCR-MW05-0421	pH	10 Days, 2 Hours, 25 Minutes	J-HT
FC-CCR-MW06-0421	pH	9 Days, 2 Hours, 18 Minutes	J-HT
FC-CCR-MW15-0421	pH	8 Days, 6 Hours, 6 Minutes	J-HT
FC-CCR-MW16-0421	pH	8 Days, 5 Hours, 19 Minutes	J-HT
FC-CCR-MW17R-0421	pH	10 Days, 9 Minutes	J-HT
FC-CCR-MW18-0421	pH	10 Days, 44 Minutes	J-HT
FC-CCR-MW23R-0421	pH	10 Days, 4 Hours, 56 Minutes	J-HT
FC-CCR-MW24-0421	pH	9 Days, 3 Hours, 12 Minutes	J-HT
FC-CCR-MW36R-0421	pH	10 Days, 4 Hours, 2 Minutes	J-HT
FC-CCR-MW38R-0421	pH	8 Days, 9 Hours, 26 Minutes	J-HT
FC-CCR-MW56-0421	pH	9 Days, 5 Hours, 21 Minutes	J-HT
FC-CCR-MW57-0421	pH	8 Days, 8 Hours, 36 Minutes	J-HT

Note:

HT = The maximum recommended hold time was exceeded, and the result should be considered an estimated value.

6. Target analytes detected in the blank? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection (U-MB)
Boron	0.00758 mg/L, 0.00631 mg/L	
Calcium	0.0147 mg/L	
Manganese	0.000240 mg/L	
Sodium	0.110 mg/L	
Boron	0.00509 mg/L	
Calcium	0.0157 mg/L	
Manganese	0.000190 mg/L	
Sodium	0.158 mg/L	
Boron	0.0225 mg/L	
Manganese	0.000290 mg/L	
Antimony	0.0000680 mg/L	FC-CCR-DMX03-0421, FC-CCR-DMX04-0421, FC-CCR-DMX06-0421, FC-CCR-MW06-0421, FC-CCR-MW17R-0421
Selenium	0.000103 mg/L	
Thallium	0.0000220 mg/L	FC-CCR-DMX04-0421, FC-CCR-DMX06-0421, FC-CCR-MW15-0421, FC-CCR-MW17R-0421
Antimony	0.0000710 mg/L	FC-CCR-MW56-0421, FC-CCR-MW57-0421
Selenium	0.0000920 mg/L	
Thallium	0.0000190 mg/L	FC-CCR-MW57-0421

Notes:

MB = The same analyte was detected in the sample and its associated blank and the concentration detected in the sample is less than five times the concentration detected in the blank.
mg/L = milligrams per liter

7. LCS recoveries and/or precision within laboratory-specified limits?

Yes (No) N/A

If No:

Analyte	RPD or Recovery	Accuracy or Recovery Limits	Affected Samples
Chloride	115%, LCS	90 to 110%	FC-CCR-DMX03-0421, FC-CCR-DMX04-0421, FC-CCR-DMX06-0421, FC-CCR-MW05-0421 (J-HL)

Note:

HL = High LCS recovery. Result may be biased high.

8. MS performed on a project-specific sample? (Yes) No

If Yes:

Spiked Sample ID	Spiked Analyte(s)
FC-CCR-DMX01-0421, FC-CCR-FD05-0421	Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium
FC-CCR-DMX03-0421	Chloride, Fluoride, Lithium, Sulfate
FC-CCR-DMX06-0421, FC-CCR-MW06-0421, FC-CCR-MW36R-0421, FC-CCR-MW38R-0421	Lithium
FC-CCR-MW15-0421	Fluoride
FC-CCR-MW19-0421	Boron, Cobalt, Molybdenum
FC-CCR-MW23R-0421	Chloride, Fluoride, Sulfate
FC-CCR-MW57-0421	Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium

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-DMX01-0421	Barium	132%, MS	70 to 130%	NA
FC-CCR-DMX01-0421	Selenium	137%, 136%	70 to 130%	NA
FC-CCR-FD05-0421	Selenium	138%, 143%	70 to 130%	NA
FC-CCR-MW15-0421	Fluoride	0%, 0%	80 to 120%	J-LM
FC-CCR-MW57-0421	Calcium	-43%, -41%	70 to 130%	NA4
FC-CCR-MW57-0421	Magnesium	-137%, -133% -24%, -78%	70 to 130%	NA4
FC-CCR-MW57-0421	Sodium	-285%, -415%	70 to 130%	NA4

Notes:

LM = Low matrix spike recovery. Result may be biased low.
NA = Not a target analyte for the spiked sample.
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 for this analyte in this sample based on MS recovery.

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
FC-CCR-MW01-0421	FC-CCR-FD03-0421
FC-CCR-MW19-0421	FC-CCR-FD05-0421
FC-CCR-MW81-0421	FC-CCR-FD06-0421

a. Is the RPD between primary and duplicate results ≤ 20% or is the difference between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
FC-CCR-MW01-0421 and FC-CCR-FD03-0421					
Boron	0.050 mg/L	56	56	0.0%	
Cobalt	0.0020 mg/L	0.066	0.070	5.9%	
Molybdenum	0.0020 mg/L	0.031	0.034	9.2%	
FC-CCR-MW19-0421 and FC-CCR-FD05-0421					
Boron	0.050 mg/L	2.0	2.0	0.0%	
Cobalt	0.0013 mg/L	0.00052	0.0013 J	86%	± RL
Molybdenum	0.0013 mg/L	0.0030	0.0040	29%	± RL
FC-CCR-MW81-0421 and FC-CCR-FD06-0421					
Boron	0.050 mg/L	38	40	5.1%	
Cobalt	0.0020 mg/L	0.020	0.020	0.0%	
Molybdenum	0.0020 mg/L	0.0072	0.0073	1.4%	

Notes:

± RL = the difference between analyte concentrations is less than the reporting limit, indicating acceptable sampling and analytical precisions.
RPD = relative percent difference

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No

If Yes:

Sample ID	Analysis
FC-CCR-DMX06-0421, FC-CCR-MW38R-0421	pH
FC-CCR-MW06-0421	TDS
FC-CCR-MW18-0421	Alkalinity

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 non-detect results sufficiently low to meet EPA primary drinking water criteria and/or Alternative GWPS?

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	0.8	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	--	--	SU
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

APS Four Corners CCR Data Review

Laboratory Name:	Radiation Safety Engineering, Inc.		
Sample Delivery Group:	Not Applicable	**Review Date:**	12/10/2021
Validator's Name:	Grace Graner	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-MW66-1121	11/12/2021 16:08	RSE67816	
FC-CCR-MW67-1121	11/12/2021 08:13	RSE67817	
FC-CCR-MW68-1121	11/12/2021 16:14	RSE67818	
FC-CCR-MW69-1121	11/12/2021 15:27	RSE67819	
FC-CCR-MW70-1121	11/12/2021 14:44	RSE67820	
FC-CCR-MW71-1121	11/12/2021 12:40	RSE67821	
FC-CCR-MW72-1121	11/12/2021 13:31	RSE67822	
FC-CCR-MW73-1121	11/13/2021 08:31	RSE67823	
FC-CCR-MW83-1121	11/12/2021 10:13	RSE67824	
FC-CCR-MW84-1121	11/12/2021 09:09	RSE67825	
FC-CCR-MW85-1121	11/12/2021 11:27	RSE67826	
FC-CCR-MW86-1121	11/12/2021 15:31	RSE67827	
FC-CCR-FD01-1121	11/12/2021 09:09	RSE67828	Field Duplicate of FC-CCR-MW84-1121
FC-CCR-FD02-1121	11/12/2021 15:31	RSE67829	Field Duplicate of FC-CCR-MW86-1121
FC-CCR-MW84-1121-MS	11/12/2021 09:09	RSE67830	Assessed as a field duplicate pair
FC-CCR-MW84-1121-SD	11/12/2021 09:09	RSE67831	
FC-CCR-DMX03-1121	11/14/2021 14:16	RSE67846	
FC-CCR-DMX04-1121	11/16/2021 11:02	RSE67847	
FC-CCR-DMX06-1121	11/18/2021 09:00	RSE67848	
FC-CCR-MW06-1121	11/16/2021 13:03	RSE67849	
FC-CCR-MW15-1121	11/18/2021 09:48	RSE67850	
FC-CCR-MW16-1121	11/18/2021 10:47	RSE67851	
FC-CCR-MW17R-1121	11/16/2021 15:01	RSE67852	
FC-CCR-MW38R-1121	11/16/2021 15:32	RSE67853	
FC-CCR-MW56-1121	11/16/2021 14:10	RSE67854	
FC-CCR-MW57-1121	11/17/2021 11:53	RSE67855	

Analytical Method(s):

Analyte	Analyte Group	Method
Radium 226, Radium 228, Total Radium	Radionuclides	Gamma Ray 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 pH within 15 minutes of sampling? Yes No (N/A)
2. Samples analyzed for TDS within 7 days of sampling? Yes No (N/A)
3. Samples analyzed for chloride, fluoride, mercury, and sulfate within 28 days of sampling?
   Yes No (N/A)
4. Samples analyzed for other metals and radionuclides within 180 days of sampling?
   (Yes) No N/A

If No:

Sample ID	Analysis	Time Between Collection And Analysis	Effect on Data Usability

Note:

HT = The maximum recommended hold time was exceeded, and the result should be considered an estimated value.

5. Target analytes detected in the blank? Yes No (N/A)

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection

6. LCS recoveries within laboratory-specified limits? Yes No (N/A)

If No:

Analyte	Recovery	Affected Samples

7. MS performed on a project-specific sample? Yes (No)

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

8. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
FC-CCR-MW84-1121	FC-CCR-FD01-1121
FC-CCR-MW86-1121	FC-CCR-FD02-1121
FC-CCR-MW84-1121-MS	FC-CCR-MW84-1121-SD

a. Is the RPD between primary and duplicate results ≤ 20% or is the difference between analyte concentrations ≤ the reporting limit?

Yes (No) N/A

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
Samples FC-CCR-MW84-1121 and FC-CCR-FD01-1121					
Total Radium	1 pCi/L	2.1 ± 0.4	2.3 ± 0.4	9%	
Radium 226	1 pCi/L	1.4 ± 0.2	1.2 ± 0.2	15.4%	
Radium 228	1 pCi/L	0.7 ± 0.3	1.1 ± 0.3	44%	± RL
Samples FC-CCR-MW86-1121 and FC-CCR-FD02-1121					
Total Radium	1 pCi/L	0.5 ± 0.2	1.9 ± 0.4	117%	J-FD
Radium 226	1 pCi/L	0.5 ± 0.2	0.5 ± 0.2	0.0%	
Radium 228	1 pCi/L	< 0.6	1.4 ± 0.3	NC	± RL
Samples FC-CCR-MW84-1121-MS and FC-CCR-MW84-1121-SD					
Total Radium	1 pCi/L	1.6 ± 0.2	1.1 ± 0.2	37%	± RL
Radium 226	1 pCi/L	1.7 ± 0.3	1.4 ± 0.3	19%	
Radium 228	1 pCi/L	3.3 ± 0.4	2.5 ± 0.4	28%	± RL

Notes:

± RL = The difference between analyte concentrations is less than the reporting limit, indicating acceptable sampling and analytical precision.
FD = Imprecision between primary and field duplicate results.
NC = not calculable
pCi/L = picocuries per liter

9. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No)

If Yes:

Sample ID	Analysis

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

10. Are non-detect results sufficiently low to meet EPA primary drinking water criteria and/or Alternative GWPS?

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	0.8	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

APS Four Corners CCR Data Review

Laboratory Name:	Radiation Safety Engineering, Inc.		
Sample Delivery Group:	Not Applicable	**Review Date:**	12/16/2021
Validator's Name:	Grace Graner	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-MW07-1121	11/18/2021 12:51	67832	
FC-CCR-MW08-1121	11/18/2021 11:54	67833	
FC-CCR-MW49A-1121	11/15/2021 8:43	67834	
FC-CCR-MW61-1121	11/13/2021 10:35	67835	
FC-CCR-MW75-1121	11/13/2021 11:23	67836	
FC-CCR-MW87-1121	11/17/2021 12:56	67837	
FC-CCR-FD04-1121	11/17/2021 12:56	67838	Field Duplicate of FC-CCR-MW87-1121

Analytical Methods:

Analyte	Analyte Group	Method
Radium 226, Radium 228, Total Radium	Radionuclides	Gamma Ray 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 pH within 15 minutes of sampling? Yes No (N/A)
2. Samples analyzed for TDS within 7 days of sampling? Yes No (N/A)
3. Samples analyzed for chloride, fluoride, mercury, and sulfate within 28 days of sampling?
   Yes No (N/A)
4. Samples analyzed for radionuclides and other metals within 180 days of sampling?
   (Yes) No N/A

If No:

Sample ID	Analysis	Time Between Collection And Analysis	Effect on Data Usability

5. Target analytes detected in the blank? Yes No (N/A)

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection

6.

7. LCS recoveries within laboratory-specified limits? Yes No (N/A)

If No:

Analyte	Recovery	Affected Samples

8. MS performed on a project-specific sample? Yes (No)

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-MW87-1121	FC-CCR-FD04-1121

a. Is the RPD between primary and duplicate results ≤ 20% or is the difference between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
Samples FC-CCR-MW87-1121 and FC-CCR-FD04-1121					
Total Radium	1 pCi/L	0.6 ± 0.2	0.7 ± 0.2	15%	
Radium 226	1 pCi/L	0.6 ± 0.2	0.7 ± 0.2	15%	

Note:

pCi/L = picocuries per liter

10. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No)

If Yes:

Sample ID	Analysis

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 non-detect results sufficiently low to meet EPA primary drinking water criteria and/or Alternative GWPS?

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	0.8	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

APS Four Corners CCR Data Review

Laboratory Name:	Radiation Safety Engineering, Inc.		
Sample Delivery Group:	Not Applicable	**Review Date:**	12/15/2021
Validator's Name:	Grace Graner	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-MW62-1121	11/15/2021 11:27	67839	
FC-CCR-MW63-1121	11/15/2021 12:58	67840	
FC-CCR-MW64-1121	11/15/2021 13:58	67841	
FC-CCR-MW65-1121	11/15/2021 10:47	67842	
FC-CCR-SW1-1121	11/15/2021 9:28	67843	
FC-CCR-SW2-1121	11/15/2021 12:22	67844	
FC-CCR-SW3-1121	11/15/2021 13:22	67845	

Analytical Methods:

Analyte	Analyte Group	Method
Radium 226, Radium 228, Total Radium	Radionuclides	Gamma Ray 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 pH within 15 minutes of sampling? Yes No (N/A)
2. Samples analyzed for TDS within 7 days of sampling? Yes No (N/A)
3. Samples analyzed for chloride, fluoride, mercury, and sulfate within 28 days of sampling?
   Yes No (N/A)
4. Samples analyzed for radionuclides other metals within 180 days of sampling?
   (Yes) No N/A

If No:

Sample ID	Analysis	Time Between Collection And Analysis	Effect on Data Usability

Note:

HT = The maximum recommended hold time was exceeded, and the result should be considered an estimated value.

5. Target analytes detected in the blank? Yes No (N/A)

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection

6. LCS recoveries within laboratory-specified limits? Yes No (N/A)

If No:

Analyte	Recovery	Affected Samples

7. MS performed on a project-specific sample? Yes (No)

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

8. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

a. Is the RPD between primary and duplicate results ≤ 20% or is the difference between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes

9. Did the laboratory perform duplicate analyses on project-specific samples?

Yes (No)

If Yes:

Sample ID	Analysis

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

10. Are non-detect results sufficiently low to meet EPA primary drinking water criteria and/or Alternative GWPS?

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	0.8	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

APS Four Corners CCR Data Review

ILaboratory Name:	Eurofins Environment Testing America		
Sample Delivery Group:	550-174372-1	**Review Date:**	12/9/2021
Validator's Name:	Daniel Duran	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-MW49A-1121	11/15/21 08:43	550-174372-1	
FC-CCR-MW52-1121	11/13/21 09:23	550-174372-2	
FC-CCR-MW61-1121	11/13/21 10:35	550-174372-3	
FC-CCR-MW75-1121	11/13/21 11:23	550-174372-4	
FC-CCR-FD03-1121	11/13/21 09:23	550-174372-5	Field Duplicate of FC-CCR-MW52-1121

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Lithium, Boron, Calcium	Metals	EPA 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA 200.8 LL
Mercury	Mercury	EPA 245.1
Alkalinity	General Chemistry	SM 2320B
Total Dissolved Solids	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.

Cannot verify due to illegible sections in scanned COC copies.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

1. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A
2. Samples analyzed for TDS within 7 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 chloride, fluoride, mercury, and sulfate within 28 days of sampling?
   (Yes) No N/A
5. Samples analyzed for other metals within 180 days of sampling?
   (Yes) No N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis (minutes)	Effect on Data Usability
FC-CCR-MW49A-1121	pH	7,262	J-HT
FC-CCR-MW61-1121	pH	10,030	J-HT
FC-CCR-MW75-1121	pH	14,576	J-HT

Note:

HT = The maximum recommended hold time was exceeded, and the result should be considered an estimated value.

6. Target analytes detected in the blank? (Yes) No N/A

If Yes:

Detected Analyte	Concentration (mg/L)	Samples with concentrations less than 5 times the blank detection
Beryllium	0.000150	None
Boron	0.00278	None
Sodium	0.140	None
Selenium	0.0000920	None
Barium	0.000794	None

Notes:

MB = The same analyte was detected in the sample and its associated blank and the concentration detected in the sample is less than five times the concentration detected in the blank.

mg/L = milligrams per liter

7. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	Affected Samples

8. MS performed on a project-specific sample? Yes (No)

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-MW52-1121	FC-CCR-FD03-1121

a. Is the RPD between primary and duplicate results ≤ 20% or is the difference between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
Samples FC-CCR-MW52-1121 and FC-CCR-FD03-1121					
Lithium	0.020 mg/L	0.65	0.65	0%	
Boron	0.050 mg/L	11	9.7	13%	
Calcium	2.0 mg/L	450	420	7%	
Cobalt	0.0010 mg/L	0.12	0.12	0%	
Molybdenum	0.0010 mg/L	0.0031	0.0031	0%	

Notes:

± RL = The difference between analyte concentrations is less than the reporting limit, indicating acceptable sampling and analytical precision.
FD = Imprecision between primary and field duplicate results.
mg/L = milligrams per liter
NC = not calculable
S.U. = standard units

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No

If Yes:

Sample ID	Analysis
FC-CCR-MW75-1121	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 non-detect results sufficiently low to meet EPA primary drinking water criteria and/or Alternative GWPS?

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	0.8	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 Testing America		
Sample Delivery Group:	550-174392	**Review Date:**	14 December 2021
Validator's Name:	Rebecca Enzor	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-DMX01	11/14/2021 11:22	550-174392-1	
FC-CCR-DMX03-1121	11/14/2021 14:16	550-174392-2	
FC-CCR-MW01	11/13/2021 13:35	550-174392-3	
FC-CCR-MW03	11/13/2021 14:06	550-174392-4	
FC-CCR-FD05	11/14/2021 10:18	550-174392-5	Field Duplicate of FC-CCR-MW81
FC-CCR-MW19	11/14/2021 13:12	550-174392-6	
FC-CCR-MW21	11/13/2021 14:40	550-174392-7	
FC-CCR-MW23R	11/14/2021 13:44	550-174392-8	
FC-CCR-MW30	11/13/2021 15:57	550-174392-9	
FC-CCR-MW36R	11/14/2021 14:54	550-174392-10	
FC-CCR-FD06	11/14/2021 11:22	550-174392-11	Field Duplicate of FC-CCR-DMX01
FC-CCR-MW60	11/13/2021 13:06	550-174392-12	
FC-CCR-MW77S	11/13/2021 15:23	550-174392-13	
FC-CCR-MW78S	11/14/2021 8:58	550-174392-14	
FC-CCR-MW79S	11/14/2021 10:50	550-174392-15	
FC-CCR-MW81	11/14/2021 10:18	550-174392-16	
FC-CCR-MW82S	11/14/2021 12:35	550-174392-17	
FC-CCR-FD07	11/13/2021 15:23	550-174392-18	Field Duplicate of FC-CCR-MW77S

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Lithium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium	Metals (ICP)	EPA 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals (ICP/MS)	EPA 200.8
Alkalinity	General Chemistry	SM2320B
Total Dissolved Solids	General Chemistry	SM2540C
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.

The analyte lists have been greyed out and are illegible, with the exception of 200.7 Total Lithium.

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-DMX03	pH	9 days	J/HT
FC-CCR-MW23R	pH	9 days	J/HT
FC-CCR-MW82S	pH	9 days	J/HT

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
Boron	0.0623 mg/L		
Calcium	0.0771 mg/L		
Manganese	0.00108 mg/L		
Magnesium	0.542 mg/L		
Antimony	0.0000430 mg/L	FC-CCR-DMX03	U/MB
Barium	0.000317 mg/L		

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-MW77S	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-MW77S	Boron	10%, 16%	70-130%	NA4

Note:

NA4 = The concentration detected in the unspiked native sample is greater than four times the spike concentration and it is not possible to assess data usability for this analyte in this sample based on MS recovery.

9. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
FC-CCR-MW81	FC-CCR-FD05
FC-CCR-DMX0	FC-CCR-FD06
FC-CCR-MW77S	FC-CCR-FD07

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

Analyte	Average Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
Samples CH-CCR-W125-1021 and CH-CCR-FD05-1021					
Lithium	0.020 mg/L	0.65	0.65	0.0%	
Boron	0.050 mg/L	11	9.7	12.6%	
Calcium	2.0 mg/L	450	420	6.9%	
Cobalt	0.0010 mg/L	0.12	0.12	0%	
Molybdenum	0.0010 mg/L	0.0031	0.0031	0.0%	
Samples FC-CCR-MW81 and FC-CCR-FD05					
Boron	0.050 mg/L	45	43	4.5%	
Cobalt	0.0010 mg/L	0.023	0.022	4%	
Molybdenum	0.0005 mg/L	0.0035	0.0034	2.9%	
Samples FC-CCR-DMX01 and FC-CCR-FD06					
Boron	0.050 mg/L	99	100	1.0%	
Cobalt	0.0010 mg/L	0.00073 J	0.001 J	31%	± RL
Molybdenum	0.0005 mg/L	0.019	0.021	10.0%	
Samples FC-CCR-MW77S and FC-CCR-FD07					
Boron	0.050 mg/L	11	12	8.7%	
Cobalt	0.0010 mg/L	0.0058	0.0057	2%	
Molybdenum	0.0005 mg/L	0.02	0.02	0.0%	

Notes:

mg/L = milligrams per liter
± RL = The difference between analyte concentrations is less than the reporting limit, indicating acceptable sampling and analytical precision.

10. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No N/A

If Yes:

Sample ID	Analysis
FC-CCR-DMX03	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
FC-CCR-DMX03	Alkalinity as CaCO3	J/HD
FC-CCR-DMX03	Bicarbonate Alkalinity as CaCO3	J/HD

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

APS Four Corners CCR Data Review

Laboratory Name:	Eurofins Environment Testing America		
Sample Delivery Group:	550-174641-1	**Review Date:**	January 24, 2022
Validator's Name:	Caitlin Riechmann	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-DMX04-1121	11/16/21 11:02	550-174641-1	
FC-CCR-DMX06-1121	11/18/21 09:00	550-174641-2	
FC-CCR-MW05-1121	11/16/21 09:45	550-174641-3	
FC-CCR-MW06-1121	11/16/21 13:01	550-174641-4	
FC-CCR-MW11-1121	11/18/21 13:45	550-174641-5	
FC-CCR-MW15-1121	11/18/21 09:48	550-174641-6	
FC-CCR-MW16-1121	11/18/21 10:47	550-174641-7	
FC-CCR-MW17R-1121	11/16/21 15:01	550-174641-8	
FC-CCR-MW18-1121	11/16/21 10:23	550-174641-9	
FC-CCR-MW24-1121	11/16/21 12:20	550-174641-10	
FC-CCR-MW38R-1121	11/16/21 15:32	550-174641-11	
FC-CCR-MW56-1121	11/16/21 14:10	550-174641-12	
FC-CCR-MW57-1121	11/17/21 11:53	550-174641-13	
FC-CCR-SUMP1-1121	11/17/21 08:05	550-174641-14	
FC-CCR-SUMP2-1121	11/17/21 08:12	550-174641-15	
FC-CCR-SUMP3-1121	11/17/21 08:12	550-174641-16	
FC-CCR-SUMP7-1121	11/17/21 08:37	550-174641-17	
FC-CCR-SUMP8-1121	11/17/21 08:33	550-174641-18	
FC-CCR-SUMP9-1121	11/17/21 08:47	550-174641-19	
FC-CCR-SUMP10-1121	11/17/21 08:55	550-174641-20	
FC-CCR-SUMP11-1121	11/17/21 09:05	550-174641-21	
FC-CCR-SUMP12-1121	11/17/21 09:11	550-174641-22	
FC-CCR-SUMP13-1121	11/17/21 09:16	550-174641-23	
FC-CCR-SUMP14-1121	11/17/21 09:26	550-174641-24	
FC-CCR-SUMP15-1121	11/17/21 09:32	550-174641-25	
FC-CCR-SUMP16-1121	11/17/21 09:37	550-174641-26	
FC-CCR-SUMP17-1121	11/17/21 09:43	550-174641-27	
FC-CCR-SUMP18-1121	11/17/21 09:50	550-174641-28	
FC-CCR-FD07-1121	11/17/21 09:50	550-174641-29	Field Duplicate of FC-CCR-SUMP18-1121

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Lithium, Boron, Calcium, Iron, Magnesium, Manganese Potassium, Sodium	Metals	EPA 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA 200.8
Alkalinity	General Chemistry	SM 2320B
Total Dissolved Solids	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.

Cannot verify due to illegible sections in scanned COC copies.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

1. Samples analyzed for pH within 15 minutes of sampling? (Yes) No N/A

2. Samples analyzed for TDS within 7 days of sampling? (Yes) No N/A

3. Samples analyzed for chloride, fluoride, mercury, and sulfate within 28 days of sampling?

(Yes) No N/A

4. Samples analyzed for other metals within 180 days of sampling?

(Yes) No N/A

If No:

Sample ID	Analysis	Time Between Collection And Analysis	Effect on Data Usability
FC-CCR-DMX04-1121	pH	7 days, 3 hours, 17 minutes	J-HT
FC-CCR-DMX04-1121	Total Dissolved Solids	14 days	J-HT
FC-CCR-DMX06-1121	pH	5 days, 5 hours, 19 minutes	J-HT
FC-CCR-MW05-1121	pH	7 days, 4 hours, 34 minutes	J-HT
FC-CCR-MW05-1121	Total Dissolved Solids	14 days	J-HT
FC-CCR-MW06-1121	pH	5 days, 1 hour, 18 minutes	J-HT
FC-CCR-MW11-1121	pH	5 days, 0 hour, 34 minutes	J-HT
FC-CCR-MW15-1121	pH	6 days, 12 hours, 47 minutes	J-HT
FC-CCR-MW16-1121	pH	5 days, 23 hours, 48 minutes	J-HT
FC-CCR-MW17R-1121	pH	7 days, 19 hours, 34 minutes	J-HT
FC-CCR-MW18-1121	pH	8 days, 0 hour, 12 minutes	J-HT
FC-CCR-MW18-1121	Total Dissolved Solids	14 days	J-HT
FC-CCR-MW24-1121	pH	7 days, 22 hours, 15 minutes	J-HT
FC-CCR-MW24-1121	Total Dissolved Solids	14 days	J-HT
FC-CCR-MW38R-1121	pH	7 days, 19 hours, 3 minutes	J-HT
FC-CCR-MW56-1121	pH	7 days, 20 hours, 25 minutes	J-HT
FC-CCR-MW56-1121	Total Dissolved Solids	14 days	J-HT
FC-CCR-MW57-1121	pH	16 days, 5 hours, 27 minutes	J-HT
FC-CCR-SUMP15-1121	Total Dissolved Solids	13 days	J-HT

Note:

HT = The maximum recommended hold time was exceeded, and the result should be considered an estimated value.

5. Target analytes detected in the blank? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection
Beryllium	0.000100 mg/L	None
Boron	0.00414 mg/L	None
Manganese	0.000460 mg/L	None
Boron	0.0168 mg/L	None
Barium	0.000280 mg/L	None
Antimony	0.0000510 mg/L	FC-CCR-MW15-1121, FC-CCR-MW16-1121, FC-CCR-MW17R-1121, FC-CCR-MW38R-1121, FC-CCR-MW56-1121, FC-CCR-DMX06-1121

Notes:

MB = The same analyte was detected in the sample and its associated blank and the concentration detected in the sample is less than five times the concentration detected in the blank.

mg/L = milligrams per liter

6. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	Affected Samples

7. MS performed on a project-specific sample? (Yes) No

If Yes:

Spiked Sample ID	Spiked Analyte(s)
FC-CCR-SUMP18-1121	Chloride, Boron, Iron, Manganese, Magnesium, Cobalt, and Molybdenum
FC-CCR-MW18-1121	Fluoride, Chloride, and Sulfate

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-SUMP18-1121	Magnesium	328%, -207%	70 – 130%	NA4

Note:

NA4 = The concentration detected in the unspiked native sample is greater than four times the spike concentration and it is not possible to assess data usability for this analyte in this sample based on MS recovery.

8. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
FC-CCR-SUMP18-1121	FC-CCR-FD07-1121

a. Is the RPD between primary and duplicate results ≤ 20% or is the difference between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
Samples FC-CCR-SUMP18-1121 and FC-CCR-FD07-1121					
Chloride	400 mg/L	1,700	1,700	0.0%	
Boron	0.050 mg/L	4.6	5.4	16%	
Iron	0.10 mg/L	0.31	0.33	6.3%	
Magnesium	10 mg/L	3,200	3,500	9.0%	
Manganese	0.010 mg/L	0.032	0.040	22%	± RL
Cobalt	0.0010 mg/L	0.0013	0.0011	17%	
Molybdenum	0.0020 mg/L	0.0036	0.0032	12%	
Total Dissolved Solids	200 mg/L	37,000	38,000	2.7%	

Notes:

± RL = The difference between analyte concentrations is less than the reporting limit, indicating acceptable sampling and analytical precision.
mg/L = milligrams per liter

9. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No

If Yes:

Sample ID	Analysis
FC-CCR-DMX04-1121	Alkalinity and Total Dissolved Solids
FC-CCR-SUMP9-1121	Total Dissolved Solids
FC-CCR-FD07-1121	Total Dissolved Solids
FC-CCR-MW17R-1121	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

10. Other QC Issues

At Wood's request, samples FC-CCR-MW15-1121, FC-CCR-MW56-1121, and FC-CCR-MW57-1121 were re-digested and reanalyzed for selenium on January 5, 2022. The results from the re-digestion and reanalysis were more consistent with the historical data than the original results. Wood excluded the original selenium results for these samples from the dataset and recommend using the results from the re-digestion and reanalysis for reporting purposes. (R-EXC)

Note:

EXC = The result should be excluded from the dataset. Overall completeness is not affected because there are more than one set of results for the same parameter in the same sample.

11. Are non-detect results sufficiently low to meet EPA primary drinking water criteria and/or Alternative GWPS?

(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	0.8	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

APS Four Corners CCR Data Review

Laboratory Name:	Eurofins Environment Testing America		
Sample Delivery Group:	550-174373-1	**Review Date:**	12/13/2021
Validator's Name:	Grace Graner	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-MW66-1121	11/12/2021 16:08	550-174373-1	
FC-CCR-MW67-1121	11/12/2021 08:13	550-174373-2	
FC-CCR-MW68-1121	11/12/2021 16:14	550-174373-3	
FC-CCR-MW69-1121	11/12/2021 15:27	550-174373-4	
FC-CCR-MW70-1121	11/12/2021 14:44	550-174373-5	
FC-CCR-MW71-1121	11/12/2021 12:40	550-174373-6	
FC-CCR-MW72-1121	11/12/2021 13:31	550-174373-7	
FC-CCR-MW73-1121	11/12/2021 08:31	550-174373-8	
FC-CCR-MW83-1121	11/12/2021 10:13	550-174373-9	
FC-CCR-MW84-1121	11/12/2021 09:09	550-174373-10	
FC-CCR-FD01-1121	11/12/2021 09:09	550-174373-11	Field Duplicate for FC-CCR-MW84-1121
FC-CCR-MW85-1121	11/12/2021 11:27	550-174373-12	
FC-CCR-MW86-1121	11/12/2021 15:31	550-174373-13	
FC-CCR-FD02-1121	11/12/2021 15:31	550-174373-14	Field Duplicate for FC-CCR-MW86-1121

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Lithium, Boron, Calcium	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	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 pH within 15 minutes of sampling? Yes (No) N/A
2. Samples analyzed for TDS within 7 days of sampling? (Yes) No N/A
3. Samples analyzed for chloride, fluoride, mercury, and sulfate within 28 days of sampling?
   (Yes) No N/A
4. Samples analyzed for other metals within 180 days of sampling?
   (Yes) No N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis (minutes)	Effect on Data Usability
FC-CCR-MW66-1121	pH	15,731	J-HT
FC-CCR-MW67-1121	pH	16,206	J-HT
FC-CCR-MW68-1121	pH	17,165	J-HT
FC-CCR-MW69-1121	pH	17,212	J-HT
FC-CCR-MW70-1121	pH	15,815	J-HT
FC-CCR-MW71-1121	pH	15,939	J-HT
FC-CCR-MW72-1121	pH	15,888	J-HT
FC-CCR-MW73-1121	pH	14,748	J-HT
FC-CCR-MW83-1121	pH	16,086	J-HT
FC-CCR-MW84-1121	pH	16,150	J-HT
FC-CCR-FD01-1121	pH	16,150	J-HT
FC-CCR-MW85-1121	pH	16,012	J-HT
FC-CCR-MW86-1121	pH	15,768	J-HT
FC-CCR-FD02-1121	pH	15,768	J-HT

Note:

HT = The maximum recommended hold time was exceeded, and the result should be considered an estimated value.

5. Target analytes detected in the blank? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection
Beryllium	0.000190 mg/L	None
Boron	0.00288 mg/L	None
Calcium	0.0246 mg/L	None
Selenium	0.0000920 mg/L	None
Barium	0.000794 mg/L	None
Barium	0.00419 mg/L	None

Notes:

MB = The same analyte was detected in the sample and its associated blank and the concentration detected in the sample is less than five times the concentration detected in the blank.

mg/L = milligrams per liter

6. LCS recoveries within laboratory-specified limits? Yes (No) N/A

If No:

Analyte	Recovery	Affected Samples
Mercury	84% (85 – 115% limits)	FC-CCR-MW67-1121, FC-CCR-MW70-1121, FC-CCR-MW71-1121, FC-CCR-MW73-1121

7. MS performed on a project-specific sample? (Yes) No

If Yes:

Spiked Sample ID	Spiked Analyte(s)
FC-CCR-MW84-1121	Chloride, Fluoride, Sulfate, Boron, Calcium, Beryllium, Lithium, Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium, 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-MW84-1121 FC-CCR-FD01-1121	Sulfate	67%, 67%	80 – 120%	J-LM
FC-CCR-MW84-1121	Boron	234%, 53%	70 – 130%	NA4
FC-CCR-MW84-1121	Calcium	151%, MS	70 – 130%	NA4
FC-CCR-MW84-1121 FC-CCR-FD01-1121	Barium	133%, MS	70 – 130%	J-HM

Notes:

HM – High matrix spike recovery. Result may be biased high.
LM = Low matrix spike recovery. Result may be biased low.
NA4 = The concentration detected in the unspiked native sample is greater than four times the spike concentration and it is not possible to assess data usability for this analyte in this sample based on matrix spike recovery.

8. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
FC-CCR-MW84-1121	FC-CCR-FD01-1121
FC-CCR-MW86-1121	FC-CCR-FD02-1121

a. Is the RPD between primary and duplicate reults ≤ 20% or is the difference between analyte concentrations ≤ the reporting limit?

Yes (No) N/A

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
Samples FC-CCR-MW84-1121 and FC-CCR-FD01-1121					
Chloride	400 mg/L	1300	1200	8.0%	
Fluoride	0.80 mg/L	0.12 J	0.12 J	0.0%	
Sulfate	400 mg/L	10000	9800	2.0%	
Lithium	0.020 mg/L	0.24	0.24	0.0%	
Boron	0.050 mg/L	92	96	4.3%	
Calcium	2.0 mg/L	450	500	11%	
Antimony	0.0020 mg/L	0.00013 J	0.0020 U	NC	± RL
Barium	0.0010 mg/L	0.019	0.017	11%	
Cadmium	0.00020 mg/L	0.00031	0.00027	14%	
Cobalt	0.0010 mg/L	0.0079	0.0078	1.3%	
Molybdenum	0.0010 mg/L	0.0014	0.0012	15%	
Selenium	0.0010 mg/L	0.030	0.032	6.5%	
Thallium	0.00020 mg/L	0.00071	0.00041	54%	J-FD
Total Dissolved Solids	100 mg/L	13000	13000	0.0%	
pH	1.7 SU	7.1	7.2	1.4%	
Samples FC-CCR-MW86-1121 and FC-CCR-FD02-1121					
Chloride	400 mg/L	1600	1600	0.0%	
Fluoride	0.80 mg/L	0.56	0.55	1.8%	
Sulfate	400 mg/L	11000	11000	0.0%	
Lithium	0.020 mg/L	0.35	0.36	2.8%	
Boron	0.050 mg/L	120	120	0.0%	
Calcium	2.0 mg/L	510	490	4.0%	
Antimony	0.0020 mg/L	0.00010	0.000090	11%	
Barium	0.0010 mg/L	0.017	0.017	0.0%	
Cadmium	0.00020 mg/L	0.00020	0.00017	16%	
Chromium	0.0020 mg/L	0.0014	0.0014	0.0%	
Cobalt	0.0010 mg/L	0.0065	0.0063	3.1%	
Lead	0.0010 mg/L	0.00056	0.0010 U	NC	± RL
Molybdenum	0.0010 mg/L	0.0011	0.0011	0.0%	
Selenium	0.0010 mg/L	0.0013	0.0021	47%	± RL
Thallium	0.00020 mg/L	0.00085	0.00083	2.4%	

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
Total Dissolved Solids	100 mg/L	15000	14000	6.9%	
pH	1.7 SU	7.2	7.2	0.0%	

Notes:

± RL = The difference between analyte concentrations is less than the reporting limit, indicating acceptable sampling and analytical precision.
FD = Imprecision between primary and field duplicate results.
mg/L = milligrams per liter
NC = not calculable
SU = standard units

9. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No

If Yes:

Sample ID	Analysis
FC-CCR-MW68-1121, FC-CCR-MW85-1121	Total Dissolved Solids
FC-CCR-MW69-1121, FC-CCR-MW86-1121	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

10. Are non-detect results sufficiently low to meet EPA primary drinking water criteria and/or Alternative GWPS?

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	0.8	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

APS Four Corners CCR Data Review

Laboratory Name:	Eurofins Environment Testing America		
Sample Delivery Group:	550-174394-1	**Review Date:**	12/14/2021
Validator's Name:	Grace Graner	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-MW62-1121	11/15/2021 11:28	550-174394-1	
FC-CCR-MW63-1121	11/15/2021 12:58	550-174394-2	
FC-CCR-MW64-1121	11/15/2021 13:58	550-174394-3	
FC-CCR-MW65-1121	11/15/2021 10:47	550-174394-4	
FC-CCR-SW1-1121	11/15/2021 09:28	550-174394-5	
FC-CCR-SW2-1121	11/15/2021 12:22	550-174394-6	
FC-CCR-SW3-1121	11/15/2021 13:22	550-174394-7	

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Nitrate, Nitrite, Nitrate/Nitrite, Sulfate	Anions	EPA 300.0
Beryllium, Lithium, Boron, Calcium, 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	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 pH within 15 minutes of sampling? Yes (No) N/A
2. Samples analyzed for nitrate and nitrite within 48 hours of sampling?
   (Yes) No N/A
3. Samples analyzed for TDS within 7 days of sampling? (Yes) No N/A
4. Samples analyzed for alkalinity within 14 days of sampling? (Yes) No N/A
5. Samples analyzed for chloride, fluoride, mercury, nitrate/nitrite, and sulfate within 28 days of sampling?
   (Yes) No N/A
6. Samples analyzed for other metals within 180 days of sampling?
   (Yes) No N/A

If No:

Sample ID	Analysis	Time Between Collection and Analysis	Effect on Data Usability
FC-CCR-MW62-1121	pH	8 days, 23 hours, 7 minutes	J-HT
FC-CCR-MW63-1121	pH	8 days, 21 hours, 37 minutes	J-HT
FC-CCR-MW64-1121	pH	8 days, 20 hours, 37 minutes	J-HT
FC-CCR-MW65-1121	pH	8 days, 23 hours, 48 minutes	J-HT
FC-CCR-SW1-1121	pH	9 days, 1 hour, 7 minutes	J-HT
FC-CCR-SW2-1121	pH	8 days, 22 hours, 13 minutes	J-HT
FC-CCR-SW3-1121	pH	8 days, 21 hours, 13 minutes	J-HT

Note:

HT = The maximum recommended hold time was exceeded, and the result should be considered an estimated value.

7. Target analytes detected in the blank? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection
Beryllium	0.000130 mg/L	FC-CCR-MW63-1121, FC-CCR-MW64-1121, FC-CCR-MW65-1121, FC-CCR-SW1-1121, FC-CCR-SW3-1121
Boron	0.0396 mg/L	None
Boron	0.0235 mg/L	None
Calcium	0.175 mg/L	None
Sodium	0.382 mg/L	None
Antimony	0.0000570 mg/L	FC-CCR-MW63-1121
Thallium	0.0000130 mg/L	FC-CCR-SW1-1121

Notes:

MB = The same analyte was detected in the sample and its associated blank and the concentration detected in the sample is less than five times the concentration detected in the blank.

mg/L = milligrams per liter

8. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	Affected Samples

9. MS performed on a project-specific sample? (Yes) No

If Yes:

Spiked Sample ID	Spiked Analyte(s)
FC-CCR-SW3-1121	Chloride, Fluoride, Nitrate, Nitrate/Nitrite, Nitrite
FC-CCR-MW63-1121	Beryllium, Boron, Calcium, Magnesium, Potassium, Sodium
FC-CCR-MW64-1121	Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, 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-MW63-1121	Calcium	57%, MS	70 – 130%	NA4
FC-CCR-MW63-1121	Magnesium	173%, 54%	70 – 130%	NA4
FC-CCR-MW63-1121	Sodium	142%, 16%	70 – 130%	NA4
FC-CCR-MW64-1121	Barium	131%, MSD	70 – 130%	J-HM

Notes:

HM = High matrix spike recovery. Result may be biased high.

NA4 = The concentration detected in the unspiked native sample is greater than four times the spike concentration and it is not possible to assess data usability for this analyte in this sample based on matrix spike recovery.

10. Field duplicate collected? Yes (No)

If Yes:

Parent Sample	Field Duplicate

a. Is the RPD between primary and duplicate results ≤ 20% or is the difference between analyte concentrations ≤ the reporting limit?

Yes No (N/A)

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes

11. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No

If Yes:

Sample ID	Analysis
FC-CCR-SW2-1121	Total Dissolved Solids
FC-CCR-SW3-1121	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
FC-CCR-SW2-1121	Total Dissolved Solids	J-HD

Note:

HD = Imprecision between laboratory duplicate analyses.

12. Are non-detect results sufficiently low to meet EPA primary drinking water criteria and/or Alternative GWPS?

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	0.8	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

APS Four Corners CCR Data Review

Laboratory Name:	Eurofins Environment Testing America		
Sample Delivery Group:	550-174640-1	**Review Date:**	12/17/2021
Validator's Name:	Grace Graner	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-MW07-1121	11/18/21 12:51	550-174640-1	
FC-CCR-MW08-1121	11/18/21 11:54	550-174640-2	
FC-CCR-MW87-1121	11/17/21 12:56	550-174640-3	
FC-CCR-FD04-1121	11/17/21 12:56	550-174640-4	Field Duplicate of FC-CCR-MW87-1121

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Lithium, Boron, Calcium, 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	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 pH within 15 minutes of sampling? Yes (No) N/A
2. Samples analyzed for TDS within 7 days of sampling? (Yes) No N/A
3. Samples analyzed for chloride, fluoride, mercury, and sulfate within 28 days of sampling?
   (Yes) No N/A
4. Samples analyzed for other metals within 180 days of sampling?
   (Yes) No N/A

If No:

Sample ID	Analysis	Time Between Collection And Analysis	Effect on Data Usability
FC-CCR-MW07-1121	pH	5 days, 1 hour, 28 minutes	J-HT
FC-CCR-MW08-1121	pH	5 days, 2 hours, 25 minutes	J-HT
FC-CCR-MW87-1121	pH	6 days, 1 hour, 23 minutes	J-HT
FC-CCR-FD04-1121	pH	6 days, 1 hour, 23 minutes	J-HT

Note:

HT = The maximum recommended hold time was exceeded, and the result should be considered an estimated value.

5. Target analytes detected in the blank? (Yes) No N/A

   If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection
Beryllium	0.000100 mg/L	None
Boron	0.00414 mg/L	None
Manganese	0.000460 mg/L	None
Barium	0.000280 mg/L	None
Antimony	0.0000510 mg/L	None

Notes:

MB = The same analyte was detected in the sample and its associated blank and the concentration detected in the sample is less than five times the concentration detected in the blank.

mg/L = milligrams per liter

6. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	Affected Samples

7. MS performed on a project-specific sample? (Yes) No

If Yes:

Spiked Sample ID	Spiked Analyte(s)
FC-CCR-MW08-1121	Beryllium, Boron, Calcium, Iron, Magnesium, Manganese, Potassium, Sodium
FC-CCR-MW07-1121	Lithium, Barium, Lead, Thallium, Antimony, Arsenic, Cadmium, Chromium, Cobalt, Molybdenum, Selenium

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-MW08-1121	Boron	28%, 20%	70 - 130%	NA4
FC-CCR-MW08-1121	Calcium	39%, 23%	70 - 130%	NA4
FC-CCR-MW08-1121	Magnesium	-13%, -53%	70 - 130%	NA4
FC-CCR-MW08-1121	Sodium	-71%, -695%	70 - 130%	NA4

Note:

NA4 = The concentration in the unspiked native sample is greater than four times the spike concentration and it is not possible to assess data usability for this analyte in this sample based on MS recovery.

8. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
FC-CCR-MW87-1121	FC-CCR-FD04-1121

a. Is the RPD between primary and duplicate results ≤ 20% or is the difference between analyte concentrations ≤ the reporting limit?

Yes (circled) No N/A

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
Samples FC-CCR-MW87-1121 and FC-CCR-FD04-1121					
Chloride	400 mg/L	4,100	4,100	0.0%	
Fluoride	0.80 mg/L	0.17	0.16	6.1%	
Sulfate	2000 mg/L	34,000	34,000	0.0%	
Lithium	0.020 mg/L	2.7	2.7	0.0%	
Boron	0.10 mg/L	1.6	1.6	0.0%	
Calcium	4.0 mg/L	520	520	0.0%	
Iron	0.20 mg/L	1.6	1.5	6.5%	
Magnesium	10 mg/L	3,500	3,500	0.0%	
Manganese	0.020 mg/L	0.43	0.43	0.0%	
Potassium	1.0 mg/L	130	130	0.0%	
Sodium	10 mg/L	14,000	13,000	7.4%	
Antimony	0.0020 mg/L	0.0016	0.0016	0.0%	
Arsenic	0.0010 mg/L	0.0024	0.0032	29%	± RL
Barium	0.0010 mg/L	0.014	0.014	0.0%	
Cadmium	0.00020 mg/L	0.00017	0.00017	0.0%	
Chromium	0.0020 mg/L	0.0021	0.0023	9.1%	
Cobalt	0.0010 mg/L	0.0078	0.0082	5.0%	
Lead	0.00050 mg/L	0.00080	0.00081	1.2%	
Molybdenum	0.0010 mg/L	0.065	0.067	3.0%	
Selenium	0.0020 mg/L	0.029	0.027	7.1%	
Thallium	0.00010 mg/L	0.00016	0.00016	0.0%	
Alkalinity	6.0 mg/L	1,200	1,100	8.7%	
Bicarbonate Alkalinity	6.0 mg/L	1,200	1,100	8.7%	
Total Dissolved Solids	1000 mg/L	40,000	40,000	0%	
pH	1.7 SU	7.7	7.7	0%	

Notes:

± RL = The difference between analyte concentrations is less than the reporting limit, indicating acceptable sampling and analytical precision.
SU = standard units

9. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No

If Yes:

Sample ID	Analysis
FC-CCR-MW07-1121	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
FC-CCR-MW07-1121	pH	J

10. Are non-detect results sufficiently low to meet EPA primary drinking water criteria and/or Alternative GWPS?

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	0.8	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

APS Four Corners CCR Data Review

Laboratory Name:	Eurofins Environment Testing America		
Sample Delivery Group:	550-174641-1	**Review Date:**	12/17/2021
Validator's Name:	Grace Graner	**Reviewed By:**	Marie Bevier

Sample Summary:

Field Sample Identification	Collection Date and Time	Laboratory Sample Identification	Notes
FC-CCR-DMX04-1121	11/16/21 11:02	550-174641-1	
FC-CCR-DMX06-1121	11/18/21 09:00	550-174641-2	
FC-CCR-MW05-1121	11/16/21 09:45	550-174641-3	
FC-CCR-MW06-1121	11/16/21 13:01	550-174641-4	
FC-CCR-MW11-1121	11/18/21 13:45	550-174641-5	
FC-CCR-MW15-1121	11/18/21 09:48	550-174641-6	
FC-CCR-MW16-1121	11/18/21 10:47	550-174641-7	
FC-CCR-MW17R-1121	11/16/21 15:01	550-174641-8	
FC-CCR-MW18-1121	11/16/21 10:23	550-174641-9	
FC-CCR-MW24-1121	11/16/21 12:20	550-174641-10	
FC-CCR-MW38R-1121	11/16/21 15:32	550-174641-11	
FC-CCR-MW56-1121	11/16/21 14:10	550-174641-12	
FC-CCR-MW57-1121	11/17/21 11:53	550-174641-13	
FC-CCR-SUMP1-1121	11/17/21 08:05	550-174641-14	
FC-CCR-SUMP2-1121	11/17/21 08:12	550-174641-15	
FC-CCR-SUMP3-1121	11/17/21 08:12	550-174641-16	
FC-CCR-SUMP7-1121	11/17/21 08:37	550-174641-17	
FC-CCR-SUMP8-1121	11/17/21 08:33	550-174641-18	
FC-CCR-SUMP9-1121	11/17/21 08:47	550-174641-19	
FC-CCR-SUMP10-1121	11/17/21 08:55	550-174641-20	
FC-CCR-SUMP11-1121	11/17/21 09:05	550-174641-21	
FC-CCR-SUMP12-1121	11/17/21 09:11	550-174641-22	
FC-CCR-SUMP13-1121	11/17/21 09:16	550-174641-23	
FC-CCR-SUMP14-1121	11/17/21 09:26	550-174641-24	
FC-CCR-SUMP15-1121	11/17/21 09:32	550-174641-25	
FC-CCR-SUMP16-1121	11/17/21 09:37	550-174641-26	
FC-CCR-SUMP17-1121	11/17/21 09:43	550-174641-27	
FC-CCR-SUMP18-1121	11/17/21 09:50	550-174641-28	
FC-CCR-FD07-1121	11/17/21 09:50	550-174641-29	Field Duplicate of FC-CCR-SUMP18-1121

Analytical Methods:

Analyte	Analyte Group	Method
Chloride, Fluoride, Sulfate	Anions	EPA 300.0
Beryllium, Lithium, Boron, Calcium, Iron, Magnesium, Manganese Potassium, Sodium	Metals	EPA 200.7
Antimony, Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Molybdenum, Selenium, Thallium	Metals	EPA 200.8
Alkalinity	General Chemistry	SM 2320B
Total Dissolved Solids	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.

Cannot verify due to illegible sections in scanned COC copies.

Sample receipt temperature ≤ 6°C? (Yes) No N/A

If no, provide details.

1. Samples analyzed for pH within 15 minutes of sampling? Yes (No) N/A
2. Samples analyzed for TDS within 7 days of sampling? Yes (No) N/A
3. Samples analyzed for chloride, fluoride, mercury, and sulfate within 28 days of sampling?
   (Yes) No N/A
4. Samples analyzed for other metals within 180 days of sampling?
   (Yes) No N/A

If No:

Sample ID	Analysis	Time Between Collection And Analysis	Effect on Data Usability
FC-CCR-DMX04-1121	pH	7 days, 3 hours, 17 minutes	J-HT
FC-CCR-DMX04-1121	Total Dissolved Solids	14 days	J-HT
FC-CCR-DMX06-1121	pH	5 days, 5 hours, 19 minutes	J-HT
FC-CCR-MW05-1121	pH	7 days, 4 hours, 34 minutes	J-HT
FC-CCR-MW05-1121	Total Dissolved Solids	14 days	J-HT
FC-CCR-MW06-1121	pH	5 days, 1 hour, 18 minutes	J-HT
FC-CCR-MW11-1121	pH	5 days, 0 hour, 34 minutes	J-HT
FC-CCR-MW15-1121	pH	6 days, 12 hours, 47 minutes	J-HT
FC-CCR-MW16-1121	pH	5 days, 23 hours, 48 minutes	J-HT
FC-CCR-MW17R-1121	pH	7 days, 19 hours, 34 minutes	J-HT
FC-CCR-MW18-1121	pH	8 days, 0 hour, 12 minutes	J-HT
FC-CCR-MW18-1121	Total Dissolved Solids	14 days	J-HT
FC-CCR-MW24-1121	pH	7 days, 22 hours, 15 minutes	J-HT
FC-CCR-MW24-1121	Total Dissolved Solids	14 days	J-HT
FC-CCR-MW38R-1121	pH	7 days, 19 hours, 3 minutes	J-HT
FC-CCR-MW56-1121	pH	7 days, 20 hours, 25 minutes	J-HT
FC-CCR-MW56-1121	Total Dissolved Solids	14 days	J-HT
FC-CCR-MW57-1121	pH	16 days, 5 hours, 27 minutes	J-HT
FC-CCR-SUMP15-1121	Total Dissolved Solids	13 days	J-HT

Note:

HT = The maximum recommended hold time was exceeded, and the result should be considered an estimated value.

5. Target analytes detected in the blank? (Yes) No N/A

If Yes:

Detected Analyte	Concentration	Samples with concentrations less than 5 times the blank detection
Beryllium	0.000100 mg/L	None
Boron	0.00414 mg/L	None
Manganese	0.000460 mg/L	None
Boron	0.0168 mg/L	None
Barium	0.000280 mg/L	None
Antimony	0.0000510 mg/L	FC-CCR-MW15-1121, FC-CCR-MW16-1121, FC-CCR-MW17R-1121, FC-CCR-MW38R-1121, FC-CCR-MW56-1121, FC-CCR-DMX06-1121

Notes:

MB = The same analyte was detected in the sample and its associated blank and the concentration detected in the sample is less than five times the concentration detected in the blank.

mg/L = milligrams per liter

6. LCS recoveries within laboratory-specified limits? (Yes) No N/A

If No:

Analyte	Recovery	Affected Samples

7. MS performed on a project-specific sample? (Yes) No

If Yes:

Spiked Sample ID	Spiked Analyte(s)
FC-CCR-SUMP18-1121	Chloride, Boron, Iron, Manganese, Magnesium, Cobalt, and Molybdenum
FC-CCR-MW18-1121	Fluoride, Chloride, and Sulfate

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-SUMP18-1121	Magnesium	328%, -207%	70 – 130%	NA4

Note:

NA4 = The concentration detected in the unspiked native sample is greater than four times the spike concentration and it is not possible to assess data usability for this analyte in this sample based on MS recovery.

8. Field duplicate collected? (Yes) No

If Yes:

Parent Sample	Field Duplicate
FC-CCR-SUMP18-1121	FC-CCR-FD07-1121

a. Is the RPD between primary and duplicate results ≤ 20% or is the difference between analyte concentrations ≤ the reporting limit?

(Yes) No N/A

Analyte	Reporting Limit	Primary Result	Duplicate Result	RPD	Notes
Samples FC-CCR-SUMP18-1121 and FC-CCR-FD07-1121					
Chloride	400 mg/L	1,700	1,700	0.0%	
Boron	0.050 mg/L	4.6	5.4	16%	
Iron	0.10 mg/L	0.31	0.33	6.3%	
Magnesium	10 mg/L	3,200	3,500	9.0%	
Manganese	0.010 mg/L	0.032	0.040	22%	± RL
Cobalt	0.0010 mg/L	0.0013	0.0011	17%	
Molybdenum	0.0020 mg/L	0.0036	0.0032	12%	
Total Dissolved Solids	200 mg/L	37,000	38,000	2.7%	

Notes:

± RL = The difference between analyte concentrations is less than the reporting limit, indicating acceptable sampling and analytical precision.
mg/L = milligrams per liter

9. Did the laboratory perform duplicate analyses on project-specific samples?

(Yes) No

If Yes:

Sample ID	Analysis
FC-CCR-DMX04-1121	Alkalinity and Total Dissolved Solids
FC-CCR-SUMP9-1121	Total Dissolved Solids
FC-CCR-FD07-1121	Total Dissolved Solids
FC-CCR-MW17R-1121	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

10. Are non-detect results sufficiently low to meet EPA primary drinking water criteria and/or Alternative GWPS?

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	0.8	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

Appendix F

Groundwater Quality Data Tables Through 2021

Groundwater Sampling Results for the CWTP Monitoring Wells

				Appendix III Constituents								Appendix IV Constituents														
Constituent:				Boron	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	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	N	N	N	N	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	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)				*2*	*551*	*634*	*1.6*	*6.48 - 6.93*	*6.48 - 6.93*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-63)				*2*	*551*	*634*	*2.3*	*6.48 - 6.93*	*6.48 - 6.93*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-64)				*0.7*	*500*	*634*	*1.5*	*7.25-7.68*	*7.25-7.68*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-65)				*0.7*	*500*	*634*	*2.0*	*6.96-8.27*	*6.96-8.27*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	3/5/2016	**0.44**	**450**	**660**	< 0.050	**7.73**	--	**8,500**	**13,000**	**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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	3/5/2016	**0.46**	**480**	**670**	< 0.050	--	--	**8,500**	**13,000**	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	4/26/2016	**0.69**	**470**	**670**	< 2.0	**6.58**	--	**13,000**	**21,000**	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.2**
MW-71	URS/CWTP	Background	6/6/2016	**0.70**	**460**	**750**	< 0.40	**6.47**	**6.87**	**13,000**	**20,000**	**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	**0.56**	**450**	**590**	< 0.80	**7.04**	**7.1**	**8,400**	**14,000**	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	8/21/2016	--	--	--	< 0.80	--	--	--	--	**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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.6**
MW-71	URS/CWTP	Background	8/21/2016	--	--	--	--	--	**7.1**	--	**14,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	8/21/2016	--	--	--	< 0.40	--	--	--	--	**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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.1**
MW-71	URS/CWTP	Background	9/12/2016	**0.58**	**460**	**570**	< 0.40	**6.86**	**7.2**	**9,300**	**16,000**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	9/12/2016	--	--	--	< 0.40	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.1**
MW-71	URS/CWTP	Background	10/20/2016	**0.55**	**410**	**580**	< 0.40	**6.90**	**7.3**	**9,100**	**15,000**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.4**
MW-71	URS/CWTP	Background	2/2/2017	**0.62**	**440**	**610**	< 0.40	**6.64**	**7.6**	**14,000**	**17,000**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	2/2/2017	--	--	--	< 0.40	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**
MW-71	URS/CWTP	Background	4/17/2017	**0.52**	**400**	**550**	< 2.0	**6.81**	**7.6**	**9,400**	**15,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	4/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.2**
MW-71	URS/CWTP	Background	4/17/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	< 13	**6.86**	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.7**
MW-71	URS/CWTP	Background	5/29/2017	--	--	--	< 2.0	**6.76**	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-71	URS/CWTP	Background	6/22/2017	**0.60**	**460**	**620**	--	**6.79**	**7.2**	**4,600**	**17,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	6/22/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.7**
MW-71	URS/CWTP	Background	7/21/2017	**0.55**	**450**	**590**	< 2.0	**7.00**	**7.1**	**10,000**	**15,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	7/21/2017	--	--	--	--	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.5
MW-71	URS/CWTP	Background	8/10/2017	**0.55**	**450**	**560**	--	**6.59**	**7.4**	**10,000**	**15,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	8/10/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-71	URS/CWTP	Background	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.0**
MW-71	URS/CWTP	Background	8/17/2017	**0.56**	**480**	**570**	< 2.0	**6.62**	**7.3**	**9,500**	**15,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	9/11/2017	**0.55**	**470**	**570**	--	**6.56**	**7.1**	**9,900**	**15,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	9/11/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-71	URS/CWTP	Background	10/13/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.6**
MW-71	URS/CWTP	Background	10/13/2017	**0.54**	**420**	**570**	< 2.0	**6.79**	**7.2**	**10,000**	**15,000**	< 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	**0.56**	**490**	**540**	< 2.0	**6.71**	**7.1**	**10,000**	**15,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	3/16/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.8**
MW-71	URS/CWTP	Background	6/2/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**
MW-71	URS/CWTP	Background	6/2/2018	**0.55**	**420**	**520**	< 0.80	**6.85**	**7.1**	**10,000**	**15,000**	--	**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	**0.56**	**470**	**520**	< 2.0	**6.81**	**7.0**	**11,000**	**16,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	**0.0046**	**0.0098**	--	--	--	--	< 0.00050	--	**0.35**	--	**0.00079**	**0.27**	**0.00031**	**1.2**
MW-71	URS/CWTP	Background	11/3/2018	--	--	--	< 0.80	--	--	--	--	--	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--
MW-71	URS/CWTP	Background	11/3/2018	**0.54**	**450**	**520**	< 0.80	--	**7.2**	**11,000**	**16,000**	--	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--
MW-71	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	**0.0068**	**0.0095**	--	--	--	--	< 0.00050	--	**0.34**	--	**0.00065**	**0.31**	**0.00030**	**1.8**
MW-71	URS/CWTP	Background	3/18/2019	--	--	--	< 0.80	**6.68**	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-71	URS/CWTP	Background	5/6/2019	--	--	--	--	**6.66**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.0**
MW-71	URS/CWTP	Background	12/2/2019	**0.50**	**440**	**500**	< 0.80	**6.66**	**7.2 J**	**10,000**	**16000 J**	< 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	**0.59**	**450**	**480**	< 0.8	**6.71**	**7.3 J**	**9,900**	**15,000**	< 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	**0.59**	**460**	**490**	< 0.4	**6.78**	**7.2 J**	**10,000**	**16,000**	< 0.002	**0.012**	**0.0092**	< 0.001	< 0.0002 U	< 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	**0.73**	**510**	**560**	**3.8 NJ**	**6.83**	**7.2 J**	**14,000**	**19,000**	< 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	**0.54**	**440**	**560**	**0.14 J**	**6.74**	**7.4 J**	**12,000**	**8,000**	< 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-72	URS/CWTP	Background	3/7/2016	**0.16**	**480**	**490**	< 0.050	**7.71**	--	**12,000**	**17,000**	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	4/26/2016	**0.22**	**470**	**430**	< 2.0	**6.87**	--	**11,000**	**19,000**	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.3**
MW-72	URS/CWTP	Background	6/6/2016	**0.25**	**570**	**530**	< 0.40	**6.56**	**6.99**	**4,500**	**9,500**	**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	**0.23**	**450**	**440**	< 0.40	**6.72**	**7.0**	**10,000**	**17,000**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	8/21/2016	--	--	--	< 0.40	--	--	--	--	**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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.2**
MW-72	URS/CWTP	Background	9/13/2016	**0.24**	**470**	**450**	< 0.40	**6.17**	**7.1**	**10,000**	**17,000**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	9/13/2016	--	--	--	< 0.40	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.9**
MW-72	URS/CWTP	Background	10/20/2016	**0.23**	**400**	**480**	< 0.40	**6.84**	**7.1**	**11,000**	**17,000**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--

Groundwater Sampling Results for the CWTP Monitoring Wells

				Appendix III Constituents								Appendix IV Constituents														
Constituent:				Boron	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	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	N	N	N	N	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	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)				*2*	*551*	*634*	*1.6*	*6.48 - 6.93*	*6.48 - 6.93*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-63)				*2*	*551*	*634*	*2.3*	*6.48 - 6.93*	*6.48 - 6.93*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-64)				*0.7*	*500*	*634*	*1.5*	*7.25-7.68*	*7.25-7.68*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-65)				*0.7*	*500*	*634*	*2.0*	*6.96-8.27*	*6.96-8.27*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.2**
MW-72	URS/CWTP	Background	2/2/2017	**0.23**	**420**	**430**	< 0.40	**6.63**	**7.5**	**11,000**	**16,000**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	2/2/2017	--	--	--	< 0.40	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.0**
MW-72	URS/CWTP	Background	2/2/2017	**0.21**	**430**	**450**	< 0.40	--	**7.5**	**11,000**	**16,000**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	2/2/2017	--	--	--	< 0.40	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.6**
MW-72	URS/CWTP	Background	4/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.5**
MW-72	URS/CWTP	Background	4/17/2017	**0.20**	**440**	**450**	< 2.0	**6.73**	**7.4**	**610**	**17,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	4/17/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.8**
MW-72	URS/CWTP	Background	5/2/2017	--	--	--	< 13	**6.83**	--	--	--	< 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	--	--	--	< 2.0	**6.68**	--	--	--	< 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	**0.23**	**450**	**450**	--	**6.65**	**7.1**	**11,000**	**17,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	6/22/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**
MW-72	URS/CWTP	Background	6/22/2017	**0.22**	**440**	**450**	--	--	**7.0**	**11,000**	**17,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	6/22/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.0**
MW-72	URS/CWTP	Background	7/21/2017	**0.23**	**450**	**460**	< 2.0	**6.93**	**7.1**	**11,000**	**17,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	7/21/2017	--	--	--	--	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.7**
MW-72	URS/CWTP	Background	8/10/2017	**0.21**	**450**	**460**	--	**6.47**	**7.3**	**11,000**	**17,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	8/10/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**
MW-72	URS/CWTP	Background	8/10/2017	**0.25**	**460**	**460**	--	--	**7.2**	**12,000**	**17,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	8/10/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.7**
MW-72	URS/CWTP	Background	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.1**
MW-72	URS/CWTP	Background	8/17/2017	**0.26**	**490**	**450**	< 2.0	**6.18**	**7.1**	**11,000**	**17,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.0**
MW-72	URS/CWTP	Background	8/17/2017	**0.27**	**480**	**460**	< 2.0	--	**7.2**	**12,000**	**17,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	9/10/2017	**0.21**	**470**	**460**	--	**6.61**	**7.0**	**11,000**	**17,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	9/10/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.3**
MW-72	URS/CWTP	Background	10/13/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.1**
MW-72	URS/CWTP	Background	10/13/2017	**0.22**	**430**	**450**	< 2.0	**6.65**	**7.2**	**11,000**	**16,000**	< 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	**0.22**	**500**	**450**	< 2.0	**6.63**	**7.2**	**10,000**	**16,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	3/16/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**
MW-72	URS/CWTP	Background	6/2/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**
MW-72	URS/CWTP	Background	6/2/2018	**0.21**	**410**	**450**	< 0.80	**6.75**	**7.0**	**11,000**	**16,000**	--	< 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	**0.22**	**470**	**450**	< 2.0	**6.75**	**7.0**	**11,000**	**16,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	**0.0031**	**0.0075**	--	--	--	**0.0020**	--	--	**0.37**	--	**0.00078**	**0.13**	**0.00088**	**1.7**
MW-72	URS/CWTP	Background	11/3/2018	--	--	--	< 0.80	--	--	--	--	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	11/3/2018	**0.21**	**460**	**450**	< 2.0	--	**7.1**	**11,000**	**16,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	**0.0026**	**0.0075**	--	--	--	**0.0020**	--	--	**0.37**	--	**0.00078**	**0.15**	**0.00087**	**2.0**
MW-72	URS/CWTP	Background	3/17/2019	--	--	--	< 0.80	**6.68**	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.4**
MW-72	URS/CWTP	Background	5/7/2019	--	--	--	--	**6.85**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.4**
MW-72	URS/CWTP	Background	12/2/2019	**0.19**	**430**	**430**	< 0.80	**6.62**	**7.1 J**	**11,000**	**16000 J**	< 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	**0.23**	**440**	**400**	< 0.8	**6.65**	**7.2 J**	**11,000**	**16,000**	< 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	**0.24**	**470**	**430**	< 0.4	**6.70**	**7.1 J**	**10,000**	**16,000**	< 0.001 U	**0.0053**	**0.018**	< 0.001	< 0.0001 U	**0.00071 J**	**0.0013**	< 0.4	< 0.0005	**0.38**	< 0.0002	**0.0020**	**0.11**	< 0.00011 U	**2.4**
MW-72	URS/CWTP	Background	4/22/2021	**0.25**	**480**	**400**	< 0.8	**6.89**	**7.2 J**	**10,000**	**16,000**	< 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	**0.22**	**440**	**450**	< 0.8	**6.64**	**7.1 J**	**11,000**	**14,000**	< 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-73	URS/CWTP	Background	2/2/2017	**1.6**	**480**	**380**	< 0.40	**6.65**	**7.5**	**5,400**	**8,800**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	2/2/2017	--	--	--	< 0.40	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.2**
MW-73	URS/CWTP	Background	4/18/2017	**1.6**	**450**	**340**	< 0.80	**6.70**	**7.3**	**5,700**	**9,200**	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.8**
MW-73	URS/CWTP	Background	4/18/2017	--	--	--	< 0.80	--	--	--	--	< 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	--	--	--	< 5.0	**6.70**	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.3**
MW-73	URS/CWTP	Background	5/29/2017	--	--	--	< 0.80	**6.70**	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-73	URS/CWTP	Background	6/22/2017	**1.6**	**490**	**450**	--	**6.74**	**7.0**	**6,700**	**11,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	6/22/2017	--	--	--	< 0.80	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.1**
MW-73	URS/CWTP	Background	7/22/2017	**1.6**	**490**	**520**	< 0.80	**6.83**	**7.1**	**8,000**	**12,000**	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	7/22/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.0**
MW-73	URS/CWTP	Background	7/22/2017	**1.6**	**490**	**500**	< 2.0	--	**7.1**	**7,800**	**12,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.8**
MW-73	URS/CWTP	Background	8/10/2017	**1.7**	**500**	**540**	--	**6.45**	**7.4**	**7,700**	**12,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Groundwater Sampling Results for the CWTP Monitoring Wells

				Appendix III Constituents								Appendix IV Constituents														
Constituent:				Boron	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	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	N	N	N	N	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	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)				*2*	*551*	*634*	*1.6*	*6.48 - 6.93*	*6.48 - 6.93*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-63)				*2*	*551*	*634*	*2.3*	*6.48 - 6.93*	*6.48 - 6.93*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-64)				*0.7*	*500*	*634*	*1.5*	*7.25-7.68*	*7.25-7.68*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-65)				*0.7*	*500*	*634*	*2.0*	*6.96-8.27*	*6.96-8.27*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	8/10/2017	--	--	--	< 0.80	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.1**
MW-73	URS/CWTP	Background	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.5**
MW-73	URS/CWTP	Background	8/17/2017	**1.7**	**540**	**550**	< 0.80	**6.50**	**7.0**	**7,600**	**11,000**	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	9/10/2017	**1.9**	**520**	**470**	--	**6.62**	**7.0**	**6,000**	**9,900**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	9/10/2017	--	--	--	< 0.80	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.5**
MW-73	URS/CWTP	Background	10/12/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.9**
MW-73	URS/CWTP	Background	10/12/2017	**2.0**	**510**	**310**	< 0.80	**6.64**	**7.3**	**3,900**	**6,600**	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**
MW-73	URS/CWTP	Background	10/12/2017	**2.0**	**510**	**300**	< 0.80	--	**7.1**	**3,700**	**6,600**	< 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	**1.8**	**550**	**420**	< 0.80	**6.61**	**7.1**	**5,600**	**8,900**	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	3/16/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**
MW-73	URS/CWTP	Background	6/2/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**
MW-73	URS/CWTP	Background	6/2/2018	**1.6**	**460**	**550**	< 0.80	**6.67**	**6.9**	**7,100**	**12,000**	--	< 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	**1.7**	**480**	**660**	< 0.80	**6.64**	**7.0**	**7,500**	**12,000**	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	< 0.00050	**0.022**	--	--	--	**0.0078**	--	--	**0.31**	--	**0.0026**	**0.0062**	**0.00020**	**2.9**
MW-73	URS/CWTP	Background	3/18/2019	--	--	--	< 0.80	**6.95**	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.6**
MW-73	URS/CWTP	Background	5/6/2019	--	--	--	--	**6.51**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.7**
MW-73	URS/CWTP	Background	12/2/2019	**1.6**	**460**	**520**	< 0.80	**6.49**	**7.1 J**	**7,100**	**11000 J**	< 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	**1.7**	**480**	**500**	< 0.80	--	**7.0 J**	**6,900**	**11000 J**	< 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	**1.7**	**450**	**520**	< 0.8	**6.53**	**7.2 J**	**7,200**	**12,000**	< 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	**1.6**	**480**	**530**	**0.063 J**	**6.65**	**7.0 J**	**7,100**	**12,000**	< 0.002 U	**0.0012**	**0.020**	< 0.001	< 0.0002 U	**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	**1.6**	**530**	**380**	< 0.4	**6.76**	**7.1 J**	**5,700**	**9,700**	< 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	**1.6**	**460**	**560**	**0.12 J**	**6.48**	**7.0 J**	**7,400**	**9,600**	**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-62	CWTP	Downgradient	11/9/2015	**2.1**	**520**	**150**	**1.6**	**6.63**	**6.94**	**3,600**	**6,700**	< 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	11/9/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	4/27/2016	--	--	--	**1.6**	**6.77**	--	--	--	< 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	6/5/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.1**
MW-62	CWTP	Downgradient	6/5/2016	**2.0**	**510**	**140**	**1.5**	**6.50**	**6.86**	**3,300**	**5,900**	**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	8/20/2016	**2.3**	**530**	**120**	**1.5**	**7.40**	**6.7**	**3,300**	**5,800**	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	8/20/2016	--	--	--	**1.3**	--	--	--	--	**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	8/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.4**
MW-62	CWTP	Downgradient	9/12/2016	**2.5**	**570**	**130**	**1.5**	**6.73**	**6.9**	**3,300**	**2,400**	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	9/12/2016	--	--	--	**1.3**	--	--	--	--	< 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	9/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.3**
MW-62	CWTP	Downgradient	10/19/2016	**2.2**	**480**	**120**	**1.2**	--	**7.0**	**3,300**	**6,000**	--	--	--	--	--	--	--	**1.2**	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	10/19/2016	--	--	--	--	**6.57**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.9**
MW-62	CWTP	Downgradient	2/1/2017	**2.1**	**510**	**110**	**1.4**	**6.68**	**7.6**	**3,400**	**5,600**	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	2/1/2017	--	--	--	**1.4**	--	--	--	--	< 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	2/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**
MW-62	CWTP	Downgradient	4/16/2017	**1.9**	**500**	**120**	**1.2**	**6.64**	**7.2**	**3,300**	**5,900**	--	--	--	--	--	--	--	**1.2**	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	4/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-62	CWTP	Downgradient	4/16/2017	--	--	--	**1.2**	--	--	--	--	< 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	5/1/2017	--	--	--	**3.3**	**6.64**	--	--	--	< 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	5/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-62	CWTP	Downgradient	5/29/2017	--	--	--	**1.2**	**6.50**	--	--	--	< 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	5/29/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.6**
MW-62	CWTP	Downgradient	6/21/2017	**1.9**	**520**	**120**	--	**6.54**	**7.0**	**3,600**	**5,700**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	6/21/2017	--	--	--	**1.4**	--	--	--	--	< 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	6/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-62	CWTP	Downgradient	7/21/2017	**2.1**	**540**	**99**	**1.5**	**6.69**	**7.0**	**3,300**	**5,400**	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	< 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	7/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-62	CWTP	Downgradient	8/9/2017	**2.2**	**540**	**110**	--	**6.41**	**7.0**	**3,400**	**5,400**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	8/9/2017	--	--	--	**1.4**	--	--	--	--	< 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	8/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-62	CWTP	Downgradient	8/16/2017	--	--	--	--	**6.36**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.0**
MW-62	CWTP	Downgradient	8/16/2017	**2.1**	**590**	**110**	**1.6**	--	**7.0**	**3,200**	**5,400**	--	--	--	--	--	--	--	**1.6**	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	9/9/2017	**2.3**	**570**	**120**	--	**6.41**	**6.8**	**3,300**	**5,500**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	9/9/2017	--	--	--	**1.5**	--	--	--	--	< 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	9/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-62	CWTP	Downgradient	10/13/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.7**
MW-62	CWTP	Downgradient	10/13/2017	**2.2**	**520**	**130**	**1.5**	**6.46**	**6.8**	**3,300**	**5,600**	< 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	11/30/2017	**2.3**	**570**	**130**	**1.4**	**6.43**	**7.0**	**3,400**	**5,900**	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	4/6/2018	**2.1**	**520**	--	--	**6.70**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	6/3/2018	**1.8**	**490**	**120**	**1.6**	**6.59**	**6.8**	**3,500**	**5,900**	--	--	--	--	--	--	--	**1.6**	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	11/2/2018	**2.4**	**550**	**110**	**1.5**	**6.46**	**6.8**	**3,300**	**5,600**	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	4/1/2019	**2.0**	**530**	**110**	**1.6**	**6.73**	**7.1**	**3,400**	**5,500**	--	--	--	--	--	--	--	**1.6**	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	5/7/2019	**1.8**	**540**	--	**1.4**	**6.65**	**7.2**	--	**5,800**	--	--	--	--	--	--	--	**1.4**	--	< 0.20	--	--	--	--	--
MW-62	CWTP	Downgradient	12/3/2019	**2.1**	**530**	--	**1.5**	**6.37**	**7.2 J**	--	**5,000**	--	--	--	--	--	--	--	**1.5**	--	< 0.20	--	--	--	--	--
MW-62	CWTP	Downgradient	6/19/2020	**1.9**	**490**	**82**	**1.8**	**6.90**	**6.9 J**	**2,800**	**4,700**	--	--	--	--	--	--	--	**1.8**	--	--	--	--	--	--	--

Groundwater Sampling Results for the CWTP Monitoring Wells

				Appendix III Constituents								Appendix IV Constituents														
Constituent:				Boron	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	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	N	N	N	N	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	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)				*2*	*551*	*634*	*1.6*	*6.48 - 6.93*	*6.48 - 6.93*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-63)				*2*	*551*	*634*	*2.3*	*6.48 - 6.93*	*6.48 - 6.93*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-64)				*0.7*	*500*	*634*	*1.5*	*7.25-7.68*	*7.25-7.68*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-65)				*0.7*	*500*	*634*	*2.0*	*6.96-8.27*	*6.96-8.27*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	11/5/2020	**2.1 J**	**510**	**130**	**1.8**	**6.57**	**6.9 J**	**3,500**	**5,300**	--	--	--	--	--	--	--	**1.8**	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	1/14/2021	--	--	--	**1.2**	--	--	--	--	--	--	--	--	--	--	--	**1.2**	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	4/22/2021	**1.9**	**530**	**130**	**1.5**	**6.91**	**7.3 J**	**3,400**	**5,700**	< 0.0010 U	< 0.0019 U	**0.016**	< 0.001	< 0.0001	< 0.001	**0.00065**	**1.5**	< 0.0005	**0.12**	< 0.0002	**0.0029**	< 0.0008 U	< 0.0001	<0.7
MW-62	CWTP	Downgradient	11/15/2021	**2.3**	**530**	**180**	**1.4**	**6.51**	**7.7 J**	**4,000**	**6,700**	< 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-63	CWTP	Downgradient	11/4/2015	**1.6**	**420**	**77**	**2.4**	**6.86**	--	**2,800**	**4,100**	< 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	11/4/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	4/27/2016	--	--	--	**2.0**	**6.88**	--	--	--	< 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	6/5/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.8
MW-63	CWTP	Downgradient	6/5/2016	**1.4**	**500**	**110**	**1.9**	**6.70**	**7.05**	**2,500**	**4,400**	**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	8/20/2016	**1.9**	**530**	**98**	**1.9**	**6.92**	**6.9**	**2,800**	**4,700**	--	--	--	--	--	--	--	**1.9**	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	8/20/2016	--	--	--	**1.9**	--	--	--	--	**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	8/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.1**
MW-63	CWTP	Downgradient	9/12/2016	**2.0**	**550**	**110**	**2.1**	**7.03**	**7.1**	**2,800**	**4,700**	--	--	--	--	--	--	--	**2.1**	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	9/12/2016	--	--	--	**2.0**	--	--	--	--	< 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	9/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.0**
MW-63	CWTP	Downgradient	10/19/2016	**1.7**	**470**	**100**	**1.8**	**6.82**	**7.2**	**2,700**	**4,500**	--	--	--	--	--	--	--	**1.8**	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	10/19/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-63	CWTP	Downgradient	10/20/2016	**1.7**	**480**	**98**	**2.0**	--	**7.2**	**2,600**	**4,400**	--	--	--	--	--	--	--	**2.0**	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.8**
MW-63	CWTP	Downgradient	1/31/2017	**1.4**	**510**	**95**	**2.0**	**6.67**	**7.7**	**2,600**	**4,200**	--	--	--	--	--	--	--	**2.0**	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	1/31/2017	--	--	--	**2.0**	--	--	--	--	< 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	1/31/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.7**
MW-63	CWTP	Downgradient	1/31/2017	**1.4**	**500**	**93**	**1.7**	--	**7.6**	**2,500**	**4,200**	--	--	--	--	--	--	--	**1.7**	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	1/31/2017	--	--	--	**1.8**	--	--	--	--	< 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	1/31/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.7**
MW-63	CWTP	Downgradient	4/17/2017	**1.4**	**520**	**98**	**1.6**	**6.78**	**7.3**	**2,600**	**4,400**	--	--	--	--	--	--	--	**1.6**	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	4/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-63	CWTP	Downgradient	4/17/2017	--	--	--	**1.5**	--	--	--	--	< 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	5/2/2017	--	--	--	**2.5**	**6.79**	--	--	--	< 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	5/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.8**
MW-63	CWTP	Downgradient	5/28/2017	--	--	--	**1.6**	**6.80**	--	--	--	< 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	5/28/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.5**
MW-63	CWTP	Downgradient	5/28/2017	--	--	--	**1.6**	--	--	--	--	< 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	5/28/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-63	CWTP	Downgradient	6/21/2017	**1.6**	**520**	**100**	--	**6.78**	**7.2**	**2,900**	**4,400**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	6/21/2017	--	--	--	**1.9**	--	--	--	--	< 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	6/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.4**
MW-63	CWTP	Downgradient	7/21/2017	**1.8**	**530**	**98**	**2.0**	**6.87**	**7.2**	**2,900**	**4,600**	--	--	--	--	--	--	--	**2.0**	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	< 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	7/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.8**
MW-63	CWTP	Downgradient	8/9/2017	**1.9**	**530**	**97**	--	**6.56**	**7.2**	**2,900**	**4,500**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	8/9/2017	--	--	--	**1.9**	--	--	--	--	< 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	8/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-63	CWTP	Downgradient	8/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-63	CWTP	Downgradient	8/16/2017	**1.8**	**580**	**100**	**2.1**	**6.53**	**7.2**	**2,700**	**4,500**	--	--	--	--	--	--	--	**2.1**	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	9/9/2017	**2.0**	**540**	**97**	--	**6.83**	**7.0**	**2,700**	**4,300**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	9/9/2017	--	--	--	**2.0**	--	--	--	--	< 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	9/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.7**
MW-63	CWTP	Downgradient	10/13/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.8**
MW-63	CWTP	Downgradient	10/13/2017	**1.8**	**500**	**90**	**2.0**	**6.69**	**7.1**	**2,700**	**4,300**	< 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	11/30/2017	**1.7**	**560**	**91**	**1.8**	**6.72**	**7.2**	**2,700**	**4,500**	--	--	--	--	--	--	--	**1.8**	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	4/6/2018	**1.3**	**530**	--	--	**6.75**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	6/3/2018	**1.4**	**510**	**90**	**1.7**	**6.76**	**7.1**	**2,600**	**4,500**	--	--	--	--	--	--	--	**1.7**	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	11/2/2018	**1.9**	**550**	**88**	**1.9**	**6.66**	**7.1**	**2,800**	**4,300**	--	--	--	--	--	--	--	**1.9**	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	4/1/2019	**1.2**	**500**	**88**	**1.7**	**6.80**	**7.0**	**2,600**	**4,300**	--	--	--	--	--	--	--	**1.7**	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	5/7/2019	**1.3**	**540**	--	**1.6**	**6.63**	**7.2**	--	**4,400**	--	--	--	--	--	--	--	**1.6**	--	< 0.20	--	--	--	--	--
MW-63	CWTP	Downgradient	12/3/2019	**1.5**	**550**	--	**1.8**	**6.58**	**7.1 J**	--	**4,300**	--	--	--	--	--	--	--	**1.8**	--	< 0.20	--	--	--	--	--
MW-63	CWTP	Downgradient	12/3/2019	**1.6**	**560**	--	**1.8**	--	**7.2 J**	--	**4,100**	--	--	--	--	--	--	--	**1.8**	--	< 0.20	--	--	--	--	--
MW-63	CWTP	Downgradient	6/19/2020	**1.5**	**540**	**77**	**2.1**	--	**7.2 J**	**2,400**	**4,200**	--	--	--	--	--	--	--	**2.1**	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	11/5/2020	**1.7**	**550**	**85**	**2.2**	**6.72**	**7.1 J**	**2,800**	**4,200**	--	--	--	--	--	--	--	**2.2**	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	4/22/2021	**0.93**	**400**	**88**	**2.0**	**7.07**	**7.5 J**	**1,900**	**3,200**	< 0.0010 U	< 0.0013 U	**0.020**	< 0.001	< 0.0001	< 0.001	**0.00062**	**2.0**	< 0.0005	**0.057**	< 0.0002	**0.0019**	< 0.0005 U	< 0.0001	<0.7
MW-63	CWTP	Downgradient	7/8/2021	--	--	--	--	**7.21**	**7.2 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	11/15/2021	**1.3**	**440**	**81 J**	**0.28 J**	**6.89**	**7.7 J**	**2,100**	**3,600**	< 0.002 U	< 0.001	**0.022**	< 0.001 U	**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-64	CWTP	Downgradient	11/5/2015	**0.64**	**87**	**49**	**1.5**	**7.64**	--	**320**	**780**	< 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	11/5/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	4/27/2016	--	--	--	**1.4**	**7.50**	--	--	--	< 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	6/5/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.8
MW-64	CWTP	Downgradient	6/5/2016	**0.58**	**86**	**52**	**1.4**	**7.29**	**7.66**	**350**	**800**	< 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	8/20/2016	**0.65**	**89**	**46**	**1.3**	**7.68**	**7.5**	**330**	**790**	--	--	--	--	--	--	--	**1.3**	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	8/20/2016	--	--	--	**1.6**	--	--	--	--	< 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	8/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-64	CWTP	Downgradient	9/12/2016	**0.67**	**90**	**52**	**1.5**	**7.54**	**7.7**	**320**	**790**	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	9/12/2016	--	--	--	**1.5**	--	--	--	--	< 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	--

Groundwater Sampling Results for the CWTP Monitoring Wells

				Appendix III Constituents								Appendix IV Constituents														
Constituent:				Boron	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	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	N	N	N	N	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	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)				*2*	*551*	*634*	*1.6*	*6.48 - 6.93*	*6.48 - 6.93*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-63)				*2*	*551*	*634*	*2.3*	*6.48 - 6.93*	*6.48 - 6.93*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-64)				*0.7*	*500*	*634*	*1.5*	*7.25-7.68*	*7.25-7.68*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-65)				*0.7*	*500*	*634*	*2.0*	*6.96-8.27*	*6.96-8.27*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	9/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.8**
MW-64	CWTP	Downgradient	10/19/2016	**0.64**	**83**	**53**	**1.5**	**7.52**	**7.8**	**330**	**790**	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	10/19/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.5
MW-64	CWTP	Downgradient	1/31/2017	**0.61**	**85**	**48**	**1.4**	**7.38**	**8.1**	**340**	**800**	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	1/31/2017	--	--	--	**1.5**	--	--	--	--	< 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	1/31/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.7**
MW-64	CWTP	Downgradient	4/17/2017	**0.58**	**85**	**51**	**1.4**	**7.53**	**7.9**	**870**	**800**	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	4/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-64	CWTP	Downgradient	4/17/2017	--	--	--	**1.4**	--	--	--	--	< 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	5/2/2017	--	--	--	**1.3**	**7.47**	--	--	--	< 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	5/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-64	CWTP	Downgradient	5/2/2017	--	--	--	**1.3**	--	--	--	--	< 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	5/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-64	CWTP	Downgradient	5/28/2017	--	--	--	**1.5**	**7.45**	--	--	--	< 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	5/28/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-64	CWTP	Downgradient	6/21/2017	**0.55**	**86**	**51**	--	**7.50**	**7.8**	**390**	**770**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	6/21/2017	--	--	--	**1.4**	--	--	--	--	< 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	6/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-64	CWTP	Downgradient	7/21/2017	**0.59**	**88**	**52**	**1.5**	**7.61**	**7.7**	**370**	**790**	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	< 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	7/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-64	CWTP	Downgradient	8/9/2017	**0.61**	**89**	**52**	--	**7.31**	**7.8**	**380**	**890**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	8/9/2017	--	--	--	**1.5**	--	--	--	--	< 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	8/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.8**
MW-64	CWTP	Downgradient	8/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-64	CWTP	Downgradient	8/16/2017	**0.58**	**89**	**53**	**1.5**	**7.29**	**7.8**	**360**	**790**	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	9/9/2017	**0.67**	**90**	**53**	--	**7.36**	**7.8**	**350**	**810**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	9/9/2017	--	--	--	**1.5**	--	--	--	--	< 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	9/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-64	CWTP	Downgradient	10/13/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-64	CWTP	Downgradient	10/13/2017	**0.62**	**82**	**52**	**1.4**	**7.42**	**7.7**	**360**	**790**	< 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	11/30/2017	**0.64**	**90**	**52**	**1.4**	**7.37**	**7.7**	**350**	**780**	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	6/3/2018	**0.48**	**85**	**50**	**1.4**	**7.54**	**7.7**	**390**	**800**	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	11/2/2018	**0.64**	**88**	**50**	**1.4**	**7.43**	**7.8**	**350**	**760**	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	4/1/2019	**0.48**	**81**	**51**	**1.4**	**7.48**	**7.7**	**360**	**760**	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	5/7/2019	**0.49**	**89**	--	**1.4**	**7.41**	**8.0**	--	**790**	--	--	--	--	--	--	--	**1.4**	--	< 0.20	--	--	--	--	--
MW-64	CWTP	Downgradient	5/7/2019	**0.48**	**88**	--	**1.4**	--	**8.0**	--	**780**	--	--	--	--	--	--	--	**1.4**	--	< 0.20	--	--	--	--	--
MW-64	CWTP	Downgradient	12/3/2019	**0.56**	**82**	--	**1.5**	**7.29**	**7.8 J**	--	**720**	--	--	--	--	--	--	--	**1.5**	--	< 0.20	--	--	--	--	--
MW-64	CWTP	Downgradient	6/19/2020	**0.47**	**77**	**49**	**1.3**	**7.22**	**7.9 J**	**300**	**790**	--	--	--	--	--	--	--	**1.3**	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	11/5/2020	**0.51**	**73**	**53**	**1.6**	**7.49**	**7.8 J**	**270**	**720**	--	--	--	--	--	--	--	**1.6**	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	4/22/2021	**0.50**	**89**	**52**	**1.4**	**7.60**	**7.9 J**	**300**	**660**	< 0.0010 U	< 0.00096 U	**0.033**	< 0.001	< 0.0001	< 0.001	**0.00083**	**1.4**	< 0.0005	**0.019 J**	< 0.0002	**0.0047**	< 0.0005 U	< 0.0001	<0.7
MW-64	CWTP	Downgradient	11/15/2021	**0.58**	**72**	**51**	**1.4**	**7.29**	**7.1 J**	**270**	**680**	< 0.002	< 0.001	**0.024 J**	< 0.001 U	**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-65	CWTP	Downgradient	11/5/2015	**0.86**	**100**	**52**	**2.0**	**7.50**	--	**440**	**1,000**	< 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	11/5/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	4/27/2016	--	--	--	**1.8**	**7.29**	--	--	--	< 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	6/5/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.8
MW-65	CWTP	Downgradient	6/5/2016	**0.75**	**100**	**54**	**2.0**	**7.08**	**7.41**	**460**	**1,100**	< 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	8/20/2016	**0.79**	**100**	**52**	**1.7**	**8.27**	**7.4**	**450**	**1,000**	--	--	--	--	--	--	--	**1.7**	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	8/20/2016	--	--	--	**2.1**	--	--	--	--	< 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	8/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.4
MW-65	CWTP	Downgradient	9/12/2016	**0.83**	**110**	**54**	**2.0**	**7.52**	**7.5**	**480**	**1,100**	--	--	--	--	--	--	--	**2.0**	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	9/12/2016	--	--	--	**2.0**	--	--	--	--	< 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	9/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.0**
MW-65	CWTP	Downgradient	10/19/2016	**0.77**	**95**	**54**	**2.0**	**7.36**	**7.6**	**450**	**1,000**	--	--	--	--	--	--	--	**2.0**	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	10/19/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.5
MW-65	CWTP	Downgradient	2/1/2017	**0.76**	**96**	**51**	**1.8**	**7.35**	**7.9**	**410**	**970**	--	--	--	--	--	--	--	**1.8**	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	2/1/2017	--	--	--	**2.0**	--	--	--	--	< 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	2/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**
MW-65	CWTP	Downgradient	4/16/2017	**0.83**	**120**	**60**	**1.8**	**7.21**	**7.6**	**490**	**1,300**	--	--	--	--	--	--	--	**1.8**	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	4/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.7**
MW-65	CWTP	Downgradient	4/16/2017	--	--	--	**1.7**	--	--	--	--	< 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	5/1/2017	--	--	--	**1.6**	**7.24**	--	--	--	< 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	5/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-65	CWTP	Downgradient	5/1/2017	--	--	--	**1.6**	--	--	--	--	< 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	5/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-65	CWTP	Downgradient	5/29/2017	--	--	--	**1.8**	**7.10**	--	--	--	< 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	--
MW-65	CWTP	Downgradient	5/29/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-65	CWTP	Downgradient	5/29/2017	--	--	--	**1.8**	--	--	--	--	< 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	5/29/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-65	CWTP	Downgradient	6/21/2017	**0.92**	**140**	**68**	--	**7.06**	**7.6**	**710**	**1,400**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	6/21/2017	--	--	--	**1.9**	--	--	--	--	< 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	6/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-65	CWTP	Downgradient	6/21/2017	**0.96**	**140**	**68**	--	--	**7.6**	**720**	**1,300**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Groundwater Sampling Results for the CWTP Monitoring Wells

				Appendix III Constituents								Appendix IV Constituents														
Constituent:				Boron	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	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	N	N	N	N	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	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)				*2*	*551*	*634*	*1.6*	*6.48 - 6.93*	*6.48 - 6.93*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-63)				*2*	*551*	*634*	*2.3*	*6.48 - 6.93*	*6.48 - 6.93*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-64)				*0.7*	*500*	*634*	*1.5*	*7.25-7.68*	*7.25-7.68*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-65)				*0.7*	*500*	*634*	*2.0*	*6.96-8.27*	*6.96-8.27*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	6/21/2017	--	--	--	**2.0**	--	--	--	--	< 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	6/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.3**
MW-65	CWTP	Downgradient	7/21/2017	**0.76**	**110**	**53**	**2.0**	**7.31**	**7.5**	**470**	**1,000**	--	--	--	--	--	--	--	**2.0**	--	--	--	--	--	--	--

Groundwater Sampling Results for the CWTP Monitoring Wells

				Appendix III Constituents								Appendix IV Constituents														
Constituent:				Boron	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	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	N	N	N	N	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	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)				*2*	*551*	*634*	*1.6*	*6.48 - 6.93*	*6.48 - 6.93*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-63)				*2*	*551*	*634*	*2.3*	*6.48 - 6.93*	*6.48 - 6.93*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-64)				*0.7*	*500*	*634*	*1.5*	*7.25-7.68*	*7.25-7.68*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CWTP BTV (applicable to MW-65)				*0.7*	*500*	*634*	*2.0*	*6.96-8.27*	*6.96-8.27*	*13,000*	*20,000*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	7/21/2017	--	--	--	**2.0**	--	--	--	--	< 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	7/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-65	CWTP	Downgradient	7/21/2017	**0.77**	**110**	**53**	**2.0**	--	**7.5**	**470**	**1,000**	--	--	--	--	--	--	--	**2.0**	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-65	CWTP	Downgradient	8/9/2017	**0.76**	**110**	**53**	--	**7.15**	**7.7**	**500**	**1,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	8/9/2017	--	--	--	**2.0**	--	--	--	--	< 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	8/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.5
MW-65	CWTP	Downgradient	8/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-65	CWTP	Downgradient	8/16/2017	**0.75**	**110**	**53**	**2.0**	**6.96**	**7.7**	**500**	**1,000**	--	--	--	--	--	--	--	**2.0**	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	8/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-65	CWTP	Downgradient	8/16/2017	**0.75**	**110**	**53**	**2.0**	--	**7.6**	**470**	**1,000**	--	--	--	--	--	--	--	**2.0**	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	9/9/2017	**0.80**	**110**	**53**	--	**7.04**	**7.5**	**450**	**1,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	9/9/2017	--	--	--	**2.0**	--	--	--	--	< 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	9/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-65	CWTP	Downgradient	9/9/2017	**0.81**	**110**	**54**	--	--	**7.5**	**450**	**1,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	9/9/2017	--	--	--	**2.0**	--	--	--	--	< 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	9/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-65	CWTP	Downgradient	10/13/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-65	CWTP	Downgradient	10/13/2017	**0.75**	**92**	**52**	**1.9**	**7.13**	**7.6**	**400**	**960**	< 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	10/13/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-65	CWTP	Downgradient	10/13/2017	**0.76**	**93**	**52**	**1.9**	--	**7.6**	**400**	**980**	< 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	11/30/2017	**0.79**	**100**	**53**	**2.0**	**7.21**	**7.6**	**410**	**990**	--	--	--	--	--	--	--	**2.0**	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	6/3/2018	**0.62**	**98**	**52**	**1.9**	**7.22**	**7.5**	**480**	**1,000**	--	--	--	--	--	--	--	**1.9**	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	11/2/2018	**0.77**	**100**	**51**	**1.9**	**7.18**	**7.5**	**420**	**940**	--	--	--	--	--	--	--	**1.9**	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	4/1/2019	**0.58**	**92**	**52**	**1.8**	**7.20**	**7.6**	**400**	**910**	--	--	--	--	--	--	--	**1.8**	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	4/1/2019	**0.57**	**90**	**52**	**1.9**	**7.20**	**7.6**	**390**	**930**	--	--	--	--	--	--	--	**1.9**	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	5/7/2019	**0.60**	**100**	--	**1.7**	**7.13**	**7.9**	--	**970**	--	--	--	--	--	--	--	**1.7**	--	< 0.20	--	--	--	--	--
MW-65	CWTP	Downgradient	12/3/2019	**0.65**	**89**	--	**1.9**	**7.10**	**7.6 J**	--	**850**	--	--	--	--	--	--	--	**1.9**	--	< 0.20	--	--	--	--	--
MW-65	CWTP	Downgradient	6/19/2020	**0.57**	**88**	**48**	**1.7**	**7.18**	**7.4 J**	**380**	**940**	--	--	--	--	--	--	--	**1.7**	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	11/5/2020	**0.61**	**82**	**52**	**2.1**	**7.36**	**7.7 J**	**350**	**780**	--	--	--	--	--	--	--	**2.1**	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	4/22/2021	**0.78**	**170**	**71**	**1.5**	**7.19**	**7.7 J**	**740**	**540**	< 0.0010 U	< 0.00099 U	**0.032**	< 0.001	< 0.0001	< 0.001	**0.0020**	**1.5**	< 0.0005	**0.061**	< 0.0002	**0.0072**	< 0.00059 U	< 0.0001	<0.7
MW-65	CWTP	Downgradient	7/8/2021	**0.87**	--	--	--	**7.40**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	11/15/2021	**0.73**	**92**	**55**	**1.7**	**7.14**	**8.0 J**	**390**	**910**	< 0.002	< 0.001	**0.020**	< 0.001 U	< 0.0002	<0.002	**0.0022**	**1.7**	< 0.001	**0.053**	<0.0002	**0.0098**	<0.001	**0.000072 J**	<0.6

Groundwater Sampling Results for the CWTP Monitoring Wells

				Additional Analyses														
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Magnesium	Nitrate as N	Nitrate Nitrite as N	Nitrite (as N)	Potassium	Radium 226	Radium 228	Sodium	Temperature (lab)
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	pCi/L	pCi/L	mg/L	degrees C
CWTP BTV (applicable to MW-62)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-63)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-64)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-65)				--	--	--	--	--	--	--		--	--	--	--	--	
MW-71	URS/CWTP	Background	3/5/2016	**490**	< 5.0	--	**490**	--	**1,600**	--	--	--	**23**	--	--	**880**	--
MW-71	URS/CWTP	Background	3/5/2016	--	--	--	--	--	--	--	--	--	--	**0.656**	**1.2**	--	--
MW-71	URS/CWTP	Background	3/5/2016	**410**	< 5.0	--	**410**	--	**1,700**	--	--	--	**24**	--	--	**940**	--
MW-71	URS/CWTP	Background	3/5/2016	--	--	--	--	--	--	--	--	--	--	**0.717**	**1.26**	--	--
MW-71	URS/CWTP	Background	4/26/2016	--	--	--	--	--	--	--	--	--	--	**0.7**	**1.5**	--	--
MW-71	URS/CWTP	Background	6/6/2016	--	--	--	--	--	--	--	--	--	--	**1.1**	**2.1**	--	--
MW-71	URS/CWTP	Background	6/6/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**15.5**
MW-71	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**13.7**
MW-71	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	--	--	--	--	**0.6**	**1.0**	--	--
MW-71	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**15.2**
MW-71	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	--	--	--	--	**0.3**	**0.8**	--	--
MW-71	URS/CWTP	Background	9/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**10.6**
MW-71	URS/CWTP	Background	9/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	9/12/2016	--	--	--	--	--	--	--	--	--	--	**0.5**	**1.6**	--	--
MW-71	URS/CWTP	Background	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**12**
MW-71	URS/CWTP	Background	10/20/2016	--	--	--	--	--	--	--	--	--	--	**0.4**	< 0.7	--	--
MW-71	URS/CWTP	Background	2/2/2017	**550**	< 6.0	< 6.0	**550**	< 6.0	**2,300**	--	--	--	**32**	--	--	**1,200**	**12.9**
MW-71	URS/CWTP	Background	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	2/2/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.9**	--	--
MW-71	URS/CWTP	Background	4/17/2017	**420**	< 6.0	< 6.0	**420**	< 6.0	**1,800**	--	--	--	**25**	--	--	**980**	**14.5**
MW-71	URS/CWTP	Background	4/17/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.2**	--	--
MW-71	URS/CWTP	Background	4/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	5/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	5/2/2017	--	--	--	--	--	--	--	--	--	--	**0.7**	< 0.6	--	--
MW-71	URS/CWTP	Background	5/29/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	5/29/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--
MW-71	URS/CWTP	Background	6/22/2017	**540**	< 6.0	< 6.0	**540**	< 6.0	**2,400**	--	--	--	**31**	--	--	**1,200**	**15.1**
MW-71	URS/CWTP	Background	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	6/22/2017	--	--	--	--	--	--	--	--	--	--	**1.2**	**1.5**	--	--
MW-71	URS/CWTP	Background	7/21/2017	**420**	< 6.0	< 6.0	**420**	< 6.0	**1,800**	--	--	--	**27**	--	--	**1,100**	**19.1**
MW-71	URS/CWTP	Background	7/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	7/21/2017	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.4	--	--
MW-71	URS/CWTP	Background	8/10/2017	**420**	< 6.0	< 6.0	**420**	< 6.0	**2,000**	--	--	--	**27**	--	--	**1,100**	**12.5**
MW-71	URS/CWTP	Background	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	8/10/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.7	--	--
MW-71	URS/CWTP	Background	8/17/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	**2.0**	--	--
MW-71	URS/CWTP	Background	8/17/2017	**430**	< 6.0	< 6.0	**430**	< 6.0	**1,800**	--	--	--	**30**	--	--	**1,100**	**14.4**
MW-71	URS/CWTP	Background	9/11/2017	**420**	< 6.0	< 6.0	**420**	< 6.0	**1,800**	--	--	--	**26**	--	--	**1,100**	**11**
MW-71	URS/CWTP	Background	9/11/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	9/11/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.7	--	--
MW-71	URS/CWTP	Background	10/13/2017	--	--	--	--	--	--	--	--	--	--	**0.8**	**0.8**	--	--
MW-71	URS/CWTP	Background	10/13/2017	**430**	< 6.0	< 6.0	**430**	< 6.0	**1,700**	--	--	--	**26**	--	--	**1,000**	**8.1**
MW-71	URS/CWTP	Background	11/30/2017	**430**	< 6.0	< 6.0	**430**	< 6.0	**1,700**	--	--	--	**29**	--	--	**1,100**	**20.2**
MW-71	URS/CWTP	Background	3/16/2018	--	--	--	--	--	--	--	--	--	--	< 1.0	**0.8**	--	--
MW-71	URS/CWTP	Background	6/2/2018	--	--	--	--	--	--	--	--	--	--	**0.4**	**1.5**	--	--
MW-71	URS/CWTP	Background	6/2/2018	**430**	< 6.0	< 6.0	**430**	< 6.0	**2,000**	--	--	--	**27**	--	--	**1,000**	**20.2**
MW-71	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	**14.8**
MW-71	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--	**1.2**	< 0.7	--	--
MW-71	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	**7.4**
MW-71	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--	**1.8**	< 0.7	--	--
MW-71	URS/CWTP	Background	3/18/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	3/18/2019	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.7	--	--
MW-71	URS/CWTP	Background	5/6/2019	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.0**	--	--
MW-71	URS/CWTP	Background	12/2/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	6/20/2020	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.8	--	**9.5**
MW-71	URS/CWTP	Background	11/5/2020	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.8	--	**18.6**
MW-71	URS/CWTP	Background	4/22/2021							--	--	--		**0.7**	<0.7		
MW-71	URS/CWTP	Background	11/12/2021	--	--	--	--	--	--	--	--	--	--	**0.5**	<0.6	--	
MW-72	URS/CWTP	Background	3/7/2016	**620**	< 5.0	--	**620**	--	**2,300**	--	--	--	**29**	--	--	**720**	--
MW-72	URS/CWTP	Background	3/7/2016	--	--	--	--	--	--	--	--	--	--	**1.06**	**1.85**	--	--
MW-72	URS/CWTP	Background	4/26/2016	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.8	--	--
MW-72	URS/CWTP	Background	6/6/2016	--	--	--	--	--	--	--	--	--	--	**0.5**	**0.8**	--	--
MW-72	URS/CWTP	Background	6/6/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**15.2**
MW-72	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**14.1**
MW-72	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	--	--	--	--	**0.5**	**2.7**	--	--
MW-72	URS/CWTP	Background	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**10.6**
MW-72	URS/CWTP	Background	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	9/13/2016	--	--	--	--	--	--	--	--	--	--	**0.5**	**3.4**	--	--
MW-72	URS/CWTP	Background	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**12.2**

Groundwater Sampling Results for the CWTP Monitoring Wells

				Additional Analyses														
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Magnesium	Nitrate as N	Nitrate Nitrite as N	Nitrite (as N)	Potassium	Radium 226	Radium 228	Sodium	Temperature (lab)
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	pCi/L	pCi/L	mg/L	degrees C
CWTP BTV (applicable to MW-62)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-63)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-64)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-65)				--	--	--	--	--	--	--		--	--	--	--	--	
MW-72	URS/CWTP	Background	10/20/2016	--	--	--	--	--	--	--	--	--	--	**0.7**	**3.5**	--	--
MW-72	URS/CWTP	Background	2/2/2017	**560**	< 6.0	< 6.0	**560**	< 6.0	**2,200**	--	--	--	**27**	--	--	**700**	**13.5**
MW-72	URS/CWTP	Background	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	2/2/2017	--	--	--	--	--	--	--	--	--	--	**0.7**	**3.3**	--	--
MW-72	URS/CWTP	Background	2/2/2017	**560**	< 6.0	< 6.0	**560**	< 6.0	**2,300**	--	--	--	**28**	--	--	**710**	**12.6**
MW-72	URS/CWTP	Background	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	2/2/2017	--	--	--	--	--	--	--	--	--	--	**0.6**	**0.6**	--	--
MW-72	URS/CWTP	Background	4/17/2017	--	--	--	--	--	--	--	--	--	--	**0.6**	**2.9**	--	--
MW-72	URS/CWTP	Background	4/17/2017	**600**	< 6.0	< 6.0	**600**	< 6.0	**2,400**	--	--	--	**29**	--	--	**760**	**14.9**
MW-72	URS/CWTP	Background	4/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	5/2/2017	--	--	--	--	--	--	--	--	--	--	**0.7**	**3.1**	--	--
MW-72	URS/CWTP	Background	5/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	5/29/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	6/22/2017	**600**	< 6.0	< 6.0	**600**	< 6.0	**2,400**	--	--	--	**29**	--	--	**760**	**14**
MW-72	URS/CWTP	Background	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	6/22/2017	--	--	--	--	--	--	--	--	--	--	**0.6**	**2.2**	--	--
MW-72	URS/CWTP	Background	6/22/2017	**610**	< 6.0	< 6.0	**610**	< 6.0	**2,500**	--	--	--	**30**	--	--	**770**	**11.7**
MW-72	URS/CWTP	Background	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	6/22/2017	--	--	--	--	--	--	--	--	--	--	**0.5**	**2.5**	--	--
MW-72	URS/CWTP	Background	7/21/2017	**600**	< 6.0	< 6.0	**600**	< 6.0	**2,300**	--	--	--	**29**	--	--	**760**	**18.9**
MW-72	URS/CWTP	Background	7/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	7/21/2017	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.7**	--	--
MW-72	URS/CWTP	Background	8/10/2017	**600**	< 6.0	< 6.0	**600**	< 6.0	**2,500**	--	--	--	**30**	--	--	**780**	**13.9**
MW-72	URS/CWTP	Background	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	8/10/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	**2.8**	--	--
MW-72	URS/CWTP	Background	8/10/2017	**610**	< 6.0	< 6.0	**610**	< 6.0	**2,600**	--	--	--	**30**	--	--	**800**	**12.5**
MW-72	URS/CWTP	Background	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	8/10/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.7**	--	--
MW-72	URS/CWTP	Background	8/17/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	**2.1**	--	--
MW-72	URS/CWTP	Background	8/17/2017	**610**	< 6.0	< 6.0	**610**	< 6.0	**2,300**	--	--	--	**33**	--	--	**790**	**14.1**
MW-72	URS/CWTP	Background	8/17/2017	--	--	--	--	--	--	--	--	--	--	**0.9**	**2.1**	--	--
MW-72	URS/CWTP	Background	8/17/2017	**600**	< 6.0	< 6.0	**600**	< 6.0	**2,400**	--	--	--	**32**	--	--	**770**	**14**
MW-72	URS/CWTP	Background	9/10/2017	**610**	< 6.0	< 6.0	**610**	< 6.0	**2,300**	--	--	--	**28**	--	--	**730**	**11.5**
MW-72	URS/CWTP	Background	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	9/10/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	**2.3**	--	--
MW-72	URS/CWTP	Background	10/13/2017	--	--	--	--	--	--	--	--	--	--	**0.7**	**2.4**	--	--
MW-72	URS/CWTP	Background	10/13/2017	**610**	< 6.0	< 6.0	**610**	< 6.0	**2,300**	--	--	--	**28**	--	--	**740**	**7.7**
MW-72	URS/CWTP	Background	11/29/2017	**590**	< 6.0	< 6.0	**590**	< 6.0	**2,300**	--	--	--	**28**	--	--	**760**	**17.2**
MW-72	URS/CWTP	Background	3/16/2018	--	--	--	--	--	--	--	--	--	--	< 1.0	**1.9**	--	--
MW-72	URS/CWTP	Background	6/2/2018	--	--	--	--	--	--	--	--	--	--	< 0.4	**2.8**	--	--
MW-72	URS/CWTP	Background	6/2/2018	**610**	< 6.0	< 6.0	**610**	< 6.0	**2,300**	--	--	--	**26**	--	--	**670**	**20.3**
MW-72	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	**14.8**
MW-72	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--	**0.7**	**1.0**	--	--
MW-72	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	**9.5**
MW-72	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--	**0.5**	**1.5**	--	--
MW-72	URS/CWTP	Background	3/17/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	3/17/2019	--	--	--	--	--	--	--	--	--	--	< 0.4	**2.4**	--	--
MW-72	URS/CWTP	Background	5/7/2019	--	--	--	--	--	--	--	--	--	--	< 0.4	**3.4**	--	--
MW-72	URS/CWTP	Background	12/2/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	6/19/2020	--	--	--	--	--	--	--	--	--	--	**0.9**	**2.6**	--	**9.6**
MW-72	URS/CWTP	Background	11/5/2020	--	--	--	--	--	--	--	--	--	--	**0.7**	**1.7**	--	**7.7**
MW-72	URS/CWTP	Background	4/22/2021							--	--	--		**0.7**	**1.5**		
MW-72	URS/CWTP	Background	11/12/2021	--	--	--	--	--	--	--	--	--	--	**1.3**	**2.4**	--	
MW-73	URS/CWTP	Background	2/2/2017	**560**	< 6.0	< 6.0	**560**	< 6.0	**580**	--	--	--	**28**	--	--	**1,100**	**12.5**
MW-73	URS/CWTP	Background	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	2/2/2017	--	--	--	--	--	--	--	--	--	--	**1.0**	**2.2**	--	--
MW-73	URS/CWTP	Background	4/18/2017	**650**	< 6.0	< 6.0	**650**	< 6.0	**630**	--	--	--	**29**	--	--	**1,200**	**14.7**
MW-73	URS/CWTP	Background	4/18/2017	--	--	--	--	--	--	--	--	--	--	**0.7**	**1.1**	--	--
MW-73	URS/CWTP	Background	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	5/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	5/2/2017	--	--	--	--	--	--	--	--	--	--	**0.5**	**1.8**	--	--
MW-73	URS/CWTP	Background	5/29/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	5/29/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--
MW-73	URS/CWTP	Background	6/22/2017	**780**	< 6.0	< 6.0	**780**	< 6.0	**750**	--	--	--	**34**	--	--	**1,600**	**10.7**
MW-73	URS/CWTP	Background	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	6/22/2017	--	--	--	--	--	--	--	--	--	--	**1.5**	**1.6**	--	--
MW-73	URS/CWTP	Background	7/22/2017	**800**	< 6.0	< 6.0	**800**	< 6.0	**840**	--	--	--	**37**	--	--	**1,800**	**18.6**
MW-73	URS/CWTP	Background	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	7/22/2017	--	--	--	--	--	--	--	--	--	--	< 0.5	**2.0**	--	--
MW-73	URS/CWTP	Background	7/22/2017	**800**	< 6.0	< 6.0	**800**	< 6.0	**850**	--	--	--	**37**	--	--	**1,800**	**18.5**
MW-73	URS/CWTP	Background	7/22/2017	--	--	--	--	--	--	--	--	--	--	**0.7**	**1.1**	--	--
MW-73	URS/CWTP	Background	8/10/2017	**800**	< 6.0	< 6.0	**800**	< 6.0	**820**	--	--	--	**36**	--	--	**1,800**	**12.1**

Groundwater Sampling Results for the CWTP Monitoring Wells

				Additional Analyses														
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Magnesium	Nitrate as N	Nitrate Nitrite as N	Nitrite (as N)	Potassium	Radium 226	Radium 228	Sodium	Temperature (lab)
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	pCi/L	pCi/L	mg/L	degrees C
CWTP BTV (applicable to MW-62)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-63)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-64)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-65)				--	--	--	--	--	--	--		--	--	--	--	--	
MW-73	URS/CWTP	Background	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	8/10/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.1**	--	--
MW-73	URS/CWTP	Background	8/17/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.5**	--	--
MW-73	URS/CWTP	Background	8/17/2017	**800**	< 6.0	< 6.0	**800**	< 6.0	**860**	--	--	--	**41**	--	--	**1,800**	**15.4**
MW-73	URS/CWTP	Background	9/10/2017	**730**	< 6.0	< 6.0	**730**	< 6.0	**680**	--	--	--	**30**	--	--	**1,300**	**11.8**
MW-73	URS/CWTP	Background	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	9/10/2017	--	--	--	--	--	--	--	--	--	--	**1.2**	**1.3**	--	--
MW-73	URS/CWTP	Background	10/12/2017	--	--	--	--	--	--	--	--	--	--	< 0.3	**0.9**	--	--
MW-73	URS/CWTP	Background	10/12/2017	**480**	< 6.0	< 6.0	**480**	< 6.0	**440**	--	--	--	**20**	--	--	**600**	**8.3**
MW-73	URS/CWTP	Background	10/12/2017	--	--	--	--	--	--	--	--	--	--	**0.7**	**1.2**	--	--
MW-73	URS/CWTP	Background	10/12/2017	**480**	< 6.0	< 6.0	**480**	< 6.0	**430**	--	--	--	**20**	--	--	**590**	**9.1**
MW-73	URS/CWTP	Background	11/29/2017	**650**	< 6.0	< 6.0	**650**	< 6.0	**640**	--	--	--	**32**	--	--	**1,200**	**16.7**
MW-73	URS/CWTP	Background	3/16/2018	--	--	--	--	--	--	--	--	--	--	< 1.0	**2.6**	--	--
MW-73	URS/CWTP	Background	6/2/2018	--	--	--	--	--	--	--	--	--	--	**0.8**	**2.0**	--	--
MW-73	URS/CWTP	Background	6/2/2018	**800**	< 6.0	< 6.0	**800**	< 6.0	**710**	--	--	--	**34**	--	--	**1,600**	**20.2**
MW-73	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	**8.6**
MW-73	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--	**1.5**	**1.4**	--	--
MW-73	URS/CWTP	Background	3/18/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	3/18/2019	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.6**	--	--
MW-73	URS/CWTP	Background	5/6/2019	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.7**	--	--
MW-73	URS/CWTP	Background	12/2/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	12/2/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	6/20/2020	--	--	--	--	--	--	--	--	--	--	**1.5**	**1.9**	--	**9.8**
MW-73	URS/CWTP	Background	11/5/2020	--	--	--	--	--	--	--	--	--	--	**0.6**	**2.2**	--	**13.5**
MW-73	URS/CWTP	Background	4/22/2021							--	--	--		**0.7**	**1.1**		
MW-73	URS/CWTP	Background	11/13/2021	--	--	--	--	--	--	--	--	--	--	**1.0**	**1.8**	--	
MW-62	CWTP	Downgradient	11/9/2015	**1,100**	< 5.0	--	**1,100**	--	**340**	--	--	--	**11**	--	--	**710**	--
MW-62	CWTP	Downgradient	11/9/2015	--	--	--	--	--	--	--	--	--	--	< 0.0145	**1.59**	--	--
MW-62	CWTP	Downgradient	4/27/2016	--	--	--	--	--	--	--	--	--	--	**0.6**	< 0.8	--	--
MW-62	CWTP	Downgradient	6/5/2016	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.1**	--	--
MW-62	CWTP	Downgradient	6/5/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**14.9**
MW-62	CWTP	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**11.9**
MW-62	CWTP	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--	< 0.2	**1.4**	--	--
MW-62	CWTP	Downgradient	9/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**11.1**
MW-62	CWTP	Downgradient	9/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	9/12/2016	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.3**	--	--
MW-62	CWTP	Downgradient	10/19/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**10.1**
MW-62	CWTP	Downgradient	10/19/2016	--	--	--	--	--	--	--	--	--	--	< 0.4	**0.9**	--	--
MW-62	CWTP	Downgradient	2/1/2017	**740**	< 6.0	< 6.0	**740**	< 6.0	**340**	--	--	--	**10**	--	--	**660**	**9.9**
MW-62	CWTP	Downgradient	2/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	2/1/2017	--	--	--	--	--	--	--	--	--	--	**0.4**	**1.5**	--	--
MW-62	CWTP	Downgradient	4/16/2017	**800**	< 6.0	< 6.0	**800**	< 6.0	**350**	--	--	--	**9.4**	--	--	**710**	**13.8**
MW-62	CWTP	Downgradient	4/16/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--
MW-62	CWTP	Downgradient	4/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	5/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	5/1/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--
MW-62	CWTP	Downgradient	5/29/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	5/29/2017	--	--	--	--	--	--	--	--	--	--	**0.8**	**0.8**	--	--
MW-62	CWTP	Downgradient	6/21/2017	**850**	< 6.0	< 6.0	**850**	< 6.0	**360**	--	--	--	**9.3**	--	--	**710**	**16**
MW-62	CWTP	Downgradient	6/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	6/21/2017	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.6	--	--
MW-62	CWTP	Downgradient	7/21/2017	**760**	< 6.0	< 6.0	**760**	< 6.0	**340**	--	--	--	**10**	--	--	**650**	**18.3**
MW-62	CWTP	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.6	--	--
MW-62	CWTP	Downgradient	8/9/2017	**770**	< 6.0	< 6.0	**770**	< 6.0	**330**	--	--	--	**10**	--	--	**640**	**11.1**
MW-62	CWTP	Downgradient	8/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	8/9/2017	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--
MW-62	CWTP	Downgradient	8/16/2017	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.0**	--	--
MW-62	CWTP	Downgradient	8/16/2017	**760**	< 6.0	< 6.0	**760**	< 6.0	**340**	--	--	--	**12**	--	--	**640**	**14.8**
MW-62	CWTP	Downgradient	9/9/2017	**800**	< 6.0	< 6.0	**800**	< 6.0	**340**	--	--	--	**10**	--	--	**640**	**11.7**
MW-62	CWTP	Downgradient	9/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	9/9/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--
MW-62	CWTP	Downgradient	10/13/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	**0.7**	--	--
MW-62	CWTP	Downgradient	10/13/2017	**850**	< 6.0	< 6.0	**850**	< 6.0	**340**	--	--	--	**10**	--	--	**680**	**15.2**
MW-62	CWTP	Downgradient	11/30/2017	**800**	< 6.0	< 6.0	**800**	< 6.0	**360**	--	--	--	**10**	--	--	**740**	**16.3**
MW-62	CWTP	Downgradient	4/6/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	6/3/2018	**750**	< 6.0	< 6.0	**750**	< 6.0	**320**	--	--	--	**8.5**	--	--	**640**	**20.3**
MW-62	CWTP	Downgradient	11/2/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	**13.9**
MW-62	CWTP	Downgradient	4/1/2019	**690**	--	--	**690**	--	**350**	**0.61**	--	< 0.10	**9.5**	--	--	**690**	
MW-62	CWTP	Downgradient	5/7/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	**11.1**
MW-62	CWTP	Downgradient	12/3/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-62	CWTP	Downgradient	6/19/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.6**

Groundwater Sampling Results for the CWTP Monitoring Wells

				Additional Analyses														
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Magnesium	Nitrate as N	Nitrate Nitrite as N	Nitrite (as N)	Potassium	Radium 226	Radium 228	Sodium	Temperature (lab)
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	pCi/L	pCi/L	mg/L	degrees C
CWTP BTV (applicable to MW-62)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-63)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-64)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-65)				--	--	--	--	--	--	--		--	--	--	--	--	
MW-62	CWTP	Downgradient	11/5/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	**9.1**
MW-62	CWTP	Downgradient	1/14/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-62	CWTP	Downgradient	4/22/2021	--	--	--	--	--	--	--	--	--	--	<0.4	<0.7	--	16.5
MW-62	CWTP	Downgradient	11/15/2021	**850**	<6	<6	**850**	<6	**480**	<0.1	<0.1	<0.1	**9.3**	**0.4**	**0.7**	**670**	
MW-63	CWTP	Downgradient	11/4/2015	**540**	< 5.0	--	**540**	--	**260**	--	--	--	**7.4**	--	--	**410**	--
MW-63	CWTP	Downgradient	11/4/2015	--	--	--	--	--	--	--	--	--	--	**0.408**	**0.89**	--	--
MW-63	CWTP	Downgradient	4/27/2016	--	--	--	--	--	--	--	--	--	--	**0.6**	< 0.8	--	--
MW-63	CWTP	Downgradient	6/5/2016	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.8	--	--
MW-63	CWTP	Downgradient	6/5/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**14.8**
MW-63	CWTP	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**12.9**
MW-63	CWTP	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--	**0.3**	**1.8**	--	--
MW-63	CWTP	Downgradient	9/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**11**
MW-63	CWTP	Downgradient	9/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	9/12/2016	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.0**	--	--
MW-63	CWTP	Downgradient	10/19/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**10.4**
MW-63	CWTP	Downgradient	10/19/2016	--	--	--	--	--	--	--	--	--	--	< 0.2	< 0.7	--	--
MW-63	CWTP	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**12.6**
MW-63	CWTP	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--	**0.4**	**1.4**	--	--
MW-63	CWTP	Downgradient	1/31/2017	**470**	< 6.0	< 6.0	**470**	< 6.0	**260**	--	--	--	**5.6**	--	--	**360**	**9.6**
MW-63	CWTP	Downgradient	1/31/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	1/31/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	**0.7**	--	--
MW-63	CWTP	Downgradient	1/31/2017	**470**	< 6.0	< 6.0	**470**	< 6.0	**260**	--	--	--	**5.5**	--	--	**350**	**12.2**
MW-63	CWTP	Downgradient	1/31/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	1/31/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.7**	--	--
MW-63	CWTP	Downgradient	4/17/2017	**500**	< 6.0	< 6.0	**500**	< 6.0	**270**	--	--	--	**5.7**	--	--	**360**	**13.9**
MW-63	CWTP	Downgradient	4/17/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--
MW-63	CWTP	Downgradient	4/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	5/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	5/2/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	**0.8**	--	--
MW-63	CWTP	Downgradient	5/28/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	5/28/2017	--	--	--	--	--	--	--	--	--	--	**0.5**	< 0.6	--	--
MW-63	CWTP	Downgradient	5/28/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	5/28/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--
MW-63	CWTP	Downgradient	6/21/2017	**500**	< 6.0	< 6.0	**500**	< 6.0	**280**	--	--	--	**6.3**	--	--	**380**	**15.6**
MW-63	CWTP	Downgradient	6/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	6/21/2017	--	--	--	--	--	--	--	--	--	--	**0.4**	< 0.6	--	--
MW-63	CWTP	Downgradient	7/21/2017	**480**	< 6.0	< 6.0	**480**	< 6.0	**280**	--	--	--	**6.9**	--	--	**380**	**18.3**
MW-63	CWTP	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	--	--	< 0.3	**0.8**	--	--
MW-63	CWTP	Downgradient	8/9/2017	**490**	< 6.0	< 6.0	**490**	< 6.0	**280**	--	--	--	**6.9**	--	--	**390**	**11.3**
MW-63	CWTP	Downgradient	8/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	8/9/2017	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--
MW-63	CWTP	Downgradient	8/16/2017	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--
MW-63	CWTP	Downgradient	8/16/2017	**490**	< 6.0	< 6.0	**490**	< 6.0	**300**	--	--	--	**7.7**	--	--	**400**	**14.3**
MW-63	CWTP	Downgradient	9/9/2017	**490**	< 6.0	< 6.0	**490**	< 6.0	**270**	--	--	--	**6.9**	--	--	**360**	**11.9**
MW-63	CWTP	Downgradient	9/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	9/9/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	**0.7**	--	--
MW-63	CWTP	Downgradient	10/13/2017	--	--	--	--	--	--	--	--	--	--	**0.6**	**1.2**	--	--
MW-63	CWTP	Downgradient	10/13/2017	**490**	< 6.0	< 6.0	**490**	< 6.0	**250**	--	--	--	**6.7**	--	--	**340**	**15.2**
MW-63	CWTP	Downgradient	11/30/2017	**500**	< 6.0	< 6.0	**500**	< 6.0	**270**	--	--	--	**6.6**	--	--	**360**	**20.6**
MW-63	CWTP	Downgradient	4/6/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	6/3/2018	**500**	< 6.0	< 6.0	**500**	< 6.0	**260**	--	--	--	**5.4**	--	--	**320**	**20**
MW-63	CWTP	Downgradient	11/2/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	**15.3**
MW-63	CWTP	Downgradient	4/1/2019	**430**	--	--	**430**	--	**260**	< 0.10	--	< 0.10	**4.9**	--	--	**280**	
MW-63	CWTP	Downgradient	5/7/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	**11.1**
MW-63	CWTP	Downgradient	12/3/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	12/3/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-63	CWTP	Downgradient	6/19/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.3**
MW-63	CWTP	Downgradient	11/5/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	**9.9**
MW-63	CWTP	Downgradient	4/22/2021	--	--	--	--	--	--	--	--	--	--	<0.4	<0.7	--	15.3
MW-63	CWTP	Downgradient	7/8/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	15.3
MW-63	CWTP	Downgradient	11/15/2021	**330**	<6	<6	**330**	<6	**160**	**20**	**20**	**0.15**	**5.5**	<0.3	<0.6	**250**	
MW-64	CWTP	Downgradient	11/5/2015	**320**	< 5.0	--	**320**	--	**34**	--	--	--	**6.1**	--	--	**120**	--
MW-64	CWTP	Downgradient	11/5/2015	--	--	--	--	--	--	--	--	--	--	**0.339**	< 0.392	--	--
MW-64	CWTP	Downgradient	4/27/2016	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.8	--	--
MW-64	CWTP	Downgradient	6/5/2016	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.8	--	--
MW-64	CWTP	Downgradient	6/5/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**14.8**
MW-64	CWTP	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**7.3**
MW-64	CWTP	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.7	--	--
MW-64	CWTP	Downgradient	9/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**11.1**
MW-64	CWTP	Downgradient	9/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Groundwater Sampling Results for the CWTP Monitoring Wells

				Additional Analyses														
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Magnesium	Nitrate as N	Nitrate Nitrite as N	Nitrite (as N)	Potassium	Radium 226	Radium 228	Sodium	Temperature (lab)
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	pCi/L	pCi/L	mg/L	degrees C
CWTP BTV (applicable to MW-62)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-63)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-64)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-65)				--	--	--	--	--	--	--		--	--	--	--	--	
MW-64	CWTP	Downgradient	9/12/2016	--	--	--	--	--	--	--	--	--	--	< 0.4	**0.8**	--	--
MW-64	CWTP	Downgradient	10/19/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**10.8**
MW-64	CWTP	Downgradient	10/19/2016	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.5	--	--
MW-64	CWTP	Downgradient	1/31/2017	**230**	< 6.0	< 6.0	**230**	< 6.0	**34**	--	--	--	**5.7**	--	--	**120**	**9.7**
MW-64	CWTP	Downgradient	1/31/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	1/31/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.7**	--	--
MW-64	CWTP	Downgradient	4/17/2017	**220**	< 6.0	< 6.0	**220**	< 6.0	**35**	--	--	--	**5.8**	--	--	**120**	**13.6**
MW-64	CWTP	Downgradient	4/17/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--
MW-64	CWTP	Downgradient	4/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	5/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	5/2/2017	--	--	--	--	--	--	--	--	--	--	**0.7**	< 0.6	--	--
MW-64	CWTP	Downgradient	5/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	5/2/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--
MW-64	CWTP	Downgradient	5/28/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	5/28/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--
MW-64	CWTP	Downgradient	6/21/2017	**220**	< 6.0	< 6.0	**220**	< 6.0	**36**	--	--	--	**5.8**	--	--	**120**	**14.5**
MW-64	CWTP	Downgradient	6/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	6/21/2017	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.6	--	--
MW-64	CWTP	Downgradient	7/21/2017	**210**	< 6.0	< 6.0	**210**	< 6.0	**37**	--	--	--	**6.2**	--	--	**130**	**19.1**
MW-64	CWTP	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.6	--	--
MW-64	CWTP	Downgradient	8/9/2017	**220**	< 6.0	< 6.0	**220**	< 6.0	**37**	--	--	--	**6.0**	--	--	**130**	**11.6**
MW-64	CWTP	Downgradient	8/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	8/9/2017	--	--	--	--	--	--	--	--	--	--	< 0.5	**0.8**	--	--
MW-64	CWTP	Downgradient	8/16/2017	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--
MW-64	CWTP	Downgradient	8/16/2017	**230**	< 6.0	< 6.0	**230**	< 6.0	**36**	--	--	--	**6.1**	--	--	**120**	**13.2**
MW-64	CWTP	Downgradient	9/9/2017	**230**	< 6.0	< 6.0	**230**	< 6.0	**35**	--	--	--	**5.8**	--	--	**120**	**12.4**
MW-64	CWTP	Downgradient	9/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	9/9/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--
MW-64	CWTP	Downgradient	10/13/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--
MW-64	CWTP	Downgradient	10/13/2017	**230**	< 6.0	< 6.0	**230**	< 6.0	**33**	--	--	--	**5.7**	--	--	**120**	**15.3**
MW-64	CWTP	Downgradient	11/30/2017	**230**	< 6.0	< 6.0	**230**	< 6.0	**34**	--	--	--	**5.9**	--	--	**120**	**20.7**
MW-64	CWTP	Downgradient	6/3/2018	**190**	< 6.0	< 6.0	**190**	< 6.0	**34**	--	--	--	**5.4**	--	--	**110**	**20.1**
MW-64	CWTP	Downgradient	11/2/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	**14.8**
MW-64	CWTP	Downgradient	4/1/2019	**200**	--	--	**200**	--	**33**	< 0.10	--	< 0.10	**5.3**	--	--	**110**	
MW-64	CWTP	Downgradient	5/7/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	**11.3**
MW-64	CWTP	Downgradient	5/7/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	**11.2**
MW-64	CWTP	Downgradient	12/3/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-64	CWTP	Downgradient	6/19/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	**5.0**
MW-64	CWTP	Downgradient	11/5/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	**10.6**
MW-64	CWTP	Downgradient	4/22/2021	--	--	--	--	--	--	--	--	--	--	<0.4	<0.7	--	14.8
MW-64	CWTP	Downgradient	11/15/2021	**230**	<6	<6	**230**	<6	**29**	**1.3**	**1.5**	**0.15**	**5.4**	<0.3	<0.6	**95**	
MW-65	CWTP	Downgradient	11/5/2015	**390**	< 5.0	--	**390**	--	**59**	--	--	--	**3.2**	--	--	**140**	--
MW-65	CWTP	Downgradient	11/5/2015	--	--	--	--	--	--	--	--	--	--	< 0.0704	< 0.408	--	--
MW-65	CWTP	Downgradient	4/27/2016	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.8	--	--
MW-65	CWTP	Downgradient	6/5/2016	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.8	--	--
MW-65	CWTP	Downgradient	6/5/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**15.3**
MW-65	CWTP	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**11.2**
MW-65	CWTP	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.4	--	--
MW-65	CWTP	Downgradient	9/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**11.5**
MW-65	CWTP	Downgradient	9/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	9/12/2016	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.0**	--	--
MW-65	CWTP	Downgradient	10/19/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	**12.5**
MW-65	CWTP	Downgradient	10/19/2016	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.5	--	--
MW-65	CWTP	Downgradient	2/1/2017	**310**	< 6.0	< 6.0	**310**	< 6.0	**56**	--	--	--	**3.6**	--	--	**140**	**9.8**
MW-65	CWTP	Downgradient	2/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	2/1/2017	--	--	--	--	--	--	--	--	--	--	**0.4**	**1.5**	--	--
MW-65	CWTP	Downgradient	4/16/2017	**320**	< 6.0	< 6.0	**320**	< 6.0	**62**	--	--	--	**4.0**	--	--	**170**	**13.7**
MW-65	CWTP	Downgradient	4/16/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	**0.7**	--	--
MW-65	CWTP	Downgradient	4/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	5/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	5/1/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--
MW-65	CWTP	Downgradient	5/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	5/1/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--
MW-65	CWTP	Downgradient	5/29/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	5/29/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--
MW-65	CWTP	Downgradient	5/29/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	5/29/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--
MW-65	CWTP	Downgradient	6/21/2017	**320**	< 6.0	< 6.0	**320**	< 6.0	**73**	--	--	--	**3.9**	--	--	**190**	**16.3**
MW-65	CWTP	Downgradient	6/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	6/21/2017	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.6	--	--
MW-65	CWTP	Downgradient	6/21/2017	**330**	< 6.0	< 6.0	**330**	< 6.0	**76**	--	--	--	**4.0**	--	--	**200**	**16.4**

Groundwater Sampling Results for the CWTP Monitoring Wells

				Additional Analyses														
Constituent:				**Alkalinity Bicarbonate**	**Alkalinity Carbonate**	**Alkalinity Hydroxide**	**Alkalinity(as CaCO3)**	**Alkalinity, Phenolphthalein, as CaCO3**	**Magnesium**	**Nitrate as N**	**Nitrate Nitrite as N**	**Nitrite (as N)**	**Potassium**	**Radium 226**	**Radium 228**	**Sodium**	**Temperature (lab)**
Filtered:				**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**	**pCi/L**	**pCi/L**	**mg/L**	**degrees C**
CWTP BTV (applicable to MW-62)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-63)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-64)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-65)				--	--	--	--	--	--	--		--	--	--	--	--	
MW-65	CWTP	Downgradient	6/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	6/21/2017	--	--	--	--	--	--	--	--	--	--	**0.5**	**1.8**	--	--
MW-65	CWTP	Downgradient	7/21/2017	**310**	< 6.0	< 6.0	**310**	< 6.0	**63**	--	--	--	**3.7**	--	--	**150**	**18.7**

Groundwater Sampling Results for the CWTP Monitoring Wells

				Additional Analyses														
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Magnesium	Nitrate as N	Nitrate Nitrite as N	Nitrite (as N)	Potassium	Radium 226	Radium 228	Sodium	Temperature (lab)
Filtered:				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	pCi/L	pCi/L	mg/L	degrees C
CWTP BTV (applicable to MW-62)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-63)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-64)				--	--	--	--	--	--	--		--	--	--	--	--	
CWTP BTV (applicable to MW-65)				--	--	--	--	--	--	--		--	--	--	--	--	
MW-65	CWTP	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.6	--	--
MW-65	CWTP	Downgradient	7/21/2017	**310**	< 6.0	< 6.0	**310**	< 6.0	**63**	--	--	--	**3.7**	--	--	**150**	**18**
MW-65	CWTP	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.6	--	--
MW-65	CWTP	Downgradient	8/9/2017	**310**	< 6.0	< 6.0	**310**	< 6.0	**63**	--	--	--	**3.6**	--	--	**150**	**11.5**
MW-65	CWTP	Downgradient	8/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	8/9/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.5	--	--
MW-65	CWTP	Downgradient	8/16/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.7	--	--
MW-65	CWTP	Downgradient	8/16/2017	**320**	< 6.0	< 6.0	**320**	< 6.0	**63**	--	--	--	**4.0**	--	--	**150**	**13.4**
MW-65	CWTP	Downgradient	8/16/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.7	--	--
MW-65	CWTP	Downgradient	8/16/2017	**310**	< 6.0	< 6.0	**310**	< 6.0	**62**	--	--	--	**3.9**	--	--	**150**	**12.3**
MW-65	CWTP	Downgradient	9/9/2017	**320**	< 6.0	< 6.0	**320**	< 6.0	**59**	--	--	--	**3.4**	--	--	**140**	**11.9**
MW-65	CWTP	Downgradient	9/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	9/9/2017	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--
MW-65	CWTP	Downgradient	9/9/2017	**320**	< 6.0	< 6.0	**320**	< 6.0	**60**	--	--	--	**3.5**	--	--	**140**	**12.4**
MW-65	CWTP	Downgradient	9/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	9/9/2017	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.6	--	--
MW-65	CWTP	Downgradient	10/13/2017	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.6	--	--
MW-65	CWTP	Downgradient	10/13/2017	**330**	< 6.0	< 6.0	**330**	< 6.0	**54**	--	--	--	**3.6**	--	--	**130**	**15**
MW-65	CWTP	Downgradient	10/13/2017	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.6	--	--
MW-65	CWTP	Downgradient	10/13/2017	**330**	< 6.0	< 6.0	**330**	< 6.0	**55**	--	--	--	**3.5**	--	--	**140**	**16.1**
MW-65	CWTP	Downgradient	11/30/2017	**330**	< 6.0	< 6.0	**330**	< 6.0	**57**	--	--	--	**3.5**	--	--	**140**	**21**
MW-65	CWTP	Downgradient	6/3/2018	**290**	< 6.0	< 6.0	**290**	< 6.0	**56**	--	--	--	**3.3**	--	--	**130**	**20**
MW-65	CWTP	Downgradient	11/2/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	**12.9**
MW-65	CWTP	Downgradient	4/1/2019	**290**	--	--	**290**	--	**51**	**0.10**	--	< 0.10	**3.5**	--	--	**130**	
MW-65	CWTP	Downgradient	4/1/2019	**300**	--	--	**300**	--	**50**	**0.10**	--	< 0.10	**3.5**	--	--	**120**	
MW-65	CWTP	Downgradient	5/7/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	**11.3**
MW-65	CWTP	Downgradient	12/3/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-65	CWTP	Downgradient	6/19/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	**9.4**
MW-65	CWTP	Downgradient	11/5/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	**11.5**
MW-65	CWTP	Downgradient	4/22/2021	--	--	--	--	--	--	--	--	--	--	<0.4	<0.7	--	14.2
MW-65	CWTP	Downgradient	7/8/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	14.2
MW-65	CWTP	Downgradient	11/15/2021	**320**	<6	<6	**330**	<6	**53**	**0.22**	**0.48**	**0.26**	**4.2**	<0.3	<0.6	**130**	

Notes:

BTV exceedances are shown in grey shaded cells.

Duplicate sample dates under the same locations are either field duplicates or are instances of samples with multiple filed/lab sample IDs on the same date.

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

Groundwater Sampling Results for the URS Monitoring Wells

				Appendix III Constituents								Appendix IV Constituents														
Constituent:				Boron	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	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	N	N	N	N	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	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)				*1.9*	*540*	*710*	*<RL*	*LPL and UPL*	*LPL and UPL*	*13,000*	*20,000*	*0.01*	*0.13*	*0.051*	*0.001*	*0.001*	*0.01*	*0.016*	*4*	*0.005*	*0.8*	*0.0002*	*0.011*	*0.45*	*0.002*	*5*
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*
MW-71	URS/CWTP	Background	5/3/2016	**0.44**	**450**	**660**	< 0.050	**7.73**	--	**8,500**	**13,000**	**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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	3/5/2016	**0.46**	**480**	**670**	< 0.050	--	--	**8,500**	**13,000**	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	4/26/2016	**0.69**	**470**	**670**	< 2.0	**6.58**	--	**13,000**	**21,000**	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.2**
MW-71	URS/CWTP	Background	6/6/2016	**0.70**	**460**	**750**	< 0.40	**6.47**	**6.87**	**13,000**	**20,000**	**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	**0.56**	**450**	**590**	< 0.80	**7.04**	**7.1**	**8,400**	**14,000**	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	8/21/2016	--	--	--	< 0.80	--	--	--	--	**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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.6**
MW-71	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	**7.1**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	8/21/2016	--	--	--	< 0.40	--	--	--	--	**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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.1**
MW-71	URS/CWTP	Background	9/12/2016	**0.58**	**460**	**570**	< 0.40	**6.86**	**7.2**	**9,300**	**16,000**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	9/12/2016	--	--	--	< 0.40	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.1**
MW-71	URS/CWTP	Background	10/20/2016	**0.55**	**410**	**580**	< 0.40	**6.90**	**7.3**	**9,100**	**15,000**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.4**
MW-71	URS/CWTP	Background	2/2/2017	**0.62**	**440**	**610**	< 0.40	**6.64**	**7.6**	**14,000**	**17,000**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	2/2/2017	--	--	--	< 0.40	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**
MW-71	URS/CWTP	Background	4/17/2017	**0.52**	**400**	**550**	< 2.0	**6.81**	**7.6**	**9,400**	**15,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	4/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.2**
MW-71	URS/CWTP	Background	4/17/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	< 13	**6.86**	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.7**
MW-71	URS/CWTP	Background	5/29/2017	--	--	--	< 2.0	**6.76**	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-71	URS/CWTP	Background	6/22/2017	**0.60**	**460**	**620**	--	**6.79**	**7.2**	**4,600**	**17,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	6/22/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.7**
MW-71	URS/CWTP	Background	7/21/2017	**0.55**	**450**	**590**	< 2.0	**7.00**	**7.1**	**10,000**	**15,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	7/21/2017	--	--	--	--	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.5
MW-71	URS/CWTP	Background	8/10/2017	**0.55**	**450**	**560**	--	**6.59**	**7.4**	**10,000**	**15,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	8/10/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-71	URS/CWTP	Background	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.0**
MW-71	URS/CWTP	Background	8/17/2017	**0.56**	**480**	**570**	< 2.0	**6.62**	**7.3**	**9,500**	**15,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	9/11/2017	**0.55**	**470**	**570**	--	**6.56**	**7.1**	**9,900**	**15,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	9/11/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-71	URS/CWTP	Background	10/13/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.6**
MW-71	URS/CWTP	Background	10/13/2017	**0.54**	**420**	**570**	< 2.0	**6.79**	**7.2**	**10,000**	**15,000**	< 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	**0.56**	**490**	**540**	< 2.0	**6.71**	**7.1**	**10,000**	**15,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	3/16/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.8**
MW-71	URS/CWTP	Background	6/2/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**
MW-71	URS/CWTP	Background	6/2/2018	**0.55**	**420**	**520**	< 0.80	**6.85**	**7.1**	**10,000**	**15,000**	--	**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	**0.56**	**470**	**520**	< 2.0	**6.81**	**7.0**	**11,000**	**16,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	**0.0046**	**0.0098**	--	--	--	< 0.00050	--	--	**0.35**	--	**0.00079**	**0.27**	**0.00031**	**1.2**
MW-71	URS/CWTP	Background	11/3/2018	--	--	--	< 0.80	--	--	--	--	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	11/3/2018	**0.54**	**450**	**520**	< 0.80	**6.68**	**7.2**	**11,000**	**16,000**	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	**0.0068**	**0.0095**	--	--	--	< 0.00050	--	--	**0.34**	--	**0.00065**	**0.31**	**0.00030**	**1.8**
MW-71	URS/CWTP	Background	3/18/2019	--	--	--	< 0.80	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-71	URS/CWTP	Background	5/6/2019	--	--	--	--	**6.66**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.0**
MW-71	URS/CWTP	Background	12/2/2019	**0.50**	**440**	**500**	< 0.80	**6.66**	**7.2 J**	**10,000**	**16000 J**	< 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	**0.59**	**450**	**480**	< 0.8	**6.71**	**7.3 J**	**9,900**	**15,000**	< 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	**0.59**	**460**	**490**	< 0.4	**6.78**	**7.2 J**	**10,000**	**16,000**	< 0.002	**0.012**	**0.0092**	< 0.001	< 0.0002 U	< 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	**0.73**	**510**	**560**	**3.8 NJ**	**6.83**	**7.2 J**	**14,000**	**19,000**	< 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**	**0.00040**	**0.7**
MW-71	URS/CWTP	Background	11/12/2021	**0.54**	**440**	**560**	**0.14 J**	**6.74**	**7.4 J**	**12,000**	**8,000**	< 0.002	< 0.001	**0.010**	<0.001	**0.00010 J**	< 0.002	**0.00013 J**	**0.14 J**	< 0.001	**0.37**	UJ	< 0.001	**0.24**	**0.00042**	**0.5**

Groundwater Sampling Results for the URS Monitoring Wells

				Appendix III Constituents								Appendix IV Constituents														
Constituent:				Boron	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	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	N	N	N	N	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	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)				*1.9*	*540*	*710*	*<RL*	*LPL and UPL*	*LPL and UPL*	*13,000*	*20,000*	*0.01*	*0.13*	*0.051*	*0.001*	*0.001*	*0.01*	*0.016*	*4*	*0.005*	*0.8*	*0.0002*	*0.011*	*0.45*	*0.002*	*5*
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*
MW-72	URS/CWTP	Background	3/7/2016	**0.16**	**480**	**490**	< 0.050	**7.71**	--	**12,000**	**17,000**	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	4/26/2016	**0.22**	**470**	**430**	< 2.0	**6.87**	--	**11,000**	**19,000**	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.3**
MW-72	URS/CWTP	Background	6/6/2016	**0.25**	**570**	**530**	< 0.40	**6.56**	**6.99**	**4,500**	**9,500**	**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	**0.23**	**450**	**440**	< 0.40	**6.72**	**7.0**	**10,000**	**17,000**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	8/21/2016	--	--	--	< 0.40	--	--	--	--	**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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.2**
MW-72	URS/CWTP	Background	9/13/2016	**0.24**	**470**	**450**	< 0.40	**6.17**	**7.1**	**10,000**	**17,000**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	9/13/2016	--	--	--	< 0.40	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.9**
MW-72	URS/CWTP	Background	10/20/2016	**0.23**	**400**	**480**	< 0.40	**6.84**	**7.1**	**11,000**	**17,000**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.2**
MW-72	URS/CWTP	Background	2/2/2017	**0.23**	**420**	**430**	< 0.40	**6.63**	**7.5**	**11,000**	**16,000**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	2/2/2017	--	--	--	< 0.40	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.0**
MW-72	URS/CWTP	Background	2/2/2017	**0.21**	**430**	**450**	< 0.40	--	**7.5**	**11,000**	**16,000**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	2/2/2017	--	--	--	< 0.40	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.6**
MW-72	URS/CWTP	Background	4/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.5**
MW-72	URS/CWTP	Background	4/17/2017	**0.20**	**440**	**450**	< 2.0	**6.73**	**7.4**	**610**	**17,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	4/17/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.8**
MW-72	URS/CWTP	Background	5/2/2017	--	--	--	< 13	**6.83**	--	--	--	< 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	--	--	--	< 2.0	**6.68**	--	--	--	< 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	**0.23**	**450**	**450**	--	**6.65**	**7.1**	**11,000**	**17,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	6/22/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**
MW-72	URS/CWTP	Background	6/22/2017	**0.22**	**440**	**450**	--	--	**7.0**	**11,000**	**17,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	6/22/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.0**
MW-72	URS/CWTP	Background	7/21/2017	**0.23**	**450**	**460**	< 2.0	**6.93**	**7.1**	**11,000**	**17,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	7/21/2017	--	--	--	--	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.7**
MW-72	URS/CWTP	Background	8/10/2017	**0.21**	**450**	**460**	--	**6.47**	**7.3**	**11,000**	**17,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	8/10/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**
MW-72	URS/CWTP	Background	8/10/2017	**0.25**	**460**	**460**	--	--	**7.2**	**12,000**	**17,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	8/10/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.7**
MW-72	URS/CWTP	Background	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.1**
MW-72	URS/CWTP	Background	8/17/2017	**0.26**	**490**	**450**	< 2.0	**6.18**	**7.1**	**11,000**	**17,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.0**
MW-72	URS/CWTP	Background	8/17/2017	**0.27**	**480**	**460**	< 2.0	--	**7.2**	**12,000**	**17,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	9/10/2017	**0.21**	**470**	**460**	--	**6.61**	**7.0**	**11,000**	**17,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	9/10/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.3**
MW-72	URS/CWTP	Background	10/13/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.1**
MW-72	URS/CWTP	Background	10/13/2017	**0.22**	**430**	**450**	< 2.0	**6.65**	**7.2**	**11,000**	**16,000**	< 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	**0.22**	**500**	**450**	< 2.0	**6.63**	**7.2**	**10,000**	**16,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	3/16/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**
MW-72	URS/CWTP	Background	6/2/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**
MW-72	URS/CWTP	Background	6/2/2018	**0.21**	**410**	**450**	< 0.80	**6.75**	**7.0**	**11,000**	**16,000**	--	< 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	**0.22**	**470**	**450**	< 2.0	**6.75**	**7.0**	**11,000**	**16,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	**0.0031**	**0.0075**	--	--	--	**0.0020**	--	--	**0.37**	--	**0.00078**	**0.13**	**0.00088**	**1.7**
MW-72	URS/CWTP	Background	11/3/2018	--	--	--	< 0.80	--	--	--	--	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	11/3/2018	**0.21**	**460**	**450**	< 2.0	--	**7.1**	**11,000**	**16,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	**0.0026**	**0.0075**	--	--	--	**0.0020**	--	--	**0.37**	--	**0.00078**	**0.15**	**0.00087**	**2.0**
MW-72	URS/CWTP	Background	3/17/2019	--	--	--	< 0.80	**6.68**	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.4**
MW-72	URS/CWTP	Background	5/7/2019	--	--	--	--	**6.85**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.4**
MW-72	URS/CWTP	Background	12/2/2019	**0.19**	**430**	**430**	< 0.80	**6.62**	**7.1 J**	**11,000**	**16000 J**	< 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	**0.23**	**440**	**400**	< 0.8	**6.65**	**7.2 J**	**11,000**	**16,000**	< 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	**0.24**	**470**	**430**	< 0.4	**6.70**	**7.1 J**	**10,000**	**16,000**	< 0.001 U	**0.0053**	**0.018**	< 0.001	< 0.0001 U	**0.00071 J**	**0.0013**	< 0.4	< 0.0005	**0.38**	< 0.0002	**0.0020**	**0.11**	< 0.00011 U	**2.4**
MW-72	URS/CWTP	Background	4/22/2021	**0.25**	**480**	**400**	< 0.8	**6.89**	**7.2 J**	**10,000**	**16,000**	< 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	**0.22**	**440**	**450**	< 0.8	**6.64**	**7.1 J**	**11,000**	**14,000**	< 0.002	< 0.001	**0.0085**	<0.001	**0.00006 J**	< 0.002	**0.0026**	< 0.8	< 0.001	**0.38**	< 0.0002	**J**	**0.087**	**0.0010**	**3.7**

Groundwater Sampling Results for the URS Monitoring Wells

				Appendix III Constituents								Appendix IV Constituents														
Constituent:				Boron	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	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	N	N	N	N	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	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)				*1.9*	*540*	*710*	*<RL*	*LPL and UPL*	*LPL and UPL*	*13,000*	*20,000*	*0.01*	*0.13*	*0.051*	*0.001*	*0.001*	*0.01*	*0.016*	*4*	*0.005*	*0.8*	*0.0002*	*0.011*	*0.45*	*0.002*	*5*
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*
MW-73	URS/CWTP	Background	2/2/2017	**1.6**	**480**	**380**	< 0.40	**6.65**	**7.5**	**5,400**	**8,800**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	2/2/2017	--	--	--	< 0.40	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.2**
MW-73	URS/CWTP	Background	4/18/2017	**1.6**	**450**	**340**	< 0.80	**6.70**	**7.3**	**5,700**	**9,200**	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.8**
MW-73	URS/CWTP	Background	4/18/2017	--	--	--	< 0.80	--	--	--	--	< 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	--	--	--	< 5.0	**6.70**	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.3**
MW-73	URS/CWTP	Background	5/29/2017	--	--	--	< 0.80	**6.70**	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-73	URS/CWTP	Background	6/22/2017	**1.6**	**490**	**450**	--	**6.74**	**7.0**	**6,700**	**11,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	6/22/2017	--	--	--	< 0.80	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.1**
MW-73	URS/CWTP	Background	7/22/2017	**1.6**	**490**	**520**	< 0.80	**6.83**	**7.1**	**8,000**	**12,000**	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	7/22/2017	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.0**
MW-73	URS/CWTP	Background	7/22/2017	**1.6**	**490**	**500**	< 2.0	--	**7.1**	**7,800**	**12,000**	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.8**
MW-73	URS/CWTP	Background	8/10/2017	**1.7**	**500**	**540**	--	**6.45**	**7.4**	**7,700**	**12,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	8/10/2017	--	--	--	< 0.80	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.1**
MW-73	URS/CWTP	Background	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.5**
MW-73	URS/CWTP	Background	8/17/2017	**1.7**	**540**	**550**	< 0.80	**6.50**	**7.0**	**7,600**	**11,000**	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	9/10/2017	**1.9**	**520**	**470**	--	**6.62**	**7.0**	**6,000**	**9,900**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	9/10/2017	--	--	--	< 0.80	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.5**
MW-73	URS/CWTP	Background	10/12/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.9**
MW-73	URS/CWTP	Background	10/12/2017	**2.0**	**510**	**310**	< 0.80	**6.64**	**7.3**	**3,900**	**6,600**	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**
MW-73	URS/CWTP	Background	10/12/2017	**2.0**	**510**	**300**	< 0.80	--	**7.1**	**3,700**	**6,600**	< 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	**1.8**	**550**	**420**	< 0.80	**6.61**	**7.1**	**5,600**	**8,900**	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	3/16/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**
MW-73	URS/CWTP	Background	6/2/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**
MW-73	URS/CWTP	Background	6/2/2018	**1.6**	**460**	**550**	< 0.80	**6.67**	**6.9**	**7,100**	**12,000**	--	< 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	**1.7**	**480**	**660**	< 0.80	**6.64**	**7.0**	**7,500**	**12,000**	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	< 0.00050	**0.022**	--	--	--	**0.0078**	--	--	**0.31**	--	**0.0026**	**0.0062**	**0.00020**	**2.9**
MW-73	URS/CWTP	Background	3/18/2019	--	--	--	< 0.80	**6.95**	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.6**
MW-73	URS/CWTP	Background	5/6/2019	--	--	--	--	**6.51**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.7**
MW-73	URS/CWTP	Background	12/2/2019	**1.6**	**460**	**520**	< 0.80	**6.49**	**7.1 J**	**7,100**	**11000 J**	< 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	**1.7**	**480**	**500**	< 0.80	--	**7.0 J**	**6,900**	**11000 J**	< 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	**1.7**	**450**	**520**	< 0.8	**6.53**	**7.2 J**	**7,200**	**12,000**	< 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	**1.6**	**480**	**530**	**0.063 J**	**6.65**	**7.0 J**	**7,100**	**12,000**	< 0.002 U	**0.0012**	**0.020**	< 0.001	< 0.0002 U	**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	**1.6**	**530**	**380**	< 0.4	**6.76**	**7.1 J**	**5,700**	**9,700**	< 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	**1.6**	**460**	**560**	**0.12 J**	**6.48**	**7.0 J**	**7,400**	**9,600**	**0.00017 J**	< 0.001	**0.022**	<0.001	**0.00018 J**	< 0.002	**0.0041**	**0.12 J**	< 0.001	**0.31**	UJ	**J**	**0.0072**	**0.00023**	**2.8**

Groundwater Sampling Results for the URS Monitoring Wells

				Appendix III Constituents								Appendix IV Constituents														
Constituent:				Boron	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	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	N	N	N	N	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	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)				*1.9*	*540*	*710*	*<RL*	*LPL and UPL*	*LPL and UPL*	*13,000*	*20,000*	*0.01*	*0.13*	*0.051*	*0.001*	*0.001*	*0.01*	*0.016*	*4*	*0.005*	*0.8*	*0.0002*	*0.011*	*0.45*	*0.002*	*5*
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*
MW-66	URS	Downgradient	11/5/2015	**87**	**470**	**870**	**18**	--	--	**7,300**	**11,000**	< 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	11/5/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	4/27/2016	--	--	--	**18**	--	--	--	--	< 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	6/5/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.7**
MW-66	URS	Downgradient	6/5/2016	**89**	**470**	**1,300**	**20**	--	**7.31**	**7,000**	**13,000**	< 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	8/20/2016	**100**	**480**	**1,400**	**20**	--	**7.3**	**7,600**	**15,000**	--	--	--	--	--	--	--	**20**	--	--	--	--	--	--	--
MW-66	URS	Downgradient	8/20/2016	--	--	--	**19**	--	--	--	--	**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	8/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.4**
MW-66	URS	Downgradient	9/12/2016	**110**	**470**	**1,500**	**12**	--	**7.4**	**8,000**	**15,000**	--	--	--	--	--	--	--	**12**	--	--	--	--	--	--	--
MW-66	URS	Downgradient	9/12/2016	--	--	--	**17**	--	--	--	--	< 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	9/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.9**
MW-66	URS	Downgradient	10/19/2016	**130**	**440**	**1,600**	**17**	--	**7.4**	**9,100**	**16,000**	--	--	--	--	--	--	--	**17**	--	--	--	--	--	--	--
MW-66	URS	Downgradient	10/19/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.0**
MW-66	URS	Downgradient	2/1/2017	**130**	**470**	**1,800**	**18**	--	**7.5**	**10,000**	**16,000**	--	--	--	--	--	--	--	**18**	--	--	--	--	--	--	--
MW-66	URS	Downgradient	2/1/2017	--	--	--	**19**	--	--	--	--	< 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	2/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.0**
MW-66	URS	Downgradient	4/16/2017	**140**	**460**	**1,600**	**25**	--	**7.4**	**11,000**	**17,000**	--	--	--	--	--	--	--	**25**	--	--	--	--	--	--	--
MW-66	URS	Downgradient	4/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.8**
MW-66	URS	Downgradient	4/16/2017	--	--	--	**23**	--	--	--	--	< 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	5/1/2017	--	--	--	**32**	--	--	--	--	< 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	5/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.9**
MW-66	URS	Downgradient	5/29/2017	--	--	--	**25**	--	--	--	--	< 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	5/29/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**
MW-66	URS	Downgradient	6/21/2017	**130**	**450**	**1,700**	--	--	**7.3**	**11,000**	**18,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	6/21/2017	--	--	--	**24**	--	--	--	--	< 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	6/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.7**
MW-66	URS	Downgradient	7/21/2017	**140**	**450**	**1,700**	**25**	--	**7.3**	**12,000**	**19,000**	--	--	--	--	--	--	--	**25**	--	--	--	--	--	--	--
MW-66	URS	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	< 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	7/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.2**
MW-66	URS	Downgradient	8/9/2017	**140**	**460**	**1,700**	--	--	**7.4**	**12,000**	**19,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	8/9/2017	--	--	--	**26**	--	--	--	--	< 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	8/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.2**
MW-66	URS	Downgradient	8/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.5**
MW-66	URS	Downgradient	8/16/2017	**150**	**510**	**1,700**	**25**	--	**7.5**	**11,000**	**19,000**	--	--	--	--	--	--	--	**25**	--	--	--	--	--	--	--
MW-66	URS	Downgradient	9/9/2017	**140**	**480**	**1,800**	--	--	**7.3**	**12,000**	**19,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	9/9/2017	--	--	--	**26**	--	--	--	--	< 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	9/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.5**
MW-66	URS	Downgradient	10/13/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**5.1**
MW-66	URS	Downgradient	10/13/2017	**150**	**440**	**2,000**	**26**	--	**7.3**	**13,000**	**18,000**	< 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	11/30/2017	**140**	**500**	**1,900**	**26**	--	**7.3**	**13,000**	**19,000**	--	--	--	--	--	--	--	**26**	--	--	--	--	--	--	--
MW-66	URS	Downgradient	3/16/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.5
MW-66	URS	Downgradient	3/16/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.0**
MW-66	URS	Downgradient	5/31/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.1**
MW-66	URS	Downgradient	5/31/2018	**150**	**440**	**1,800**	**25**	--	**7.2**	**12,000**	**19,000**	--	< 0.010	**0.020**	--	--	--	**0.010**	**25**	--	**0.36**	< 0.00020	**0.015**	< 0.010	**0.0025**	--
MW-66	URS	Downgradient	11/2/2018	**140**	**470**	**1,800**	--	--	**7.3**	**12,000**	**20,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	11/2/2018	--	--	--	--	--	--	--	--	--	**0.0015**	**0.023**	--	--	--	**0.012**	--	--	**0.38**	--	**0.019**	**0.0020**	**0.0011**	**2.9**
MW-66	URS	Downgradient	3/18/2019	--	--	--	**23**	--	--	--	--	< 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	3/18/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.1**
MW-66	URS	Downgradient	5/7/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.5**
MW-66	URS	Downgradient	12/3/2019	**130**	**430**	**1,800**	**22**	--	**7.2 J**	**12,000**	**19,000**	< 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	12/3/2019	**150**	**460**	**1,800**	**22**	--	**7.3 J**	**14,000**	**19,000**	< 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	6/18/2020	**140**	**450**	**1,700**	**17**	**6.85**	**7.3 J**	**12,000**	**20,000**	< 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	11/5/2020	**140**	**490**	**1,700**	**26 J**	**7.07**	**7.3 J**	**13,000**	**18,000**	< 0.001 U	**0.0037**	**0.016 J**	< 0.001	< 0.00018 U	**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	11/5/2020	**140**	**490**	**1,800**	**21 J**	--	**7.3 J**	**13,000**	**20,000**	< 0.001 U	**0.0031**	**0.021 J**	< 0.001	< 0.00014 U	**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	4/21/2021	**150**	**500**	**1,700**	**19**	**7.24**	**7.4 J**	**12,000**	**19,000 J**	< 0.0004 U	**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	11/12/2021	**140**	**460**	**1,700**	**20**	**6.98**	**7.4 J**	**12,000**	**18,000**	**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**

Groundwater Sampling Results for the URS Monitoring Wells

				Appendix III Constituents								Appendix IV Constituents														
Constituent:				Boron	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	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	N	N	N	N	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	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)				*1.9*	*540*	*710*	*<RL*	*LPL and UPL*	*LPL and UPL*	*13,000*	*20,000*	*0.01*	*0.13*	*0.051*	*0.001*	*0.001*	*0.01*	*0.016*	*4*	*0.005*	*0.8*	*0.0002*	*0.011*	*0.45*	*0.002*	*5*
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*
MW-67	URS	Downgradient	11/4/2015	**75**	**330**	**990**	**18**	--	--	**6,900**	**11,000**	**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	11/4/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	4/27/2016	--	--	--	**19**	--	--	--	--	< 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	4/27/2016	--	--	--	**21**	--	--	--	--	< 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	6/6/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.0**
MW-67	URS	Downgradient	6/6/2016	**90**	**490**	**1,600**	**24**	--	**7.27**	**7,000**	**13,000**	**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	8/20/2016	**100**	**510**	**1,400**	**23**	--	**7.1**	**7,500**	**15,000**	--	--	--	--	--	--	--	**23**	--	--	--	--	--	--	--
MW-67	URS	Downgradient	8/20/2016	--	--	--	**19**	--	--	--	--	**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	8/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.3**
MW-67	URS	Downgradient	8/20/2016	--	--	--	--	--	**7.1**	--	**16,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	8/20/2016	--	--	--	**20**	--	--	--	--	**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	8/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.0**
MW-67	URS	Downgradient	9/13/2016	**110**	**510**	**1,500**	**23**	--	**7.3**	**7,900**	**16,000**	--	--	--	--	--	--	--	**23**	--	--	--	--	--	--	--
MW-67	URS	Downgradient	9/13/2016	--	--	--	**17**	--	--	--	--	< 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	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.1**
MW-67	URS	Downgradient	10/20/2016	**120**	**480**	**1,500**	**16**	--	**7.3**	**8,300**	**16,000**	--	--	--	--	--	--	--	**16**	--	--	--	--	--	--	--
MW-67	URS	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.1**
MW-67	URS	Downgradient	2/1/2017	**120**	**510**	**1,800**	**16**	--	**7.5**	**9,400**	**16,000**	--	--	--	--	--	--	--	**16**	--	--	--	--	--	--	--
MW-67	URS	Downgradient	2/1/2017	--	--	--	**16**	--	--	--	--	< 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	2/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.0**
MW-67	URS	Downgradient	4/17/2017	**130**	**500**	**1,700**	**22**	--	**7.3**	**10,000**	**17,000**	--	--	--	--	--	--	--	**22**	--	--	--	--	--	--	--
MW-67	URS	Downgradient	4/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.2**
MW-67	URS	Downgradient	4/17/2017	--	--	--	**21**	--	--	--	--	< 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	5/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.3**
MW-67	URS	Downgradient	5/2/2017	--	--	--	**28**	--	--	--	--	< 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	5/29/2017	--	--	--	**21**	--	--	--	--	< 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	5/29/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.2**
MW-67	URS	Downgradient	6/21/2017	**130**	**480**	**1,900**	--	--	**7.3**	**11,000**	**18,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	6/21/2017	--	--	--	**21**	--	--	--	--	< 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**	--
MW-67	URS	Downgradient	6/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.2**
MW-67	URS	Downgradient	7/21/2017	**150**	**520**	**2,000**	**22**	--	**7.1**	**12,000**	**20,000**	--	--	--	--	--	--	--	**22**	--	--	--	--	--	--	--
MW-67	URS	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	< 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	7/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 2.0
MW-67	URS	Downgradient	8/9/2017	**160**	**490**	**2,200**	--	--	**7.4**	**13,000**	**21,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	8/9/2017	--	--	--	**22**	--	--	--	--	< 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	8/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.4**
MW-67	URS	Downgradient	8/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**
MW-67	URS	Downgradient	8/16/2017	**160**	**550**	**2,000**	**22**	--	**7.4**	**12,000**	**22,000**	--	--	--	--	--	--	--	**22**	--	--	--	--	--	--	--
MW-67	URS	Downgradient	9/10/2017	**150**	**500**	**2,100**	--	--	**7.3**	**13,000**	**21,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	9/10/2017	--	--	--	**24**	--	--	--	--	< 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	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.1**
MW-67	URS	Downgradient	10/13/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.7**
MW-67	URS	Downgradient	10/13/2017	**160**	**460**	**2,300**	**25**	--	**7.1**	**14,000**	**21,000**	< 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	11/29/2017	**160**	**520**	**2,300**	**24**	--	**7.3**	**15,000**	**23,000**	--	--	--	--	--	--	--	**24**	--	--	--	--	--	--	--
MW-67	URS	Downgradient	3/16/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.9**
MW-67	URS	Downgradient	6/2/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.5**
MW-67	URS	Downgradient	6/2/2018	**200**	**430**	**2,000**	**25**	--	**7.1**	**15,000**	**23,000**	--	< 0.010	**0.020**	--	--	--	< 0.010	**25**	--	**0.50**	< 0.00020	**0.041**	< 0.010	< 0.0020	--
MW-67	URS	Downgradient	11/3/2018	**170**	**470**	**2,000**	**16**	--	**7.4**	**13,000**	**19,000**	--	--	--	--	--	--	--	**16**	--	--	--	--	--	--	--
MW-67	URS	Downgradient	11/3/2018	--	--	--	--	--	--	--	--	--	**0.0016**	**0.017**	--	--	--	**0.0061**	--	--	**0.39**	--	**0.037**	**0.0043**	**0.00078**	**1.6**
MW-67	URS	Downgradient	3/17/2019	--	--	--	**15**	--	--	--	--	< 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	3/17/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.6**
MW-67	URS	Downgradient	5/7/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**
MW-67	URS	Downgradient	12/2/2019	**150**	**450**	**1,900**	**14**	--	**7.4 J**	**13,000**	**20000 J**	< 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	6/19/2020	**160**	**440**	**1,900**	**12**	**7.14**	**7.5 J**	**13,000**	**20,000**	< 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	11/4/2020	**160**	**470**	**2,000**	**15**	**7.30**	**7.4 J**	**14,000**	**20,000**	**0.00027 J**	**0.0027 J**	**0.0079 J**	< 0.001	< 0.00025 U	< 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	11/4/2020	**170**	**470**	**1,900**	**15**	--	**7.4 J**	**14,000**	**20,000**	< 0.002	**0.004 J**	**0.014 J**	< 0.001	< 0.0002 U	**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	4/21/2021	**160**	**490**	**1,800**	**12**	**7.31**	**7.4 J**	**13,000**	**19,000 J**	< 0.0004 U	**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	4/21/2021	**160**	**490**	**1,800**	**12**	**7.31**	**7.4 J**	**13,000**	**20,000 J**	< 0.0004 U	**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	11/12/2021	**170**	**460**	**2,100**	**13**	**6.81**	**7.5 J**	**15,000**	**21,000**	**0.000088 J**	< 0.001	**0.014**	<0.001	**0.00021**	< 0.002	**0.0069**	**13**	< 0.001	**0.41**	UJ	**0.046**	**0.004**	**0.0013**	**3.8**

Groundwater Sampling Results for the URS Monitoring Wells

				Appendix III Constituents								Appendix IV Constituents														
Constituent:				Boron	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	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	N	N	N	N	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	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)				*1.9*	*540*	*710*	*<RL*	*LPL and UPL*	*LPL and UPL*	*13,000*	*20,000*	*0.01*	*0.13*	*0.051*	*0.001*	*0.001*	*0.01*	*0.016*	*4*	*0.005*	*0.8*	*0.0002*	*0.011*	*0.45*	*0.002*	*5*
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*
MW-68	URS	Downgradient	11/6/2015	**93**	**470**	**1,200**	**7.0**	--	**7.11**	**7,900**	**12,000**	**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	11/6/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	4/26/2016	**110**	**460**	**1,300**	**8.0**	--	--	**7,700**	**14,000**	< 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	6/5/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.9**
MW-68	URS	Downgradient	6/5/2016	**100**	**450**	**1,500**	**10**	--	**7.05**	**8,000**	**15,000**	**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	8/20/2016	**120**	**460**	**1,300**	**8.6**	--	**7.0**	**8,100**	**16,000**	--	--	--	--	--	--	--	8.6	--	--	--	--	--	--	--
MW-68	URS	Downgradient	8/20/2016	--	--	--	**7.5**	--	--	--	--	**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	8/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**
MW-68	URS	Downgradient	9/13/2016	**120**	**480**	**1,400**	**9.7**	--	**7.1**	**8,500**	**16,000**	--	--	--	--	--	--	--	9.7	--	--	--	--	--	--	--
MW-68	URS	Downgradient	9/13/2016	--	--	--	**5.7**	--	--	--	--	< 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	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.8**
MW-68	URS	Downgradient	10/20/2016	**120**	**430**	**1,400**	**6.8**	--	**7.1**	**11,000**	**16,000**	--	--	--	--	--	--	--	6.8	--	--	--	--	--	--	--
MW-68	URS	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.4**
MW-68	URS	Downgradient	2/1/2017	**120**	**450**	**1,600**	**6.4**	--	**7.5**	**10,000**	**16,000**	--	--	--	--	--	--	--	6.4	--	--	--	--	--	--	--
MW-68	URS	Downgradient	2/1/2017	--	--	--	**6.8**	--	--	--	--	< 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	2/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.1**
MW-68	URS	Downgradient	4/17/2017	**130**	**450**	**1,400**	**10**	--	**7.1**	**9,900**	**16,000**	--	--	--	--	--	--	--	10	--	--	--	--	--	--	--
MW-68	URS	Downgradient	4/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.2**
MW-68	URS	Downgradient	4/17/2017	--	--	--	**9.7**	--	--	--	--	< 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	5/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.2**
MW-68	URS	Downgradient	5/2/2017	--	--	--	**18**	--	--	--	--	< 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**	--
MW-68	URS	Downgradient	5/29/2017	--	--	--	**8.3**	--	--	--	--	< 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	5/29/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-68	URS	Downgradient	6/21/2017	**120**	**470**	**1,400**	--	--	**7.1**	**9,700**	**17,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	6/21/2017	--	--	--	**8.7**	--	--	--	--	< 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	6/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.2**
MW-68	URS	Downgradient	7/21/2017	**130**	**470**	**1,500**	**9.6**	--	**7.0**	**10,000**	**17,000**	--	--	--	--	--	--	--	9.6	--	--	--	--	--	--	--
MW-68	URS	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	< 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	7/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.9**
MW-68	URS	Downgradient	8/9/2017	**120**	**460**	**1,600**	--	--	**7.2**	**11,000**	**18,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	8/9/2017	--	--	--	**11**	--	--	--	--	< 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	8/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.3**
MW-68	URS	Downgradient	8/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.2**
MW-68	URS	Downgradient	8/16/2017	**130**	**510**	**1,500**	**11**	--	**7.2**	**9,900**	**17,000**	--	--	--	--	--	--	--	11	--	--	--	--	--	--	--
MW-68	URS	Downgradient	9/10/2017	**130**	**480**	**1,500**	--	--	**7.0**	**10,000**	**18,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	9/10/2017	--	--	--	**11**	--	--	--	--	< 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	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.9**
MW-68	URS	Downgradient	10/13/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.9**
MW-68	URS	Downgradient	10/13/2017	**140**	**450**	**1,800**	**10**	--	**7.1**	**11,000**	**17,000**	< 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	11/30/2017	**130**	**520**	**1,400**	**10**	--	**7.1**	**9,700**	**16,000**	--	--	--	--	--	--	--	10	--	--	--	--	--	--	--
MW-68	URS	Downgradient	11/30/2017	**130**	**520**	**1,400**	**10**	--	**7.1**	**9,400**	**16,000**	--	--	--	--	--	--	--	10	--	--	--	--	--	--	--
MW-68	URS	Downgradient	3/16/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.0**
MW-68	URS	Downgradient	6/2/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.6**
MW-68	URS	Downgradient	6/2/2018	**130**	**430**	**1,500**	**12**	--	**6.9**	**10,000**	**17,000**	--	< 0.010	< 0.010	--	--	--	< 0.010	12	--	**0.38**	< 0.00020	< 0.010	**0.24**	< 0.0020	--
MW-68	URS	Downgradient	11/3/2018	**150**	**460**	**1,500**	**12**	--	**7.2**	**11,000**	**18,000**	--	--	--	--	--	--	--	12	--	--	--	--	--	--	--
MW-68	URS	Downgradient	11/3/2018	--	--	--	--	--	--	--	--	--	**0.0030**	**0.0081**	--	--	--	**0.0038**	--	--	**0.42**	--	**0.0078**	**0.11**	**0.0016**	**1.9**
MW-68	URS	Downgradient	3/17/2019	--	--	--	**9.2**	--	--	--	--	< 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	3/17/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**
MW-68	URS	Downgradient	5/7/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.1**
MW-68	URS	Downgradient	12/2/2019	**94**	**450**	**1,200**	**10**	--	**7.0 J**	**9,600**	**15000 J**	< 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	6/19/2020	**110**	**460**	**5,000**	**7.7**	**6.75**	**7.3 J**	**9,000**	**16,000**	< 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	11/4/2020	**110**	**470**	**1,300**	**10**	**6.86**	**7.2 J**	**11,000**	**17,000**	< 0.001 U	**0.0038**	**0.012**	< 0.001	< 0.00012 U	**0.0012**	**0.00066**	10	< 0.0005	**0.41**	< 0.0002	**0.0045**	**0.069**	< 0.0001 U	**1.8**
MW-68	URS	Downgradient	4/22/2021	**110**	**500**	**1,200**	**8.6**	**6.94**	**7.3 J**	**11,000**	**17,000**	< 0.0004 U	**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	11/12/2021	**110**	**460**	**1,100**	**10**	**6.67**	**7.3 J**	**13,000**	**10,000**	< 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**

Groundwater Sampling Results for the URS Monitoring Wells

				Appendix III Constituents								Appendix IV Constituents														
Constituent:				Boron	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	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	N	N	N	N	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	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)				*1.9*	*540*	*710*	*<RL*	*LPL and UPL*	*LPL and UPL*	*13,000*	*20,000*	*0.01*	*0.13*	*0.051*	*0.001*	*0.001*	*0.01*	*0.016*	*4*	*0.005*	*0.8*	*0.0002*	*0.011*	*0.45*	*0.002*	*5*
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*
MW-69	URS	Downgradient	11/4/2015	**80**	**490**	**1,000**	**9.8**	--	--	**6,600**	**10,000**	**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	11/4/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	4/26/2016	**95**	**480**	**1,200**	**13**	--	--	**7,100**	**13,000**	< 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	4/26/2016	**97**	**490**	**1,200**	**13**	--	--	**7,200**	**13,000**	< 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	6/6/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.2**
MW-69	URS	Downgradient	6/6/2016	**94**	**470**	**1,400**	**13**	--	**7.47**	**7,600**	**13,000**	**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	8/21/2016	**110**	**480**	**1,300**	**16**	--	**7.4**	**8,500**	**16,000**	--	--	--	--	--	--	--	**16**	--	--	--	--	--	--	--
MW-69	URS	Downgradient	8/21/2016	--	--	--	**13**	--	--	--	--	**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	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.9**
MW-69	URS	Downgradient	9/13/2016	**110**	**500**	**1,400**	**16**	--	**7.1**	**8,700**	**17,000**	--	--	--	--	--	--	--	**16**	--	--	--	--	--	--	--
MW-69	URS	Downgradient	9/13/2016	--	--	--	**11**	--	--	--	--	< 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	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**5.4**
MW-69	URS	Downgradient	10/20/2016	**120**	**450**	**1,400**	**9.0**	--	**7.4**	**9,800**	**18,000**	--	--	--	--	--	--	--	**9.0**	--	--	--	--	--	--	--
MW-69	URS	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**5.5**
MW-69	URS	Downgradient	2/1/2017	**130**	**460**	**1,500**	**11**	--	**7.6**	**12,000**	**18,000**	--	--	--	--	--	--	--	**11**	--	--	--	--	--	--	--
MW-69	URS	Downgradient	2/1/2017	--	--	--	**12**	--	--	--	--	< 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	2/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**5.4**
MW-69	URS	Downgradient	4/17/2017	**130**	**470**	**1,400**	**17**	--	**7.5**	**11,000**	**18,000**	--	--	--	--	--	--	--	**17**	--	--	--	--	--	--	--
MW-69	URS	Downgradient	4/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**6.0**
MW-69	URS	Downgradient	4/17/2017	--	--	--	**17**	--	--	--	--	< 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	4/17/2017	**140**	**470**	**1,400**	**17**	--	**7.5**	**12,000**	**18,000**	--	--	--	--	--	--	--	**17**	--	--	--	--	--	--	--
MW-69	URS	Downgradient	4/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.9**
MW-69	URS	Downgradient	4/17/2017	--	--	--	**17**	--	--	--	--	< 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	5/2/2017	--	--	--	**24**	--	--	--	--	< 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	5/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**5.0**
MW-69	URS	Downgradient	5/29/2017	--	--	--	**16**	--	--	--	--	< 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	5/29/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.6**
MW-69	URS	Downgradient	6/21/2017	**120**	**460**	**1,400**	--	--	**7.5**	**10,000**	**16,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	6/21/2017	--	--	--	**14**	--	--	--	--	< 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	6/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.3**
MW-69	URS	Downgradient	7/21/2017	**150**	**470**	**1,600**	**18**	--	**7.4**	**13,000**	**19,000**	--	--	--	--	--	--	--	**18**	--	--	--	--	--	--	--
MW-69	URS	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	< 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	7/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.4**
MW-69	URS	Downgradient	8/9/2017	**140**	**470**	**1,600**	--	--	**7.5**	**12,000**	**19,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	8/9/2017	--	--	--	**17**	--	--	--	--	< 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	8/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**5.1**
MW-69	URS	Downgradient	8/9/2017	**150**	**470**	**1,500**	--	--	**7.5**	**12,000**	**19,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	8/9/2017	--	--	--	**17**	--	--	--	--	< 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	8/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.7**
MW-69	URS	Downgradient	8/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.6**
MW-69	URS	Downgradient	8/16/2017	**130**	**520**	**1,500**	**17**	--	**7.6**	**11,000**	**20,000**	--	--	--	--	--	--	--	**17**	--	--	--	--	--	--	--
MW-69	URS	Downgradient	9/10/2017	**150**	**490**	**1,600**	--	--	**7.5**	**13,000**	**18,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	9/10/2017	--	--	--	**20**	--	--	--	--	< 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	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**5.9**
MW-69	URS	Downgradient	9/10/2017	**150**	**480**	**1,600**	--	--	**7.5**	**13,000**	**20,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	9/10/2017	--	--	--	**20**	--	--	--	--	< 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	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.9**
MW-69	URS	Downgradient	10/13/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**6.7**
MW-69	URS	Downgradient	10/13/2017	**150**	**430**	**1,600**	**20**	--	**7.5**	**13,000**	**19,000**	< 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	11/29/2017	**150**	**500**	**1,600**	**21**	--	**7.4**	**13,000**	**20,000**	--	--	--	--	--	--	--	**21**	--	--	--	--	--	--	--
MW-69	URS	Downgradient	3/16/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**5.4**
MW-69	URS	Downgradient	6/2/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**4.6**
MW-69	URS	Downgradient	6/2/2018	**120**	**430**	**1,400**	**21**	--	**7.3**	**12,000**	**18,000**	--	< 0.010	**0.016**	--	--	--	< 0.010	**21**	--	**0.49**	< 0.00020	**0.016**	**0.014**	< 0.0020	--
MW-69	URS	Downgradient	6/2/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.1**
MW-69	URS	Downgradient	6/2/2018	**130**	**430**	**1,300**	**21**	--	**7.3**	**12,000**	**18,000**	--	< 0.010	**0.014**	--	--	--	< 0.010	**21**	--	**0.49**	< 0.00020	**0.015**	**0.013**	< 0.0020	--
MW-69	URS	Downgradient	11/3/2018	**92**	**470**	**1,200**	**11**	--	**7.3**	**8,700**	**14,000**	--	--	--	--	--	--	--	**11**	--	--	--	--	--	--	--
MW-69	URS	Downgradient	11/3/2018	--	--	--	--	--	--	--	--	--	**0.0042**	**0.012**	--	--	--	**0.0041**	--	--	**0.35**	--	**0.012**	**0.025**	**0.00024**	**3.0**
MW-69	URS	Downgradient	3/17/2019	--	--	--	**3.1**	--	--	--	--	< 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	3/17/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**
MW-69	URS	Downgradient	5/7/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.8**
MW-69	URS	Downgradient	12/3/2019	**88**	**490**	**1,000**	**9.0**	--	**7.2 J**	**8,100**	**13000 J**	< 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	6/19/2020	**58**	**500**	**830**	**5.5**	**6.89**	**7.4 J**	**5,500**	**9,700**	< 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	11/4/2020	**63**	**550**	**890**	**5.8**	**6.75**	**7.3 J**	**6,000**	**9,600**	< 0.002 U	**0.0058**	**0.0081**	< 0.001	< 0.0002 U	**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	4/21/2021	**53**	**590**	**810**	**4.1**	**7.18**	**7.4 J**	**5,000**	**8,300 J**	< 0.0004 U	**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	11/12/2021	**62**	**530**	**1,000**	**4.9**	**6.72**	**7.4 J**	**6,900**	**5,100**	**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**

Groundwater Sampling Results for the URS Monitoring Wells

				Appendix III Constituents								Appendix IV Constituents														
Constituent:				Boron	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	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	N	N	N	N	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	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)				*1.9*	*540*	*710*	*<RL*	*LPL and UPL*	*LPL and UPL*	*13,000*	*20,000*	*0.01*	*0.13*	*0.051*	*0.001*	*0.001*	*0.01*	*0.016*	*4*	*0.005*	*0.8*	*0.0002*	*0.011*	*0.45*	*0.002*	*5*
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*
MW-70	URS	Downgradient	11/9/2015	**95**	**500**	**1,200**	**2.6**	--	**6.87**	**7,000**	**11,000**	**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	11/9/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	4/27/2016	--	--	--	**2.3**	--	--	--	--	< 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**
MW-70	URS	Downgradient	6/5/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.9**
MW-70	URS	Downgradient	6/5/2016	**89**	**480**	**1,200**	**2.1**	--	**6.97**	**6,300**	**12,000**	**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	6/5/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**
MW-70	URS	Downgradient	6/5/2016	**89**	**480**	**1,100**	**2.2**	--	**6.94**	**6,300**	**12,000**	**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	8/20/2016	**91**	**490**	**1,100**	**0.66**	--	**7.0**	**5,800**	**12,000**	--	--	--	--	--	--	--	**0.66**	--	--	--	--	--	--	--
MW-70	URS	Downgradient	8/20/2016	--	--	--	< 0.80	--	--	--	--	**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	8/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.5**
MW-70	URS	Downgradient	9/12/2016	**93**	**500**	**1,100**	**0.69**	--	**7.0**	**5,900**	**12,000**	--	--	--	--	--	--	--	**0.69**	--	--	--	--	--	--	--
MW-70	URS	Downgradient	9/12/2016	--	--	--	< 0.40	--	--	--	--	< 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	9/12/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**
MW-70	URS	Downgradient	10/19/2016	**91**	**450**	**1,100**	< 0.40	--	**7.1**	**6,400**	**12,000**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-70	URS	Downgradient	10/19/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.6**
MW-70	URS	Downgradient	2/1/2017	**90**	**480**	**1,100**	< 0.40	--	**7.5**	**6,400**	**11,000**	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--
MW-70	URS	Downgradient	2/1/2017	--	--	--	< 0.40	--	--	--	--	< 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	2/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.3**
MW-70	URS	Downgradient	4/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**
MW-70	URS	Downgradient	4/16/2017	**94**	**490**	**1,100**	**0.94**	--	**7.1**	**6,000**	**11,000**	--	--	--	--	--	--	--	**0.94**	--	--	--	--	--	--	--
MW-70	URS	Downgradient	4/16/2017	--	--	--	**0.85**	--	--	--	--	< 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	4/16/2017	**92**	**460**	**1,100**	**0.95**	--	**7.1**	**6,100**	**11,000**	--	--	--	--	--	--	--	**0.95**	--	--	--	--	--	--	--
MW-70	URS	Downgradient	4/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.1**
MW-70	URS	Downgradient	4/16/2017	--	--	--	**0.85**	--	--	--	--	< 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	5/1/2017	--	--	--	< 5.0	--	--	--	--	< 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	5/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.4**
MW-70	URS	Downgradient	5/29/2017	--	--	--	**2.6**	--	--	--	--	< 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	5/29/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.3**
MW-70	URS	Downgradient	6/21/2017	**92**	**500**	**1,000**	--	--	**7.1**	**6,200**	**11,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	6/21/2017	--	--	--	**2.9**	--	--	--	--	< 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	6/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.5**
MW-70	URS	Downgradient	7/21/2017	**100**	**510**	**1,100**	**2.1**	--	**7.0**	**6,800**	**12,000**	--	--	--	--	--	--	--	**2.1**	--	--	--	--	--	--	--
MW-70	URS	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	< 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	7/21/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-70	URS	Downgradient	8/9/2017	**98**	**510**	**1,100**	--	--	**7.2**	**6,800**	**11,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	8/9/2017	--	--	--	**3.0**	--	--	--	--	< 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	8/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.6**
MW-70	URS	Downgradient	8/16/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.8**
MW-70	URS	Downgradient	8/16/2017	**94**	**540**	**1,100**	**3.2**	--	**7.1**	**6,200**	**12,000**	--	--	--	--	--	--	--	**3.2**	--	--	--	--	--	--	--
MW-70	URS	Downgradient	9/9/2017	**99**	**520**	**1,100**	--	--	**7.0**	**6,500**	**12,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	9/9/2017	--	--	--	**2.5**	--	--	--	--	< 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	9/9/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.0**
MW-70	URS	Downgradient	10/13/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-70	URS	Downgradient	10/13/2017	**97**	**490**	**1,200**	**1.0**	--	**7.1**	**6,600**	**12,000**	< 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	11/30/2017	**92**	**560**	**1,100**	**2.7**	--	**6.9**	**6,300**	**11,000**	--	--	--	--	--	--	--	**2.7**	--	--	--	--	--	--	--
MW-70	URS	Downgradient	3/16/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**
MW-70	URS	Downgradient	5/31/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**
MW-70	URS	Downgradient	5/31/2018	**100**	**490**	**1,100**	**1.8**	--	**6.9**	**6,500**	**11,000**	--	< 0.010	**0.012**	--	--	--	< 0.010	**1.8**	--	**0.30**	< 0.00020	< 0.010	**0.18**	< 0.0020	--
MW-70	URS	Downgradient	11/2/2018	**88**	**510**	**1,100**	**2.7**	--	**7.0**	**6,400**	**11,000**	--	--	--	--	--	--	--	**2.7**	--	--	--	--	--	--	--
MW-70	URS	Downgradient	11/2/2018	--	--	--	--	--	--	--	--	--	**0.0043**	**0.010**	--	--	--	**0.0041**	--	--	**0.32**	--	**0.0064**	**0.19**	**0.00029**	**0.7**
MW-70	URS	Downgradient	3/18/2019	--	--	--	**2.3**	--	--	--	--	< 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	3/18/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.2**
MW-70	URS	Downgradient	5/7/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.4**
MW-70	URS	Downgradient	12/3/2019	**95**	**510**	**1,200**	**2.1**	--	**7.0 J**	**6,400**	**11,000**	< 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	6/19/2020	**98**	**490**	**1,100**	**1.9**	**6.54**	**7.1 J**	**6,300**	**11,000**	< 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	11/5/2020	**93**	**510**	**1,100**	**2.0**	**6.69**	**7.1 J**	**6,300**	**10,000**	< 0.002	**0.0078**	**0.011**	< 0.001	< 0.0002 U	**0.001 J**	**0.0035**	**2**	< 0.001	**0.36**	< 0.0002	**0.0054**	**0.21**	**0.00034**	**1.8**
MW-70	URS	Downgradient	4/21/2021	**97**	**540**	**1,100**	**1.8**	**6.73**	**7.0 J**	**5,600**	**11,000 J**	< 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	11/12/2021	**95**	**510**	**1,300**	**1.9**	**6.51**	**7.1 J**	**6,900**	**9,800**	< 0.002	< 0.001	**0.011**	<0.001	**0.0001 J**	< 0.002	**0.0032**	**1.9**	< 0.001	**0.36**	UJ	**0.0050**	**0.16**	**0.00020**	**1.5**

Groundwater Sampling Results for the URS Monitoring Wells

				Appendix III Constituents								Appendix IV Constituents														
Constituent:				Boron	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	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	N	N	N	N	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	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)				*1.9*	*540*	*710*	*<RL*	*LPL and UPL*	*LPL and UPL*	*13,000*	*20,000*	*0.01*	*0.13*	*0.051*	*0.001*	*0.001*	*0.01*	*0.016*	*4*	*0.005*	*0.8*	*0.0002*	*0.011*	*0.45*	*0.002*	*5*
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*
MW-83	URS	Downgradient	3/18/2019	--	--	--	1.2	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-83	URS	Downgradient	5/6/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-83	URS	Downgradient	5/6/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-83	URS	Downgradient	12/2/2019	2.5	480	130	1.8	--	7.4 J	3,600	5,400	< 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	2.1	290	83	1.0	6.80	7.4 J	1,500	2,800	< 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	2.2	340	83	1.0	--	7.3 J	1,500	2,800	< 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	2.2	300	84	0.98	7.00	7.3 J	1,500	2,700	< 0.001 U	0.0029	0.017	< 0.001 U	0.0011	0.0020	0.068	0.98	0.0016	0.20	< 0.0002	0.035	< 0.0025 U	0.00026	< 0.8
MW-83	URS	Downgradient	4/21/2021	2.3	310	77	0.55	7.12	7.3 J	1,200	2,100 J	< 0.004	0.0026	0.038	< 0.001	< 0.0004	< 0.004	< 0.002	0.55	< 0.002	0.19	< 0.0002	0.060	J	< 0.0004	0.5
MW-83	URS	Downgradient	11/12/2021	2.5	460	120	1.8	6.96	7.4 J	4,500	4,300	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	J	0.7
MW-84	URS	Downgradient	3/17/2019	--	--	--	< 0.80	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.5
MW-84	URS	Downgradient	5/7/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.9
MW-84	URS	Downgradient	12/3/2019	110	470	1,400	< 0.80	--	7.0 J	8,900	14,000	< 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	45	480	590	0.83	6.71	7.3 J	6,000	9,600	< 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	32	490	630	0.71	6.91	7.2 J	7,200	11,000	< 0.001 U	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	27	470	430	0.82	7.05	7.2 J	6,900	11,000 J	< 0.0004 U	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	92	450	1,300	0.12 J	6.64	7.1 J	10,000 J	13,000	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	96	500	1,200	0.12 J	6.64	7.2 J	9,800 J	13,000	< 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-85	URS	Downgradient	3/20/2019	--	--	--	< 0.80	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.8
MW-85	URS	Downgradient	3/20/2019	--	--	--	< 0.80	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-85	URS	Downgradient	5/7/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-85	URS	Downgradient	12/3/2019	20	500	580	< 0.80	--	7.0 J	4,600	8,200	< 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	38	510	620	< 0.8	6.61	7.1 J	4,900	8,700	< 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	35	540	670	0.35 J	6.69	7.0 J	5,000	8,400	< 0.002	0.0097	0.016	< 0.001	< 0.0002 U	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	30	560	560	0.22 J	6.85	7.2 J	4,800	8,300 J	< 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	51	530	680	0.27 J	6.62	7.3 J	6,300	9,900	< 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-86	URS	Downgradient	3/18/2019	--	--	--	< 0.80	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-86	URS	Downgradient	5/7/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1
MW-86	URS	Downgradient	5/7/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1
MW-86	URS	Downgradient	12/3/2019	120	480	1,400	< 0.80	--	7.1 J	8,700	14,000	< 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	110	500	1,300	< 0.8	6.71	7.1 J	8,300	14,000	< 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	46	460	620	0.83	--	7.1 J	6,100	9,700	< 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	120	470	1,500	0.63 J	6.87	7.2 J	9,400	15,000	< 0.002	0.0035	0.013	< 0.001	< 0.0002 U	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	110	500	1,300	0.58 J	7.00	7.2 J	8,900	14,000 J	< 0.0004 U	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	110	510	1,300	0.60 J	7.00	7.3 J	8,700	14,000 J	< 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	120	510	1,600	0.56 J	6.69	7.2 J	11,000	15,000	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	120	490	1,600	0.55 J	6.69	7.2 J	11,000	14,000	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

Groundwater Sampling Results for the URS Monitoring Wells

				Appendix III Constituents								Appendix IV Constituents																
Constituent:				Boron	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	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	N	N	N	N	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	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)				*1.9*	*540*	*710*	*<RL*	*LPL and UPL*	*LPL and UPL*	*13,000*	*20,000*	*0.01*	*0.13*	*0.051*	*0.001*	*0.001*	*0.01*	*0.016*	*4*	*0.005*	*0.8*	*0.0002*	*0.011*	*0.45*	*0.002*	*5*
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*
CM-01	URS	CM Pre-Design	11/4/2020	--	--	**1,700**	**3.7**	**6.94**	**7.3 J**	**12,000**	**19,000 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CM-02	URS	CM Pre-Design	11/4/2020	--	--	**1,800**	**6.8**	**7.12**	**7.4 J**	**12,000**	**19,000 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CM-03	URS	CM Pre-Design	11/4/2020	--	--	**1,600**	**16**	**7.11**	**7.4 J**	**14,000**	**21,000 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CM-04	URS	CM Pre-Design	11/4/2020	--	--	**1,700**	**10**	**7.07**	**7.4 J**	**11,000**	**17,000 J**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Groundwater Sampling Results for the URS Monitoring Wells

				Additional Analyses										
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein as CaCO3	Magnesium	Potassium	Radium 226	Radium 228	Sodium
Filtered:				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	pCi/L	pCi/L	mg/L
URS BTV (applicable to downgradient wells)				--	--	--	--	--	--	--	--	--	--
URS GWPS (applicable to downgradient wells)				--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	3/5/2016	**490**	< 5.0	--	**490**	--	**1,600**	**23**	--	--	**880**
MW-71	URS/CWTP	Background	3/5/2016	--	--	--	--	--	--	--	**0.656**	**1.2**	--
MW-71	URS/CWTP	Background	3/5/2016	**410**	< 5.0	--	**410**	--	**1,700**	**24**	--	--	**940**
MW-71	URS/CWTP	Background	3/5/2016	--	--	--	--	--	--	--	**0.717**	**1.26**	--
MW-71	URS/CWTP	Background	4/26/2016	--	--	--	--	--	--	--	**0.7**	**1.5**	--
MW-71	URS/CWTP	Background	6/6/2016	--	--	--	--	--	--	--	**1.1**	**2.1**	--
MW-71	URS/CWTP	Background	6/6/2016	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	--	**0.6**	**1.0**	--
MW-71	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	--	**0.3**	**0.8**	--
MW-71	URS/CWTP	Background	9/12/2016	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	9/12/2016	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	9/12/2016	--	--	--	--	--	--	--	**0.5**	**1.6**	--
MW-71	URS/CWTP	Background	10/20/2016	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	10/20/2016	--	--	--	--	--	--	--	**0.4**	< 0.7	--
MW-71	URS/CWTP	Background	2/2/2017	**550**	< 6.0	< 6.0	**550**	< 6.0	**2,300**	**32**	--	--	**1,200**
MW-71	URS/CWTP	Background	2/2/2017	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	2/2/2017	--	--	--	--	--	--	--	< 0.4	**1.9**	--
MW-71	URS/CWTP	Background	4/17/2017	**420**	< 6.0	< 6.0	**420**	< 6.0	**1,800**	**25**	--	--	**980**
MW-71	URS/CWTP	Background	4/17/2017	--	--	--	--	--	--	--	< 0.4	**1.2**	--
MW-71	URS/CWTP	Background	4/17/2017	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	5/2/2017	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	5/2/2017	--	--	--	--	--	--	--	**0.7**	< 0.6	--
MW-71	URS/CWTP	Background	5/29/2017	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	5/29/2017	--	--	--	--	--	--	--	< 0.4	< 0.6	--
MW-71	URS/CWTP	Background	6/22/2017	**540**	< 6.0	< 6.0	**540**	< 6.0	**2,400**	**31**	--	--	**1,200**
MW-71	URS/CWTP	Background	6/22/2017	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	6/22/2017	--	--	--	--	--	--	--	**1.2**	**1.5**	--
MW-71	URS/CWTP	Background	7/21/2017	**420**	< 6.0	< 6.0	**420**	< 6.0	**1,800**	**27**	--	--	**1,100**
MW-71	URS/CWTP	Background	7/21/2017	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	7/21/2017	--	--	--	--	--	--	--	< 0.5	< 0.4	--
MW-71	URS/CWTP	Background	8/10/2017	**420**	< 6.0	< 6.0	**420**	< 6.0	**2,000**	**27**	--	--	**1,100**
MW-71	URS/CWTP	Background	8/10/2017	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	8/10/2017	--	--	--	--	--	--	--	< 0.4	< 0.7	--
MW-71	URS/CWTP	Background	8/17/2017	--	--	--	--	--	--	--	< 0.4	**2.0**	--
MW-71	URS/CWTP	Background	8/17/2017	**430**	< 6.0	< 6.0	**430**	< 6.0	**1,800**	**30**	--	--	**1,100**
MW-71	URS/CWTP	Background	9/11/2017	**420**	< 6.0	< 6.0	**420**	< 6.0	**1,800**	**26**	--	--	**1,100**
MW-71	URS/CWTP	Background	9/11/2017	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	9/11/2017	--	--	--	--	--	--	--	< 0.4	< 0.7	--
MW-71	URS/CWTP	Background	10/13/2017	--	--	--	--	--	--	--	**0.8**	**0.8**	--
MW-71	URS/CWTP	Background	10/13/2017	**430**	< 6.0	< 6.0	**430**	< 6.0	**1,700**	**26**	--	--	**1,000**
MW-71	URS/CWTP	Background	11/30/2017	**430**	< 6.0	< 6.0	**430**	< 6.0	**1,700**	**29**	--	--	**1,100**
MW-71	URS/CWTP	Background	3/16/2018	--	--	--	--	--	--	--	< 1.0	**0.8**	--
MW-71	URS/CWTP	Background	6/2/2018	--	--	--	--	--	--	--	**0.4**	**1.5**	--
MW-71	URS/CWTP	Background	6/2/2018	**430**	< 6.0	< 6.0	**430**	< 6.0	**2,000**	**27**	--	--	**1,000**
MW-71	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	**1.2**	< 0.7	--
MW-71	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	**1.8**	< 0.7	--
MW-71	URS/CWTP	Background	3/18/2019	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	3/18/2019	--	--	--	--	--	--	--	< 0.4	< 0.7	--
MW-71	URS/CWTP	Background	5/6/2019	--	--	--	--	--	--	--	< 0.4	**1.0**	--
MW-71	URS/CWTP	Background	12/2/2019	--	--	--	--	--	--	--	--	--	--
MW-71	URS/CWTP	Background	6/20/2020	--	--	--	--	--	--	--	< 0.4	< 0.8	--
MW-71	URS/CWTP	Background	11/5/2020	--	--	--	--	--	--	--	< 0.5	< 0.8	--
MW-71	URS/CWTP	Background	4/22/2021	--	--	--	--	--	--	--	**0.7**	<0.7	--
MW-71	URS/CWTP	Background	11/12/2021	--	--	--	--	--	--	--	**0.5**	<0.6	--

Groundwater Sampling Results for the URS Monitoring Wells

				Additional Analyses										
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Magnesium	Potassium	Radium 226	Radium 228	Sodium
Filtered:				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	pCi/L	pCi/L	mg/L
URS BTV (applicable to downgradient wells)				--	--	--	--	--	--	--	--	--	--
URS GWPS (applicable to downgradient wells)				--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	3/7/2016	**620**	< 5.0	--	**620**	--	**2,300**	**29**	--	--	**720**
MW-72	URS/CWTP	Background	3/7/2016	--	--	--	--	--	--	--	**1.06**	**1.85**	--
MW-72	URS/CWTP	Background	4/26/2016	--	--	--	--	--	--	--	< 0.4	< 0.8	--
MW-72	URS/CWTP	Background	6/6/2016	--	--	--	--	--	--	--	**0.5**	**0.8**	--
MW-72	URS/CWTP	Background	6/6/2016	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	8/21/2016	--	--	--	--	--	--	--	**0.5**	**2.7**	--
MW-72	URS/CWTP	Background	9/13/2016	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	9/13/2016	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	9/13/2016	--	--	--	--	--	--	--	**0.5**	**3.4**	--
MW-72	URS/CWTP	Background	10/20/2016	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	10/20/2016	--	--	--	--	--	--	--	**0.7**	**3.5**	--
MW-72	URS/CWTP	Background	2/2/2017	**560**	< 6.0	< 6.0	**560**	< 6.0	**2,200**	**27**	--	--	**700**
MW-72	URS/CWTP	Background	2/2/2017	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	2/2/2017	--	--	--	--	--	--	--	**0.7**	**3.3**	--
MW-72	URS/CWTP	Background	2/2/2017	**560**	< 6.0	< 6.0	**560**	< 6.0	**2,300**	**28**	--	--	**710**
MW-72	URS/CWTP	Background	2/2/2017	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	2/2/2017	--	--	--	--	--	--	--	**0.6**	**0.6**	--
MW-72	URS/CWTP	Background	4/17/2017	--	--	--	--	--	--	--	**0.6**	**2.9**	--
MW-72	URS/CWTP	Background	4/17/2017	**600**	< 6.0	< 6.0	**600**	< 6.0	**2,400**	**29**	--	--	**760**
MW-72	URS/CWTP	Background	4/17/2017	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	5/2/2017	--	--	--	--	--	--	--	**0.7**	**3.1**	--
MW-72	URS/CWTP	Background	5/2/2017	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	5/29/2017	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	6/22/2017	**600**	< 6.0	< 6.0	**600**	< 6.0	**2,400**	**29**	--	--	**760**
MW-72	URS/CWTP	Background	6/22/2017	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	6/22/2017	--	--	--	--	--	--	--	**0.6**	**2.2**	--
MW-72	URS/CWTP	Background	6/22/2017	**610**	< 6.0	< 6.0	**610**	< 6.0	**2,500**	**30**	--	--	**770**
MW-72	URS/CWTP	Background	6/22/2017	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	6/22/2017	--	--	--	--	--	--	--	**0.5**	**2.5**	--
MW-72	URS/CWTP	Background	7/21/2017	**600**	< 6.0	< 6.0	**600**	< 6.0	**2,300**	**29**	--	--	**760**
MW-72	URS/CWTP	Background	7/21/2017	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	7/21/2017	--	--	--	--	--	--	--	< 0.5	**1.7**	--
MW-72	URS/CWTP	Background	8/10/2017	**600**	< 6.0	< 6.0	**600**	< 6.0	**2,500**	**30**	--	--	**780**
MW-72	URS/CWTP	Background	8/10/2017	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	8/10/2017	--	--	--	--	--	--	--	< 0.4	**2.8**	--
MW-72	URS/CWTP	Background	8/10/2017	**610**	< 6.0	< 6.0	**610**	< 6.0	**2,600**	**30**	--	--	**800**
MW-72	URS/CWTP	Background	8/10/2017	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	8/10/2017	--	--	--	--	--	--	--	< 0.4	**1.7**	--
MW-72	URS/CWTP	Background	8/17/2017	--	--	--	--	--	--	--	< 0.4	**2.1**	--
MW-72	URS/CWTP	Background	8/17/2017	**610**	< 6.0	< 6.0	**610**	< 6.0	**2,300**	**33**	--	--	**790**
MW-72	URS/CWTP	Background	8/17/2017	--	--	--	--	--	--	--	**0.9**	**2.1**	--
MW-72	URS/CWTP	Background	8/17/2017	**600**	< 6.0	< 6.0	**600**	< 6.0	**2,400**	**32**	--	--	**770**
MW-72	URS/CWTP	Background	9/10/2017	**610**	< 6.0	< 6.0	**610**	< 6.0	**2,300**	**28**	--	--	**730**
MW-72	URS/CWTP	Background	9/10/2017	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	9/10/2017	--	--	--	--	--	--	--	< 0.4	**2.3**	--
MW-72	URS/CWTP	Background	10/13/2017	--	--	--	--	--	--	--	**0.7**	**2.4**	--
MW-72	URS/CWTP	Background	10/13/2017	**610**	< 6.0	< 6.0	**610**	< 6.0	**2,300**	**28**	--	--	**740**
MW-72	URS/CWTP	Background	11/29/2017	**590**	< 6.0	< 6.0	**590**	< 6.0	**2,300**	**28**	--	--	**760**
MW-72	URS/CWTP	Background	3/16/2018	--	--	--	--	--	--	--	< 1.0	**1.9**	--
MW-72	URS/CWTP	Background	6/2/2018	--	--	--	--	--	--	--	< 0.4	**2.8**	--
MW-72	URS/CWTP	Background	6/2/2018	**610**	< 6.0	< 6.0	**610**	< 6.0	**2,300**	**26**	--	--	**670**
MW-72	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	**0.7**	**1.0**	--
MW-72	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	**0.5**	**1.5**	--
MW-72	URS/CWTP	Background	3/17/2019	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	3/17/2019	--	--	--	--	--	--	--	< 0.4	**2.4**	--
MW-72	URS/CWTP	Background	5/7/2019	--	--	--	--	--	--	--	< 0.4	**3.4**	--
MW-72	URS/CWTP	Background	12/2/2019	--	--	--	--	--	--	--	--	--	--
MW-72	URS/CWTP	Background	6/19/2020	--	--	--	--	--	--	--	**0.9**	**2.6**	--
MW-72	URS/CWTP	Background	11/5/2020	--	--	--	--	--	--	--	**0.7**	**1.7**	--
MW-72	URS/CWTP	Background	4/22/2021	--	--	--	--	--	--	--	**0.7**	**1.5**	--
MW-72	URS/CWTP	Background	11/12/2021	--	--	--	--	--	--	--	**1.3**	**2.4**	--

Groundwater Sampling Results for the URS Monitoring Wells

				Additional Analyses										
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Magnesium	Potassium	Radium 226	Radium 228	Sodium
Filtered:				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	pCi/L	pCi/L	mg/L
URS BTV (applicable to downgradient wells)				--	--	--	--	--	--	--	--	--	--
URS GWPS (applicable to downgradient wells)				--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	2/2/2017	**560**	< 6.0	< 6.0	**560**	< 6.0	**580**	**28**	--	--	**1,100**
MW-73	URS/CWTP	Background	2/2/2017	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	2/2/2017	--	--	--	--	--	--	--	**1.0**	**2.2**	--
MW-73	URS/CWTP	Background	4/18/2017	**650**	< 6.0	< 6.0	**650**	< 6.0	**630**	**29**	--	--	**1,200**
MW-73	URS/CWTP	Background	4/18/2017	--	--	--	--	--	--	--	**0.7**	**1.1**	--
MW-73	URS/CWTP	Background	4/18/2017	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	5/2/2017	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	5/2/2017	--	--	--	--	--	--	--	**0.5**	**1.8**	--
MW-73	URS/CWTP	Background	5/29/2017	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	5/29/2017	--	--	--	--	--	--	--	< 0.4	< 0.6	--
MW-73	URS/CWTP	Background	6/22/2017	**780**	< 6.0	< 6.0	**780**	< 6.0	**750**	**34**	--	--	**1,600**
MW-73	URS/CWTP	Background	6/22/2017	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	6/22/2017	--	--	--	--	--	--	--	**1.5**	**1.6**	--
MW-73	URS/CWTP	Background	7/22/2017	**800**	< 6.0	< 6.0	**800**	< 6.0	**840**	**37**	--	--	**1,800**
MW-73	URS/CWTP	Background	7/22/2017	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	7/22/2017	--	--	--	--	--	--	--	< 0.5	**2.0**	--
MW-73	URS/CWTP	Background	7/22/2017	**800**	< 6.0	< 6.0	**800**	< 6.0	**850**	**37**	--	--	**1,800**
MW-73	URS/CWTP	Background	7/22/2017	--	--	--	--	--	--	--	**0.7**	**1.1**	--
MW-73	URS/CWTP	Background	8/10/2017	**800**	< 6.0	< 6.0	**800**	< 6.0	**820**	**36**	--	--	**1,800**
MW-73	URS/CWTP	Background	8/10/2017	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	8/10/2017	--	--	--	--	--	--	--	< 0.4	**1.1**	--
MW-73	URS/CWTP	Background	8/17/2017	--	--	--	--	--	--	--	< 0.4	**1.5**	--
MW-73	URS/CWTP	Background	8/17/2017	**800**	< 6.0	< 6.0	**800**	< 6.0	**860**	**41**	--	--	**1,800**
MW-73	URS/CWTP	Background	9/10/2017	**730**	< 6.0	< 6.0	**730**	< 6.0	**680**	**30**	--	--	**1,300**
MW-73	URS/CWTP	Background	9/10/2017	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	9/10/2017	--	--	--	--	--	--	--	**1.2**	**1.3**	--
MW-73	URS/CWTP	Background	10/12/2017	--	--	--	--	--	--	--	< 0.3	**0.9**	--
MW-73	URS/CWTP	Background	10/12/2017	**480**	< 6.0	< 6.0	**480**	< 6.0	**440**	**20**	--	--	**600**
MW-73	URS/CWTP	Background	10/12/2017	--	--	--	--	--	--	--	**0.7**	**1.2**	--
MW-73	URS/CWTP	Background	10/12/2017	**480**	< 6.0	< 6.0	**480**	< 6.0	**430**	**20**	--	--	**590**
MW-73	URS/CWTP	Background	11/29/2017	**650**	< 6.0	< 6.0	**650**	< 6.0	**640**	**32**	--	--	**1,200**
MW-73	URS/CWTP	Background	3/16/2018	--	--	--	--	--	--	--	< 1.0	**2.6**	--
MW-73	URS/CWTP	Background	6/2/2018	--	--	--	--	--	--	--	**0.8**	**2.0**	--
MW-73	URS/CWTP	Background	6/2/2018	**800**	< 6.0	< 6.0	**800**	< 6.0	**710**	**34**	--	--	**1,600**
MW-73	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	11/3/2018	--	--	--	--	--	--	--	**1.5**	**1.4**	--
MW-73	URS/CWTP	Background	3/18/2019	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	3/18/2019	--	--	--	--	--	--	--	< 0.4	**1.6**	--
MW-73	URS/CWTP	Background	5/6/2019	--	--	--	--	--	--	--	< 0.4	**1.7**	--
MW-73	URS/CWTP	Background	12/2/2019	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	12/2/2019	--	--	--	--	--	--	--	--	--	--
MW-73	URS/CWTP	Background	6/20/2020	--	--	--	--	--	--	--	**1.5**	**1.9**	--
MW-73	URS/CWTP	Background	11/5/2020	--	--	--	--	--	--	--	**0.6**	**2.2**	--
MW-73	URS/CWTP	Background	4/22/2021	--	--	--	--	--	--	--	**0.7**	**1.1**	--
MW-73	URS/CWTP	Background	11/13/2021	--	--	--	--	--	--	--	**1.0**	**1.8**	--

Groundwater Sampling Results for the URS Monitoring Wells

				Additional Analyses										
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Magnesium	Potassium	Radium 226	Radium 228	Sodium
Filtered:				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	pCi/L	pCi/L	mg/L
URS BTV (applicable to downgradient wells)				--	--	--	--	--	--	--	--	--	--
URS GWPS (applicable to downgradient wells)				--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	11/5/2015	**250**	< 5.0	--	**250**	--	**1,700**	**29**	--	--	**310**
MW-66	URS	Downgradient	11/5/2015	--	--	--	--	--	--	--	**0.722**	**1.06**	--
MW-66	URS	Downgradient	4/27/2016	--	--	--	--	--	--	--	**0.6**	< 0.8	--
MW-66	URS	Downgradient	6/5/2016	--	--	--	--	--	--	--	**0.6**	**1.1**	--
MW-66	URS	Downgradient	6/5/2016	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	8/20/2016	--	--	--	--	--	--	--	**0.4**	< 0.7	--
MW-66	URS	Downgradient	9/12/2016	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	9/12/2016	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	9/12/2016	--	--	--	--	--	--	--	**0.9**	**2.0**	--
MW-66	URS	Downgradient	10/19/2016	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	10/19/2016	--	--	--	--	--	--	--	**0.9**	**2.1**	--
MW-66	URS	Downgradient	2/1/2017	**240**	< 6.0	< 6.0	**240**	< 6.0	**2,300**	**40**	--	--	**500**
MW-66	URS	Downgradient	2/1/2017	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	2/1/2017	--	--	--	--	--	--	--	**1.2**	**2.8**	--
MW-66	URS	Downgradient	4/16/2017	**260**	< 6.0	< 6.0	**260**	< 6.0	**2,700**	**42**	--	--	**590**
MW-66	URS	Downgradient	4/16/2017	--	--	--	--	--	--	--	**1.4**	**2.4**	--
MW-66	URS	Downgradient	4/16/2017	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	5/1/2017	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	5/1/2017	--	--	--	--	--	--	--	**1.3**	**1.6**	--
MW-66	URS	Downgradient	5/29/2017	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	5/29/2017	--	--	--	--	--	--	--	**0.8**	**2.0**	--
MW-66	URS	Downgradient	6/21/2017	**270**	< 6.0	< 6.0	**270**	< 6.0	**2,700**	**43**	--	--	**600**
MW-66	URS	Downgradient	6/21/2017	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	6/21/2017	--	--	--	--	--	--	--	**1.2**	**2.5**	--
MW-66	URS	Downgradient	7/21/2017	**260**	< 6.0	< 6.0	**260**	< 6.0	**2,600**	**44**	--	--	**620**
MW-66	URS	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	7/21/2017	--	--	--	--	--	--	--	< 0.5	**1.2**	--
MW-66	URS	Downgradient	8/9/2017	**260**	< 6.0	< 6.0	**260**	< 6.0	**2,700**	**44**	--	--	**640**
MW-66	URS	Downgradient	8/9/2017	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	8/9/2017	--	--	--	--	--	--	--	**0.6**	**2.6**	--
MW-66	URS	Downgradient	8/16/2017	--	--	--	--	--	--	--	**0.6**	**1.9**	--
MW-66	URS	Downgradient	8/16/2017	**260**	< 6.0	< 6.0	**260**	< 6.0	**2,500**	**50**	--	--	**690**
MW-66	URS	Downgradient	9/9/2017	**260**	< 6.0	< 6.0	**260**	< 6.0	**2,600**	**43**	--	--	**640**
MW-66	URS	Downgradient	9/9/2017	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	9/9/2017	--	--	--	--	--	--	--	**0.9**	**1.6**	--
MW-66	URS	Downgradient	10/13/2017	--	--	--	--	--	--	--	**1.9**	**3.2**	--
MW-66	URS	Downgradient	10/13/2017	**270**	< 6.0	< 6.0	**270**	< 6.0	**2,600**	**45**	--	--	**700**
MW-66	URS	Downgradient	11/30/2017	**270**	< 6.0	< 6.0	**270**	< 6.0	**2,900**	**48**	--	--	**770**
MW-66	URS	Downgradient	3/16/2018	--	--	--	--	--	--	--	< 1.5	< 1.5	--
MW-66	URS	Downgradient	3/16/2018	--	--	--	--	--	--	--	**1.4**	**2.6**	--
MW-66	URS	Downgradient	5/31/2018	--	--	--	--	--	--	--	**1.1**	**1.0**	--
MW-66	URS	Downgradient	5/31/2018	**300**	< 6.0	< 6.0	**300**	< 6.0	**2,800**	**39**	--	--	**630**
MW-66	URS	Downgradient	11/2/2018	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	11/2/2018	--	--	--	--	--	--	--	**2.0**	**0.9**	--
MW-66	URS	Downgradient	3/18/2019	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	3/18/2019	--	--	--	--	--	--	--	< 0.5	**1.1**	--
MW-66	URS	Downgradient	5/7/2019	--	--	--	--	--	--	--	< 0.4	**2.5**	--
MW-66	URS	Downgradient	12/3/2019	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	12/3/2019	--	--	--	--	--	--	--	--	--	--
MW-66	URS	Downgradient	6/18/2020	--	--	--	--	--	--	--	**1.5**	< 0.8	--
MW-66	URS	Downgradient	11/5/2020	--	--	--	--	--	--	--	**1.2**	**1.2**	--
MW-66	URS	Downgradient	11/5/2020	--	--	--	--	--	--	--	**0.9**	**1.1**	--
MW-66	URS	Downgradient	4/21/2021	--	--	--	--	--	--	--	**0.9**	**1.6**	--
MW-66	URS	Downgradient	11/12/2021	--	--	--	--	--	--	--	**1.1**	**0.9**	--

Groundwater Sampling Results for the URS Monitoring Wells

				Additional Analyses										
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Magnesium	Potassium	Radium 226	Radium 228	Sodium
Filtered:				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	pCi/L	pCi/L	mg/L
URS BTV (applicable to downgradient wells)				--	--	--	--	--	--	--	--	--	--
URS GWPS (applicable to downgradient wells)				--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	11/4/2015	**260**	< 5.0	--	**260**	--	**1,400**	**23**	--	--	**270**
MW-67	URS	Downgradient	11/4/2015	--	--	--	--	--	--	--	**0.846**	**1.83**	--
MW-67	URS	Downgradient	4/27/2016	--	--	--	--	--	--	--	**0.4**	**1.7**	--
MW-67	URS	Downgradient	4/27/2016	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	6/6/2016	--	--	--	--	--	--	--	**0.8**	**1.2**	--
MW-67	URS	Downgradient	6/6/2016	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	8/20/2016	--	--	--	--	--	--	--	**0.7**	**1.6**	--
MW-67	URS	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	8/20/2016	--	--	--	--	--	--	--	**0.9**	**2.1**	--
MW-67	URS	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	9/13/2016	--	--	--	--	--	--	--	< 0.4	**2.1**	--
MW-67	URS	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	10/20/2016	--	--	--	--	--	--	--	**1.2**	**2.9**	--
MW-67	URS	Downgradient	2/1/2017	**350**	< 6.0	< 6.0	**350**	< 6.0	**2,300**	**30**	--	--	**470**
MW-67	URS	Downgradient	2/1/2017	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	2/1/2017	--	--	--	--	--	--	--	< 0.5	**3.0**	--
MW-67	URS	Downgradient	4/17/2017	**390**	< 6.0	< 6.0	**390**	< 6.0	**2,600**	**33**	--	--	**570**
MW-67	URS	Downgradient	4/17/2017	--	--	--	--	--	--	--	**1.0**	**2.2**	--
MW-67	URS	Downgradient	4/17/2017	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	5/1/2017	--	--	--	--	--	--	--	**0.6**	**2.7**	--
MW-67	URS	Downgradient	5/2/2017	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	5/29/2017	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	5/29/2017	--	--	--	--	--	--	--	**0.8**	**1.4**	--
MW-67	URS	Downgradient	6/21/2017	**330**	< 6.0	< 6.0	**330**	< 6.0	**2,700**	**39**	--	--	**620**
MW-67	URS	Downgradient	6/21/2017	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	6/21/2017	--	--	--	--	--	--	--	**1.3**	**2.9**	--
MW-67	URS	Downgradient	7/21/2017	**370**	< 6.0	< 6.0	**370**	< 6.0	**2,800**	**39**	--	--	**690**
MW-67	URS	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	7/21/2017	--	--	--	--	--	--	--	< 0.5	< 2.0	--
MW-67	URS	Downgradient	8/9/2017	**320**	< 6.0	< 6.0	**320**	< 6.0	**3,000**	**42**	--	--	**720**
MW-67	URS	Downgradient	8/9/2017	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	8/9/2017	--	--	--	--	--	--	--	< 0.4	**1.4**	--
MW-67	URS	Downgradient	8/16/2017	--	--	--	--	--	--	--	**0.5**	**2.1**	--
MW-67	URS	Downgradient	8/16/2017	**310**	< 6.0	< 6.0	**310**	< 6.0	**2,900**	**52**	--	--	**800**
MW-67	URS	Downgradient	9/10/2017	**340**	< 6.0	< 6.0	**340**	< 6.0	**3,000**	**41**	--	--	**720**
MW-67	URS	Downgradient	9/10/2017	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	9/10/2017	--	--	--	--	--	--	--	**0.9**	**2.2**	--
MW-67	URS	Downgradient	10/13/2017	--	--	--	--	--	--	--	**0.7**	**2.0**	--
MW-67	URS	Downgradient	10/13/2017	**380**	< 6.0	< 6.0	**380**	< 6.0	**2,900**	**39**	--	--	**770**
MW-67	URS	Downgradient	11/29/2017	**320**	< 6.0	< 6.0	**320**	< 6.0	**3,200**	**51**	--	--	**910**
MW-67	URS	Downgradient	3/16/2018	--	--	--	--	--	--	--	< 1.2	**0.9**	--
MW-67	URS	Downgradient	6/2/2018	--	--	--	--	--	--	--	< 0.4	**1.5**	--
MW-67	URS	Downgradient	6/2/2018	**350**	< 6.0	< 6.0	**350**	< 6.0	**3,500**	**43**	--	--	**940**
MW-67	URS	Downgradient	11/3/2018	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	11/3/2018	--	--	--	--	--	--	--	**0.8**	**0.8**	--
MW-67	URS	Downgradient	3/17/2019	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	3/17/2019	--	--	--	--	--	--	--	**1.3**	**3.3**	--
MW-67	URS	Downgradient	5/7/2019	--	--	--	--	--	--	--	< 0.4	**2.6**	--
MW-67	URS	Downgradient	12/2/2019	--	--	--	--	--	--	--	--	--	--
MW-67	URS	Downgradient	6/19/2020	--	--	--	--	--	--	--	**0.8**	**2.4**	--
MW-67	URS	Downgradient	11/4/2020	--	--	--	--	--	--	--	**0.7**	**2.9**	--
MW-67	URS	Downgradient	11/4/2020	--	--	--	--	--	--	--	< 0.4	**3.5**	--
MW-67	URS	Downgradient	4/21/2021	--	--	--	--	--	--	--	**1.3 J**	**3.1 J**	--
MW-67	URS	Downgradient	4/21/2021	--	--	--	--	--	--	--	<0.4 UJ	**2.0 J**	--
MW-67	URS	Downgradient	11/12/2021	--	--	--	--	--	--	--	**1.1**	**2.7**	--

Groundwater Sampling Results for the URS Monitoring Wells

				Additional Analyses									
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Magnesium	Potassium	Radium 226	Radium 228	Sodium
Filtered:				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	pCi/L	pCi/L	mg/L
URS BTV (applicable to downgradient wells)				--	--	--	--	--	--	--	--	--	--
URS GWPS (applicable to downgradient wells)				--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	11/6/2015	**320**	< 5.0	--	**320**	--	**1,700**	**17**	--	--	**360**
MW-68	URS	Downgradient	11/6/2015	--	--	--	--	--	--	--	**0.552**	**0.8**	--
MW-68	URS	Downgradient	4/26/2016	--	--	--	--	--	--	--	**0.6**	**0.9**	--
MW-68	URS	Downgradient	6/5/2016	--	--	--	--	--	--	--	**0.8**	**2.1**	--
MW-68	URS	Downgradient	6/5/2016	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	8/20/2016	--	--	--	--	--	--	--	**0.5**	**1.4**	--
MW-68	URS	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	9/13/2016	--	--	--	--	--	--	--	**1.1**	**2.7**	--
MW-68	URS	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	10/20/2016	--	--	--	--	--	--	--	**0.5**	**0.9**	--
MW-68	URS	Downgradient	2/1/2017	**400**	< 6.0	< 6.0	**400**	< 6.0	**2,300**	**21**	--	--	**570**
MW-68	URS	Downgradient	2/1/2017	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	2/1/2017	--	--	--	--	--	--	--	< 0.4	**2.1**	--
MW-68	URS	Downgradient	4/17/2017	**450**	< 6.0	< 6.0	**450**	< 6.0	**2,400**	**20**	--	--	**620**
MW-68	URS	Downgradient	4/17/2017	--	--	--	--	--	--	--	**0.4**	**1.8**	--
MW-68	URS	Downgradient	4/17/2017	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	5/1/2017	--	--	--	--	--	--	--	< 0.3	**1.2**	--
MW-68	URS	Downgradient	5/2/2017	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	5/29/2017	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	5/29/2017	--	--	--	--	--	--	--	< 0.4	< 0.6	--
MW-68	URS	Downgradient	6/21/2017	**560**	< 6.0	< 6.0	**560**	< 6.0	**2,400**	**17**	--	--	**640**
MW-68	URS	Downgradient	6/21/2017	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	6/21/2017	--	--	--	--	--	--	--	**0.4**	**1.8**	--
MW-68	URS	Downgradient	7/21/2017	**550**	< 6.0	< 6.0	**550**	< 6.0	**2,300**	**17**	--	--	**670**
MW-68	URS	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	7/21/2017	--	--	--	--	--	--	--	< 0.5	**0.9**	--
MW-68	URS	Downgradient	8/9/2017	**500**	< 6.0	< 6.0	**500**	< 6.0	**2,500**	**20**	--	--	**640**
MW-68	URS	Downgradient	8/9/2017	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	8/9/2017	--	--	--	--	--	--	--	< 0.5	**2.8**	--
MW-68	URS	Downgradient	8/16/2017	--	--	--	--	--	--	--	< 0.4	**2.2**	--
MW-68	URS	Downgradient	8/16/2017	**510**	< 6.0	< 6.0	**510**	< 6.0	**2,300**	**23**	--	--	**630**
MW-68	URS	Downgradient	9/10/2017	**530**	< 6.0	< 6.0	**530**	< 6.0	**2,300**	**18**	--	--	**610**
MW-68	URS	Downgradient	9/10/2017	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	9/10/2017	--	--	--	--	--	--	--	**0.5**	**2.4**	--
MW-68	URS	Downgradient	10/13/2017	--	--	--	--	--	--	--	**1.3**	**1.6**	--
MW-68	URS	Downgradient	10/13/2017	**550**	< 6.0	< 6.0	**550**	< 6.0	**2,200**	**18**	--	--	**650**
MW-68	URS	Downgradient	11/30/2017	**580**	< 6.0	< 6.0	**580**	< 6.0	**2,200**	**16**	--	--	**680**
MW-68	URS	Downgradient	11/30/2017	**580**	< 6.0	< 6.0	**580**	< 6.0	**2,200**	**16**	--	--	**680**
MW-68	URS	Downgradient	3/16/2018	--	--	--	--	--	--	--	< 1.2	**1.0**	--
MW-68	URS	Downgradient	6/2/2018	--	--	--	--	--	--	--	**0.6**	< 0.6	--
MW-68	URS	Downgradient	6/2/2018	**570**	< 6.0	< 6.0	**570**	< 6.0	**2,300**	**17**	--	--	**650**
MW-68	URS	Downgradient	11/3/2018	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	11/3/2018	--	--	--	--	--	--	--	**0.6**	**1.3**	--
MW-68	URS	Downgradient	3/17/2019	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	3/17/2019	--	--	--	--	--	--	--	< 0.5	**2.6**	--
MW-68	URS	Downgradient	5/7/2019	--	--	--	--	--	--	--	< 0.5	**2.1**	--
MW-68	URS	Downgradient	12/2/2019	--	--	--	--	--	--	--	--	--	--
MW-68	URS	Downgradient	6/19/2020	--	--	--	--	--	--	--	< 0.4	**0.9**	--
MW-68	URS	Downgradient	11/4/2020	--	--	--	--	--	--	--	**0.7**	**1.1**	--
MW-68	URS	Downgradient	4/22/2021	--	--	--	--	--	--	--	<0.4	**0.9**	--
MW-68	URS	Downgradient	11/12/2021	--	--	--	--	--	--	--	**0.7**	**0.8**	--

Groundwater Sampling Results for the URS Monitoring Wells

				Additional Analyses										
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Magnesium	Potassium	Radium 226	Radium 228	Sodium
Filtered:				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	pCi/L	pCi/L	mg/L
URS BTV (applicable to downgradient wells)				--	--	--	--	--	--	--	--	--	--
URS GWPS (applicable to downgradient wells)				--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	11/4/2015	**210**	< 5.0	--	**210**	--	**1,500**	**32**	--	--	**290**
MW-69	URS	Downgradient	11/4/2015	--	--	--	--	--	--	--	**1.29**	**1.88**	--
MW-69	URS	Downgradient	4/26/2016	--	--	--	--	--	--	--	**0.8**	**2.3**	--
MW-69	URS	Downgradient	4/26/2016	--	--	--	--	--	--	--	**1.2**	**2.0**	--
MW-69	URS	Downgradient	6/6/2016	--	--	--	--	--	--	--	**0.8**	**2.4**	--
MW-69	URS	Downgradient	6/6/2016	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	8/21/2016	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	8/21/2016	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	8/21/2016	--	--	--	--	--	--	--	**1.2**	**2.7**	--
MW-69	URS	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	9/13/2016	--	--	--	--	--	--	--	**1.1**	**4.3**	--
MW-69	URS	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	10/20/2016	--	--	--	--	--	--	--	**1.8**	**3.7**	--
MW-69	URS	Downgradient	2/1/2017	**320**	< 6.0	< 6.0	**320**	< 6.0	**2,600**	**40**	--	--	**550**
MW-69	URS	Downgradient	2/1/2017	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	2/1/2017	--	--	--	--	--	--	--	**1.4**	**4.0**	--
MW-69	URS	Downgradient	4/17/2017	**360**	< 6.0	< 6.0	**360**	< 6.0	**2,800**	**40**	--	--	**630**
MW-69	URS	Downgradient	4/17/2017	--	--	--	--	--	--	--	**1.6**	**4.4**	--
MW-69	URS	Downgradient	4/17/2017	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	4/17/2017	**340**	< 6.0	< 6.0	**340**	< 6.0	**2,700**	**41**	--	--	**640**
MW-69	URS	Downgradient	4/17/2017	--	--	--	--	--	--	--	**1.4**	**3.5**	--
MW-69	URS	Downgradient	4/17/2017	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	5/2/2017	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	5/2/2017	--	--	--	--	--	--	--	**1.5**	**3.5**	--
MW-69	URS	Downgradient	5/29/2017	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	5/29/2017	--	--	--	--	--	--	--	**1.6**	**2.0**	--
MW-69	URS	Downgradient	6/21/2017	**290**	< 6.0	< 6.0	**290**	< 6.0	**2,400**	**39**	--	--	**590**
MW-69	URS	Downgradient	6/21/2017	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	6/21/2017	--	--	--	--	--	--	--	**1.7**	**2.6**	--
MW-69	URS	Downgradient	7/21/2017	**330**	< 6.0	< 6.0	**330**	< 6.0	**2,700**	**46**	--	--	**700**
MW-69	URS	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	7/21/2017	--	--	--	--	--	--	--	< 0.5	**3.4**	--
MW-69	URS	Downgradient	8/9/2017	**310**	< 6.0	< 6.0	**310**	< 6.0	**2,800**	**44**	--	--	**690**
MW-69	URS	Downgradient	8/9/2017	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	8/9/2017	--	--	--	--	--	--	--	**1.6**	**3.5**	--
MW-69	URS	Downgradient	8/9/2017	**300**	< 6.0	< 6.0	**300**	< 6.0	**2,800**	**43**	--	--	**680**
MW-69	URS	Downgradient	8/9/2017	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	8/9/2017	--	--	--	--	--	--	--	**1.1**	**2.6**	--
MW-69	URS	Downgradient	8/16/2017	--	--	--	--	--	--	--	**1.0**	**2.6**	--
MW-69	URS	Downgradient	8/16/2017	**300**	< 6.0	< 6.0	**300**	< 6.0	**2,500**	**49**	--	--	**710**
MW-69	URS	Downgradient	9/10/2017	**340**	< 6.0	< 6.0	**340**	< 6.0	**2,700**	**46**	--	--	**720**
MW-69	URS	Downgradient	9/10/2017	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	9/10/2017	--	--	--	--	--	--	--	**2.2**	**3.7**	--
MW-69	URS	Downgradient	9/10/2017	**340**	< 6.0	< 6.0	**340**	< 6.0	**2,800**	**45**	--	--	**720**
MW-69	URS	Downgradient	9/10/2017	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	9/10/2017	--	--	--	--	--	--	--	**1.1**	**3.8**	--
MW-69	URS	Downgradient	10/13/2017	--	--	--	--	--	--	--	**1.7**	**5.0**	--
MW-69	URS	Downgradient	10/13/2017	**360**	< 6.0	< 6.0	**360**	< 6.0	**2,600**	**43**	--	--	**720**
MW-69	URS	Downgradient	11/29/2017	**330**	< 6.0	< 6.0	**330**	< 6.0	**2,800**	**51**	--	--	**830**
MW-69	URS	Downgradient	3/16/2018	--	--	--	--	--	--	--	**1.6**	**3.8**	--
MW-69	URS	Downgradient	6/2/2018	--	--	--	--	--	--	--	**1.3**	**3.3**	--
MW-69	URS	Downgradient	6/2/2018	**360**	< 6.0	< 6.0	**360**	< 6.0	**2,600**	**38**	--	--	**680**
MW-69	URS	Downgradient	6/2/2018	--	--	--	--	--	--	--	**0.9**	**2.2**	--
MW-69	URS	Downgradient	6/2/2018	**350**	< 6.0	< 6.0	**350**	< 6.0	**2,500**	**38**	--	--	**680**
MW-69	URS	Downgradient	11/3/2018	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	11/3/2018	--	--	--	--	--	--	--	**1.7**	**1.3**	--
MW-69	URS	Downgradient	3/17/2019	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	3/17/2019	--	--	--	--	--	--	--	**0.6**	**2.0**	--
MW-69	URS	Downgradient	5/7/2019	--	--	--	--	--	--	--	< 0.4	**1.8**	--
MW-69	URS	Downgradient	12/3/2019	--	--	--	--	--	--	--	--	--	--
MW-69	URS	Downgradient	6/19/2020	--	--	--	--	--	--	--	**0.6**	**1.3**	--
MW-69	URS	Downgradient	11/4/2020	--	--	--	--	--	--	--	< 0.4	**1.3**	--
MW-69	URS	Downgradient	4/21/2021	--	--	--	--	--	--	--	**0.7**	<0.7	--
MW-69	URS	Downgradient	11/12/2021	--	--	--	--	--	--	--	**1.0**	**0.9**	--

Groundwater Sampling Results for the URS Monitoring Wells

				Additional Analyses										
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Magnesium	Potassium	Radium 226	Radium 228	Sodium
Filtered:				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	pCi/L	pCi/L	mg/L
URS BTV (applicable to downgradient wells)				--	--	--	--	--	--	--	--	--	--
URS GWPS (applicable to downgradient wells)				--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	11/9/2015	**540**	< 5.0	--	**540**	--	**1,300**	**19**	--	--	**830**
MW-70	URS	Downgradient	11/9/2015	--	--	--	--	--	--	--	**0.616**	**1.02**	--
MW-70	URS	Downgradient	4/27/2016	--	--	--	--	--	--	--	< 0.4	**1.0**	--
MW-70	URS	Downgradient	6/5/2016	--	--	--	--	--	--	--	**0.5**	**2.4**	--
MW-70	URS	Downgradient	6/5/2016	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	6/5/2016	--	--	--	--	--	--	--	**0.6**	**1.3**	--
MW-70	URS	Downgradient	6/5/2016	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	8/20/2016	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	8/20/2016	--	--	--	--	--	--	--	< 0.3	**1.5**	--
MW-70	URS	Downgradient	9/12/2016	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	9/12/2016	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	9/12/2016	--	--	--	--	--	--	--	**0.6**	**2.0**	--
MW-70	URS	Downgradient	10/19/2016	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	10/19/2016	--	--	--	--	--	--	--	**0.6**	**1.0**	--
MW-70	URS	Downgradient	2/1/2017	**470**	< 6.0	< 6.0	**470**	< 6.0	**1,300**	**17**	--	--	**770**
MW-70	URS	Downgradient	2/1/2017	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	2/1/2017	--	--	--	--	--	--	--	< 0.4	**3.3**	--
MW-70	URS	Downgradient	4/16/2017	--	--	--	--	--	--	--	< 0.4	**2.6**	--
MW-70	URS	Downgradient	4/16/2017	**510**	< 6.0	< 6.0	**510**	< 6.0	**1,300**	**18**	--	--	**820**
MW-70	URS	Downgradient	4/16/2017	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	4/16/2017	**510**	< 6.0	< 6.0	**510**	< 6.0	**1,300**	**18**	--	--	**790**
MW-70	URS	Downgradient	4/16/2017	--	--	--	--	--	--	--	< 0.4	**2.1**	--
MW-70	URS	Downgradient	4/16/2017	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	5/1/2017	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	5/1/2017	--	--	--	--	--	--	--	**0.5**	**1.9**	--
MW-70	URS	Downgradient	5/29/2017	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	5/29/2017	--	--	--	--	--	--	--	< 0.4	**1.3**	--
MW-70	URS	Downgradient	6/21/2017	**510**	< 6.0	< 6.0	**510**	< 6.0	**1,300**	**18**	--	--	**850**
MW-70	URS	Downgradient	6/21/2017	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	6/21/2017	--	--	--	--	--	--	--	**0.7**	**1.8**	--
MW-70	URS	Downgradient	7/21/2017	**500**	< 6.0	< 6.0	**500**	< 6.0	**1,300**	**19**	--	--	**870**
MW-70	URS	Downgradient	7/21/2017	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	7/21/2017	--	--	--	--	--	--	--	< 0.5	< 0.7	--
MW-70	URS	Downgradient	8/9/2017	**500**	< 6.0	< 6.0	**500**	< 6.0	**1,300**	**18**	--	--	**880**
MW-70	URS	Downgradient	8/9/2017	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	8/9/2017	--	--	--	--	--	--	--	< 0.4	**1.6**	--
MW-70	URS	Downgradient	8/16/2017	--	--	--	--	--	--	--	< 0.4	**1.8**	--
MW-70	URS	Downgradient	8/16/2017	**510**	< 6.0	< 6.0	**510**	< 6.0	**1,300**	**21**	--	--	**890**
MW-70	URS	Downgradient	9/9/2017	**510**	< 6.0	< 6.0	**510**	< 6.0	**1,200**	**17**	--	--	**820**
MW-70	URS	Downgradient	9/9/2017	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	9/9/2017	--	--	--	--	--	--	--	**0.7**	**1.3**	--
MW-70	URS	Downgradient	10/13/2017	--	--	--	--	--	--	--	< 0.3	< 0.6	--
MW-70	URS	Downgradient	10/13/2017	**510**	< 6.0	< 6.0	**510**	< 6.0	**1,200**	**18**	--	--	**810**
MW-70	URS	Downgradient	11/30/2017	**510**	< 6.0	< 6.0	**510**	< 6.0	**1,200**	**19**	--	--	**880**
MW-70	URS	Downgradient	3/16/2018	--	--	--	--	--	--	--	< 1.1	**2.6**	--
MW-70	URS	Downgradient	5/31/2018	--	--	--	--	--	--	--	**0.5**	**2.3**	--
MW-70	URS	Downgradient	5/31/2018	**520**	< 6.0	< 6.0	**520**	< 6.0	**1,300**	**17**	--	--	**780**
MW-70	URS	Downgradient	11/2/2018	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	11/2/2018	--	--	--	--	--	--	--	**0.7**	< 0.7	--
MW-70	URS	Downgradient	3/18/2019	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	3/18/2019	--	--	--	--	--	--	--	< 0.4	**1.2**	--
MW-70	URS	Downgradient	5/7/2019	--	--	--	--	--	--	--	< 0.5	**2.4**	--
MW-70	URS	Downgradient	12/3/2019	--	--	--	--	--	--	--	--	--	--
MW-70	URS	Downgradient	6/19/2020	--	--	--	--	--	--	--	**0.6**	**1.3**	--
MW-70	URS	Downgradient	11/5/2020	--	--	--	--	--	--	--	< 0.5	**1.8**	--
MW-70	URS	Downgradient	4/21/2021	--	--	--	--	--	--	--	**0.8**	**2.3**	--
MW-70	URS	Downgradient	11/12/2021	--	--	--	--	--	--	--	**0.4**	**1.1**	--

Groundwater Sampling Results for the URS Monitoring Wells

				Additional Analyses										
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Magnesium	Potassium	Radium 226	Radium 228	Sodium
Filtered:				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	pCi/L	pCi/L	mg/L
URS BTV (applicable to downgradient wells)				--	--	--	--	--	--	--	--	--	--
URS GWPS (applicable to downgradient wells)				--	--	--	--	--	--	--	--	--	--
MW-83	URS	Downgradient	3/18/2019	--	--	--	--	--	--	--	--	--	--
MW-83	URS	Downgradient	3/18/2019	--	--	--	--	--	--	--	< 0.4	< 0.7	--
MW-83	URS	Downgradient	5/6/2019	--	--	--	--	--	--	--	< 0.4	< 0.7	--
MW-83	URS	Downgradient	5/6/2019	--	--	--	--	--	--	--	< 0.4	< 0.7	--
MW-83	URS	Downgradient	12/2/2019	--	--	--	--	--	--	--	--	--	--
MW-83	URS	Downgradient	6/19/2020	--	--	--	--	--	--	--	< 0.4	< 0.8	--
MW-83	URS	Downgradient	6/19/2020	--	--	--	--	--	--	--	< 0.4	< 0.6	--
MW-83	URS	Downgradient	11/4/2020	--	--	--	--	--	--	--	< 0.4	< 0.8	--
MW-83	URS	Downgradient	4/21/2021	--	--	--	--	--	--	--	**0.5**	<0.7	--
MW-83	URS	Downgradient	11/12/2021	--	--	--	--	--	--	--	**0.7**	<0.6	--
MW-84	URS	Downgradient	3/17/2019	--	--	--	--	--	--	--	--	--	--
MW-84	URS	Downgradient	3/17/2019	--	--	--	--	--	--	--	< 0.5	**1.5**	--
MW-84	URS	Downgradient	5/7/2019	--	--	--	--	--	--	--	**0.7**	**1.2**	--
MW-84	URS	Downgradient	12/3/2019	--	--	--	--	--	--	--	--	--	--
MW-84	URS	Downgradient	6/20/2020	--	--	--	--	--	--	--	< 0.4	**1.0**	--
MW-84	URS	Downgradient	11/4/2020	--	--	--	--	--	--	--	< 0.4	< 0.8	--
MW-84	URS	Downgradient	4/21/2021	--	--	--	--	--	--	--	<0.4	<0.7	--
MW-84	URS	Downgradient	11/12/2021	--	--	--	--	--	--	--	**1.4**	**0.7**	--
MW-84	URS	Downgradient	11/12/2021	--	--	--	--	--	--	--	**1.2**	**1.1**	--
MW-85	URS	Downgradient	3/20/2019	--	--	--	--	--	--	--	--	--	--
MW-85	URS	Downgradient	3/20/2019	--	--	--	--	--	--	--	< 0.5	**0.8**	--
MW-85	URS	Downgradient	3/20/2019	--	--	--	--	--	--	--	--	--	--
MW-85	URS	Downgradient	3/20/2019	--	--	--	--	--	--	--	< 0.4	< 0.7	--
MW-85	URS	Downgradient	5/7/2019	--	--	--	--	--	--	--	< 0.4	< 0.7	--
MW-85	URS	Downgradient	12/3/2019	--	--	--	--	--	--	--	--	--	--
MW-85	URS	Downgradient	6/19/2020	--	--	--	--	--	--	--	**0.5**	< 0.6	--
MW-85	URS	Downgradient	11/4/2020	--	--	--	--	--	--	--	**0.7**	< 0.8	--
MW-85	URS	Downgradient	4/21/2021	--	--	--	--	--	--	--	**0.5**	**1.9**	--
MW-85	URS	Downgradient	11/12/2021	--	--	--	--	--	--	--	**0.5**	**1.4**	--
MW-86	URS	Downgradient	3/18/2019	--	--	--	--	--	--	--	--	--	--
MW-86	URS	Downgradient	3/18/2019	--	--	--	--	--	--	--	< 0.4	< 0.7	--
MW-86	URS	Downgradient	5/7/2019	--	--	--	--	--	--	--	< 0.4	**1.1**	--
MW-86	URS	Downgradient	5/7/2019	--	--	--	--	--	--	--	< 0.4	**1.1**	--
MW-86	URS	Downgradient	12/3/2019	--	--	--	--	--	--	--	--	--	--
MW-86	URS	Downgradient	6/19/2020	--	--	--	--	--	--	--	**0.6**	**1.2**	--
MW-86	URS	Downgradient	6/20/2020	--	--	--	--	--	--	--	< 0.4	**0.9**	--
MW-86	URS	Downgradient	11/5/2020	--	--	--	--	--	--	--	**0.6**	< 0.8	--
MW-86	URS	Downgradient	4/21/2021	--	--	--	--	--	--	--	**0.6**	**1.6 J**	--
MW-86	URS	Downgradient	4/21/2021	--	--	--	--	--	--	--	**0.7**	**3.2 J**	--
MW-86	URS	Downgradient	11/12/2021	--	--	--	--	--	--	--	**0.5**	<0.6	--
MW-86	URS	Downgradient	11/12/2021	--	--	--	--	--	--	--	**0.5**	**1.4**	--

Groundwater Sampling Results for the URS Monitoring Wells

				Additional Analyses										
			Constituent:	Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Magnesium	Potassium	Radium 226	Radium 228	Sodium
			Filtered:	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	pCi/L	pCi/L	mg/L
			URS BTV (applicable to downgradient wells)	--	--	--	--	--	--	--	--	--	--
			URS GWPS (applicable to downgradient wells)	--	--	--	--	--	--	--	--	--	--
CM-01	URS	CM Pre-Design	11/4/2020	**400**	< 6	< 6	**400**	< 6	**2,700**	**39**	--	--	**700**
CM-02	URS	CM Pre-Design	11/4/2020	**280**	< 6	< 6	**280**	< 6	**2,700**	**42**	--	--	**700**
CM-03	URS	CM Pre-Design	11/4/2020	**490**	< 6	< 6	**490**	< 6	**3,000**	**55**	--	--	**780**
CM-04	URS	CM Pre-Design	11/4/2020	**300**	< 6	< 6	**300**	< 6	**2,300**	**43**	--	--	**850**

Notes:

BTV exceedances are shown in grey shaded cells. GWPS exceedence are shown in red text.

Duplicate sample dates under the same locations are either field duplicates or are instances of samples with multiple filed/lab sample IDs on the same date.

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.

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																							
			Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
			Filtered:	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	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	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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	*3.95*	*3.95*	*454.1*	*454*	*604.7*	*2.1*	*6.52-7.88*	*6.52-7.88*	*22,000*	*34,397*	*0.01*	*0.0086*	*0.0086*	*0.042*	*0.042*	*0.001*	*0.001*	*0.002*	*0.002*	*0.02*	*0.02*	*0.01*	*0.01*	*5*	*0.01*	*0.01*	*1.8*	*0.0002*	*0.0002*	*0.12*	*0.092*	*0.017*	*4.43*
			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*
MW-43	Multiunit 1	Background	11/18/2013	**1.2**	--	**530**	--	**750**	< 2.0	--	--	**5,900**	**10,000**	--	**0.0027**	--	--	--	--	--	--	--	**0.0099**	--	--	--	< 2.0	--	--	--	--	--	**0.0041**	--	--
MW-43	Multiunit 1	Background	9/8/2014	**1.1**	--	**520**	--	**800**	< 0.40	--	--	**5,900**	**11,000**	--	**0.0020**	--	--	--	--	--	--	--	**0.0085**	--	--	--	< 0.40	--	--	--	--	--	< 0.0030	--	--
MW-43	Multiunit 1	Background	3/16/2015	**1.2**	--	**490**	--	**820**	< 0.40	--	--	**6,300**	**11,000**	--	**0.0030**	--	--	--	--	--	--	--	**0.013**	--	--	--	< 0.40	--	--	--	--	--	**0.0032**	--	--
MW-43	Multiunit 1	Background	12/1/2015	**0.91**	--	**470**	--	**720**	< 0.25	--	--	**6,800**	**7,900**	**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-49A	Multiunit 1	Background	9/10/2014	**0.78**	--	**180**	--	**1,100**	< 2.0	--	--	**34,000**	**40,000**	--	**0.0013**	--	--	--	--	--	--	--	< 0.0025	--	--	--	< 2.0	--	--	--	--	--	**0.0041**	--	--
MW-49A	Multiunit 1	Background	3/19/2015	**0.93**	--	**420**	--	**1,400**	< 2.0	--	--	**34,000**	**51,000**	--	< 0.0020	--	--	--	--	--	--	--	< 0.0050	--	--	--	< 2.0	--	--	--	--	--	< 0.0060	--	--
MW-49A	Multiunit 1	Background	7/1/2015	**1.1**	--	**450**	--	**1,500**	< 4.0	--	**7.42**	**32,000**	**52,000**	--	< 0.060	--	--	--	--	--	--	--	< 0.060	--	--	--	< 4.0	--	--	--	--	--	< 0.060	--	--
MW-49A	Multiunit 1	Background	8/29/2015	**0.75**	--	**440**	--	**930**	< 2.0	--	**7.36**	**26,000**	**42,000**	--	< 0.030	--	--	--	--	--	< 0.010	--	< 0.030	--	--	--	< 2.0	--	--	--	--	--	< 0.030	--	--
MW-49A	Multiunit 1	Background	12/1/2015	**6.0**	--	**440**	--	**340**	< 0.25	--	--	**14,000**	**17,000**	**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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	4/26/2016	**2.7**	--	**440**	--	**550**	< 2.0	--	--	**18,000**	**30,000**	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.4**
MW-49A	Multiunit 1	Background	6/7/2016	**4.4**	--	**410**	--	**430**	**1.1**	--	**7.44**	**15,000**	**22,000**	**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	**2.3**	--	**390**	--	**560**	< 0.80	--	**7.2**	**20,000**	**29,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	8/21/2016	--	--	--	--	--	< 0.80	--	--	--	--	**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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.5**
MW-49A	Multiunit 1	Background	9/13/2016	**2.4**	--	**400**	--	**530**	**0.65**	--	**7.4**	**19,000**	**28,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.65**	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	9/13/2016	--	--	--	--	--	< 0.40	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.3**
MW-49A	Multiunit 1	Background	10/20/2016	**2.2**	--	**390**	--	**540**	< 0.40	--	**7.5**	**19,000**	**28,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.1**
MW-49A	Multiunit 1	Background	2/2/2017	**2.0**	--	**390**	--	**530**	< 0.40	--	**7.8**	**19,000**	**29,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	2/2/2017	--	--	--	--	--	< 0.40	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.4**
MW-49A	Multiunit 1	Background	4/18/2017	**2.6**	--	**410**	--	**1,000**	< 2.0	--	**7.4**	**20,000**	**29,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.0**
MW-49A	Multiunit 1	Background	4/18/2017	--	--	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	< 13	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**
MW-49A	Multiunit 1	Background	5/30/2017	--	--	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.1**
MW-49A	Multiunit 1	Background	6/22/2017	**2.1**	--	**380**	--	**510**	--	--	**7.5**	**22,000**	**24,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	6/22/2017	--	--	--	--	--	< 2.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.7**
MW-49A	Multiunit 1	Background	7/22/2017	**2.2**	--	**390**	--	**520**	< 4.0	--	**7.6**	**18,000**	**25,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	< 4.0	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	7/22/2017	--	--	--	--	--	--	--	--	--	--	**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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**
MW-49A	Multiunit 1	Background	8/10/2017	**2.7**	--	**400**	--	**520**	--	--	**7.5**	**18,000**	**23,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	8/10/2017	--	--	--	--	--	< 4.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.7**
MW-49A	Multiunit 1	Background	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.0**
MW-49A	Multiunit 1	Background	8/17/2017	**2.9**	--	**440**	--	**510**	< 4.0	--	**7.5**	**16,000**	**22,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	< 4.0	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	9/10/2017	**3.4**	--	**410**	--	**490**	--	--	**7.4**	**16,000**	**22,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	9/10/2017	--	--	--	--	--	< 4.0	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.3**
MW-49A	Multiunit 1	Background	10/12/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.5**
MW-49A	Multiunit 1	Background	10/12/2017	**3.1**	--	**370**	--	**490**	< 4.0	--	**7.4**	**16,000**	**22,000**	< 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	**2.2**	--	**420**	--	**560**	< 4.0	--	**7.4**	**17,000**	**23,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	< 4.0	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	3/17/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.8
MW-49A	Multiunit 1	Background	6/1/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.5**
MW-49A	Multiunit 1	Background	6/1/2018	**2.5**	--	**380**	--	**560**	< 0.80	--	**7.4**	**18,000**	**26,000**	--	< 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	**1.8**	--	**380**	--	**590**	< 0.80	--	**7.4**	**19,000**	**27,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	11/4/2018	--	--	--	--	--	--	--	--	--	--	--	**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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.4**
MW-49A	Multiunit 1	Background	3/19/2019	--	--	--	--	--	**0.92**	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.8**
MW-49A	Multiunit 1	Background	5/14/2019	**7.4**	--	**350**	--	**420**	**1.2**	--	**7.6 J**	**11,000**	**15,000**	--	**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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-49A	Multiunit 1	Background	11/19/2019	**6.2**	--	**380**	--	**400**	< 0.80	--	**7.5 J**	**12,000**	**18,000**	< 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	**6.3**	--	**430**	--	**720**	< 0.8	**7.01**	**7.6 J**	**13,000**	**17,000**	< 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	**5.6**	--	**420**	--	**430**	**0.66 J**	**7.14**	**7.5 J**	**14,000**	**18,000**	**0.00064 J**	**0.0025**	--	< 0.02 U	--	< 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	**6.2**	--	**420**	--	**440**	**0.47 J**	**7.50**	**7.5 J**	**14,000**	**19,000**	< 0.001 U	< 0.002 U	--	**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	**5.0**	--	**440**	--	**510**	**0.51 J**	**6.99**	**7.4 J**	**16,000**	**20,000**	**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-50A	Multiunit 1	Background	3/19/2015	**3.0**	--	**430**	--	**460**	< 0.40	--	--	**4,800**	**7,700**	--	**0.0010**	--	--	--	--	--	--	--	**0.018**	--	--	--	< 0.40	--	--	--	--	--	--	< 0.0030	--	--
MW-50A	Multiunit 1	Background	12/1/2015	**2.4**	--	**440**	--	**400**	< 0.25	--	--	**4,800**	**5,600**	**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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-50A	Multiunit 1	Background	2/2/2017	**3.1**	--	**410**	--	**440**	**0.52**	--	**7.9**	**4,400**	**7,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.52**	--	--	--	--	--	--	--	--	--
MW-50A	Multiunit 1	Background	2/2/2017	--	--	--	--	--	< 0.40	--	--	--	--	< 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**	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																					
			Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
			Filtered:	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	Y	N	N	Y	N	N	N	N
			Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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	*3.95*	*3.95*	*454.1*	*454*	*604.7*	*2.1*	*6.52-7.88*	*6.52-7.88*	*22,000*	*34,397*	*0.01*	*0.0086*	*0.0086*	*0.042*	*0.042*	*0.001*	*0.001*	*0.002*	*0.02*	*0.02*	*0.01*	*0.01*	*5*	*0.01*	*0.01*	*1.8*	*0.0002*	*0.0002*	*0.12*	*0.092*	*0.017*	*4.43*
			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*
MW-74	Multiunit 1	Background	2/2/2017	**1.7**	--	**420**	--	**590**	**1.6**	--	**8.0**	**7,600**	**12,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.6**	--	--	--	--	--	--	--	--
MW-74	Multiunit 1	Background	2/2/2017	--	--	--	--	--	**1.7**	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.6**
MW-74	Multiunit 1	Background	4/18/2017	**1.6**	--	**360**	--	**430**	**1.8**	--	**8.0**	**7,700**	**12,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.8**	--	--	--	--	--	--	--	--
MW-74	Multiunit 1	Background	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.7**
MW-74	Multiunit 1	Background	4/18/2017	--	--	--	--	--	**1.6**	--	--	--	--	< 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	--	--	--	--	--	< 13	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.5**
MW-74	Multiunit 1	Background	5/29/2017	--	--	--	--	--	**1.9**	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.1**
MW-74	Multiunit 1	Background	6/22/2017	**1.6**	--	**420**	--	**410**	--	--	**7.8**	**7,800**	**12,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-74	Multiunit 1	Background	6/22/2017	--	--	--	--	--	**1.9**	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-74	Multiunit 1	Background	7/22/2017	**1.6**	--	**420**	--	**410**	**1.9**	--	**7.8**	**8,400**	**12,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**	--	--	--	--	--	--	--	--
MW-74	Multiunit 1	Background	7/22/2017	--	--	--	--	--	--	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-74	Multiunit 1	Background	8/10/2017	**1.5**	--	**420**	--	**420**	--	--	**7.9**	**10,000**	**13,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-74	Multiunit 1	Background	8/10/2017	--	--	--	--	--	**2.0**	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.9**
MW-74	Multiunit 1	Background	9/10/2017	**1.9**	--	**420**	--	**470**	--	--	**7.7**	**11,000**	**15,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-74	Multiunit 1	Background	9/10/2017	--	--	--	--	--	**2.0**	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.7**
MW-74	Multiunit 1	Background	10/11/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-74	Multiunit 1	Background	10/11/2017	**1.3**	--	**380**	--	**490**	**2.1**	--	**7.8**	**13,000**	**18,000**	< 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	**1.4**	--	**460**	--	**470**	**1.9**	--	**7.6**	**12,000**	**17,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**	--	--	--	--	--	--	--	--	--
MW-74	Multiunit 1	Background	3/17/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.9
MW-74	Multiunit 1	Background	6/1/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-74	Multiunit 1	Background	6/1/2018	**1.5**	--	**400**	--	**460**	**2.1**	--	**7.7**	**11,000**	**17,000**	--	< 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	--	--	--	--	--	**2.4**	--	--	--	--	< 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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-74	Multiunit 1	Background	5/13/2019	**1.6**	--	**400**	--	**610**	**1.9**	--	**7.7 J**	**16,000**	**23,000**	--	--	--	**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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-74	Multiunit 1	Background	6/20/2020	**2.2**	--	**430**	--	**700**	**1.1**	**7.09**	**7.7 J**	**18,000**	**28,000**	< 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	**2.0**	--	**460**	--	**850**	**1.5**	**8.00**	**7.7 J**	**22,000**	**31,000**	< 0.002 U	< 0.0035 U	--	**0.015**	--	< 0.001	--	< 0.0002 U	--	**0.0050**	--	**0.00056 J**	--	**1.5**	< 0.002	--	**0.9**	< 0.0002	--	**0.021**	**0.12**	< 0.0004 U	<0.8

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																					
			Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
			Filtered:	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	Y	N	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	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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	*3.95*	*3.95*	*454.1*	*454*	*604.7*	*2.1*	*6.52-7.88*	*6.52-7.88*	*22,000*	*34,397*	*0.01*	*0.0086*	*0.0086*	*0.042*	*0.042*	*0.001*	*0.001*	*0.002*	*0.002*	*0.02*	*0.02*	*0.01*	*0.01*	*5*	*0.01*	*0.01*	*1.8*	*0.0002*	*0.0002*	*0.12*	*0.092*	*0.017*	*4.43*
			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*
DMX-3	Multiunit 1	Downgradient	4/21/1992	--	**0.70**	--	**459**	**440**	**0.23**	--	**7.6**	**8,900**	**15,000**	--	--	< 0.005	--	**0.013**	--	< 0.005	--	< 0.005	--	< 0.010	--	< 0.010	**0.23**	--	< 0.010	--	< 0.0002	--	--	--	--
DMX-3	Multiunit 1	Downgradient	3/12/2014	**1.8**	--	**440**	--	**520**	< 0.90	--	--	**7,500**	**12,000**	--	**0.00020**	--	--	--	--	--	--	--	< 0.00050	--	--	--	< 0.80	--	--	--	--	--	**0.0018**	--	--
DMX-3	Multiunit 1	Downgradient	9/11/2014	**1.7**	--	**450**	--	**650**	< 0.40	--	--	**9,600**	**14,000**	--	< 0.0020	--	--	--	--	--	--	--	< 0.0050	--	--	--	< 0.40	--	--	--	--	--	< 0.0060	--	--
DMX-3	Multiunit 1	Downgradient	12/8/2014	**1.7**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DMX-3	Multiunit 1	Downgradient	12/8/2014	**1.7**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DMX-3	Multiunit 1	Downgradient	3/18/2015	**2.0**	--	**430**	--	**780**	< 0.40	--	--	**11,000**	**16,000**	--	< 0.0050	--	--	--	--	--	--	--	< 0.013	--	--	--	< 0.40	--	--	--	--	--	< 0.015	--	--
DMX-3	Multiunit 1	Downgradient	6/24/2015	**1.5**	--	**410**	--	**810**	< 8.0	--	**7.2**	**5,600**	**17,000**	--	< 0.15	--	--	--	--	--	--	--	< 0.15	--	--	--	< 8.0	--	--	--	--	--	< 0.15	--	--
DMX-3	Multiunit 1	Downgradient	11/5/2015	**1.4**	--	**440**	--	**850**	< 2.0	--	**7.16**	**11,000**	**17,000**	--	**0.00048**	--	--	--	--	--	< 0.00020	--	< 0.0010	--	--	--	< 2.0	--	--	--	--	--	**0.0055**	--	--
DMX-3	Multiunit 1	Downgradient	6/21/2016	**1.0**	--	**420**	--	**1,000**	< 0.40	--	**7.19**	**11,000**	**19,000**	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	--	< 0.40	--	--	< 0.00020	--	--	--	--	--
DMX-3	Multiunit 1	Downgradient	9/15/2016	**0.97**	--	**400**	--	**970**	< 0.40	--	**7.2**	**12,000**	**19,000**	--	< 0.0020	--	--	--	--	--	--	--	< 0.0050	--	--	--	< 0.40	--	--	< 0.00020	--	--	--	--	--
DMX-3	Multiunit 1	Downgradient	6/22/2020	--	--	--	--	--	--	**6.88**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.001	--	--	--	--	--	**0.0043**	--	--	--
DMX-3	Multiunit 1	Downgradient	11/7/2020	**0.86**	--	**440**	--	**1,100**	**0.31 J**	**6.98**	**7.5 J**	**13,000 J**	**19,000**	**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	Downgradient	4/25/2021	**0.92**	--	**470**	--	**1,100 J**	**0.17 J**	**7.64**	**7.4 J**	**13,000**	**20,000**	< 0.004 U	< 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	Downgradient	11/14/2021	**0.93**	--	**430**	--	**1,300**	< 0.8	**6.84**	**7.4 J**	**15,000**	**39,000**	< 0.002 U	< 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-4	Multiunit 1	Downgradient	4/21/1992	--	**0.47**	--	**433**	**550**	**0.93**	--	**7.8**	**9,400**	**16,000**	--	--	< 0.05	--	**0.011**	--	< 0.005	--	< 0.005	--	< 0.010	--	< 0.010	**0.93**	--	< 0.010	--	< 0.0002	--	--	--	--
DMX-4	Multiunit 1	Downgradient	3/18/2015	**1.0**	--	**430**	--	**460**	< 0.40	--	--	**7,100**	**11,000**	--	< 0.0010	--	--	--	--	--	--	--	< 0.0025	--	--	--	< 0.40	--	--	--	--	--	< 0.0030	--	--
DMX-4	Multiunit 1	Downgradient	6/24/2015	**0.92**	--	**390**	--	**430**	**0.58**	--	**7.51**	**7,000**	**11,000**	--	< 0.030	--	--	--	--	--	--	--	< 0.030	--	--	--	**0.58**	--	--	--	--	--	< 0.030	--	--
DMX-4	Multiunit 1	Downgradient	8/29/2015	**0.93**	--	**430**	--	**430**	< 2.0	--	**7.54**	**6,200**	**10,000**	--	< 0.0030	--	--	--	--	--	< 0.0010	--	< 0.0030	--	--	--	< 2.0	--	--	--	--	--	**0.0048**	--	--
DMX-4	Multiunit 1	Downgradient	11/7/2015	**1.2**	--	**440**	--	**430**	**0.44**	--	**7.61**	**6,600**	**11,000**	--	< 0.0010	--	--	--	--	--	< 0.00050	--	< 0.0025	--	--	--	**0.44**	--	--	--	--	--	< 0.0030	--	--
DMX-4	Multiunit 1	Downgradient	11/7/2015	**1.3**	--	**490**	--	--	--	--	**7.59**	--	**10,000**	--	< 0.0010	--	--	--	--	--	< 0.00050	--	< 0.0025	--	--	--	--	--	--	--	--	--	< 0.0030	--	--
DMX-4	Multiunit 1	Downgradient	6/21/2016	**0.93**	--	**420**	--	**450**	**0.89**	--	**7.54**	**6,600**	**11,000**	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	--	**0.89**	--	--	< 0.00020	--	--	--	--	--	--
DMX-4	Multiunit 1	Downgradient	9/15/2016	**0.91**	--	**380**	--	**390**	**0.87**	--	**7.5**	**6,300**	**21,000**	--	< 0.0020	--	--	--	--	--	--	--	< 0.0050	--	--	--	**0.87**	--	--	< 0.00020	--	--	--	--	--	--
DMX-4	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	< 0.80	--	--	--	--	< 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	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
DMX-4	Multiunit 1	Downgradient	5/14/2019	**1.2**	--	**410**	--	**420**	**0.83**	--	**7.6 J**	**6,400**	**11,000**	--	< 0.00050	--	**0.0089**	--	--	--	< 0.00010	--	--	--	**0.00074**	--	**0.83**	< 0.00050	--	**0.65**	--	--	**0.0094**	**0.00069**	**0.00018**	--
DMX-4	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
DMX-4	Multiunit 1	Downgradient	11/19/2019	**1.3**	--	**420**	--	**510**	< 0.80	--	**7.7 J**	**6,900**	**11,000**	< 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	Downgradient	6/22/2020	**1.3**	--	**410**	--	**490**	< 0.8	**7.30**	**7.7 J**	**7,400**	**12,000**	< 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	Downgradient	11/7/2020	**3.1**	--	**410**	--	**770**	**0.92**	**7.38**	**7.7 J**	**9,400**	**15,000**	**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	Downgradient	4/25/2021	**2.7**	--	**440**	--	**660 J**	**0.89**	**8.22**	**7.7 J**	**8,500**	**14,000**	< 0.004 U	< 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 U	<0.8
DMX-4	Multiunit 1	Downgradient	11/16/2021	**1.7**	--	**420**	--	**510**	**0.94**	**7.28**	**7.8 J**	**8,000**	**12,000 J**	**0.00034 J**	**0.00099 J**	--	**0.010**	--	< 0.001	--	< 0.00022	--	**0.0011 J**	--	**0.00055 J**	--	**0.94**	< 0.0005	--	**0.62**	--	--	**0.0064**	**0.0035**	**0.00014**	**0.7**
DMX-6	Multiunit 1	Downgradient	4/21/1992	--	**5.76**	--	**496**	**330**	**0.26**	--	**7.7**	**4,900**	**8,400**	--	--	< 0.005	--	**0.015**	--	< 0.005	--	< 0.005	--	< 0.010	--	< 0.010	**0.26**	--	< 0.010	--	< 0.0002	--	--	--	--
DMX-6	Multiunit 1	Downgradient	3/17/2015	**9.4**	--	**440**	--	**350**	< 0.80	--	--	**5,600**	**8,600**	--	**0.00024**	--	--	--	--	--	--	--	< 0.00050	--	--	--	< 0.80	--	--	--	--	--	**0.00063**	--	--
DMX-6	Multiunit 1	Downgradient	6/24/2015	**4.4**	--	**400**	--	**1,800**	< 8.0	--	**7.12**	**13,000**	**19,000**	--	< 0.060	--	--	--	--	--	--	--	< 0.060	--	--	--	< 8.0	--	--	--	--	--	< 0.060	--	--
DMX-6	Multiunit 1	Downgradient	8/29/2015	**7.1**	--	**430**	--	**420**	< 2.0	--	**7.25**	**6,200**	**10,000**	--	< 0.0030	--	--	--	--	--	< 0.0010	--	< 0.0030	--	--	--	< 2.0	--	--	--	--	--	**0.0042**	--	--
DMX-6	Multiunit 1	Downgradient	11/10/2015	**7.9**	--	**450**	--	--	--	--	**7.26**	--	**10,000**	--	< 0.0010	--	--	--	--	--	< 0.00050	--	< 0.0025	--	--	--	--	--	--	--	--	--	< 0.0030	--	--
DMX-6	Multiunit 1	Downgradient	6/22/2016	**6.7**	--	**410**	--	**430**	< 0.40	--	**7.32**	**6,000**	**10,000**	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	--	< 0.40	--	--	< 0.00020	--	--	--	--	--	--
DMX-6	Multiunit 1	Downgradient	9/15/2016	**6.7**	--	**390**	--	**650**	< 0.40	--	**7.2**	**7,200**	**11,000**	--	< 0.0010	--	--	--	--	--	--	--	< 0.0025	--	--	--	< 0.40	--	--	< 0.00020	--	--	--	--	--	--
DMX-6	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	< 0.80	--	--	--	--	< 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	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
DMX-6	Multiunit 1	Downgradient	5/14/2019	**5.5**	--	**330**	--	**880**	< 0.80	--	**7.2 J**	**8,100**	**13,000**	--	< 0.00050	--	**0.0097**	--	--	--	**0.00011**	--	--	--	**0.00088**	--	< 0.80	< 0.00050	--	**0.90**	--	--	**0.020**	< 0.00050	< 0.00010	--
DMX-6	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
DMX-6	Multiunit 1	Downgradient	11/19/2019	**6.1**	--	**360**	--	**710**	< 0.80	--	**7.2 J**	**7,300**	**12,000**	< 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	Downgradient	6/23/2020	**6.0**	--	**350**	--	**880**	< 0.8	**6.77**	**7.3 J**	**8,000**	**13,000**	< 0.002	< 0.001	--	**0.010**	--	< 0.001	--	**0.00027**	--	< 0.002	--	< 0.001	--	< 0.8	< 0.001	--	**1.2**	--	--	**0.0080**	< 0.001	< 0.0002	**0.6**
DMX-6	Multiunit 1	Downgradient	11/16/2020	**5.0**	--	**330**	--	**1,100**	**0.53**	**6.90**	**7.3 J**	**9,100**	**14,000**	**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	Downgradient	4/27/2021	**6.5**	--	**410**	--	**630 J**	**0.36 J**	**7.71**	**7.3 J**	**6,900**	**12,000**	< 0.004 U	< 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 U	<0.8
DMX-6	Multiunit 1	Downgradient	11/18/2021	**5.6**	--	**380**	--	**910**	**0.27 J**	**6.87**	**7.5 J**	**9,100**	**12,000**	< 0.002 U	**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

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																							
			Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
			Filtered:	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	Y	N	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	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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	*3.95*	*3.95*	*454.1*	*454*	*604.7*	*2.1*	*6.52-7.88*	*6.52-7.88*	*22,000*	*34,397*	*0.01*	*0.0086*	*0.0086*	*0.042*	*0.042*	*0.001*	*0.001*	*0.002*	*0.002*	*0.02*	*0.02*	*0.01*	*0.01*	*5*	*0.01*	*0.01*	*1.8*	*0.0002*	*0.0002*	*0.12*	*0.092*	*0.017*	*4.43*
			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*
MW-05	Multiunit 1	Downgradient	4/11/1987	--	**1.0**	--	**480**	**1,900**	**0.60**	**7.40**	**7.1**	**15,000**	**20,000**	--	--	< 0.05	--	< 0.005	--	--	--	< 0.005	--	< 0.005	--	--	**0.60**	--	< 0.05	--	--	< 0.0001	--	--	--	--
MW-05	Multiunit 1	Downgradient	10/2/1987	--	**0.94**	--	**460**	**1,800**	< 0.5	**7.32**	**7.4**	**16,000**	**27,000**	--	--	< 0.05	--	**0.29**	--	--	--	< 0.005	--	< 0.005	--	--	< 0.5	--	**0.880**	--	--	< 0.0001	--	--	--	--
MW-05	Multiunit 1	Downgradient	6/14/1988	--	--	**452**	--	**1,644**	**0.90**	**7.09**	--	**12,777**	**22,543**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.90**	--	--	--	< 0.001	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	9/21/1988	**1.0**	--	**433**	--	**1,583**	**1.1**	**7.04**	--	**12,922**	**25,575**	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.1**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	11/28/1988	**1.0**	--	**429**	--	**1,727**	**0.80**	**7.06**	--	**15,345**	**23,120**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.80**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	2/28/1989	**1.0**	--	**440**	--	**1,430**	**0.90**	**7.20**	--	**13,713**	**23,010**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.90**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	9/11/1989	**1.0**	--	**465**	--	**1,491**	**1.0**	**7.0**	--	**13,185**	**23,710**	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.0**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	3/22/1990	**1.0**	--	**500**	--	**1,261**	**0.80**	**7.10**	--	**12,903**	**23,200**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.80**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	10/30/1990	**1.0**	--	**420**	--	**1,047**	**0.30**	**7.05**	--	**13,120**	**19,533**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	4/4/1991	**1.0**	--	**400**	--	**1,048**	**0.30**	**6.94**	--	**13,185**	**19,930**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	9/30/1991	**1.0**	--	**390**	--	**955**	**0.30**	**7.21**	--	**12,500**	**19,320**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	4/15/1992	**1.0**	--	**420**	--	**1,151**	**0.40**	**7.20**	--	**12,680**	**21,150**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	11/3/1992	**1.0**	--	**400**	--	**1,803**	**0.30**	**6.96**	--	**14,184**	**24,840**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	6/22/1993	**0.60**	--	**380**	--	**927**	**0.40**	**6.98**	--	**11,436**	**19,210**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	11/30/1993	**1.0**	--	**400**	--	**810**	**0.30**	**6.99**	--	**11,810**	**18,610**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	5/10/1994	**1.0**	--	**420**	--	**931**	**0.40**	**7.08**	--	**11,670**	**19,240**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	11/8/1994	**1.0**	--	**400**	--	**943**	**0.30**	**7.10**	--	**10,944**	**18,670**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	4/6/1995	**1.0**	--	**420**	--	**929**	**0.30**	**7.02**	--	**10,568**	**19,370**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	12/13/1995	**0.89**	--	**400**	--	**900**	**0.30**	**7.07**	--	**11,068**	**18,090**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	8/15/1996	**0.67**	--	**360**	--	**762**	**0.20**	**7.02**	--	**9,929**	**17,210**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	4/15/1997	**0.99**	--	**360**	--	**759.8**	**0.20**	**7.37**	--	**9,614**	**17,380**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	10/13/1997	< 0.05	--	**400**	--	**786.2**	**0.20**	**7.20**	--	**9,887**	**16,050**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	4/14/1998	--	--	**420**	--	**774.2**	**0.20**	**6.86**	--	**9,217**	**16,410**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	10/20/1998	**1.02**	--	**380**	--	**850.6**	**0.20**	**7.16**	--	**10,063**	**16,600**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	6/8/1999	**1.8**	--	**420**	--	**889.6**	**0.30**	**7.04**	--	**9,983**	**17,740**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	12/1/1999	**1.6**	--	**440**	--	**747.4**	**0.30**	**7.02**	--	**8,913**	**18,140**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	5/30/2000	**1.83**	--	**430**	--	**1,220**	**0.30**	**6.96**	--	**12,493**	**16,900**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	11/14/2000	**2.02**	--	**40**	--	**754.2**	**0.2972**	**7.01**	--	**8,457**	**16,410**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.2972**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	8/21/2001	**1.61**	--	**400**	--	**823.8**	**0.30**	**6.94**	--	**8,732**	**15,320**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	12/4/2001	**1.4**	--	**440**	--	**781**	**0.30**	**6.80**	--	**9,030**	**15,300**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	6/11/2002	**1.6**	--	**400**	--	**857**	**0.40**	**7.05**	--	**8,785**	**16,320**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	12/18/2002	**1.57**	--	**380**	--	**809.4**	**0.30**	**7.07**	--	**8,517**	**16,310**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	5/28/2003	**1.84**	--	**400**	--	**899.2**	**0.20**	**6.92**	--	**8,022**	**10,180**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	12/15/2003	**0.90**	--	**320**	--	**791.4**	**0.29**	**6.97**	--	**8,312**	**15,850**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.29**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	6/18/2004	--	--	**400**	--	**862.2**	**0.30**	**6.97**	--	**8,886**	**47,050**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	11/30/2004	**1.3**	--	**440**	--	**875.6**	**0.30**	**7.10**	--	**6,119**	**16,360**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	5/11/2005	**0.952**	--	**440**	--	**860.4**	**0.20**	**6.76**	--	**8,955**	**15,920**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	12/12/2005	**0.841**	--	**445**	--	**958.4**	**0.30**	**7.10**	--	**9,241**	**16,780**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	5/15/2006	**0.837**	--	**444**	--	**977**	**0.226**	**7.01**	--	**11,400**	**17,200**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.226**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	10/13/2006	**0.997**	--	**476**	--	**852**	**0.219**	**6.96**	--	**10,000**	**17,300**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.219**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	4/19/2007	**0.97**	--	**429**	--	**836**	**0.133**	**7.00**	--	**9,120**	**16,500**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.133**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	11/20/2007	**0.743**	--	**348**	--	**1,040**	**0.30**	**7.00**	--	**9,800**	**18,100**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	5/8/2008	**0.50**	--	**356**	--	**1,010**	**0.30**	**7.03**	--	**10,900**	**17,770**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	9/27/2012	**1.2**	--	**420**	--	**3,300**	< 4.0	--	--	**14,000**	**24,000**	--	< 0.0010	--	--	--	--	--	--	--	< 0.0010	--	--	--	< 4.0	--	--	--	--	--	**0.0015**	--	--	--
MW-05	Multiunit 1	Downgradient	9/10/2014	**1.1**	--	**420**	--	**3,800**	< 0.80	--	--	**17,000**	**25,000**	--	< 0.00040	--	--	--	--	--	--	--	< 0.0010	--	--	--	< 0.80	--	--	--	--	--	< 0.0012	--	--	--
MW-05	Multiunit 1	Downgradient	3/18/2015	**1.2**	--	**450**	--	**3,400**	< 0.80	--	--	**14,000**	**24,000**	--	< 0.0010	--	--	--	--	--	--	--	< 0.0025	--	--	--	< 0.80	--	--	--	--	--	< 0.0030	--	--	--
MW-05	Multiunit 1	Downgradient	6/30/2015	**1.2**	--	**420**	--	**3,100**	< 4.0	--	**7.0**	**13,000**	**21,000**	--	< 0.012	--	--	--	--	--	--	--	< 0.012	--	--	--	< 4.0	--	--	--	--	--	< 0.012	--	--	--
MW-05	Multiunit 1	Downgradient	8/25/2015	**1.2**	--	**450**	--	**3,400**	< 4.0	--	**6.98**	**13,000**	**26,000**	--	< 0.030	--	--	--	--	--	--	--	< 0.030	--	--	--	< 4.0	--	--	--	--	--	< 0.030	--	--	--
MW-05	Multiunit 1	Downgradient	11/6/2015	**1.1**	--	**450**	--	**2,300**	< 4.0	--	**6.93**	**13,000**	**22,000**	--	< 0.0050	--	--	--	--	--	--	< 0.0025	< 0.013	--	--	--	< 4.0	--	--	--	--	--	< 0.015	--	--	--
MW-05	Multiunit 1	Downgradient	6/17/2016	**1.0**	--	**460**	--	**3,000**	< 0.80	--	**7.27**	**14,000**	**23,000**	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	--	< 0.80	--	--	--	< 0.00020	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	6/17/2016	**0.98**	--	**450**	--	**3,000**	< 0.80	--	**7.27**	**14,000**	**25,000**	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	--	< 0.80	--	--	--	< 0.00020	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	9/15/2016	**1.0**	--	**440**	--	**2,900**	< 2.0	--	**7.0**	**14,000**	**25,000**	--	**0.0022**	--	--	--	--	--	--	--	**0.0034**	--	--	--	< 2.0	--	--	--	< 0.00020	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	6/22/2020	--	--	--	--	--	--	**6.64**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0069**	--	--	--	--	--	**0.0042**	--	--	--
MW-05	Multiunit 1	Downgradient	11/7/2020	**1.2**	--	--	--	--	--	**6.71**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0037**	--	--	--	--	--	**0.0024**	--	--	--
MW-05	Multiunit 1	Downgradient	4/25/2021	**1.2**	--	**510**	--	**4,400 J**	**0.52 J**	**7.33**	**7.2 J**	**15,000**	**26,000**	--	--	--	--	--	< 0.001	--	--	--	--	--	--	**0.0094**	--	**0.52 J**	--	--	**2.2**	--	--	**0.0024**	--	--	--
MW-05	Multiunit 1	Downgradient	11/16/2021	**1.2**	--	**510**	--	**8,100**	**0.51 J**	**6.58**	**7.2 J**	**27,000**	**28,000 J**	--	--	--	--	--	< 0.001	--	--	--	--	--	--	**0.0082**	--	**0.51 J**	--	--	**2.1**	--	--	**0.0017**	--	--	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																					
			Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
			Filtered:	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	Y	N	N	Y	N	N	N	N
			Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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	*3.95*	*3.95*	*454.1*	*454*	*604.7*	*2.1*	*6.52-7.88*	*6.52-7.88*	*22,000*	*34,397*	*0.01*	*0.0086*	*0.0086*	*0.042*	*0.042*	*0.001*	*0.001*	*0.002*	*0.002*	*0.02*	*0.02*	*0.01*	*0.01*	*5*	*0.01*	*0.01*	*1.8*	*0.0002*	*0.0002*	*0.12*	*0.092*	*0.017*	*4.43*
			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*
MW-06	Multiunit 1/EW System	Downgradient	4/11/1987	--	**0.70**	--	**430**	**420**	< 0.5	**7.60**	**7.4**	**9,000**	**11,000**	--	--	< 0.005	--	< 0.005	--	< 0.005	--	< 0.005	--	< 0.005	--	< 0.005	--	< 0.5	--	< 0.05	--	--	< 0.0001	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	9/30/1987	--	**0.60**	--	**410**	**410**	< 0.5	**7.60**	**7.6**	**8,500**	**13,000**	--	--	< 0.05	--	**0.17**	--	--	--	< 0.005	--	**0.0060**	--	--	--	< 0.5	--	**0.880**	--	--	< 0.0001	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	6/15/1988	--	--	**396**	--	**469**	**0.60**	**7.29**	--	**8,590**	**13,690**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.60**	--	--	--	< 0.001	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	9/21/1988	**1.0**	--	**370**	--	**374**	**0.50**	**7.03**	--	**7,922**	**13,885**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.50**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	11/29/1988	**1.0**	--	**389**	--	**397**	**0.40**	**7.26**	--	**8,366**	**13,535**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	2/27/1989	**1.0**	--	**397**	--	**375**	**0.40**	**7.29**	--	**8,201**	**13,195**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	9/12/1989	**1.0**	--	**340**	--	**369**	**0.30**	**7.25**	--	**7,022**	**12,370**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	3/26/1990	**1.0**	--	**370**	--	**397**	**0.30**	**7.40**	--	**7,699**	**12,190**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	10/30/1990	**1.0**	--	**380**	--	**396**	**0.20**	**7.35**	--	**7,792**	**11,898**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	4/2/1991	**1.0**	--	**370**	--	**394**	**0.20**	**7.37**	--	**7,532**	**14,600**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	9/24/1991	**1.0**	--	**356**	--	**396**	**0.20**	**7.41**	--	**7,174**	**11,860**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	5/5/1992	**1.0**	--	**350**	--	**391.1**	**0.20**	**7.54**	--	**7,040**	**11,550**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	11/27/1992	**1.0**	--	**360**	--	**411.6**	**0.30**	**7.29**	--	**8,030**	**12,060**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	4/21/1993	**0.76**	--	**360**	--	**495**	**0.30**	**7.20**	--	**8,506**	**12,960**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	11/22/1993	**1.0**	--	**380**	--	**360**	**0.20**	**7.31**	--	**6,894**	**11,130**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	4/20/1994	**1.0**	--	**390**	--	**391**	**0.40**	**7.33**	--	**6,742**	**11,520**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	9/20/1994	**1.0**	--	**370**	--	**389**	**0.20**	**7.35**	--	**6,754**	**11,260**	--	**0.050**	--	< 0.5	--	< 0.005	--	< 0.02	--	--	--	--	--	**0.20**	< 0.1	--	--	--	< 0.01	< 0.1	--	--
MW-06	Multiunit 1/EW System	Downgradient	12/14/1994	--	--	**410**	--	--	--	**7.28**	--	--	--	< 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	Downgradient	4/5/1995	**1.0**	--	**360**	--	**421**	**0.20**	**7.30**	--	**6,826**	**11,120**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	11/21/1995	**1.78**	--	**400**	--	**384**	**0.20**	**7.37**	--	**6,426**	**10,680**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	8/14/1996	**1.53**	--	**310**	--	**338.3**	**0.20**	**7.37**	--	**6,500**	**10,830**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	4/23/1997	**1.97**	--	**300**	--	**426.5**	**0.20**	**7.32**	--	**6,406**	**11,110**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	10/14/1997	< 0.05	--	**380**	--	**393.7**	**0.10**	**7.52**	--	**6,250**	**9,920**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.10**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	10/21/1998	**3.15**	--	**370**	--	**395**	**0.20**	**7.28**	--	**6,342**	**10,060**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	6/9/1999	**4.0**	--	**390**	--	**374.8**	**0.20**	**7.35**	--	**6,130**	**10,390**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	12/1/1999	**4.2**	--	**480**	--	**345.3**	**0.20**	**7.51**	--	**5,662**	**9,570**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	6/8/2000	**3.83**	--	**423**	--	**522**	**0.20**	**7.43**	--	**6,873**	**9,680**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	11/28/2000	**4.19**	--	**490**	--	**329.9**	**0.1855**	**7.20**	--	**5,790**	**9,840**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.1855**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	8/21/2001	--	--	**450**	--	**376**	**0.20**	**7.24**	--	**6,090**	**10,110**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	12/3/2001	**4.4**	--	**490**	--	**334.5**	**0.20**	**7.26**	--	**5,839**	**9,440**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	6/24/2002	**4.43**	--	**400**	--	**323.9**	**0.10**	**7.50**	--	**5,592**	**9,790**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.10**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	12/18/2002	**6.0**	--	**380**	--	**320.3**	**0.20**	**7.56**	--	**5,507**	**9,520**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	6/3/2003	--	--	**400**	--	**352.6**	**0.28**	**7.30**	--	**5,253**	**9,590**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.28**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	9/24/2003	**5.94**	--	**330**	--	**311**	**0.22**	**7.27**	--	**5,505**	**9,500**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.22**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	6/16/2004	--	--	**40**	--	**353.6**	**0.20**	**7.25**	--	**5,658**	**9,310**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	11/9/2004	**9.1**	--	**425**	--	**304**	< 0.2	**7.38**	--	**4,870**	**8,810**	--	< 0.0005	--	**0.0108**	--	--	--	< 0.0005	--	**0.0070**	--	--	--	< 0.2	**0.00020**	--	--	--	**0.00276**	**0.0060**	--	--
MW-06	Multiunit 1/EW System	Downgradient	5/12/2005	**9.47**	--	**450**	--	**321.9**	**0.10**	**7.30**	--	**5,588**	**8,580**	--	**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	Downgradient	11/1/2005	**11.1**	--	**404**	--	**316.4**	**0.10**	**7.19**	--	**4,881**	**8,990**	--	--	--	**0.011**	--	--	--	--	--	--	--	**0.0030**	--	**0.10**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	5/16/2006	**12.4**	--	**419**	--	**314**	**0.15**	**7.23**	--	**5,100**	**8,500**	--	**0.043**	--	**0.011**	--	< 0.006	--	**0.0010**	--	< 0.004	--	**0.0040**	--	**0.15**	< 0.012	--	--	--	< 0.006	< 0.038	**0.012**	--
MW-06	Multiunit 1/EW System	Downgradient	10/13/2006	**14.1**	--	**454**	--	**318**	**0.149**	**7.33**	--	**5,590**	**7,920**	--	< 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	Downgradient	4/18/2007	**30.9**	--	**422**	--	**352**	**0.112**	**7.35**	--	**5,370**	**8,050**	--	**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	Downgradient	11/20/2007	**13.5**	--	**378**	--	**352**	**0.20**	**7.42**	--	**5,100**	**8,070**	--	**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	Downgradient	8/1/2008	**13.9**	--	**389**	--	**400**	< 0.2	**7.45**	--	**5,450**	**8,120**	--	**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	Downgradient	12/3/2009	**10.1**	--	**377**	--	**680**	**0.30**	**7.13**	--	**7,100**	**11,700**	--	**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	Downgradient	9/28/2012	**21**	--	**440**	--	**650**	< 2.0	--	--	**4,200**	**7,700**	--	< 0.0010	--	--	--	--	--	--	--	--	--	--	--	**0.0042**	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	11/20/2013	**9.3**	--	**480**	--	**1,100**	< 2.0	--	--	**9,400**	**15,000**	--	**0.00028**	--	--	--	--	--	--	--	**0.0044**	--	--	--	< 2.0	--	--	--	--	--	< 0.001	--	--
MW-06	Multiunit 1/EW System	Downgradient	3/12/2014	**8.2**	--	**430**	--	**1,100**	< 0.80	--	--	**9,300**	**14,000**	--	**0.00052**	--	--	--	--	--	--	--	**0.021**	--	--	--	< 0.80	--	--	--	--	--	**0.00093**	--	--
MW-06	Multiunit 1/EW System	Downgradient	9/11/2014	**9.1**	--	**400**	--	**1,200**	< 0.40	--	--	**9,400**	**15,000**	--	< 0.0020	--	--	--	--	--	--	--	< 0.0050	--	--	--	< 0.40	--	--	--	--	--	< 0.0060	--	--
MW-06	Multiunit 1/EW System	Downgradient	12/8/2014	**8.4**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	3/19/2015	**10**	--	**430**	--	**1,300**	< 0.40	--	--	**9,700**	**15,000**	--	< 0.0010	--	--	--	--	--	--	--	< 0.0025	--	--	--	< 0.40	--	--	--	--	--	< 0.0030	--	--
MW-06	Multiunit 1/EW System	Downgradient	6/24/2015	**9.6**	--	**410**	--	**1,400**	< 0.40	--	**7.17**	**9,400**	**16,000**	--	< 0.030	--	--	--	--	--	--	--	< 0.030	--	--	--	< 0.40	--	--	--	--	--	< 0.030	--	--
MW-06	Multiunit 1/EW System	Downgradient	8/29/2015	**12**	--	**440**	--	**1,100**	< 2.0	--	**7.16**	**8,300**	**14,000**	--	< 0.0030	--	--	--	--	--	--	--	< 0.0030	--	--	--	< 2.0	--	--	--	--	--	**0.0094**	--	--
MW-06	Multiunit 1/EW System	Downgradient	11/7/2015	**10**	--	**470**	--	**1,300**	< 0.40	--	**7.21**	**9,400**	**15,000**	--	< 0.0010	--	--	--	--	--	--	--	< 0.00050	--	**0.0043**	--	< 0.40	--	--	--	--	--	< 0.0030	--	--
MW-06	Multiunit 1/EW System	Downgradient	6/20/2016	**8.3**	--	**450**	--	**1,400**	< 0.40	--	**7.24**	**9,600**	**16,000**	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	9/15/2016	**8.1**	--	**420**	--	**1,300**	< 0.40	--	**7.2**	**9,700**	**15,000**	--	< 0.0020	--	--	--	--	--	--	--	< 0.0050	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	3/19/2019	--	--	--	--	--	< 0.80	--	--	--	--	< 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	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**
MW-06	Multiunit 1/EW System	Downgradient	5/14/2019	**5.9**	--	**430**	--	**1,500**	< 0.80	--	**7.3 J**	**11,000**	**18,000**	--	< 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	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.4**
MW-06	Multiunit 1/EW System	Downgradient	11/19/2019	**6.0**	--	**500**	--	**1,900**	< 0.80	--	**7.3 J**	**16,000**	**22,000**	< 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	Downgradient	6/23/2020	**5.9**	--	**520**	--	**2,200**	< 0.8	**7.00**	**7.5 J**	**18,000**	**29,000**	< 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	Downgradient	11/7/2020	**5.9**	--	**460**	--	**2,700**	--	**7.13**	**7.5 J**	**23,000**	**31,000**	**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	Downgradient	4/26/2021	**5.8**	--	**490**	--	**2,500**	**0.58 J**	**7.87**	**7.5 J**	**20,000**	**29,000**	< 0.004 U	**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	Downgradient	11/16/2021	**6.1**	--	**480**	--	**5,500**	**0.58 J**	**7.02**	**7.7 J**	**51,000**	**34,000**	**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**

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																						
			Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
			Filtered:	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	Y	N	N	Y	N	N	N	N
			Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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	*3.95*	*3.95*	*454.1*	*454*	*604.7*	*2.1*	*6.52-7.88*	*6.52-7.88*	*22,000*	*34,397*	*0.01*	*0.0086*	*0.0086*	*0.042*	*0.042*	*0.001*	*0.001*	*0.002*	*0.002*	*0.02*	*0.02*	*0.01*	*0.01*	*5*	*0.01*	*0.01*	*1.8*	*0.0002*	*0.0002*	*0.12*	*0.092*	*0.017*	*4.43*
			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*
MW-07	Multiunit 1	Downgradient	4/1/1987	--	**4.4**	--	**500**	**460**	< 0.5	**8.00**	**7.6**	**3,100**	**5,600**	--	--	< 0.05	--	< 0.005	--	--	--	< 0.005	--	< 0.005	--	--	< 0.5	--	< 0.05	--	--	< 0.0001	--	--	--	--
MW-07	Multiunit 1	Downgradient	4/1/1987	--	**4.6**	--	**510**	**460**	< 0.5	**8.00**	**7.6**	**3,800**	**5,200**	--	--	< 0.1	--	< 0.005	--	--	--	< 0.005	--	< 0.005	--	--	< 0.5	--	< 0.05	--	--	< 0.0001	--	--	--	--
MW-07	Multiunit 1	Downgradient	9/30/1987	--	**5.8**	--	**460**	**770**	< 0.5	**6.90**	**7.2**	**4,000**	**7,700**	--	--	< 0.05	--	**0.12**	--	--	--	< 0.005	--	< 0.005	--	--	< 0.5	--	**0.060**	--	--	< 0.0001	--	--	--	--
MW-07	Multiunit 1	Downgradient	6/16/1988	--	--	**436**	--	**408**	**0.50**	**7.40**	--	**3,678**	**6,167**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.50**	--	--	--	< 0.001	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	9/21/1988	**7.0**	--	**424**	--	**309**	**0.50**	**7.05**	--	**3,260**	**5,813**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.50**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	11/14/1988	**7.0**	--	**417**	--	**348**	**0.50**	**7.17**	--	**3,477**	**6,300**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.50**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	3/6/1989	**8.0**	--	**421**	--	**317**	**0.50**	**7.28**	--	**3,480**	**5,840**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.50**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	9/12/1989	**9.0**	--	**430**	--	**292**	**0.40**	**7.41**	--	**3,100**	**5,430**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	3/22/1990	**9.0**	--	**420**	--	**291**	**0.40**	**7.40**	--	**3,372**	**5,720**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	9/24/1990	**8.0**	--	**470**	--	**309**	**0.30**	**7.55**	--	**3,378**	**5,590**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	3/27/1991	**9.0**	--	**410**	--	**338**	**0.30**	**7.39**	--	**3,500**	**5,730**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	9/24/1991	**8.0**	--	**440**	--	**312**	**0.30**	**7.50**	--	**3,472**	**5,490**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	4/30/1992	**13**	--	**500**	--	**346**	**0.40**	**7.42**	--	**3,238**	**5,920**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	10/27/1992	**15**	--	**500**	--	**285**	**0.40**	**7.25**	--	**3,274**	**5,230**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	4/22/1993	**14**	--	**400**	--	**338.9**	**0.30**	**7.32**	--	**3,375**	**5,660**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	11/22/1993	**14**	--	**500**	--	**299**	**0.30**	**7.30**	--	**3,074**	**5,370**	--	--	--	--	--	--	--	--	--	< 0.02	--	--	--	**0.30**	--	--	--	--	--	**0.040**	--	--	--
MW-07	Multiunit 1	Downgradient	4/20/1994	**13**	--	**500**	--	**366**	**0.40**	**7.30**	--	**3,353**	**6,070**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	9/21/1994	**2.04**	--	**500**	--	**326**	**0.30**	**7.35**	--	**3,319**	**5,880**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	12/14/1994	--	--	**420**	--	--	--	**7.18**	--	--	--	< 0.3	< 0.05	--	< 1	--	< 0.025	--	< 0.025	--	< 0.05	--	< 0.25	--	--	< 0.015	--	--	< 0.0002	--	--	< 0.025	< 0.05	--
MW-07	Multiunit 1	Downgradient	4/4/1995	**1.6**	--	**400**	--	**360**	**0.30**	**7.33**	--	**3,352**	**5,780**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	11/18/1995	**10.8**	--	**500**	--	**308.6**	**0.30**	**7.27**	--	**3,045**	**5,410**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	8/13/1996	**16.5**	--	**500**	--	**318**	**0.30**	**7.42**	--	**2,939**	**5,340**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	4/15/1997	**15.8**	--	**500**	--	**347.5**	**0.30**	**7.24**	--	**2,992**	**5,540**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	10/7/1997	< 0.05	--	**460**	--	**393.5**	**0.30**	**7.55**	--	**3,402**	**5,880**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	4/13/1998	--	--	**460**	--	**354.6**	**0.30**	**7.39**	--	**3,069**	**5,870**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	10/20/1998	**16.9**	--	**460**	--	**251.1**	**0.30**	**7.58**	--	**2,180**	**5,570**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	5/11/1999	**15.4**	--	**480**	--	--	**0.40**	**7.50**	--	--	**5,990**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	11/30/1999	**14.5**	--	**560**	--	**429.55**	**0.30**	**7.48**	--	**3,369**	**6,030**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	6/8/2000	**15.5**	--	**477**	--	**430.2**	**0.40**	**7.30**	--	**3,680**	**5,480**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	11/28/2000	**17.4**	--	**600**	--	**358.8**	**0.4086**	**7.29**	--	**2,999**	**5,500**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.4086**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	8/22/2001	**14.2**	--	**450**	--	**485.9**	**0.40**	**7.28**	--	**3,724**	**6,960**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	12/3/2001	**16.1**	--	**720**	--	**396.5**	**0.40**	**7.25**	--	**3,658**	**6,280**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	6/24/2002	**16.1**	--	**460**	--	**407.2**	**0.30**	**7.55**	--	**3,430**	**6,170**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	12/19/2002	**33.2**	--	**460**	--	**440.5**	**0.40**	**7.35**	--	**3,462**	**6,310**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	5/29/2003	**18.7**	--	**460**	--	--	**0.40**	**6.81**	--	--	**8,100**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	12/24/2003	**17**	--	**320**	--	**750.8**	**0.24**	**7.08**	--	**4,017**	**7,820**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.24**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	6/21/2004	--	--	**440**	--	**387.45**	**0.40**	**7.13**	--	**2,039**	**8,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	11/29/2004	**18.6**	--	**400**	--	**741**	**0.28**	**7.17**	--	**2,615**	**7,630**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.28**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	6/13/2005	**15.9**	--	**500**	--	**584.3**	**0.30**	**7.20**	--	**3,386**	**6,830**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	12/14/2005	**17.2**	--	**474**	--	**1,578**	**0.30**	**7.00**	--	**8,580**	**8,210**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	5/16/2006	**17.7**	--	**449**	--	**584**	**0.373**	**7.20**	--	**3,910**	**7,120**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.373**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	10/11/2006	**16.2**	--	**454**	--	**772**	**0.327**	**7.13**	--	**3,510**	**8,320**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.327**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	4/19/2007	**18.2**	--	**459**	--	**698**	**0.259**	**7.20**	--	**4,100**	**7,430**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.259**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	11/19/2007	**13.2**	--	**376**	--	**860**	**0.30**	**7.12**	--	**5,200**	**8,400**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	8/7/2008	**14.1**	--	**387**	--	**830**	**0.30**	**7.14**	--	**5,260**	**9,040**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	7/10/2012	**9.8**	--	**360**	--	**750**	< 0.80	--	**7.3**	**5,900**	**10,000**	--	< 0.0030	--	--	--	--	--	--	--	< 0.0030	--	--	--	< 0.80	--	--	--	--	--	--	**0.0071**	--	--
MW-07	Multiunit 1	Downgradient	9/27/2012	**6.5**	--	**420**	--	**640**	< 2.0	--	--	**8,100**	**13,000**	--	< 0.0050	--	--	--	--	--	--	--	< 0.0050	--	--	--	< 2.0	--	--	--	--	--	--	**0.031**	--	--
MW-07	Multiunit 1	Downgradient	11/19/2013	**8.6**	--	**490**	--	**290**	< 2.0	--	--	**6,100**	**9,600**	--	**0.00025**	--	--	--	--	--	--	--	< 0.0010	--	--	--	< 2.0	--	--	--	--	--	--	**0.011**	--	--
MW-07	Multiunit 1	Downgradient	9/10/2014	**8.5**	--	**420**	--	**590**	< 0.40	--	--	**6,800**	**10,000**	--	**0.00032**	--	--	--	--	--	--	--	< 0.00050	--	--	--	< 0.40	--	--	--	--	--	--	**0.0052**	--	--
MW-07	Multiunit 1	Downgradient	3/16/2015	**8.9**	--	**360**	--	**760**	< 0.40	--	--	**6,600**	**11,000**	--	**0.00050**	--	--	--	--	--	--	--	< 0.00050	--	--	--	< 0.40	--	--	--	--	--	--	**0.0032**	--	--
MW-07	Multiunit 1	Downgradient	8/26/2015	**9.0**	--	**330**	--	**960**	< 0.80	--	**7.33**	**6,700**	**11,000**	--	< 0.0060	--	--	--	--	--	--	--	< 0.0060	--	--	--	< 0.80	--	--	--	--	--	--	**0.0064**	--	--
MW-07	Multiunit 1	Downgradient	11/7/2015	**9.4**	--	**390**	--	**580**	**0.35**	--	**7.25**	**6,400**	**9,800**	**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	11/7/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	4/26/2016	**10**	--	**430**	--	**740**	< 2.0	--	--	**6,000**	**11,000**	< 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	6/6/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**3.3**
MW-07	Multiunit 1	Downgradient	6/6/2016	**10**	--	**380**	--	**880**	**0.41**	--	**7.23**	**6,300**	**11,000**	**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	8/21/2016	**11**	--	**430**	--	**450**	< 0.40	--	**7.1**	**5,900**	**10,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	8/21/2016	--	--	--	--	--	< 0.40	--	--	--	--	**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	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.7**
MW-07	Multiunit 1	Downgradient	9/13/2016	**10**	--	**410**	--	**530**	< 0.40	--	**7.3**	**6,200**	**10,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	< 0.40	--	--	--	--	< 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	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**
MW-07	Multiunit 1	Downgradient	10/20/2016	**10**	--	**390**	--	**540**	< 0.40	--	**7.4**	**6,000**	**10,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	2/2/2017	**9.0**	--	**400**	--	**460**	< 0.40	--	**7.8**	**6,400**	**9,700**	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	2/2/2017	--	--	--	--	--	< 0.40	--	--	--	--	< 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	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**
MW-07	Multiunit 1	Downgradient	4/18/2017	**8.6**	--	**430**	--	**430**	< 0.80	--	**7.4**	**6,500**	**11,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.5**
MW-07	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	< 0.80	--	--	--	--	< 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	5/3/2017	--	--	--	--	--	**5.1**	--	--	--	--	< 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	5/3/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-07	Multiunit 1	Downgradient	5/29/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.2**
MW-07	Multiunit 1	Downgradient	5/30/2017	--	--	--	--	--	< 0.80	--	--	--	--	< 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	5/30/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-07	Multiunit 1	Downgradient	6/22/2017	**7.6**	--	**410**	--	**430**	--	--	**7.5**	**7,300**	**10,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	6/22/2017	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--	--	--	< 0.0010	--	--	--	--	--	--	--	< 0.80	--	--	**0.86**	< 0.00020	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.2**
MW-07	Multiunit 1	Downgradient	7/22/2017	**7.6**	--	**400**	--	**430**	< 0.80	--	**7.5**	**7,500**	**10,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	7/22/2017	--	--	--	--	--	--	--	--	--	--	< 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	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.9**
MW-07	Multiunit 1	Downgradient	8/10/2017	**7.8**	--	**420**	--	**420**	--	--	**7.5**	**7,400**	**10,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	8/10/2017	--	--	--	--	--	< 0.80	--	--	--	--	< 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	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.2**
MW-07	Multiunit 1	Downgradient	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.2**
MW-07	Multiunit 1	Downgradient	8/17/2017	**7.5**	--	**460**	--	**320**	< 0.80	--	**7.6**	**6,500**	**10,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	9/10/2017	**8.0**	--	**430**	--	**350**	--	--	**7.5**	**6,600**	**9,900**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	9/10/2017	--	--	--	--	--	< 0.80	--	--	--	--	< 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	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.3**
MW-07	Multiunit 1	Downgradient	10/12/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**
MW-07	Multiunit 1	Downgradient	10/12/2017	**7.2**	--	**390**	--	< 400	< 0.80	--	**7.6**	**7,100**	**10,000**	< 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	11/30/2017	**7.7**	--	**420**	--	**440**	< 0.80	--	**7.5**	**6,600**	**10,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	3/17/2018	--	--	--	--	--	**0.49**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.49**	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	3/17/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.9
MW-07	Multiunit 1	Downgradient	3/17/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.9
MW-07	Multiunit 1	Downgradient	6/1/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.3**
MW-07	Multiunit 1	Downgradient	6/1/2018	**7.6**	--	**360**	--	**580**	< 0.80	--	**7.4**	**6,400**	**10,000**	--	< 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	11/4/2018	**7.4**	--	**320**	--	**680**	< 0.80	--	**7.4**	**6,100**	**9,900**	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	11/4/2018	--	--	--	--	--	--	--	--	--	--	--	< 0.00050	--	**0.014**	--	--	--	< 0.00010	--	--	--	**0.00056**	--	--	< 0.00050	--	**0.83**	--	--	**0.0070**	**0.0035**	**0.00010**	--
MW-07	Multiunit 1	Downgradient	11/4/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-07	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	< 0.40	--	--	--	--	< 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	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-07	Multiunit 1	Downgradient	5/14/2019	**8.3**	--	**340**	--	**570**	< 0.80	--	**7.4 J**	**5,400**	**9,200**	--	**0.00054**	--	**0.014**	--	--	--	< 0.00010	--	--	--	< 0.00050	--	< 0.80	< 0.00050	--	**0.87**	--	--	**0.0037**	**0.0041**	< 0.00010	--
MW-07	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-07	Multiunit 1	Downgradient	11/19/2019	**8.2**	--	**370**	--	**620**	< 0.80	--	**7.3 J**	**5,600**	**8,900**	< 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	6/23/2020	**9.4**	--	**360**	--	**740**	< 0.8	**6.85**	**7.5 J**	**5,600**	**8,600**	< 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	11/6/2020	**8.6**	--	**400**	--	**600**	**0.33 J**	**6.97**	**7.3 J**	**5,600**	**9,400**	**0.00024 J**	**0.0017 J**	--	< 0.02 U / **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	11/6/2020	**8.5**	--	**400**	--	**540**	**0.37 J**	--	**7.4 J**	**5,800**	**8,800**	< 0.001 U	**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	4/27/2021	**8.6**	--	**470**	--	**340 J**	**0.25 J**	**7.93**	**7.6 J**	**5,700**	**8,900**	< 0.001 U	< 0.0013 U	--	**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 U	**2.4 J**
MW-07	Multiunit 1	Downgradient	4/27/2021	**8.6**	--	**470**	--	**320 J**	**0.26 J**	**7.93**	**7.6 J**	**5,700**	**8,900**	< 0.001 U	< 0.0018 U	--	**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	11/18/2021	**8.1**	--	**390**	--	**850**	**0.25 J**	**6.95**	**7.5 J**	**7,200**	**9,500**	**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**

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																							
			Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
			Filtered:	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	Y	N	N	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	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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	*3.95*	*3.95*	*454.1*	*454*	*604.7*	*2.1*	*6.52-7.88*	*6.52-7.88*	*22,000*	*34,397*	*0.01*	*0.0086*	*0.0086*	*0.042*	*0.042*	*0.001*	*0.001*	*0.002*	*0.002*	*0.02*	*0.02*	*0.01*	*0.01*	*5*	*0.01*	*0.01*	*1.8*	*0.0002*	*0.0002*	*0.12*	*0.092*	*0.017*	*4.43*
			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*
MW-08	Multiunit 1	Downgradient	10/2/1987	--	13	--	470	840	< 0.5	7.53	7.2	6,000	10,000	--	--	< 0.05	--	0.20	--	--	--	< 0.005	--	< 0.005	--	--	< 0.5	--	< 0.05	--	--	< 0.0001	--	--	--	--
MW-08	Multiunit 1	Downgradient	6/16/1988	--	--	448	--	910	0.70	7.35	--	5,527	9,962	--	--	--	--	--	--	--	--	--	--	--	--	--	0.70	--	--	--	< 0.001	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	9/21/1988	17	--	438	--	787	0.70	7.25	--	5,171	9,833	--	--	--	--	--	--	--	--	--	--	--	--	--	0.70	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	11/14/1988	17	--	430	--	696	0.70	7.29	--	5,132	9,595	--	--	--	--	--	--	--	--	--	--	--	--	--	0.70	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	3/8/1989	14	--	428	--	782	0.60	7.29	--	5,529	10,195	--	--	--	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	9/12/1989	21	--	410	--	587	0.60	7.15	--	4,429	8,270	--	--	--	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	3/22/1990	19	--	430	--	622	0.40	7.20	--	4,394	7,940	--	--	--	--	--	--	--	--	--	--	--	--	--	0.40	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	10/29/1990	20	--	430	--	617	0.50	7.37	--	4,398	7,700	--	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	3/27/1991	22	--	420	--	604	0.40	7.18	--	4,856	7,760	--	--	--	--	--	--	--	--	--	--	--	--	--	0.40	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	10/1/1991	21	--	386	--	639	0.40	7.41	--	4,218	7,890	--	--	--	--	--	--	--	--	--	--	--	--	--	0.40	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	5/11/1992	24	--	430	--	562	0.40	7.30	--	4,011	6,850	--	--	--	--	--	--	--	--	--	--	--	--	--	0.40	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	11/3/1992	22	--	330	--	627.8	0.50	7.28	--	3,803	6,990	--	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	4/28/1993	23	--	360	--	503.4	0.41	7.39	--	3,752	6,300	--	--	--	--	--	--	--	--	--	--	--	--	--	0.41	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	11/30/1993	23	--	380	--	510	0.50	7.30	--	3,708	6,600	--	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	4/28/1994	26	--	430	--	499	0.60	7.28	--	3,718	6,590	--	--	--	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	11/16/1994	24	--	370	--	562	0.50	7.31	--	3,738	6,450	--	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	12/14/1994	--	--	520	--	--	--	7.25	--	--	--	< 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	4/5/1995	26	--	410	--	472	0.40	7.20	--	3,391	6,010	--	--	--	--	--	--	--	--	--	--	--	--	--	0.40	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	11/18/1995	24.6	--	440	--	468.6	0.70	7.29	--	3,275	6,040	--	--	--	--	--	--	--	--	--	--	--	--	--	0.70	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	8/18/1996	24.5	--	330	--	535.7	0.50	6.99	--	3,315	6,240	--	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	6/24/1997	21.8	--	410	--	425.7	0.50	7.04	--	3,023	6,050	--	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	10/7/1997	< 0.05	--	340	--	524.7	0.50	7.45	--	3,548	6,440	--	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	4/14/1998	--	--	400	--	503.9	0.50	6.94	--	3,317	6,690	--	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	10/21/1998	--	--	380	--	591.4	0.50	7.14	--	3,601	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	5/11/1999	24.8	--	--	--	496.6	0.50	7.23	--	3,337	6,530	--	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	12/1/1999	24.5	--	460	--	505.3	0.50	7.09	--	3,380	6,190	--	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	6/7/2000	26.4	--	429	--	644.5	0.60	7.77	--	5,345	6,100	--	< 0.005	--	0.020	--	--	--	< 0.005	--	< 0.01	--	--	--	0.60	< 0.005	--	--	--	0.060	< 0.005	--	--
MW-08	Multiunit 1	Downgradient	12/12/2000	25.2	--	520	--	507.8	0.58	--	--	3,299	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.58	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	8/22/2001	25.8	--	460	--	474.2	0.60	7.11	--	3,473	6,490	--	< 0.005	--	0.020	--	--	--	< 0.001	--	< 0.01	--	--	--	0.60	< 0.005	--	--	--	0.060	< 0.005	--	--
MW-08	Multiunit 1	Downgradient	12/3/2001	24.1	--	540	--	590.4	0.60	6.60	--	4,089	7,360	--	--	--	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	6/24/2002	25	--	400	--	508.9	0.50	7.22	--	3,665	7,190	--	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	12/18/2002	23.8	--	420	--	547.8	0.50	7.09	--	3,615	7,150	--	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	6/3/2003	--	--	420	--	465.7	0.60	6.95	--	3,007	6,060	--	--	--	0.010	--	0.12	0.010	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	9/23/2003	28	--	330	--	505	0.66	6.83	--	3,708	7,090	--	--	--	--	--	--	--	--	--	--	--	--	--	0.66	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	6/16/2004	--	--	400	--	498.2	0.60	6.91	--	3,465	6,400	--	--	--	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	11/9/2004	28.9	--	465	--	502.2	0.60	6.95	--	3,330	6,720	--	< 0.0005	--	0.0181	--	--	--	< 0.00005	--	0.0060	--	--	--	0.60	0.0013	--	--	--	0.05259	0.0040	--	--	--
MW-08	Multiunit 1	Downgradient	5/12/2005	27.4	--	500	--	590.6	0.50	6.89	--	3,916	7,430	--	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	11/1/2005	32.4	--	465	--	577.6	0.50	6.90	--	3,783	7,730	--	--	--	0.016	--	--	--	--	--	< 0	--	0.0030	--	0.50	--	--	--	--	0.045	--	--	--	--
MW-08	Multiunit 1	Downgradient	5/16/2006	31.7	--	472	--	572	0.649	7.01	--	4,540	8,230	--	< 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	10/11/2006	35.1	--	491	--	565	0.627	6.98	--	5,230	8,640	--	< 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	4/18/2007	31.2	--	473	--	674	1.03	7.03	--	5,170	8,420	< 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	11/14/2007	23.4	--	413	--	640	0.70	6.96	--	5,900	9,690	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	5/7/2008	24.8	--	419	--	660	0.70	7.05	--	6,110	9,750	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	12/3/2009	22.9	--	455	--	830	0.70	6.88	--	7,100	12,500	< 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	9/27/2012	27	--	400	--	710	< 2.0	--	--	6,200	10,000	--	0.0017	--	--	--	--	--	--	--	< 0.0010	--	--	--	< 2.0	--	--	--	--	--	0.0012	--	--	--
MW-08	Multiunit 1	Downgradient	11/19/2013	2.2	--	450	--	680	< 4.0	--	--	5,800	9,900	--	0.0016	--	--	--	--	--	--	--	0.00051	--	--	--	< 4.0	--	--	--	--	--	< 0.0005	--	--	--
MW-08	Multiunit 1	Downgradient	9/10/2014	27	--	440	--	700	< 0.40	--	--	6,600	10,000	--	0.0012	--	--	--	--	--	--	--	< 0.00050	--	--	--	< 0.40	--	--	--	--	--	< 0.00060	--	--	--
MW-08	Multiunit 1	Downgradient	3/17/2015	24	--	470	--	840	< 0.40	--	--	8,000	13,000	--	0.00064	--	--	--	--	--	--	--	< 0.00050	--	--	--	< 0.40	--	--	--	--	--	< 0.00060	--	--	--
MW-08	Multiunit 1	Downgradient	6/29/2015	23	--	460	--	930	< 0.80	--	7.05	7,900	14,000	--	< 0.0030	--	--	--	--	--	--	--	< 0.0030	--	--	--	< 0.80	--	--	--	--	--	0.0047	--	--	--
MW-08	Multiunit 1	Downgradient	8/26/2015	21	--	480	--	940	< 0.80	--	7.08	8,700	14,000	--	< 0.0060	--	--	--	--	--	--	--	< 0.0060	--	--	--	< 0.80	--	--	--	--	--	< 0.0060	--	--	--
MW-08	Multiunit 1	Downgradient	12/1/2015	17	--	500	--	880	< 0.25	--	--	9,100	13,000	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	12/1/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1
MW-08	Multiunit 1	Downgradient	4/26/2016	20	--	480	--	920	< 2.0	--	--	8,400	15,000	< 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	6/7/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3
MW-08	Multiunit 1	Downgradient	6/7/2016	20	--	420	--	1,100	0.70	--	7.03	8,600	15,000	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	8/21/2016	19	--	460	--	980	0.61	--	6.9	8,600	15,000	--	--	--	--	--	--	--	--	--	--	--	--	--	0.61	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	8/21/2016	--	--	--	--	--	< 0.40	--	--	--	--	--	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	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3
MW-08	Multiunit 1	Downgradient	9/13/2016	18	--	430	--	970	0.77	--	7.2	8,600	15,000	--	--	--	--	--	--	--	--	--	--	--	--	--	0.77	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	< 0.40	--	--	--	--	< 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	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.2
MW-08	Multiunit 1	Downgradient	4/18/2017	17	--	440	--	1,100	< 2.0	--	7.4	18,000	15,000	--	--	--	--	--	--	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.0
MW-08	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	< 0.80	--	--	--	--	< 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	5/3/2017	--	--	--	--	5.3	--	--	--	--	< 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	5/3/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.9
MW-08	Multiunit 1	Downgradient	5/30/2017	--	--	--	--	< 2.0	--	--	--	--	< 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	5/30/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.2
MW-08	Multiunit 1	Downgradient	6/1/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-08	Multiunit 1	Downgradient	6/1/2018	15	--	420	--	1,100	0.91	--	7.3	9,800	15,000	--	< 0.010	--	0.011	--	--	--	< 0.0020	--	--	--	< 0.010	--	0.91	< 0.010	--	1.2	--	--	0.011	< 0.010	< 0.0020	--
MW-08	Multiunit 1	Downgradient	11/4/2018	14	--	390	--	1,200	< 0.80	--	7.3	10,000	15,000	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	11/4/2018	--	--	--	--	--	--	--	--	--	--	--	0.00064	--	0.0090	--	--	--	0.00015	--	--	--	< 0.00050	--	--	< 0.00050	--	1.1	--	--	0.011	0.0014	< 0.00010	--
MW-08	Multiunit 1	Downgradient	11/4/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-08	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	0.41	--	--	--	< 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	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3
MW-08	Multiunit 1	Downgradient	5/14/2019	14	--	430	--	1,100	< 0.80	--	7.4 J	10,000	15,000	--	< 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	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1
MW-08	Multiunit 1	Downgradient	11/19/2019	15	--	420	--	1,200	< 0.80	--	7.1 J	9,600	15,000	< 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	6/23/2020	18	--	440	--	1,000	< 0.8 UJ	--	7.4 J	9,500	15,000	< 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	6/23/2020	19	--	460	--	970	< 0.8 UJ	6.76	7.3 J	9,300	14,000	< 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	1/16/2020	21	--	470	--	830	0.58 J	6.80	7.2 J	9,100	14,000	0.00034 J	0.0025	--	< 0.02 J	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	4/27/2021	20	--	450	--	860	0.42 J	7.53	7.3 J	9,400	14,000	< 0.001 U	< 0.0015 U	--	0.011	--	< 0.001	--	< 0.0001 U	--	< 0.001	--	0.0012	--	0.42 J	< 0.0005	--	1.1	< 0.0002	--	0.017	< 0.001 U	< 0.0001	<0.8
MW-08	Multiunit 1	Downgradient	11/18/2021	18	--	420	--	970	0.56 J	6.83	7.5 J	11,000	14,000	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

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																					
Constituent:				Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
Filtered:				N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Y	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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				*3.95*	*3.95*	*454.1*	*454*	*604.7*	*2.1*	*6.52-7.88*	*6.52-7.88*	*22,000*	*34,397*	*0.01*	*0.0086*	*0.0086*	*0.042*	*0.042*	*0.001*	*0.001*	*0.002*	*0.002*	*0.02*	*0.02*	*0.01*	*0.01*	*5*	*0.01*	*0.01*	*1.8*	*0.0002*	*0.0002*	*0.12*	*0.092*	*0.017*	*4.43*
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*
MW-15	Multiunit 1	Downgradient	9/30/1987	--	**0.82**	--	**440**	**370**	< 0.5	**7.30**	**7.3**	**6,200**	**9,500**	--	--	< 0.05	--	**0.18**	--	--	--	< 0.005	--	< 0.005	--	--	< 0.5	--	**0.070**	--	--	< 0.0001	--	--	--	--
MW-15	Multiunit 1	Downgradient	6/20/1988	--	--	**452**	--	**393**	**2.0**	**7.13**	--	**5,224**	**8,618**	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.0**	--	--	--	< 0.001	--	--	--	--
MW-15	Multiunit 1	Downgradient	9/22/1988	**1.0**	--	**411**	--	**200**	**0.40**	**7.05**	--	**4,630**	**8,570**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	11/14/1988	**1.0**	--	**409**	--	**338**	**0.60**	**7.13**	--	**4,808**	**8,760**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.60**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	3/8/1989	**2.0**	--	**431**	--	**413**	**0.50**	**7.16**	--	**4,980**	**8,535**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.50**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	9/13/1989	**2.0**	--	**380**	--	**326**	**0.40**	**7.08**	--	**4,974**	**8,600**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	3/22/1990	**2.0**	--	**420**	--	**301**	**0.30**	**7.20**	--	**4,616**	**7,870**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	9/24/1990	**2.0**	--	**430**	--	**341**	**0.20**	**7.19**	--	**4,790**	**8,120**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	3/27/1991	**3.0**	--	**436**	--	**298**	**0.20**	**7.12**	--	**4,544**	**7,660**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	9/27/1991	**2.0**	--	**434**	--	**313.6**	**0.20**	**7.19**	--	**4,306**	**7,720**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	5/1/1992	**5.0**	--	**460**	--	**299**	**0.30**	**7.18**	--	**4,624**	**7,075**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	10/28/1992	**4.0**	--	**420**	--	**289.8**	**0.30**	**7.15**	--	**4,122**	**7,110**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	4/23/1993	**3.0**	--	**340**	--	**375**	**0.28**	**7.28**	--	**4,593**	**7,760**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.28**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	11/22/1993	**4.0**	--	**420**	--	**338**	**0.30**	**7.05**	--	**4,192**	**7,430**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	4/20/1994	**5.0**	--	**440**	--	**356**	**0.20**	**7.13**	--	**4,556**	**7,200**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	11/8/1994	**6.0**	--	**480**	--	**357**	**0.20**	**7.02**	--	**4,354**	**7,240**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	4/5/1995	**7.0**	--	**460**	--	**322**	**0.20**	**7.10**	--	**4,012**	**6,820**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	11/18/1995	**6.48**	--	**460**	--	**349.4**	**0.20**	**6.98**	--	**4,301**	**6,260**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	8/14/1996	**5.93**	--	**440**	--	**347.1**	**0.20**	**7.06**	--	**4,226**	**7,360**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	4/23/1997	**7.72**	--	**440**	--	**311.95**	**0.20**	**7.22**	--	**3,776**	**6,780**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	10/8/1997	< 0.05	--	**400**	--	**429.4**	**0.20**	**7.39**	--	**4,344**	**7,760**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	4/14/1998	--	--	**420**	--	**348.5**	**0.20**	**7.02**	--	**3,772**	**7,260**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	5/11/1999	**1.8**	--	**460**	--	**322.5**	**0.20**	**7.23**	--	**3,712**	**7,040**	--	< 0.005	--	**0.020**	--	--	--	< 0.001	--	< 0.01	--	--	--	**0.20**	< 0.005	--	--	--	--	< 0.01	< 0.005	--	--
MW-15	Multiunit 1	Downgradient	12/1/1999	**10.1**	--	**520**	--	**355.8**	**0.20**	**7.19**	--	**3,877**	**7,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	6/8/2000	**9.45**	--	**454**	--	**519.1**	**0.20**	**7.61**	--	**5,662**	**6,970**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	12/12/2000	**9.45**	--	**480**	--	**373.7**	**0.2524**	**6.90**	--	**3,803**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.2524**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	8/22/2001	**10.9**	--	**435**	--	**328.1**	**0.20**	**7.00**	--	**3,958**	**7,170**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	12/3/2001	**11.5**	--	**600**	--	**299.8**	**0.20**	**6.86**	--	**3,944**	**6,910**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	6/24/2002	**11.7**	--	**420**	--	**358.2**	**0.20**	**7.31**	--	**4,014**	**7,450**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	12/18/2002	**12.2**	--	**440**	--	**317.3**	**0.20**	**7.07**	--	**3,900**	**7,390**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	5/28/2003	**13.9**	--	**460**	--	**342.8**	**0.20**	**6.88**	--	**3,640**	**7,150**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	12/24/2003	**12.6**	--	**340**	--	**328**	**0.30**	**6.99**	--	**3,708**	**7,330**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	6/16/2004	--	--	**420**	--	**365.6**	**0.20**	**6.95**	--	**4,043**	**7,680**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	11/29/2004	**15.2**	--	**500**	--	**402.8**	**0.30**	**7.08**	--	**2,727**	**7,900**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	5/13/2005	**11.2**	--	**440**	--	**368.2**	**0.30**	**7.00**	--	**4,053**	**7,840**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	12/14/2005	**14**	--	**464**	--	**357**	--	**6.95**	--	**3,943**	**7,890**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	6/17/2006	**13.5**	--	**454**	--	**328**	**0.177**	**6.98**	--	**4,590**	**7,730**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.177**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	10/11/2006	**12.9**	--	**445**	--	**366**	**0.221**	**7.00**	--	**4,980**	**7,940**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.221**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	4/18/2007	**13.9**	--	**441**	--	**395**	**0.373**	**7.08**	--	**4,770**	**7,760**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.373**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	11/14/2007	**11.3**	--	**377**	--	**480**	**0.30**	**7.04**	--	**5,400**	**8,610**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	5/7/2008	**11.7**	--	**382**	--	**320**	**0.20**	**7.08**	--	**5,440**	**8,160**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	11/19/2013	--	--	**490**	--	--	--	--	--	--	--	--	< 0.0020	--	--	--	--	--	--	--	--	--	--	--	**0.0020**	--	--	--	--	--	< 0.0020	--	--
MW-15	Multiunit 1	Downgradient	11/19/2013	**11**	--	**480**	--	**830**	< 4.0	--	--	**5,500**	**9,600**	--	**0.00051**	--	--	--	--	--	--	--	--	--	--	--	< 4.0	--	--	--	--	--	< 0.0005	--	--
MW-15	Multiunit 1	Downgradient	9/9/2014	**9.4**	--	**450**	--	**910**	< 0.40	--	--	**5,800**	**10,000**	--	**0.00031**	--	--	--	--	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	< 0.00060	--	--
MW-15	Multiunit 1	Downgradient	3/17/2015	**9.2**	--	**450**	--	**1,000**	< 0.40	--	--	**6,300**	**11,000**	--	**0.00037**	--	--	--	--	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	< 0.00060	--	--
MW-15	Multiunit 1	Downgradient	6/29/2015	**9.1**	--	**410**	--	**1,000**	< 0.80	--	**7.05**	**5,700**	**11,000**	--	< 0.0030	--	--	--	--	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	**0.0062**	--	--
MW-15	Multiunit 1	Downgradient	8/26/2015	**8.8**	--	**420**	--	**1,100**	< 0.80	--	**7.08**	**6,500**	**11,000**	--	< 0.0060	--	--	--	--	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	< 0.0060	--	--
MW-15	Multiunit 1	Downgradient	6/18/2016	**8.6**	--	**470**	--	**1,100**	< 0.40	--	**7.19**	**6,100**	**11,000**	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--
MW-15	Multiunit 1	Downgradient	9/15/2016	**8.5**	--	**430**	--	**1,200**	< 0.40	--	**7.0**	**7,400**	**11,000**	--	< 0.0010	--	--	--	--	--	--	--	< 0.0025	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--
MW-15	Multiunit 1	Downgradient	3/20/2019	--	--	--	--	--	< 0.80	--	--	--	--	< 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	Downgradient	3/20/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-15	Multiunit 1	Downgradient	5/14/2019	**8.3**	--	**440**	--	**940**	< 0.80	--	**7.0 J**	**6,400**	**11,000**	--	< 0.00050	--	**0.019**	--	--	--	< 0.00010	--	--	--	**0.0022**	--	< 0.80	**0.00062**	--	**0.91**	--	--	**0.0096**	< 0.00050	< 0.00010	--
MW-15	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-15	Multiunit 1	Downgradient	11/19/2019	**8.2**	--	**440**	--	**1,000**	< 0.80	--	**6.9 J**	**6,600**	**11,000**	< 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	Downgradient	6/23/2020	**8.8**	--	**440**	--	**990**	< 0.8	**6.62**	**7.0 J**	**6,600**	**12,000**	< 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	Downgradient	11/6/2020	**7.9**	--	**430**	--	**1,000**	< 0.4	**6.68**	**7.2 J**	**6,800**	**11,000**	**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	Downgradient	4/27/2021	**7.8**	--	**470**	--	**1,000**	**0.27 J**	**7.38**	**7.2 J**	**6,400**	**11,000**	< 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 U	<0.8
MW-15	Multiunit 1	Downgradient	11/18/2021	**7.3**	--	**420**	--	**1,200**	**0.37 J**	**6.66**	**7.4 J**	**8,400**	**11,000**	< 0.002 U	**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**

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																					
Constituent:				Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
Filtered:				N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Y	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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:				*3.95*	*3.95*	*454.1*	*454*	*604.7*	*2.1*	*6.52-7.88*	*6.52-7.88*	*22,000*	*34,397*	*0.01*	*0.0086*	*0.0086*	*0.042*	*0.042*	*0.001*	*0.001*	*0.002*	*0.002*	*0.02*	*0.02*	*0.01*	*0.01*	*5*	*0.01*	*0.01*	*1.8*	*0.0002*	*0.0002*	*0.12*	*0.092*	*0.017*	*4.43*
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*
MW-16	Multiunit 1	Downgradient	9/30/1987	--	1.3	--	410	770	< 0.5	7.38	7.4	12,000	20,000	--	--	< 0.05	--	0.22	--	--	--	< 0.005	--	< 0.005	--	--	< 0.5	--	0.060	--	--	< 0.0001	--	--	--
MW-16	Multiunit 1	Downgradient	6/20/1988	--	--	412	--	685	0.50	7.41	--	6,063	19,249	--	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	< 0.001	--	--	--	--
MW-16	Multiunit 1	Downgradient	9/21/1988	2.0	--	378	--	664	0.60	7.15	--	11,592	20,028	--	--	--	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	11/14/1988	2.0	--	358	--	620	0.50	7.30	--	11,983	20,760	--	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	3/8/1989	2.0	--	347	--	683	0.60	7.30	--	12,519	19,880	--	--	--	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	9/13/1989	2.0	--	320	--	549	0.60	7.31	--	11,421	18,780	--	--	--	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	3/26/1990	2.0	--	340	--	580	0.50	7.30	--	11,981	18,700	--	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	9/24/1990	1.0	--	300	--	592	0.30	7.32	--	11,738	17,890	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	4/2/1991	2.0	--	320	--	677	0.30	7.23	--	11,080	17,420	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	10/1/1991	2.0	--	261	--	574.4	0.30	7.52	--	9,634	16,260	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	5/7/1992	2.0	--	250	--	557.2	0.30	7.39	--	9,994	16,220	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	11/5/1992	2.0	--	320	--	556	0.30	7.32	--	8,898	15,100	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	4/26/1993	2.0	--	330	--	527.8	0.20	7.33	--	9,830	14,170	--	--	--	--	--	--	--	--	--	--	--	--	--	0.20	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	11/23/1993	2.0	--	330	--	523	0.30	7.30	--	8,832	14,780	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	4/20/1994	2.0	--	390	--	581	0.30	7.28	--	9,260	15,320	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	9/21/1994	2.0	--	350	--	517	0.30	7.33	--	8,530	14,040	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	4/4/1995	1.0	--	390	--	531	0.30	7.34	--	8,186	13,220	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	11/21/1995	3.06	--	400	--	428.6	0.30	7.34	--	7,076	11,890	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	8/15/1996	2.79	--	320	--	424.4	0.20	7.31	--	7,115	11,820	--	--	--	--	--	--	--	--	--	--	--	--	--	0.20	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	4/15/1997	3.49	--	340	--	408.5	0.30	7.59	--	6,336	11,240	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	10/8/1997	< 0.05	--	320	--	414.3	0.20	7.42	--	6,952	10,850	--	--	--	--	--	--	--	--	--	--	--	--	--	0.20	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	4/15/1998	3.32	--	420	--	385.5	0.20	7.27	--	6,311	11,220	--	< 0.005	--	0.020	--	--	--	< 0.001	--	< 0.01	--	--	--	0.20	< 0.005	--	--	--	0.030	0.23	--	--
MW-16	Multiunit 1	Downgradient	5/11/1999	3.9	--	440	--	412.6	0.30	7.38	--	6,520	11,790	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	11/30/1999	4.0	--	520	--	417.9	0.20	7.54	--	6,331	10,980	--	--	--	--	--	--	--	--	--	--	--	--	--	0.20	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	6/8/2000	4.73	--	462	--	618.3	0.30	7.20	--	7,616	11,390	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	12/12/2000	4.97	--	540	--	426.7	0.2809	7.00	--	6,014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2809	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	8/22/2001	5.44	--	480	--	434	0.27	7.28	--	5,883	9,990	--	--	--	--	--	--	--	--	--	--	--	--	--	0.27	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	12/3/2001	5.7	--	620	--	386.4	0.30	7.21	--	5,470	10,240	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	6/12/2002	5.47	--	420	--	493.5	0.40	7.57	--	6,693	11,830	--	--	--	--	--	--	--	--	--	--	--	--	--	0.40	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	12/18/2002	64.2	--	440	--	429.8	0.20	7.52	--	5,924	10,780	--	0.0070	--	< 0.01	--	--	--	0.0020	--	< 0.01	--	--	--	0.20	< 0.005	--	--	--	< 0.01	0.036	--	--
MW-16	Multiunit 1	Downgradient	5/29/2003	6.55	--	480	--	536.6	0.70	7.21	--	6,005	11,460	--	--	--	--	--	--	--	--	--	--	--	--	--	0.70	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	12/24/2003	6.59	--	330	--	415	0.34	7.22	--	5,816	10,330	--	--	--	--	--	--	--	--	--	--	--	--	--	0.34	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	6/16/2004	--	--	440	--	429.3	0.30	7.17	--	6,128	10,350	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	11/29/2004	8.8	--	420	--	411.9	0.40	7.23	--	3,752	10,080	--	--	--	--	--	--	--	--	--	--	--	--	--	0.40	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	6/13/2005	7.41	--	470	--	371.6	0.30	7.25	--	5,373	9,900	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	10/31/2005	--	--	--	--	351.2	0.20	7.10	--	5,078	9,410	--	--	--	--	--	--	--	--	--	--	--	--	--	0.20	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	5/16/2006	10.3	--	460	--	322	0.267	7.18	--	5,440	9,200	--	--	--	--	--	--	--	--	--	--	--	--	--	0.267	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	10/11/2006	9.63	--	463	--	327	0.287	7.18	--	6,010	9,160	--	< 0.024	--	0.017	--	--	--	< 0.002	--	< 0.002	--	--	--	0.287	< 0.009	--	--	--	< 0.012	< 0.029	--	--
MW-16	Multiunit 1	Downgradient	4/18/2007	9.69	--	460	--	380	0.59	7.22	--	5,860	9,040	--	--	--	--	--	--	--	--	--	--	--	--	--	0.59	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	11/14/2007	8.78	--	391	--	374	0.20	7.22	--	5,700	9,040	--	--	--	--	--	--	--	--	--	--	--	--	--	0.20	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	5/7/2008	9.7	--	400	--	330	0.30	7.27	--	6,020	8,780	--	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	12/4/2009	10.7	--	408	--	360	0.30	7.21	--	4,900	8,250	--	0.0037	--	0.0164	--	--	--	< 0.00025	--	0.020	--	--	--	0.30	< 0.0005	--	--	< 0.0002	--	< 0.0025	0.016	--	--
MW-16	Multiunit 1	Downgradient	9/27/2012	9.5	--	400	--	450	< 2.0	--	--	5,400	8,900	--	< 0.0010	--	--	--	--	--	--	--	< 0.0010	--	--	--	< 2.0	--	--	--	--	--	--	0.0016	--	--
MW-16	Multiunit 1	Downgradient	11/19/2013	7.3	--	490	--	680	< 4.0	--	--	6,200	11,000	--	0.00031	--	--	--	--	--	--	--	< 0.00050	--	--	--	< 4.0	--	--	--	--	--	--	0.0050	--	--
MW-16	Multiunit 1	Downgradient	3/12/2014	7.6	--	460	--	690	< 0.80	--	--	6,500	11,000	--	0.00077	--	--	--	--	--	--	--	--	--	--	--	< 0.80	--	--	--	--	--	--	0.0018	--	--
MW-16	Multiunit 1	Downgradient	9/9/2014	7.7	--	440	--	670	< 0.40	--	--	6,300	10,000	--	0.00065	--	--	--	--	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	0.0030	--	--
MW-16	Multiunit 1	Downgradient	3/17/2015	8.8	--	460	--	820	< 0.40	--	--	6,300	10,000	--	0.00027	--	--	--	--	--	--	--	< 0.00050	--	--	--	< 0.40	--	--	--	--	--	--	0.014	--	--
MW-16	Multiunit 1	Downgradient	6/29/2015	8.7	--	430	--	940	< 0.80	--	7.21	6,200	12,000	--	< 0.0030	--	--	--	--	--	--	--	< 0.0030	--	--	--	< 0.80	--	--	--	--	--	--	0.034	--	--
MW-16	Multiunit 1	Downgradient	8/26/2015	8.3	--	440	--	890	2.7	--	7.17	7,700	12,000	--	< 0.0060	--	--	--	--	--	--	--	< 0.0060	--	--	--	2.7	--	--	--	--	--	--	0.038	--	--
MW-16	Multiunit 1	Downgradient	11/10/2015	8.1	--	530	--	1,000	< 4.0	--	7.24	9,000	17,000	--	0.0039	--	--	--	--	--	< 0.00050	--	0.014	--	--	--	< 4.0	--	--	--	--	--	--	0.049	--	--
MW-16	Multiunit 1	Downgradient	6/18/2016	8.0	--	470	--	1,200	< 0.40	--	7.35	8,500	15,000	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	9/15/2016	7.5	--	420	--	1,300	< 0.40	--	7.1	12,000	16,000	--	< 0.0010	--	--	--	--	--	--	--	< 0.0025	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	3/20/2019	--	--	--	--	--	< 0.80	--	--	--	--	< 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	Downgradient	3/20/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.9
MW-16	Multiunit 1	Downgradient	5/14/2019	6.6	--	410	--	1,300	< 0.80	--	7.2 J	11,000	17,000	--	0.0017	--	0.021	--	--	--	0.00013	--	--	--	0.0054	--	< 0.80	< 0.00050	--	1.3	--	--	0.0018	0.050	0.00040	--
MW-16	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.9
MW-16	Multiunit 1	Downgradient	5/14/2019	6.6	--	410	--	1,000	< 0.80	--	7.2 J	10,000	17,000	--	0.0012	--	0.021	--	--	--	0.00015	--	--	--	0.0052	--	< 0.80	< 0.00050	--	1.3	--	--	0.0018	0.048	0.00041	--
MW-16	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.7
MW-16	Multiunit 1	Downgradient	11/19/2019	7.1	--	420	--	900	< 0.80	--	7.1 J	11,000	17,000	< 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	Downgradient	6/23/2020	7.8	--	430	--	870	< 0.8	6.81	7.3 J	12,000	18,000	< 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	Downgradient	11/6/2020	7.3	--	410	--	1,400	< 0.4	6.90	7.4 J	11,000	16,000	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	Downgradient	4/27/2021	7.9	--	420	--	780	0.19 J	7.67	7.3 J	11,000	18,000	< 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	Downgradient	11/18/2021	8.4	--	430	--	1,300	0.39 J	6.86	7.5 J	22,000	18,000	< 0.002 U	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

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																					
			Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
			Filtered:	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	Y	N	N	Y	N	N	N	N
			Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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	*3.95*	*3.95*	*454.1*	*454*	*604.7*	*2.1*	*6.52-7.88*	*6.52-7.88*	*22,000*	*34,397*	*0.01*	*0.0086*	*0.0086*	*0.042*	*0.042*	*0.001*	*0.001*	*0.002*	*0.002*	*0.02*	*0.02*	*0.01*	*0.01*	*5*	*0.01*	*0.01*	*1.8*	*0.0002*	*0.0002*	*0.12*	*0.092*	*0.017*	*4.43*
			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*
MW-17R	Multiunit 1	Downgradient	3/12/2014	**34**	--	**470**	--	**400**	**0.43**	--	--	**3,900**	**6,100**	--	**0.00027**	--	--	--	--	--	--	--	**0.00071**	--	--	--	**0.43**	--	--	--	--	--	**0.00067**	--	--
MW-17R	Multiunit 1	Downgradient	9/9/2014	**33**	--	**420**	--	**370**	< 0.40	--	--	**3,900**	**6,300**	--	**0.00027**	--	--	--	--	--	--	--	< 0.00050	--	--	--	< 0.40	--	--	--	--	--	< 0.00060	--	--
MW-17R	Multiunit 1	Downgradient	3/17/2015	**34**	--	**450**	--	**420**	**0.40**	--	--	**4,100**	**6,200**	--	**0.00029**	--	--	--	--	--	--	--	< 0.00050	--	--	--	**0.40**	--	--	--	--	--	< 0.00060	--	--
MW-17R	Multiunit 1	Downgradient	6/30/2015	**34**	--	**430**	--	**410**	< 0.80	--	**7.41**	**3,600**	**6,300**	--	< 0.0030	--	--	--	--	--	--	--	< 0.0030	--	--	--	< 0.80	--	--	--	--	--	**0.0038**	--	--
MW-17R	Multiunit 1	Downgradient	8/25/2015	**33**	--	**460**	--	**420**	< 0.40	--	**7.32**	**4,100**	**6,500**	--	< 0.0060	--	--	--	--	--	--	--	< 0.0060	--	--	--	< 0.40	--	--	--	--	--	< 0.0060	--	--
MW-17R	Multiunit 1	Downgradient	11/4/2015	**30**	--	**440**	--	--	--	--	**7.21**	--	--	--	**0.0057**	--	--	--	--	--	< 0.0025	--	< 0.013	--	--	--	--	--	--	--	--	--	< 0.015	--	--
MW-17R	Multiunit 1	Downgradient	11/13/2015	**36**	--	**430**	--	**400**	< 2.0	--	**7.37**	**4,000**	**6,500**	--	**0.00051**	--	--	--	--	--	--	--	< 0.0010	--	--	--	< 2.0	--	--	--	--	--	< 0.0012	--	--
MW-17R	Multiunit 1	Downgradient	6/18/2016	**33**	--	**470**	--	**400**	**0.45**	--	**7.57**	**3,800**	**6,600**	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	--	**0.45**	--	--	--	< 0.00020	--	--	--	--
MW-17R	Multiunit 1	Downgradient	9/15/2016	**36**	--	**430**	--	**370**	**0.49**	--	**7.4**	**4,100**	**6,400**	--	< 0.0010	--	--	--	--	--	--	--	< 0.0025	--	--	--	**0.49**	--	--	--	< 0.00020	--	--	--	--
MW-17R	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	< 0.40	--	--	--	--	< 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	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.4**
MW-17R	Multiunit 1	Downgradient	5/14/2019	**33**	--	**440**	--	**390**	< 0.80	--	**7.5 J**	**4,000**	**6,200**	--	< 0.00050	--	**0.017**	--	--	--	**0.0013**	--	--	--	**0.064**	--	< 0.80	**0.0022**	--	**0.42**	--	--	**0.0014**	< 0.00050	**0.00022**	--
MW-17R	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.7**
MW-17R	Multiunit 1	Downgradient	5/14/2019	**33**	--	**430**	--	**380**	< 0.80	--	**7.5 J**	**3,900**	**6,300**	--	< 0.00050	--	**0.018**	--	--	--	**0.0014**	--	--	--	**0.064**	--	< 0.80	**0.0022**	--	**0.41**	--	--	**0.0013**	< 0.00050	**0.00022**	--
MW-17R	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.2**
MW-17R	Multiunit 1	Downgradient	11/19/2019	**36**	--	**460**	--	**390**	< 0.80	--	**7.4 J**	**4,100**	**6,200**	< 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	Downgradient	6/22/2020	**36**	--	**440**	--	**380**	< 0.8	**7.14**	**7.5 J**	**3,900**	**6,100**	< 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	Downgradient	11/7/2020	**36**	--	**440**	--	**400**	**0.4**	**7.24**	**7.5 J**	**4,300**	**5,900**	< 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	Downgradient	4/25/2021	**36**	--	**470**	--	**390**	**0.45**	**8.06**	**7.6 J**	**4,000**	**6,200**	< 0.004 U	< 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 U	**2.2**
MW-17R	Multiunit 1	Downgradient	11/16/2021	**39**	--	**470**	--	**490**	**0.62 J**	**7.12**	**7.7 J**	**5,700**	**6,300**	< 0.002 U	**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-18	Multiunit 1	Downgradient	9/29/1987	--	**0.76**	--	**430**	**480**	< 0.5	**7.45**	**7.5**	**9,500**	**15,000**	--	--	< 0.05	--	**0.23**	--	--	--	< 0.005	--	< 0.005	--	--	< 0.5	--	**0.070**	--	--	< 0.0001	--	--	--
MW-18	Multiunit 1	Downgradient	6/15/1988	--	--	**428**	--	**901**	**0.50**	**7.11**	--	**9,631**	**18,180**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.50**	--	--	--	< 0.001	--	--	--	--
MW-18	Multiunit 1	Downgradient	9/21/1988	**1.0**	--	**377**	--	**703**	**0.50**	**7.18**	--	**9,681**	**18,120**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.50**	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	11/28/1988	**1.0**	--	**369**	--	**626**	**0.40**	**7.18**	--	**11,222**	**16,320**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	2/27/1989	**1.0**	--	**408**	--	**692**	**0.40**	**7.19**	--	**10,056**	**16,895**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	9/11/1989	**1.0**	--	**340**	--	**516**	**0.40**	**7.21**	--	**9,057**	**15,200**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	3/26/1990	**1.0**	--	**380**	--	**667**	**0.30**	**7.20**	--	**9,976**	**16,490**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	9/18/1990	**1.0**	--	**340**	--	**549**	**0.20**	**7.23**	--	**9,780**	**16,475**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	5/30/1991	**1.0**	--	**350**	--	**1,147**	**0.30**	**7.10**	--	**13,240**	**20,660**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	9/11/1991	**1.0**	--	**370**	--	**773**	**0.20**	**7.24**	--	**10,542**	**17,250**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	5/5/1992	**1.0**	--	**210**	--	**1,772**	**0.20**	**7.32**	--	**17,150**	**27,820**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	10/27/1992	**1.0**	--	**240**	--	**1,789**	**0.30**	**7.00**	--	**19,960**	**28,980**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	4/26/1993	**1.0**	--	**290**	--	**1,506**	**0.20**	**7.08**	--	**18,415**	**22,480**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	11/23/1993	**1.0**	--	**320**	--	**1,330**	**0.20**	**7.06**	--	**19,000**	**19,210**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	4/23/1994	**1.0**	--	**380**	--	**699**	**0.20**	**7.22**	--	**12,560**	**18,170**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	9/20/1994	**1.0**	--	**370**	--	**846**	**0.20**	**7.13**	--	**10,340**	**18,330**	--	< 0.05	--	< 0.5	--	--	--	< 0.005	--	--	--	< 0.02	--	**0.20**	< 0.1	--	--	--	--	< 0.01	< 0.1	< 0.01	--
MW-18	Multiunit 1	Downgradient	12/14/1994	--	--	**400**	--	--	--	**7.32**	--	--	--	< 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	Downgradient	4/5/1995	**1.0**	--	**300**	--	**1,134**	**0.20**	**7.09**	--	**14,220**	**23,650**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	12/13/1995	**0.74**	--	**350**	--	**921.5**	**0.20**	**7.16**	--	**11,850**	**18,500**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	8/12/1996	**0.50**	--	**220**	--	**884.5**	**0.20**	**7.19**	--	**11,253**	**19,330**	--	< 0.005	--	**0.010**	--	--	--	< 0.001	--	--	--	**0.050**	--	**0.20**	< 0.005	--	--	--	--	< 0.01	**0.090**	< 0.01	--
MW-18	Multiunit 1	Downgradient	4/23/1997	**0.94**	--	**180**	--	**1,586**	**0.20**	**7.14**	--	**13,940**	**25,750**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	10/20/1997	< 0.05	--	**200**	--	**605.6**	**0.20**	**7.47**	--	**8,757**	**15,120**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	4/14/1998	--	--	**400**	--	**547.6**	**0.20**	**7.24**	--	**8,297**	**15,840**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	6/8/1999	**1.6**	--	--	--	--	**0.20**	**7.76**	--	**9,699**	**16,510**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	12/8/1999	--	--	**420**	--	**601.8**	**0.20**	**7.29**	--	**8,860**	**15,460**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	6/8/2000	**1.57**	--	**425**	--	**866.6**	**0.20**	**7.26**	--	**11,148**	**12,960**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	11/28/2000	**1.67**	--	**450**	--	**441.2**	**0.2462**	**7.15**	--	**7,021**	**13,380**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.2462**	--	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	8/21/2001	**1.29**	--	**460**	--	**490**	**0.23**	**7.11**	--	**5,668**	**25,800**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.23**	--	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	12/5/2001	**1.3**	--	**420**	--	**598.8**	**0.30**	**7.16**	--	**8,647**	**14,750**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	6/12/2002	**1.29**	--	**360**	--	**435**	**0.40**	**7.42**	--	**6,795**	**11,830**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	12/18/2002	**1.35**	--	**390**	--	**584.6**	**0.20**	**7.45**	--	**8,137**	**14,690**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	6/3/2003	--	--	**370**	--	**430**	**0.30**	**7.23**	--	**5,332**	**14,490**	--	--	--	--	--	--	**0.010**	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	**0.071**	--	--
MW-18	Multiunit 1	Downgradient	9/24/2003	**0.76**	--	**315**	--	**444**	**0.36**	**7.19**	--	**7,104**	**12,560**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.36**	--	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	6/16/2004	--	--	**350**	--	**494.2**	**0.30**	**7.22**	--	**7,197**	**12,750**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	11/9/2004	**1.0**	--	**435**	--	**445.4**	**0.30**	**7.29**	--	**6,620**	**12,680**	--	< 0.0005	--	**0.0124**	--	--	--	< 0.00005	--	--	--	**0.0060**	--	**0.30**	**0.00050**	--	--	--	--	**0.00122**	**0.021**	< 0.00005	--
MW-18	Multiunit 1	Downgradient	5/12/2005	**0.787**	--	**420**	--	**594.8**	**0.30**	**7.13**	--	**7,685**	**13,980**	--	**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	Downgradient	11/1/2005	**0.784**	--	**401**	--	**752**	**0.30**	**6.98**	--	**8,431**	**16,100**	--	**0.010**	--	**0.017**	--	--	--	--	--	**0.0030**	--	--	--	**0.30**	--	--	--	--	--	--	**0.032**	--	--
MW-18	Multiunit 1	Downgradient	5/15/2006	**0.792**	--	**418**	--	**595**	**0.213**	**7.17**	--	**8,560**	**14,500**	--	**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	Downgradient	10/13/2006	**0.775**	--	**449**	--	**522**	**0.21**	**7.15**	--	**8,640**	**11,700**	--	< 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	Downgradient	4/18/2007	**0.96**	--	**416**	--	**723**	**0.629**	**7.16**	--	**9,600**	**14,600**	< 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	Downgradient	11/20/2007	**0.781**	--	**359**	--	**600**	**0.20**	**7.22**	--	**7,500**	**13,700**	**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	Downgradient	4/30/2008	**0.80**	--	**379**	--	**550**	**0.20**	**7.26**	--	**8,630**	**12,900**	< 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	Downgradient	12/3/2009	**1.0**	--	**376**	--	**1,460**	**0.30**	**7.05**	--	**12,200**	**20,900**	< 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	Downgradient	9/27/2012	**1.0**	--	**400**	--	**2,200**	< 4.0	--	--	**13,000**	**21,000**	--	< 0.0010	--	--	--	--	--	--	--	< 0.0010	--	--	--	< 4.0	--	--	--	--	--	--	**0.0033**	--	--
MW-18	Multiunit 1	Downgradient	11/19/2013	**1.1**	--	**480**	--	**2,100**	< 4.0	--	--	**12,000**	**20,000**	--	**0.00057**	--	--	--	--	--	--	--	< 0.00050	--	--	--	< 4.0	--	--	--	--	--	--	**0.0018**	--	--
MW-18	Multiunit 1	Downgradient	3/12/2014	**1.0**	--	**430**	--	**2,400**	< 2.0	--	--	**12,000**	**19,000**	--	**0.00058**	--	--	--	--	--	--	--	**0.00059**	--	--	--	< 2.0	--	--	--	--	--	--	**0.0020**	--	--
MW-18	Multiunit 1	Downgradient	9/10/2014	**1.1**	--	**390**	--	**2,300**	< 0.80	--	--	**13,000**	**22,000**	--	< 0.00040	--	--	--	--	--	--	--	< 0.0010	--	--	--	< 0.80	--	--	--	--	--	--	< 0.0012	--	--
MW-18	Multiunit 1	Downgradient	3/18/2015	**1.1**	--	**450**	--	**2,900**	< 0.80	--	--	**14,000**	**24,000**	--	< 0.0010	--	--	--	--	--	--	--	< 0.0025	--	--	--	< 0.80	--	--	--	--	--	--	< 0.0030	--	--
MW-18	Multiunit 1	Downgradient	6/30/2015	**1.1**	--	**400**	--	**2,400**	< 4.0	--	**7.09**	**12,000**	**22,000**	--	< 0.012	--	--	--	--	--	--	--	< 0.012	--	--	--	< 4.0	--	--	--	--	--	--	< 0.012	--	--
MW-18	Multiunit 1	Downgradient	8/25/2015	**1.1**	--	**430**	--	**3,300**	< 2.0	--	**7.01**	**14,000**	**23,000**	--	< 0.030	--	--	--	--	--	--	--	< 0.030	--	--	--	< 2.0	--	--	--	--	--	--	< 0.030	--	--
MW-18	Multiunit 1	Downgradient	11/6/2015	**1.3**	--	**460**	--	**2,700**	< 4.0	--	**7.02**	**13,000**	**22,000**	--	< 0.0010	--	--	--	--	--	< 0.00050	--	< 0.0025	--	--	--	< 4.0	--	--	--	--	--	--	< 0.0030	--	--
MW-18	Multiunit 1	Downgradient	6/17/2016	**1.0**	--	**440**	--	**3,300**	< 0.80	--	**7.28**	**13,000**	**24,000**	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	--	< 0.80	--	--	--	< 0.00020	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	9/15/2016	**1.3**	--	**430**	--	**660**	< 0.40	--	**7.2**	**8,800**	**13,000**	--	**0.0015**	--	--	--	--	--	--	--	**0.0038**	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	6/22/2020	--	--	--	--	--	--	**6.65**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.011**	--	--	--	--	--	--	**0.0022**	--	--	--
MW-18	Multiunit 1	Downgradient	11/7/2020	**1.1**	--	--	--	--	--	**6.74**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.076**	--	--	--	--	--	--	**0.0024**	--	--	--
MW-18	Multiunit 1	Downgradient	4/25/2021	**1.3**	--	**510**	--	**4,800**	< 0.8	**7.37**	**7.2 J**	**16,000**	**5,900**	--	--	--	--	--	< 0.001	--	--	--	--	--	**0.012**	--	< 0.8	--	--	**2.2**	--	--	**0.0023**	--	--	--
MW-18	Multiunit 1	Downgradient	11/16/2021	**1.2**	--	**510**	--	**5,100**	< 0.8	**6.65**	**7.6 J**	**16,000**	**28,000 J**	--	--	--	--	--	< 0.001	--	--	--	--	--	**0.012**	--	< 0.8	--	--	**2.4**	--	--	**0.0017**	--	--	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																					
Constituent:				Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
Filtered:				N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Y	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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				*3.95*	*3.95*	*454.1*	*454*	*604.7*	*2.1*	*6.52-7.88*	*6.52-7.88*	*22,000*	*34,397*	*0.01*	*0.0086*	*0.0086*	*0.042*	*0.042*	*0.001*	*0.001*	*0.002*	*0.002*	*0.02*	*0.02*	*0.01*	*0.01*	*5*	*0.01*	*0.01*	*1.8*	*0.0002*	*0.0002*	*0.12*	*0.092*	*0.017*	*4.43*
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*
MW-23R	Multiunit 1	Downgradient	3/11/2014	**1.7**	--	**450**	--	--	--	--	--	--	--	--	**0.00065**	--	--	--	--	--	--	--	**0.0038**	--	--	--	--	--	--	--	--	--	**0.0017**	--	--
MW-23R	Multiunit 1	Downgradient	3/11/2014	**1.7**	--	**440**	--	**470**	< 0.80	--	--	**7,200**	**5,800**	--	**0.00079**	--	--	--	--	--	--	--	**0.0035**	--	--	--	< 0.80	--	--	--	--	--	**0.0015**	--	--
MW-23R	Multiunit 1	Downgradient	9/11/2014	**9.0**	--	**1,700**	--	**520**	< 0.40	--	--	**7,900**	**12,000**	--	< 0.0040	--	--	--	--	--	--	--	**0.015**	--	--	--	< 0.40	--	--	--	--	--	< 0.012	--	--
MW-23R	Multiunit 1	Downgradient	12/8/2014	**1.9**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-23R	Multiunit 1	Downgradient	3/18/2015	**3.5**	--	**450**	--	**530**	< 0.40	--	--	**7,100**	**12,000**	--	< 0.0050	--	--	--	--	--	--	--	< 0.013	--	--	--	< 0.40	--	--	--	--	--	< 0.015	--	--
MW-23R	Multiunit 1	Downgradient	6/30/2015	**6.9**	--	**420**	--	**580**	< 2.0	--	**7.24**	**6,400**	**11,000**	--	< 0.012	--	--	--	--	--	--	--	< 0.012	--	--	--	< 2.0	--	--	--	--	--	< 0.012	--	--
MW-23R	Multiunit 1	Downgradient	11/3/2015	**9.9**	--	**490**	--	--	--	--	**7.29**	--	**11,000**	--	< 0.0010	--	--	--	--	--	--	< 0.00050	< 0.0025	--	--	--	--	--	--	--	--	--	< 0.0030	--	--
MW-23R	Multiunit 1	Downgradient	11/13/2015	**2.8**	--	**410**	--	**500**	< 2.0	--	**7.25**	**7,100**	**11,000**	--	**0.0020**	--	--	--	--	--	--	--	**0.0047**	--	--	--	< 2.0	--	--	--	--	--	< 0.0012	--	--
MW-23R	Multiunit 1	Downgradient	6/21/2016	**14**	--	**450**	--	**590**	< 0.40	--	**7.23**	**6,100**	**11,000**	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--
MW-23R	Multiunit 1	Downgradient	9/15/2016	**6.6**	--	**420**	--	**530**	**0.45**	--	**7.2**	**7,000**	**11,000**	--	< 0.0010	--	--	--	--	--	--	--	< 0.0025	--	--	**0.45**	--	--	--	--	< 0.00020	--	--	--	--
MW-23R	Multiunit 1	Downgradient	6/21/2020	--	--	--	--	--	--	**6.76**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.001	--	--	--	--	--	**0.019**	--	--	--
MW-23R	Multiunit 1	Downgradient	11/7/2020	**13**	--	--	--	--	--	**6.94**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.00068**	--	--	--	--	--	**0.0075**	--	--	--
MW-23R	Multiunit 1	Downgradient	4/25/2021	**15**	--	**480**	--	**730**	**0.27 J**	**7.64**	**7.4 J**	**8,700**	**13,000**	--	--	--	--	--	--	--	< 0.001	--	--	--	--	**0.00092 J**	--	**0.27 J**	--	--	**0.91**	--	--	**0.0052**	--	--	--
MW-23R	Multiunit 1	Downgradient	11/14/2021	**14**	--	**470**	--	**900**	**0.28 J**	**6.83**	**7.4 J**	**11,000**	**17,000**	--	--	--	--	--	--	--	< 0.001	--	--	--	--	**0.00068 J**	--	**0.28 J**	--	--	**1.1**	--	--	**0.0035**	--	--	--
MW-24	Multiunit 1	Downgradient	3/19/2015	**1.1**	--	**400**	--	**4,100**	< 0.80	--	--	**10,000**	**21,000**	--	**0.0011**	--	--	--	--	--	--	--	< 0.0025	--	--	--	< 0.80	--	--	--	--	--	< 0.0030	--	--
MW-24	Multiunit 1	Downgradient	6/29/2015	**1.1**	--	**350**	--	**3,700**	< 4.0	--	**7.92**	**10,000**	**20,000**	--	**0.0036**	--	--	--	--	--	--	--	< 0.0030	--	--	--	< 4.0	--	--	--	--	--	**0.013**	--	--
MW-24	Multiunit 1	Downgradient	8/26/2015	**0.99**	--	**410**	--	**5,100**	< 4.0	--	**7.62**	**12,000**	**23,000**	--	< 0.0060	--	--	--	--	--	--	--	< 0.0060	--	--	--	< 4.0	--	--	--	--	--	**0.0095**	--	--
MW-24	Multiunit 1	Downgradient	6/20/2016	**1.0**	--	**490**	--	**4,500**	< 0.80	--	**7.38**	**11,000**	**23,000**	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	--	< 0.80	--	--	--	< 0.00020	--	--	--	--
MW-24	Multiunit 1	Downgradient	9/15/2016	**0.96**	--	**420**	--	**4,200**	< 2.0	--	**7.3**	**11,000**	**23,000**	--	**0.0010**	--	--	--	--	--	--	--	< 0.0025	--	--	--	< 2.0	--	--	--	< 0.00020	--	--	--	--
MW-24	Multiunit 1	Downgradient	4/26/2021	**1.0**	--	**510**	--	**5,600**	**0.66 J**	**8.07**	**7.6 J**	**14,000**	**23,000**	--	--	--	--	--	< 0.001	--	--	--	--	--	**0.0021**	--	**0.66 J**	--	--	**1.5**	--	--	**0.15**	--	--	--
MW-24	Multiunit 1	Downgradient	11/16/2021	**1.0**	--	**490**	--	**5,200**	**0.21 J**	**7.18**	**7.7 J**	**13,000**	**23,000** J	--	--	--	--	--	< 0.001	--	--	--	--	--	**0.0042**	--	**0.21 J**	--	--	**1.5**	--	--	**0.034**	--	--	--
MW-34	Multiunit 1/EW System	Downgradient	6/23/2020	**11**	--	**410**	--	**350**	< 0.8	--	**7.7 J**	**5,000**	**7,700**	< 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-36R	Multiunit 1	Downgradient	3/12/2014	**35**	--	**490**	--	**560**	< 0.80	--	--	**4,100**	**6,900**	--	**0.00031**	--	--	--	--	--	--	--	**0.00060**	--	--	--	< 0.80	--	--	--	--	--	**0.00074**	--	--
MW-36R	Multiunit 1	Downgradient	9/9/2014	**32**	--	**450**	--	**560**	< 0.40	--	--	**4,200**	**7,100**	--	**0.00022**	--	--	--	--	--	--	--	< 0.00050	--	--	--	< 0.40	--	--	--	--	--	**0.00069**	--	--
MW-36R	Multiunit 1	Downgradient	3/19/2015	**27**	--	**460**	--	**620**	< 0.40	--	--	**5,200**	**8,400**	--	< 0.0010	--	--	--	--	--	--	--	< 0.0025	--	--	--	< 0.40	--	--	--	--	--	< 0.0030	--	--
MW-36R	Multiunit 1	Downgradient	6/30/2015	**37**	--	**440**	--	**620**	< 0.80	--	**7.24**	**4,100**	**7,500**	--	< 0.0030	--	--	--	--	--	--	--	< 0.0030	--	--	--	< 0.80	--	--	--	--	--	**0.0047**	--	--
MW-36R	Multiunit 1	Downgradient	8/25/2015	**21**	--	**440**	--	**650**	< 0.80	--	**7.16**	**5,500**	**8,900**	--	< 0.0030	--	--	--	--	--	--	--	< 0.0030	--	--	--	< 0.80	--	--	--	--	--	**0.0082**	--	--
MW-36R	Multiunit 1	Downgradient	11/3/2015	**28**	--	**480**	--	--	--	--	**7.14**	--	**8,400**	--	< 0.0010	--	--	--	--	--	--	**0.0031**	< 0.0025	--	--	--	--	--	--	--	--	--	< 0.0030	--	--
MW-36R	Multiunit 1	Downgradient	11/13/2015	**23**	--	**390**	--	**610**	< 2.0	--	**7.21**	**4,700**	**8,300**	--	< 0.00040	--	--	--	--	--	--	--	< 0.0010	--	--	--	< 2.0	--	--	--	--	--	< 0.0012	--	--
MW-36R	Multiunit 1	Downgradient	6/17/2016	**28**	--	**460**	--	**640**	< 0.40	--	**7.32**	**4,800**	**7,900**	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--
MW-36R	Multiunit 1	Downgradient	9/15/2016	**50**	--	**430**	--	**540**	< 0.40	--	**7.3**	**4,100**	**6,800**	--	< 0.0010	--	--	--	--	--	--	--	< 0.0025	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--
MW-36R	Multiunit 1	Downgradient	6/21/2020	--	--	--	--	--	--	b	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.26**	--	--	--	--	--	**0.0013**	--	--	--
MW-36R	Multiunit 1	Downgradient	11/7/2020	**53**	--	--	--	--	--	**7.21**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.26**	--	--	--	--	--	**0.0010**	--	--	--
MW-36R	Multiunit 1	Downgradient	11/7/2020	**55**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.29**	--	--	--	--	--	**0.0018**	--	--	--
MW-36R	Multiunit 1	Downgradient	4/25/2021	**53**	--	**500**	--	**510**	**0.29 J**	**8.04**	**7.6 J**	**4,300**	**6,800**	--	--	--	--	--	< 0.001	--	--	--	--	--	**0.26**	--	**0.29 J**	--	--	**0.61**	--	--	**0.0012 J**	--	--	--
MW-36R	Multiunit 1	Downgradient	11/14/2021	**57**	--	--	--	--	--	**7.16**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.26**	--	--	--	--	--	**0.00056 J**	--	--	--
MW-38R	Multiunit 1	Downgradient	3/12/2014	**39**	--	**440**	--	**1,300**	< 0.80	--	--	**12,000**	**18,000**	--	**0.0016**	--	--	--	--	--	--	--	**0.0015**	--	--	--	< 0.80	--	--	--	--	--	**0.0023**	--	--
MW-38R	Multiunit 1	Downgradient	9/11/2014	**43**	--	**420**	--	**1,400**	< 0.80	--	--	**20,000**	**32,000**	--	< 0.0040	--	--	--	--	--	--	--	< 0.010	--	--	--	< 0.80	--	--	--	--	--	< 0.012	--	--
MW-38R	Multiunit 1	Downgradient	3/19/2015	**34**	--	**410**	--	**1,200**	< 0.80	--	--	**18,000**	**29,000**	--	**0.0010**	--	--	--	--	--	--	--	< 0.0025	--	--	--	< 0.80	--	--	--	--	--	**0.0044**	--	--
MW-38R	Multiunit 1	Downgradient	6/30/2015	**35**	--	**390**	--	**710**	< 2.0	--	**7.51**	**9,500**	**16,000**	--	< 0.012	--	--	--	--	--	--	--	< 0.012	--	--	--	< 2.0	--	--	--	--	--	< 0.012	--	--
MW-38R	Multiunit 1	Downgradient	8/29/2015	**33**	--	**420**	--	**560**	< 2.0	--	**7.47**	**8,800**	**14,000**	--	< 0.0030	--	--	--	--	--	--	< 0.0010	< 0.0030	--	--	--	< 2.0	--	--	--	--	--	**0.015**	--	--
MW-38R	Multiunit 1	Downgradient	11/10/2015	**34**	--	**490**	--	**810**	< 2.0	--	**7.25**	**16,000**	**20,000**	--	**0.0020**	--	--	--	--	--	--	< 0.00050	**0.0071**	--	--	--	< 2.0	--	--	--	--	--	**0.011**	--	--	--
MW-38R	Multiunit 1	Downgradient	6/21/2016	**27**	--	**400**	--	**520**	< 0.40	--	**7.37**	**8,200**	**12,000**	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--
MW-38R	Multiunit 1	Downgradient	6/21/2016	**25**	--	**400**	--	**590**	< 0.40	--	**7.32**	**9,400**	**15,000**	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--
MW-38R	Multiunit 1	Downgradient	9/15/2016	**26**	--	**380**	--	**420**	< 0.40	--	**7.4**	**7,700**	**12,000**	--	< 0.0010	--	--	--	--	--	--	--	< 0.0025	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--
MW-38R	Multiunit 1	Downgradient	9/15/2016	**27**	--	**390**	--	**470**	< 0.40	--	**7.4**	**8,600**	**13,000**	--	< 0.0010	--	--	--	--	--	--	--	< 0.0025	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--
MW-38R	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	< 0.40	--	--	--	--	< 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	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.8**
MW-38R	Multiunit 1	Downgradient	5/14/2019	**24**	--	**400**	--	**300**	< 0.80	--	**7.7 J**	**4,900**	**8,200**	--	**0.00060**	--	**0.017**	--	--	--	**0.00013**	--	--	--	**0.16**	--	< 0.80	**0.00085**	--	**0.50**	--	--	**0.083**	**0.0033**	< 0.00010	--
MW-38R	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-38R	Multiunit 1	Downgradient	11/19/2019	**26**	--	**450**	--	**270**	< 0.80	--	**7.5 J**	**4,000**	**6,100**	< 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	Downgradient	11/19/2019	**27**	--	**450**	--	**270**	< 0.80	--	**7.5 J**	**4,000**	**5,900**	< 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	Downgradient	6/22/2020	**29**	--	**450**	--	**290**	< 0.8	**6.96**	**7.2 J**	**3,700**	**5,600**	< 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	Downgradient	6/22/2020	**30**	--	**440**	--	**290**	< 0.8	--	**7.4 J**	**3,800**	**5,400**	< 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	Downgradient	11/6/2020	**27**	--	**490 / 430**	--	**280**	**0.36 J**	**7.03**	**7.4 J**	**4,000**	**5,800**	< 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	Downgradient	4/27/2021	**29**	--	**490**	--	**310 J**	**0.33 J**	**7.79**	**7.3 J**	**4,100**	**5,900**	< 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	Downgradient	11/16/2021	**27**	--	**460**	--	**320**	**0.4 J**	**6.94**	**7.6 J**	**4,500**	**6,000**	< 0.002 U	**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-40R	Multiunit 1	Downgradient	2/2/2017	**18**	--	**410**	--	**1,900**	< 0.40	--	**7.8**	**12,000**	**18,000**	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.40	--	--	--	--	--	--	--	--	--
MW-40R	Multiunit 1	Downgradient	2/2/2017	--	--	--	--	--	< 0.40	--	--	--	--	< 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	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.6**
MW-40R	Multiunit 1	Downgradient	4/26/2021	**9.0**		**440**		**2,900**	**0.28 J**	**7.43**	**7.0 J**	**18,000**	**27,000**	< 0.001 U	**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 U	**2.2**
MW-46	Multiunit 1	Downgradient	6/30/2015	**0.37**	--	**400**	--	**2,400**	< 4.0	--	**7.44**	**18,000**	**28,000**	--	< 0.012	--	--	--	--	--	--	--	< 0.012	--	--	--	< 4.0	--	--	--	--	--	**0.012**	--	--	--
MW-46	Multiunit 1	Downgradient	11/7/2015	**0.50**	--	**460**	--	**2,200**	< 4.0	--	**7.51**	**17,000**	**29,000**	--	**0.0062**	--	--	--	--	--	< 0.00050	--	**0.048**	--	--	--	< 4.0	--	--	--	--	--	< 0.0030	--	--	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																									
			Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
			Filtered:	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	Y	N	N	Y	N	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	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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	*3.95*	*3.95*	*454.1*	*454*	*604.7*	*2.1*	*6.52-7.88*	*6.52-7.88*	*22,000*	*34,397*	*0.01*	*0.0086*	*0.0086*	*0.042*	*0.042*	*0.001*	*0.001*	*0.002*	*0.002*	*0.02*	*0.02*	*0.01*	*0.01*	*5*	*0.01*	*0.01*	*1.8*	*0.0002*	*0.0002*	*0.12*	*0.092*	*0.017*	*4.43*
			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*
MW-52	Multiunit 1	Downgradient	3/17/2015	5.4	--	450	--	470	< 0.40	--	--	5,300	8,100	--	< 0.0010	--	--	--	--	--	--	--	< 0.0020	--	--	--	< 0.40	--	--	--	--	--	0.0029	--	--
MW-52	Multiunit 1	Downgradient	3/17/2015	5.3	--	450	--	470	< 0.40	--	--	5,400	8,500	--	0.00030	--	--	--	--	--	--	--	< 0.00050	--	--	--	< 0.40	--	--	--	--	--	0.00074	--	--
MW-52	Multiunit 1	Downgradient	8/26/2015	6.1	--	430	--	500	< 0.80	--	7.48	5,600	8,300	--	< 0.0060	--	--	--	--	--	--	--	< 0.0060	--	--	--	< 0.80	--	--	--	--	--	< 0.0060	--	--
MW-52	Multiunit 1	Downgradient	11/3/2015	6.0	--	460	--	470	< 0.80	--	7.47	5,400	8,400	< 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	Downgradient	6/18/2016	5.7	--	450	--	480	< 0.40	--	7.64	5,000	8,400	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--	--
MW-52	Multiunit 1	Downgradient	9/16/2016	5.9	--	420	--	440	< 0.40	--	7.5	5,000	8,300	--	< 0.0020	--	--	--	--	--	--	--	< 0.0050	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--	--
MW-52	Multiunit 1	Downgradient	6/20/2020	--	--	--	--	--	--	7.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.12	--	--	--	--	--	--	0.0035	--	--	--
MW-52	Multiunit 1	Downgradient	11/8/2020	7.8	--	--	--	--	--	7.32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.11	--	--	--	--	--	--	0.0024	--	--	--
MW-52	Multiunit 1	Downgradient	4/23/2021	7.6	--	--	--	--	--	8.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.089	--	--	--	--	--	--	0.0026	--	--	--
MW-52	Multiunit 1	Downgradient	11/13/2021	11	--	450	--	--	--	7.24	--	--	--	--	--	--	--	--	< 0.001	--	--	--	--	--	0.12	--	--	--	0.65	--	--	0.0031	--	--	--
MW-52	Multiunit 1	Downgradient	11/13/2021	9.7	--	420	--	--	--	7.24	--	--	--	--	--	--	--	--	< 0.001	--	--	--	--	--	0.12	--	--	--	0.65	--	--	0.0031	--	--	--
MW-54	Multiunit 1	Downgradient	9/10/2014	3.1	--	440	--	13,000	< 4.0	--	--	190,000	28,000	--	0.0078	--	--	--	--	--	--	--	0.0082	--	--	--	< 4.0	--	--	--	--	--	0.0068	--	--
MW-54	Multiunit 1	Downgradient	3/17/2015	1.6	--	420	--	1,100	< 4.0	--	--	17,000	24,000	--	0.0041	--	--	--	--	--	--	--	0.0032	--	--	--	< 4.0	--	--	--	--	--	0.0041	--	--
MW-54	Multiunit 1	Downgradient	8/26/2015	1.4	--	410	--	1,100	< 0.80	--	7.58	35,000	25,000	--	< 0.0060	--	--	--	--	--	--	--	< 0.0060	--	--	--	< 0.80	--	--	--	--	--	0.018	--	--
MW-54	Multiunit 1	Downgradient	11/3/2015	2.7	--	860	--	980	< 0.80	--	7.56	19,000	27,000	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	Downgradient	6/20/2016	1.6	--	420	--	910	0.86	--	7.66	15,000	21,000	--	< 0.005	--	--	--	--	--	--	--	0.0054	--	--	--	0.86	--	--	--	< 0.00020	--	--	--	--	--
MW-54	Multiunit 1	Downgradient	9/16/2016	1.8	--	400	--	730	0.85	--	7.8	13,000	19,000	--	0.0025	--	--	--	--	--	--	--	< 0.0050	--	--	--	0.85	--	--	--	< 0.00020	--	--	--	--	--
MW-56	Multiunit 1	Downgradient	3/12/2014	3.4	--	460	--	1,300	< 0.80	--	--	12,000	20,000	--	0.00060	--	--	--	--	--	--	--	0.00067	--	--	--	< 0.80	--	--	--	--	--	0.19	--	--
MW-56	Multiunit 1	Downgradient	9/10/2014	3.5	--	320	--	1,000	< 0.40	--	--	11,000	16,000	--	0.00054	--	--	--	--	--	--	--	< 0.00050	--	--	--	< 0.40	--	--	--	--	--	0.10	--	--
MW-56	Multiunit 1	Downgradient	3/19/2015	2.4	--	450	--	1,500	< 0.40	--	--	14,000	21,000	--	< 0.0040	--	--	--	--	--	--	--	< 0.010	--	--	--	< 0.40	--	--	--	--	--	0.63	--	--
MW-56	Multiunit 1	Downgradient	6/30/2015	2.2	--	410	--	1,600	< 4.0	--	7.01	14,000	24,000	--	< 0.012	--	--	--	--	--	--	--	< 0.012	--	--	--	< 4.0	--	--	--	--	--	0.20	--	--
MW-56	Multiunit 1	Downgradient	8/25/2015	1.9	--	430	--	2,300	< 2.0	--	7.3	18,000	29,000	--	< 0.030	--	--	--	--	--	--	--	< 0.030	--	--	--	< 2.0	--	--	--	--	--	0.19	--	--
MW-56	Multiunit 1	Downgradient	11/5/2015	2.2	--	480	--	2,100	< 2.0	--	6.88	17,000	25,000	< 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	Downgradient	6/18/2016	2.5	--	450	--	1,600	< 0.40	--	7.27	12,000	21,000	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--	--
MW-56	Multiunit 1	Downgradient	9/15/2016	5.4	--	390	--	670	< 0.40	--	7.3	7,600	13,000	--	< 0.0010	--	--	--	--	--	--	--	< 0.0025	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--	--
MW-56	Multiunit 1	Downgradient	3/20/2019	--	--	--	--	--	< 0.80	--	--	--	--	< 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	Downgradient	3/20/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.3
MW-56	Multiunit 1	Downgradient	5/14/2019	2.7	--	440	--	1,700	< 0.80	--	7.1 J	13,000	22,000	--	0.0043	--	0.020	--	--	--	< 0.00010	--	--	--	0.00054	--	< 0.80	< 0.00050	--	1.4	--	--	0.019	0.26	0.00080	--
MW-56	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.7
MW-56	Multiunit 1	Downgradient	11/19/2019	2.4	--	460	--	1,900	< 0.80	--	7.2 J	15,000	24,000	< 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	Downgradient	6/22/2020	2.2	--	460	--	2,000	< 0.8	7.00	7.1 J	15,000	24,000	< 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	Downgradient	11/7/2020	2.0	--	460	--	2,100	< 0.8	6.84	7.4 J	16,000	27,000	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	Downgradient	4/26/2021	1.8	--	490	--	2,300	< 0.8	7.43	7.4 J	19,000	28,000	< 0.004 U	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	Downgradient	11/16/2021	1.8	--	470	--	2,400	< 0.8	6.83	7.8 J	20,000	30,000 J	< 0.002 U	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-57	Multiunit 1	Downgradient	3/12/2014	4.9	--	450	--	360	< 0.80	--	--	5,800	8,900	--	0.0010	--	--	--	--	--	--	--	0.0016	--	--	--	< 0.80	--	--	--	--	--	--	0.0010	--	--
MW-57	Multiunit 1	Downgradient	9/8/2014	7.8	--	440	--	--	--	--	--	--	--	--	0.0012	--	--	--	--	--	--	--	< 0.00050	--	--	--	--	--	--	--	--	--	--	0.00060	--	--
MW-57	Multiunit 1	Downgradient	9/8/2014	10	--	440	--	330	< 0.40	--	--	5,400	8,700	--	0.0012	--	--	--	--	--	--	--	< 0.00050	--	--	--	< 0.40	--	--	--	--	--	--	0.00061	--	--
MW-57	Multiunit 1	Downgradient	3/17/2015	9.3	--	440	--	360	< 0.40	--	--	5,800	8,500	--	0.0011	--	--	--	--	--	--	--	< 0.00050	--	--	--	< 0.40	--	--	--	--	--	--	0.00072	--	--
MW-57	Multiunit 1	Downgradient	6/29/2015	9.4	--	410	--	370	< 0.80	--	7.54	5,300	8,800	--	< 0.0030	--	--	--	--	--	--	--	< 0.0030	--	--	--	< 0.80	--	--	--	--	--	--	< 0.0030	--	--
MW-57	Multiunit 1	Downgradient	8/26/2015	6.4	--	420	--	370	< 0.80	--	7.46	6,100	9,600	--	< 0.0060	--	--	--	--	--	--	--	< 0.0060	--	--	--	< 0.80	--	--	--	--	--	--	< 0.0060	--	--
MW-57	Multiunit 1	Downgradient	11/10/2015	4.3	--	450	--	--	--	--	7.55	--	9,500	< 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	Downgradient	11/10/2015	4.4	--	480	--	--	--	--	7.54	--	9,300	< 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	Downgradient	11/10/2015	4.4	--	430	--	190	< 0.80	--	7.53	6,700	9,400	< 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	Downgradient	11/11/2015	4.2	--	430	--	--	--	--	7.54	--	9,200	< 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	Downgradient	6/18/2016	3.5	--	430	--	370	< 0.40	--	7.59	5,900	9,700	--	0.00050	--	--	--	--	--	--	--	< 0.0005	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--	--
MW-57	Multiunit 1	Downgradient	9/15/2016	8.7	--	410	--	330	< 0.40	--	7.6	5,700	8,400	--	< 0.0010	--	--	--	--	--	--	--	< 0.0025	--	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--	--
MW-57	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	< 0.40	--	--	--	--	< 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	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3
MW-57	Multiunit 1	Downgradient	5/14/2019	1.8	--	420	--	470	< 0.80	--	7.4 J	7,300	12,000	--	0.0017	--	0.018	--	--	--	< 0.00010	--	--	--	0.0039	--	< 0.80	< 0.00050	--	0.76	--	--	0.15	0.00054	< 0.00010	--
MW-57	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-57	Multiunit 1	Downgradient	11/19/2019	1.4	--	410	--	410	< 0.80	--	7.3 J	7,100	11,000	< 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	Downgradient	6/22/2020	1.3	--	410	--	430	< 0.8	6.85	7.5 J	7,500	11,000	< 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	Downgradient	11/6/2020	1.6	--	440	--	540	< 0.4	6.96	7.5 J	8,300	12,000	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	Downgradient	4/27/2021	0.96	--	460	--	420	< 0.4	7.57	7.5 J	7,400	12,000	< 0.004 U	< 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 U	2.7
MW-57	Multiunit 1	Downgradient	11/17/2021	1.1	--	470	--	480	0.19 J	6.96	7.9 J	8,400	11,000	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

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																					
			Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
			Filtered:	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	Y	N	N	Y	N	N	N	N
			Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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:	*3.95*	*3.95*	*454.1*	*454*	*604.7*	*2.1*	*6.52-7.88*	*6.52-7.88*	*22,000*	*34,397*	*0.01*	*0.0086*	*0.0086*	*0.042*	*0.042*	*0.001*	*0.001*	*0.002*	*0.002*	*0.02*	*0.02*	*0.01*	*0.01*	*5*	*0.01*	*0.01*	*1.8*	*0.0002*	*0.0002*	*0.12*	*0.092*	*0.017*	*4.43*
			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*
MW-60	Multiunit 1	Downgradient	11/8/2015	46	--	430	--	700	4.5	--	7.35	7,500	11,000	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	Downgradient	11/8/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	4/26/2016	51	--	460	--	560	2.7	--	--	6,000	11,000	< 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	Downgradient	6/6/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.8
MW-60	Multiunit 1	Downgradient	6/6/2016	49	--	410	--	730	2.4	--	7.12	6,500	11,000	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	Downgradient	8/21/2016	64	--	440	--	430	6.5	--	7.4	4,900	8,500	--	--	--	--	--	--	--	--	--	--	--	--	--	6.5	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	8/21/2016	--	--	--	--	--	15	--	--	--	--	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	Downgradient	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-60	Multiunit 1	Downgradient	9/13/2016	64	--	450	--	440	7.2	--	7.6	5,100	8,500	--	--	--	--	--	--	--	--	--	--	--	--	--	7.2	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	6.2	--	--	--	--	< 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	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.0
MW-60	Multiunit 1	Downgradient	9/13/2016	65	--	440	--	440	6.0	--	7.6	5,100	8,400	--	--	--	--	--	--	--	--	--	--	--	--	--	6.0	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	6.4	--	--	--	--	< 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	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.6
MW-60	Multiunit 1	Downgradient	10/20/2016	61	--	410	--	460	--	--	7.6	5,000	8,300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.0
MW-60	Multiunit 1	Downgradient	10/20/2016	--	--	--	--	--	5.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.5	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	2/2/2017	66	--	450	--	440	7.2	--	7.8	5,200	8,200	--	--	--	--	--	--	--	--	--	--	--	--	--	7.2	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	2/2/2017	--	--	--	--	--	7.2	--	--	--	--	< 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	Downgradient	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4
MW-60	Multiunit 1	Downgradient	4/18/2017	63	--	440	--	430	6.4	--	7.7	5,000	8,400	--	--	--	--	--	--	--	--	--	--	--	--	--	6.4	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.2
MW-60	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	6.5	--	--	--	--	< 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	Downgradient	5/3/2017	--	--	--	--	--	10	--	--	--	--	< 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	Downgradient	5/3/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-60	Multiunit 1	Downgradient	5/30/2017	--	--	--	--	--	7.0	--	--	--	--	< 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	Downgradient	5/30/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.2
MW-60	Multiunit 1	Downgradient	6/22/2017	63	--	440	--	450	--	--	7.7	5,400	8,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	6/22/2017	--	--	--	--	--	7.1	--	--	--	--	< 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	Downgradient	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4
MW-60	Multiunit 1	Downgradient	7/22/2017	64	--	450	--	900	7.0	--	7.6	10,000	8,300	--	--	--	--	--	--	--	--	--	--	--	--	--	7.0	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	7/22/2017	--	--	--	--	--	--	--	--	--	--	< 0.0040	< 0.0020	--	0.016	--	< 0.0010	--	< 0.0040	--	< 0.0020	--	0.24	--	--	< 0.0020	--	0.82	< 0.00020	--	0.15	< 0.0020	< 0.00040	--
MW-60	Multiunit 1	Downgradient	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.8
MW-60	Multiunit 1	Downgradient	8/10/2017	66	--	470	--	920	--	--	7.7	11,000	8,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	8/10/2017	--	--	--	--	--	7.1	--	--	--	--	< 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	Downgradient	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-60	Multiunit 1	Downgradient	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-60	Multiunit 1	Downgradient	8/17/2017	63	--	490	--	440	7.4	--	7.7	5,100	8,200	--	--	--	--	--	--	--	--	--	--	--	--	--	7.4	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	9/10/2017	67	--	470	--	450	--	--	7.6	5,200	7,900	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	9/10/2017	--	--	--	--	--	7.4	--	--	--	--	< 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	Downgradient	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.5
MW-60	Multiunit 1	Downgradient	10/12/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.6
MW-60	Multiunit 1	Downgradient	10/12/2017	64	--	440	--	480	7.0	--	7.5	5,100	8,300	< 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	Downgradient	6/21/2020	--	--	--	--	--	--	7.44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.24	--	--	--	--	--	--	--	0.18	--	--	--
MW-60	Multiunit 1	Downgradient	11/8/2020	61	--	--	--	--	--	7.87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.26	--	--	--	--	--	--	--	0.20	--	--	--
MW-60	Multiunit 1	Downgradient	4/24/2021	60	--	--	--	--	--	8.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.21	--	--	--	--	--	--	--	0.16	--	--	--
MW-60	Multiunit 1	Downgradient	11/13/2021	65	--	--	--	--	--	7.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.25	--	--	--	--	--	--	--	0.19	--	--	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																					
Constituent:				Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
Filtered:				N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Y	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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:				*3.95*	*3.95*	*454.1*	*454*	*604.7*	*2.1*	*6.52-7.88*	*6.52-7.88*	*22,000*	*34,397*	*0.01*	*0.0086*	*0.0086*	*0.042*	*0.042*	*0.001*	*0.001*	*0.002*	*0.002*	*0.02*	*0.02*	*0.01*	*0.01*	*5*	*0.01*	*0.01*	*1.8*	*0.0002*	*0.0002*	*0.12*	*0.092*	*0.017*	*4.43*
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*
MW-61	Multiunit 1	Downgradient	11/6/2015	**35**	--	**460**	--	**320**	**1.2**	--	**8.81**	**3,700**	**5,400**	**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	11/6/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	11/6/2015	**42**	--	**490**	--	**330**	**1.2**	--	--	**3,700**	**5,000**	**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	11/6/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	4/26/2016	**39**	--	**510**	--	**280**	**1.3**	--	--	**3,400**	**5,700**	< 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	6/6/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-61	Multiunit 1	Downgradient	6/6/2016	**38**	--	**460**	--	**650**	**1.2**	--	**8.62**	**3,500**	**5,500**	**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	8/21/2016	**38**	--	**470**	--	**300**	**1.2**	--	**8.5**	**3,400**	**5,700**	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.2**	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	8/21/2016	--	--	--	--	--	**0.91**	--	--	--	--	**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	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.4
MW-61	Multiunit 1	Downgradient	9/13/2016	**40**	--	**480**	--	**330**	**1.3**	--	**8.6**	**3,500**	**5,700**	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.3**	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	**1.1**	--	--	--	--	< 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	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.3**
MW-61	Multiunit 1	Downgradient	10/19/2016	**38**	--	**440**	--	**310**	**0.84**	--	**8.6**	**3,700**	**5,700**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.84**	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	10/19/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.4
MW-61	Multiunit 1	Downgradient	10/20/2016	**37**	--	**420**	--	**300**	**0.95**	--	**8.6**	**3,500**	**5,600**	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.95**	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.7**
MW-61	Multiunit 1	Downgradient	2/2/2017	**37**	--	**470**	--	**300**	**1.2**	--	**8.6**	**3,500**	**5,300**	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.2**	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	2/2/2017	--	--	--	--	--	**1.1**	--	--	--	--	< 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	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.2**
MW-61	Multiunit 1	Downgradient	4/18/2017	**39**	--	**480**	--	**300**	**1.1**	--	**8.6**	**3,500**	**5,600**	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.1**	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-61	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	**1.1**	--	--	--	--	< 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	5/3/2017	--	--	--	--	--	**2.8**	--	--	--	--	< 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	5/3/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.7**
MW-61	Multiunit 1	Downgradient	5/30/2017	--	--	--	--	--	**1.2**	--	--	--	--	< 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	5/30/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-61	Multiunit 1	Downgradient	6/22/2017	**38**	--	**480**	--	**310**	--	--	**8.6**	**3,700**	**5,400**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	6/22/2017	--	--	--	--	--	**1.3**	--	--	--	--	< 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	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-61	Multiunit 1	Downgradient	7/22/2017	**39**	--	**490**	--	**310**	**1.3**	--	**8.5**	**3,700**	**5,600**	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.3**	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	7/22/2017	--	--	--	--	--	--	--	--	--	--	< 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	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.5**
MW-61	Multiunit 1	Downgradient	8/10/2017	**40**	--	**500**	--	**310**	--	--	**8.7**	**3,700**	**5,500**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	8/10/2017	--	--	--	--	--	**1.2**	--	--	--	--	< 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	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-61	Multiunit 1	Downgradient	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-61	Multiunit 1	Downgradient	8/17/2017	**39**	--	**520**	--	**300**	**1.4**	--	**8.7**	**3,600**	**5,500**	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.4**	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	9/10/2017	**41**	--	**510**	--	**310**	--	--	**8.7**	**3,600**	**5,600**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	9/10/2017	--	--	--	--	--	**1.2**	--	--	--	--	< 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	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.7**
MW-61	Multiunit 1	Downgradient	10/12/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**2.0**
MW-61	Multiunit 1	Downgradient	10/12/2017	**38**	--	**470**	--	**320**	**1.2**	--	**8.6**	**3,500**	**5,600**	< 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	11/30/2017	**39**	--	**520**	--	**310**	**1.2**	--	**8.5**	**3,500**	**5,500**	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.2**	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	3/17/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.9
MW-61	Multiunit 1	Downgradient	6/1/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-61	Multiunit 1	Downgradient	6/1/2018	**38**	--	**470**	--	**330**	**1.3**	--	**8.5**	**3,500**	**5,600**	--	< 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	6/1/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-61	Multiunit 1	Downgradient	6/1/2018	**39**	--	**480**	--	**330**	**1.3**	--	**8.5**	**3,500**	**5,400**	--	< 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	11/3/2018	**37**	--	**470**	--	**340**	**1.3**	--	**8.6**	**3,600**	**5,300**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	11/3/2018	--	--	--	--	--	--	--	--	--	--	--	**0.00084**	--	**0.015**	--	--	--	**0.00088**	--	--	--	**0.018**	--	--	**0.00086**	--	**0.35**	--	--	**0.090**	**0.00061**	**0.00016**	--
MW-61	Multiunit 1	Downgradient	11/3/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-61	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	**1.1**	--	--	--	--	< 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	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-61	Multiunit 1	Downgradient	5/13/2019	**39**	--	**500**	--	**310**	**0.56**	--	**8.6 J**	**3,500**	**5,600**	--	< 0.00050	--	**0.015**	--	< 0.0010	--	**0.0010**	--	--	--	**0.019**	--	**0.56**	**0.0012**	--	**0.39**	--	--	**0.089**	**0.00067**	**0.00016**	--
MW-61	Multiunit 1	Downgradient	5/13/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-61	Multiunit 1	Downgradient	11/19/2019	**39**	--	**500**	--	**320**	**1.4**	--	**8.6 J**	**3,500**	**5,200**	< 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	6/21/2020	**41**	--	**540**	--	**310**	**1.2**	**8.21**	**8.6 J**	**3,500**	**5,700**	< 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	11/8/2020	**41**	--	**540**	--	**340 J**	**1.3**	**8.63**	**8.6 J**	**3,700**	**5,100**	< 0.001 U	**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	4/23/2021	**40**	--	**520**	--	**330**	**1.1**	**9.64**	**8.7 J**	**3,600**	**6,500**	< 0.001 U	< 0.0016 U	--	**0.017**	--	< 0.001	--	**0.00082**	--	< 0.001	--	**0.023**	--	**1.1**	**0.00084**	--	**0.42**	< 0.0002	--	**0.10**	< 0.00097 U	< 0.0001	**0.9**
MW-61	Multiunit 1	Downgradient	11/13/2021	**41**	--	**520**	--	**420**	**1.1**	**8.45**	**8.3 J**	**4,000**	**4,500**	**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**

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

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*	*604.7*	*2.1*	*6.52-7.88*	*6.52-7.88*	*22,000*	*34,397*
			Multiunit 1 GWPS	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	4/18/2017	**24**	--	**410**	--	**280**	< 2.0	--	**8.3**	**4,400**	**6,100**
MW-75	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	< 2.0	--	--	--	--
MW-75	Multiunit 1	Downgradient	5/3/2017	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	5/3/2017	--	--	--	--	--	**2.8**	--	--	--	--
MW-75	Multiunit 1	Downgradient	5/30/2017	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	5/30/2017	--	--	--	--	--	< 2.0	--	--	--	--
MW-75	Multiunit 1	Downgradient	6/22/2017	**25**	--	**450**	--	**300**	--	--	**8.3**	**4,300**	**6,500**
MW-75	Multiunit 1	Downgradient	6/22/2017	--	--	--	--	--	< 2.0	--	--	--	--
MW-75	Multiunit 1	Downgradient	6/22/2017	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	7/22/2017	**25**	--	**460**	--	**300**	< 2.0	--	**8.3**	**4,500**	**6,700**
MW-75	Multiunit 1	Downgradient	7/22/2017	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	7/22/2017	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	8/10/2017	**25**	--	**460**	--	**300**	--	--	**8.4**	**5,200**	**6,600**
MW-75	Multiunit 1	Downgradient	8/10/2017	--	--	--	--	--	< 2.0	--	--	--	--
MW-75	Multiunit 1	Downgradient	8/10/2017	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	8/17/2017	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	8/17/2017	**25**	--	**490**	--	**300**	< 2.0	--	**8.4**	**4,600**	**6,400**
MW-75	Multiunit 1	Downgradient	9/10/2017	**24**	--	**470**	--	**300**	--	--	**8.4**	**4,500**	**6,500**
MW-75	Multiunit 1	Downgradient	9/10/2017	--	--	--	--	--	< 2.0	--	--	--	--
MW-75	Multiunit 1	Downgradient	9/10/2017	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	10/12/2017	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	10/12/2017	**24**	--	**430**	--	**310**	< 2.0	--	**8.4**	**4,400**	**6,600**
MW-75	Multiunit 1	Downgradient	11/30/2017	**26**	--	**490**	--	**300**	< 2.0	--	**8.3**	**4,400**	**6,500**
MW-75	Multiunit 1	Downgradient	11/30/2017	**25**	--	**480**	--	**300**	< 2.0	--	**8.3**	**4,300**	**6,300**
MW-75	Multiunit 1	Downgradient	3/17/2018	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	6/1/2018	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	6/1/2018	**24**	--	**430**	--	**290**	**1.2**	--	**8.2**	**4,300**	**6,400**
MW-75	Multiunit 1	Downgradient	11/3/2018	**24**	--	**430**	--	**310**	**1.2**	--	**8.3**	**4,300**	**6,200**
MW-75	Multiunit 1	Downgradient	11/3/2018	--	--	--	--	--	**1.2**	--	--	--	--
MW-75	Multiunit 1	Downgradient	11/3/2018	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	**1.1**	--	--	--	--
MW-75	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	5/13/2019	**25**	--	**450**	--	**300**	**1.2**	--	**8.4 J**	**4,200**	**6,600**
MW-75	Multiunit 1	Downgradient	5/13/2019	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	11/19/2019	**24**	--	**450**	--	**290**	**1.2**	--	**8.3 J**	**4,400**	**6,600**
MW-75	Multiunit 1	Downgradient	6/21/2020	**24**	--	**470**	--	**270**	**1.1**	**8.16**	**8.4 J**	**4,300**	**6,700**
MW-75	Multiunit 1	Downgradient	11/8/2020	**25**	--	**470**	--	**290**	**1.3**	**8.39**	**8.4 J**	**4,800**	**6,600**
MW-75	Multiunit 1	Downgradient	4/23/2021	**24**	--	**460**	--	**290**	**1.0**	**9.34**	**8.4 J**	**4,400**	**6,500**
MW-75	Multiunit 1	Downgradient	11/13/2021	**24**	--	**440**	--	**360**	**1.0**	**8.25**	**8.3 J**	**5,100**	**6,200**
MW-76	Multiunit 1	Downgradient	4/26/2021	**41**	--	**470**	--	**480**	**0.44 J**	**7.61**	**7.3 J**	**3,400**	**6,000**

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	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	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	pCi/L
			Multiunit 1 BTV	*0.01*	*0.0086*	*0.0086*	*0.042*	*0.042*	*0.001*	*0.001*	*0.002*	*0.002*	*0.02*	*0.02*	*0.01*	*0.01*	*5*	*0.01*	*0.01*	*1.8*	*0.0002*	*0.0002*	*0.12*	*0.092*	*0.017*	*4.43*
			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*
MW-75	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.6**
MW-75	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	4/18/2017	< 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	5/3/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.4**
MW-75	Multiunit 1	Downgradient	5/3/2017	< 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	5/30/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.9**
MW-75	Multiunit 1	Downgradient	5/30/2017	< 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	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	6/22/2017	< 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	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.6
MW-75	Multiunit 1	Downgradient	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	7/22/2017	< 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	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-75	Multiunit 1	Downgradient	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	8/10/2017	< 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	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.0**
MW-75	Multiunit 1	Downgradient	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-75	Multiunit 1	Downgradient	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	9/10/2017	< 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	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.8**
MW-75	Multiunit 1	Downgradient	10/12/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.8**
MW-75	Multiunit 1	Downgradient	10/12/2017	< 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	11/30/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	11/30/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	< 2.0	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	3/17/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.8
MW-75	Multiunit 1	Downgradient	6/1/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.4**
MW-75	Multiunit 1	Downgradient	6/1/2018	--	< 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	11/3/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.2**	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	11/3/2018	--	**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	11/3/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-75	Multiunit 1	Downgradient	3/19/2019	< 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	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-75	Multiunit 1	Downgradient	5/13/2019	--	< 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	5/13/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.7
MW-75	Multiunit 1	Downgradient	11/19/2019	< 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	6/21/2020	< 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	11/8/2020	< 0.001 U	< 0.0013 U	--	**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	4/23/2021	< 0.001 U	< 0.0016 U	--	**0.02**	--	< 0.001	--	**0.0018**	--	< 0.001	--	**0.045**	--	**1.0**	**0.0029**	--	**0.44**	< 0.0002	--	**0.18**	**0.0037**	< 0.0001 U	<0.8
MW-75	Multiunit 1	Downgradient	11/13/2021	**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-76	Multiunit 1	Downgradient	4/26/2021	< 0.001 U	< 0.0018 U	--	**0.021**	--	< 0.001	--	< 0.0001 U	--	**0.0017**	--	**0.015**	--	**0.44 J**	< 0.0005	--	**0.63**	< 0.0002	--	**0.095**	**0.0036**	< 0.0001 U	<0.8

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																									
			Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate	Total Dissolved Solids	Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
			Filtered:	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	Y	N	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	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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	*3.95*	*3.95*	*454.1*	*454*	*604.7*	*2.1*	*6.52-7.88*	*6.52-7.88*	*22,000*	*34,397*	*0.01*	*0.0086*	*0.0086*	*0.042*	*0.042*	*0.001*	*0.001*	*0.002*	*0.002*	*0.02*	*0.02*	*0.01*	*0.01*	*5*	*0.01*	*0.01*	*1.8*	*0.0002*	*0.0002*	*0.12*	*0.092*	*0.017*	*4.43*
			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*
MW-87	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	< 0.80	--	--	--	--	**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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.5**
MW-87	Multiunit 1	Downgradient	5/14/2019	**1.2**	--	**410**	--	**2,100**	< 0.80	--	**7.4 J**	**17,000**	**29,000**	--	**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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1.4**
MW-87	Multiunit 1	Downgradient	6/22/2019	**1.2**	--	**410**	--	**2,000**	< 0.80	--	--	**18,000**	**28,000**	**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	**2.4**	--	**420**	--	**1,600**	< 0.80	--	**7.3 J**	**18,000**	**27,000**	< 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	**2.4**	--	**440**	--	**1,700**	< 0.80	--	**7.4 J**	**18,000**	**26,000**	< 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	**1.4**	--	**440**	--	**2,200**	< 0.8	**6.87**	**7.7 J**	**19,000**	**30,000**	**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	**1.2**	--	**480**	--	**2,400**	**0.56 J**	**7.01**	**7.4 J**	**23,000**	**38,000**	**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	**1.4**	--	**490**	--	**2,700**	**0.42 J**	**7.92**	**7.6 J**	**25,000**	**34,000**	< 0.002 U	< 0.0024 U	--	**0.014**	--	< 0.001	--	< 0.0002 U	--	< 0.002	--	**0.0081**	--	**0.42 J**	< 0.002	--	**1.8**	< 0.0002	--	**0.056**	**0.011**	< 0.0004 U	<0.8
MW-87	Multiunit 1	Downgradient	11/17/2021	**1.6**	--	**520**	--	**4,100**	**0.17 J**	**7.02**	**7.7 J**	**34,000**	**40,000**	**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	**1.6**	--	**520**	--	**4,100**	**0.16 J**	**7.02**	**7.7 J**	**34,000**	**40,000**	**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-50B	Multiunit 1	--	3/17/2015	< 5.0	--	**310**	--	**4,400**	< 2.0	--	--	**3,900**	**4,900**	--	**0.0790**	--	--	--	--	--	--	--	--	--	**0.35**	--	**--**	--	< 2.0	--	--	--	--	**0.020**	--	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Additional Analyses																
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein (as CaCO3)	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
Multiunit 1 BTV				--	--	--	--	--		--	--	--	--	--	--	--	--	--	--
Multiunit 1 GWPS				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-43	Multiunit 1	Background	11/18/2013	**590**	< 6.0	< 6.0	**590**	< 6.0	--	**550**	--	--	**32**	--	--	--	--	**1,900**	--
MW-43	Multiunit 1	Background	9/8/2014	**570**	< 6.0	< 6.0	**570**	< 6.0	--	**580**	--	--	**30**	--	--	--	--	**2,100**	--
MW-43	Multiunit 1	Background	3/16/2015	**580**	< 6.0	< 6.0	**580**	< 6.0	--	**560**	--	--	**35**	--	--	--	--	**2,000**	--
MW-43	Multiunit 1	Background	12/1/2015	**680**	< 5.0	--	**680**	--	--	**560**	--	--	**31**	--	**1.81**	**2.73**	--	**1,900**	--
MW-49A	Multiunit 1	Background	9/10/2014	**930**	< 6.0	< 6.0	**930**	< 6.0	--	**2,200**	--	--	**100**	--	--	--	--	**11,000**	--
MW-49A	Multiunit 1	Background	3/19/2015	**1,100**	< 6.0	< 6.0	**1,100**	< 6.0	--	**1,800**	--	--	**82**	--	--	--	--	**11,000**	--
MW-49A	Multiunit 1	Background	7/1/2015	**1,100**	< 6.0	< 6.0	**1,100**	< 6.0	--	**2,000**	--	--	**93**	--	--	--	--	**12,000**	--
MW-49A	Multiunit 1	Background	8/29/2015	**1,100**	< 6.0	< 6.0	**1,100**	< 6.0	--	**1,800**	--	--	**90**	--	--	--	--	**8,700**	--
MW-49A	Multiunit 1	Background	12/1/2015	**870**	< 5.0	--	**870**	--	--	**750**	--	--	**54**	--	--	--	--	**4,600**	--
MW-49A	Multiunit 1	Background	12/1/2015	--	--	--	--	--	--	--	--	--	--	--	**0.528**	**1.34**	--	--	--
MW-49A	Multiunit 1	Background	4/26/2016	--	--	--	--	--	--	--	--	--	--	--	**0.4**	**1.9**	--	--	--
MW-49A	Multiunit 1	Background	6/7/2016	--	--	--	--	--	--	--	--	--	--	--	**0.6**	**1.8**	--	--	--
MW-49A	Multiunit 1	Background	6/7/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	**0.4**	**3.1**	--	--	--
MW-49A	Multiunit 1	Background	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.3**	--	--	--
MW-49A	Multiunit 1	Background	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	**0.4**	**1.7**	--	--	--
MW-49A	Multiunit 1	Background	2/2/2017	**890**	< 6.0	< 6.0	**890**	< 6.0	--	**1,300**	--	--	**77**	--	--	--	--	**6,700**	--
MW-49A	Multiunit 1	Background	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	**0.5**	**2.9**	--	--	--
MW-49A	Multiunit 1	Background	4/18/2017	**900**	< 6.0	< 6.0	**900**	< 6.0	--	**1,400**	--	--	**71**	--	--	--	--	**6,600**	--
MW-49A	Multiunit 1	Background	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	**0.6**	**1.4**	--	--	--
MW-49A	Multiunit 1	Background	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	5/3/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	5/3/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.9**	--	--	--
MW-49A	Multiunit 1	Background	5/30/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	5/30/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**2.1**	--	--	--
MW-49A	Multiunit 1	Background	6/22/2017	**850**	< 6.0	< 6.0	**850**	< 6.0	--	**1,200**	--	--	**70**	--	--	--	--	**5,700**	--
MW-49A	Multiunit 1	Background	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	**0.5**	**2.2**	--	--	--
MW-49A	Multiunit 1	Background	7/22/2017	**850**	< 6.0	< 6.0	**850**	< 6.0	--	**1,100**	--	--	**69**	--	--	--	--	**5,700**	--
MW-49A	Multiunit 1	Background	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	**0.5**	**2.1**	--	--	--
MW-49A	Multiunit 1	Background	8/10/2017	**790**	< 6.0	< 6.0	**790**	< 6.0	--	**1,100**	--	--	**70**	--	--	--	--	**5,700**	--
MW-49A	Multiunit 1	Background	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.7**	--	--	--
MW-49A	Multiunit 1	Background	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**2.0**	--	--	--
MW-49A	Multiunit 1	Background	8/17/2017	**750**	< 6.0	< 6.0	**750**	< 6.0	--	**980**	--	--	**84**	--	--	--	--	**5,400**	--
MW-49A	Multiunit 1	Background	9/10/2017	**720**	< 6.0	< 6.0	**720**	< 6.0	--	**880**	--	--	**62**	--	--	--	--	**4,900**	--
MW-49A	Multiunit 1	Background	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**2.3**	--	--	--
MW-49A	Multiunit 1	Background	10/12/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**2.5**	--	--	--
MW-49A	Multiunit 1	Background	10/12/2017	**710**	< 6.0	< 6.0	**710**	< 6.0	--	**790**	--	--	**62**	--	--	--	--	**4,900**	--
MW-49A	Multiunit 1	Background	11/30/2017	**780**	< 6.0	< 6.0	**780**	< 6.0	--	**1,000**	--	--	**79**	--	--	--	--	**6,100**	--
MW-49A	Multiunit 1	Background	3/17/2018	--	--	--	--	--	--	--	--	--	--	--	< 0.8	< 0.8	--	--	--
MW-49A	Multiunit 1	Background	6/1/2018	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.5**	--	--	--
MW-49A	Multiunit 1	Background	6/1/2018	**750**	< 6.0	< 6.0	**750**	< 6.0	--	**2,800**	--	--	**70**	--	--	--	--	**6,400**	--
MW-49A	Multiunit 1	Background	11/4/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	11/4/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	11/4/2018	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.4**	--	--	--
MW-49A	Multiunit 1	Background	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**0.8**	--	--	--
MW-49A	Multiunit 1	Background	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.7	--	--	--
MW-49A	Multiunit 1	Background	11/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-49A	Multiunit 1	Background	6/23/2020	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.8**	--	--	--
MW-49A	Multiunit 1	Background	11/6/2020	--	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.8	--	--	--
MW-49A	Multiunit 1	Background	4/27/2021	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.8	--	--	--
MW-49A	Multiunit 1	Background	11/15/2021	--	--	--	--	--	--	--	--	--	--	--	< 0.3	**1.3**	--	--	--
MW-50A	Multiunit 1	Background	3/19/2015	**320**	< 6.0	< 6.0	**320**	< 6.0	--	**380**	--	--	**33**	--	--	--	--	**1,500**	--
MW-50A	Multiunit 1	Background	12/1/2015	**350**	< 5.0	--	**350**	--	--	**340**	--	--	**37**	--	--	--	--	**1,300**	--
MW-50A	Multiunit 1	Background	12/1/2015	--	--	--	--	--	--	--	--	--	--	--	**6.69**	**17.3**	--	--	--
MW-50A	Multiunit 1	Background	2/2/2017	**290**	< 6.0	< 6.0	**290**	< 6.0	--	**320**	--	--	**32**	--	--	--	--	**1,100**	--
MW-50A	Multiunit 1	Background	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Additional Analyses																
			Constituent:	Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein (as CaCO3	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
			Filtered:	N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
			Multiunit 1 BTV	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--
			Multiunit 1 GWPS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-74	Multiunit 1	Background	2/2/2017	**380**	< 6.0	< 6.0	**380**	< 6.0	--	**600**	--	--	**26**	--	--	--	--	**2,200**	--
MW-74	Multiunit 1	Background	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-74	Multiunit 1	Background	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.6**	--	--	--
MW-74	Multiunit 1	Background	4/18/2017	**410**	< 6.0	< 6.0	**410**	< 6.0	--	**570**	--	--	**20**	--	--	--	--	**2,100**	--
MW-74	Multiunit 1	Background	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**0.7**	--	--	--
MW-74	Multiunit 1	Background	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-74	Multiunit 1	Background	5/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-74	Multiunit 1	Background	5/2/2017	--	--	--	--	--	--	--	--	--	--	--	**0.5**	< 0.6	--	--	--
MW-74	Multiunit 1	Background	5/29/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-74	Multiunit 1	Background	5/29/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.1**	--	--	--
MW-74	Multiunit 1	Background	6/22/2017	**440**	< 6.0	< 6.0	**440**	< 6.0	--	**640**	--	--	**22**	--	--	--	--	**2,200**	--
MW-74	Multiunit 1	Background	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-74	Multiunit 1	Background	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.6	--	--	--
MW-74	Multiunit 1	Background	7/22/2017	**430**	< 6.0	< 6.0	**430**	< 6.0	--	**710**	--	--	**22**	--	--	--	--	**2,400**	--
MW-74	Multiunit 1	Background	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-74	Multiunit 1	Background	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-74	Multiunit 1	Background	8/10/2017	**420**	< 6.0	< 6.0	**420**	< 6.0	--	**730**	--	--	**22**	--	--	--	--	**2,400**	--
MW-74	Multiunit 1	Background	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-74	Multiunit 1	Background	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**0.9**	--	--	--
MW-74	Multiunit 1	Background	9/10/2017	**410**	< 6.0	< 6.0	**410**	< 6.0	--	**1,100**	--	--	**23**	--	--	--	--	**3,200**	--
MW-74	Multiunit 1	Background	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-74	Multiunit 1	Background	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	**0.5**	**1.2**	--	--	--
MW-74	Multiunit 1	Background	10/11/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.6	--	--	--
MW-74	Multiunit 1	Background	10/11/2017	**390**	< 6.0	< 6.0	**390**	< 6.0	--	**1,000**	--	--	**22**	--	--	--	--	**2,900**	--
MW-74	Multiunit 1	Background	11/30/2017	**380**	< 6.0	< 6.0	**380**	< 6.0	--	**1,200**	--	--	**28**	--	--	--	--	**3,500**	--
MW-74	Multiunit 1	Background	3/17/2018	--	--	--	--	--	--	--	--	--	--	--	< 0.9	< 0.8	--	--	--
MW-74	Multiunit 1	Background	6/1/2018	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-74	Multiunit 1	Background	6/1/2018	**450**	< 6.0	< 6.0	**450**	< 6.0	--	**870**	--	--	**22**	--	--	--	--	**3,100**	--
MW-74	Multiunit 1	Background	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-74	Multiunit 1	Background	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-74	Multiunit 1	Background	5/13/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-74	Multiunit 1	Background	5/13/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.7	--	--	--
MW-74	Multiunit 1	Background	6/20/2020	--	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--	--
MW-74	Multiunit 1	Background	4/23/2021	--	--	--	--	--	--	--	--	--	--	--	<0.5	<0.8	--	--	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Additional Analyses																
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein (P, as CaCO3)	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
Multiunit 1 BTV				--	--	--	--	--		--	--	--	--	--	--	--	--	--	--
Multiunit 1 GWPS				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DMX-3	Multiunit 1	Downgradient	4/21/1992	--	--	--	**361**	--	--	**580**	**1,320**	--	--	**36**	--	--	< 0.005	--	**2,180**
DMX-3	Multiunit 1	Downgradient	3/12/2014	**410**	< 6.0	< 6.0	**410**	< 6.0	--	**890**	--	--	**37**	--	--	--	--	**1,500**	--
DMX-3	Multiunit 1	Downgradient	9/11/2014	**480**	< 6.0	< 6.0	**480**	< 6.0	--	**1,100**	--	--	**43**	--	--	--	--	**1,900**	--
DMX-3	Multiunit 1	Downgradient	12/8/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DMX-3	Multiunit 1	Downgradient	12/8/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DMX-3	Multiunit 1	Downgradient	3/18/2015	**580**	< 6.0	< 6.0	**580**	< 6.0	--	**1,300**	--	--	**42**	--	--	--	--	**2,100**	--
DMX-3	Multiunit 1	Downgradient	6/24/2015	**640**	< 6.0	< 6.0	**640**	< 6.0	--	**1,400**	--	--	**46**	--	--	--	--	**2,100**	--
DMX-3	Multiunit 1	Downgradient	11/5/2015	**690**	< 6.0	< 6.0	**690**	< 6.0	--	**1,600**	--	--	**45**	--	--	--	--	**2,400**	--
DMX-3	Multiunit 1	Downgradient	6/21/2016	**780**	< 6.0	< 6.0	**780**	< 6.0	--	**1,600**	--	--	**55**	--	--	--	--	**2,600**	--
DMX-3	Multiunit 1	Downgradient	9/15/2016	**600**	< 6.0	< 6.0	**600**	< 6.0	--	**1,700**	--	--	**55**	--	--	--	--	**2,800**	--
DMX-3	Multiunit 1	Downgradient	6/22/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DMX-3	Multiunit 1	Downgradient	11/7/2020	**750**	< 6	< 6	**750**	< 6	--	**1,900**	--	--	**66**	--	< 0.4	< 0.8	--	**2,800**	--
DMX-3	Multiunit 1	Downgradient	4/25/2021	**750**	< 6	< 6	**750**	< 6	**0.44**	**2,000**	--	**0.30**	**72**	--	<0.4	<0.8	--	**3,100**	--
DMX-3	Multiunit 1	Downgradient	11/14/2021	**950 J**	< 6	< 6	**950 J**	< 6	**0.35**	**2,300**	--	**0.32**	**58**	--	**0.6**	**0.8**	--	**3,600**	--
DMX-4	Multiunit 1	Downgradient	4/21/1992	--	--	--	**396**	--	--	--	**982**	--	--	**32.6**	--	--	< 0.005	--	**3,440**
DMX-4	Multiunit 1	Downgradient	3/18/2015	**350**	< 6.0	< 6.0	**350**	< 6.0	--	**680**	--	--	**32**	--	--	--	--	**1,900**	--
DMX-4	Multiunit 1	Downgradient	6/24/2015	**340**	< 6.0	< 6.0	**340**	< 6.0	--	**630**	--	--	**32**	--	--	--	--	**1,600**	--
DMX-4	Multiunit 1	Downgradient	8/29/2015	**330**	< 6.0	< 6.0	**330**	< 6.0	--	**620**	--	--	**34**	--	--	--	--	**1,500**	--
DMX-4	Multiunit 1	Downgradient	11/7/2015	**330**	< 6.0	< 6.0	**330**	< 6.0	--	**790**	--	--	**34**	--	--	--	--	**1,800**	--
DMX-4	Multiunit 1	Downgradient	11/7/2015	**330**	< 6.0	< 6.0	**330**	< 6.0	--	**900**	--	--	**37**	--	--	--	--	**1,900**	--
DMX-4	Multiunit 1	Downgradient	6/21/2016	**340**	< 6.0	< 6.0	**340**	< 6.0	--	**640**	--	--	**35**	--	--	--	--	**1,600**	--
DMX-4	Multiunit 1	Downgradient	9/15/2016	**320**	< 6.0	< 6.0	**320**	< 6.0	--	**610**	--	--	**34**	--	--	--	--	**1,600**	--
DMX-4	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DMX-4	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
DMX-4	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DMX-4	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
DMX-4	Multiunit 1	Downgradient	11/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DMX-4	Multiunit 1	Downgradient	6/22/2020	--	--	--	--	--	--	--	--	--	--	--	**0.6**	< 0.8	--	--	--
DMX-4	Multiunit 1	Downgradient	11/7/2020	**410**	< 6	< 6	**410**	< 6	--	**800**	--	--	**42**	--	< 0.4	< 0.8	--	**3,000**	--
DMX-4	Multiunit 1	Downgradient	4/25/2021	**410**	< 6	< 6	**410**	< 6	**0.12**	**840**	--	**0.32**	**47**	--	<0.4	<0.8	--	**2,800**	--
DMX-4	Multiunit 1	Downgradient	11/16/2021	**340**	< 6	< 6	**340**	< 6	**0.089 J**	**750**	--	**0.14**	**35**	--	< 0.4	**0.7**		**1,800**	
DMX-6	Multiunit 1	Downgradient	4/21/1992	--	--	--	**201**	--	--	--	**565**	--	--	**27.1**	--	--	< 0.005	--	**1,420**
DMX-6	Multiunit 1	Downgradient	3/17/2015	**250**	< 6.0	< 6.0	**250**	< 6.0	--	**490**	--	--	**31**	--	--	--	--	**1,400**	--
DMX-6	Multiunit 1	Downgradient	6/24/2015	**710**	< 6.0	< 6.0	**710**	< 6.0	--	**580**	--	--	**53**	--	--	--	--	**5,000**	--
DMX-6	Multiunit 1	Downgradient	8/29/2015	**290**	< 6.0	< 6.0	**290**	< 6.0	--	**500**	--	--	**39**	--	--	--	--	**1,700**	--
DMX-6	Multiunit 1	Downgradient	11/10/2015	**310**	< 6.0	< 6.0	**310**	< 6.0	--	**570**	--	--	**36**	--	--	--	--	**2,000**	--
DMX-6	Multiunit 1	Downgradient	6/22/2016	**310**	< 6.0	< 6.0	**310**	< 6.0	--	**500**	--	--	**36**	--	--	--	--	**1,700**	--
DMX-6	Multiunit 1	Downgradient	9/15/2016	**370**	< 6.0	< 6.0	**370**	< 6.0	--	**490**	--	--	**39**	--	--	--	--	**2,100**	--
DMX-6	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DMX-6	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.7	--	--	--
DMX-6	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DMX-6	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
DMX-6	Multiunit 1	Downgradient	11/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DMX-6	Multiunit 1	Downgradient	6/23/2020	**480**	< 6	< 6	**480**	< 6	--	**510**	--	--	**48**	--	**0.6**	< 0.8	--	**3,100**	--
DMX-6	Multiunit 1	Downgradient	11/6/2020	**570**	< 6	< 6	**570**	< 6	--	**490**	--	--	**46**	--	< 0.4	< 0.8	--	**3,700**	--
DMX-6	Multiunit 1	Downgradient	4/27/2021	**430**	< 6	< 6	**430**	< 6	**0.10**	**610**	--	**0.76**	**46**	--	<0.4	<0.8	--	**2,300**	--
DMX-6	Multiunit 1	Downgradient	11/18/2021	**440**	< 6	< 6	**440**	< 6	**0.085 J**	**560**	--	**0.84**	**42**	--	< 0.4	< 0.6	--	**2,700**	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Additional Analyses																
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein (as CaCO3)	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
Multiunit 1 BTV				--	--	--	--	--		--	--	--	--	--	--	--	--	--	--
Multiunit 1 GWPS				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	4/1/1987	--	--	--	**830**	--	--	--	**1,600**	--	--	**55**	--	--	< 0.05	--	**4,600**
MW-05	Multiunit 1	Downgradient	10/2/1987	--	--	--	**880**	--	--	--	**1,900**	--	--	**90**	--	--	< 0.05	--	**5,200**
MW-05	Multiunit 1	Downgradient	6/14/1988	**817.4**	--	--	**670**	< 0	--	**1,540**	--	--	**76**	--	--	--	--	**4,575**	--
MW-05	Multiunit 1	Downgradient	9/21/1988	**915**	--	--	**750**	< 0	--	**1,780**	--	--	**77**	--	--	--	--	**3,720**	--
MW-05	Multiunit 1	Downgradient	11/28/1988	**902.8**	--	--	**740**	< 0	--	**1,970**	--	--	**92**	--	--	--	--	**4,170**	--
MW-05	Multiunit 1	Downgradient	2/28/1989	**976**	--	--	**800**	< 0	--	**1,650**	--	--	**80**	--	--	--	--	**3,830**	--
MW-05	Multiunit 1	Downgradient	9/11/1989	**893.04**	--	--	**732**	< 0	--	**1,908**	--	--	**76**	--	--	--	--	**4,100**	--
MW-05	Multiunit 1	Downgradient	3/22/1990	**915**	--	--	**750**	< 0	--	**1,450**	--	--	**74**	--	--	--	--	**3,900**	--
MW-05	Multiunit 1	Downgradient	10/30/1990	**793**	--	--	**650**	< 0	--	**1,400**	--	--	**60**	--	--	--	--	**3,100**	--
MW-05	Multiunit 1	Downgradient	4/4/1991	**823.5**	--	--	**675**	< 0	--	**1,500**	--	--	**65**	--	--	--	--	**3,400**	--
MW-05	Multiunit 1	Downgradient	9/30/1991	**762.5**	--	--	**625**	< 0	--	**1,390**	--	--	**66**	--	--	--	--	**3,140**	--
MW-05	Multiunit 1	Downgradient	4/15/1992	**701.5**	--	--	**575**	< 0	--	**1,400**	--	--	**76**	--	--	--	--	**3,900**	--
MW-05	Multiunit 1	Downgradient	11/3/1992	**976**	--	--	**800**	< 0	--	**1,600**	--	--	**62**	--	--	--	--	**4,600**	--
MW-05	Multiunit 1	Downgradient	6/22/1993	**732**	--	--	**600**	< 0	--	**1,300**	--	--	**75**	--	--	--	--	**3,300**	--
MW-05	Multiunit 1	Downgradient	11/30/1993	**732**	--	--	**600**	< 0	--	**1,400**	--	--	**62**	--	--	--	--	**3,300**	--
MW-05	Multiunit 1	Downgradient	5/10/1994	**945.5**	--	--	**775**	< 0	--	**1,400**	--	--	**71**	--	--	--	--	**3,400**	--
MW-05	Multiunit 1	Downgradient	11/8/1994	**762.5**	--	--	**625**	< 0	--	**1,300**	--	--	**70**	--	--	--	--	**3,700**	--
MW-05	Multiunit 1	Downgradient	4/6/1995	**823.5**	--	--	**675**	< 0	--	**1,400**	--	--	**63**	--	--	--	--	**3,300**	--
MW-05	Multiunit 1	Downgradient	12/13/1995	**732**	--	--	**600**	< 0	--	**1,500**	--	--	**65**	--	--	--	--	**3,400**	--
MW-05	Multiunit 1	Downgradient	8/15/1996	**762.5**	--	--	**625**	< 0	--	**1,200**	--	--	**62**	--	--	--	--	**3,000**	--
MW-05	Multiunit 1	Downgradient	4/15/1997	**823.5**	--	--	**675**	< 0	--	**1,100**	--	--	**58**	--	--	--	--	**3,000**	--
MW-05	Multiunit 1	Downgradient	10/13/1997	**762.5**	--	--	**625**	< 0	--	**1,000**	--	--	**56**	--	--	--	--	**2,700**	--
MW-05	Multiunit 1	Downgradient	4/14/1998	**640.5**	--	--	**525**	< 0	--	**1,200**	--	--	**51**	--	--	--	--	**2,900**	--
MW-05	Multiunit 1	Downgradient	10/20/1998	**793**	--	--	**650**	< 0	--	**1,100**	--	--	**50**	--	--	--	--	**2,600**	--
MW-05	Multiunit 1	Downgradient	6/8/1999	**762.5**	--	--	**625**	< 0	--	**1,200**	--	--	**49**	--	--	--	--	**2,000**	--
MW-05	Multiunit 1	Downgradient	12/1/1999	**671**	--	--	**550**	< 0	--	**1,000**	--	--	**50**	--	--	--	--	**3,500**	--
MW-05	Multiunit 1	Downgradient	5/30/2000	**762.5**	--	--	**625**	< 0	--	**1,230**	--	--	**52.1**	--	--	--	--	**2,940**	--
MW-05	Multiunit 1	Downgradient	11/14/2000	**640.5**	--	--	**525**	< 0	--	**1,000**	--	--	**57**	--	--	--	--	**3,000**	--
MW-05	Multiunit 1	Downgradient	8/21/2001	**640.5**	--	--	**525**	< 0	--	**1,100**	--	--	**51**	--	--	--	--	**3,500**	--
MW-05	Multiunit 1	Downgradient	12/4/2001	**701.5**	--	--	**575**	< 0	--	**1,000**	--	--	**50**	--	--	--	--	**2,900**	--
MW-05	Multiunit 1	Downgradient	6/11/2002	**1,037**	--	--	**850**	< 0	--	**1,100**	--	--	**52**	--	--	--	--	**2,800**	--
MW-05	Multiunit 1	Downgradient	12/18/2002	**793**	--	--	**650**	< 0	--	**1,000**	--	--	**42**	--	--	--	--	**2,500**	--
MW-05	Multiunit 1	Downgradient	5/28/2003	**701.5**	--	--	**575**	< 0	--	**1,000**	--	--	**44**	--	--	--	--	**2,300**	--
MW-05	Multiunit 1	Downgradient	12/15/2003	**2,867**	--	--	**2,350**	< 0	--	**1,000**	--	--	**56**	--	--	--	--	**2,500**	--
MW-05	Multiunit 1	Downgradient	6/18/2004	**5,307**	--	--	**4,350**	< 0	--	**1,100**	--	--	**59**	--	--	--	--	**3,100**	--
MW-05	Multiunit 1	Downgradient	11/30/2004	**732**	--	--	**600**	< 0	--	**1,200**	--	--	**60**	--	--	--	--	**3,450**	--
MW-05	Multiunit 1	Downgradient	5/11/2005	**732**	--	--	**600**	< 0	--	**1,200**	--	--	**59**	--	--	--	--	**2,300**	--
MW-05	Multiunit 1	Downgradient	12/12/2005	**732**	--	--	**600**	< 0	--	**1,220**	--	--	**49**	--	--	--	--	**3,050**	--
MW-05	Multiunit 1	Downgradient	5/15/2006	**705.16**	--	--	**578**	< 0	--	**1,190**	--	--	**47.7**	--	--	--	--	**2,890**	--
MW-05	Multiunit 1	Downgradient	10/13/2006	**716.14**	--	--	**587**	< 0	--	**1,230**	--	--	**41.2**	--	--	--	--	**2,820**	--
MW-05	Multiunit 1	Downgradient	4/19/2007	**688.86**	--	--	**563**	< 0	--	**1,090**	--	--	**47.2**	--	--	--	--	**2,480**	--
MW-05	Multiunit 1	Downgradient	11/20/2007	**768.6**	--	--	**630**	< 0	--	**859**	--	--	**41.5**	--	--	--	--	**2,220**	--
MW-05	Multiunit 1	Downgradient	5/8/2008	**744.2**	--	--	**610**	< 0	--	**1,060**	--	--	**53.7**	--	--	--	--	**3,070**	--
MW-05	Multiunit 1	Downgradient	9/27/2012	**880**	< 6.0	< 6.0	**880**	< 6.0	--	**1,200**	--	--	**66**	--	--	--	--	**5,500**	--
MW-05	Multiunit 1	Downgradient	9/10/2014	**980**	< 6.0	< 6.0	**980**	< 6.0	--	**1,300**	--	--	**68**	--	--	--	--	**5,600**	--
MW-05	Multiunit 1	Downgradient	3/18/2015	**900**	< 6.0	< 6.0	**900**	< 6.0	--	**1,200**	--	--	**60**	--	--	--	--	**5,500**	--
MW-05	Multiunit 1	Downgradient	6/30/2015	**850**	< 6.0	< 6.0	**850**	< 6.0	--	**1,300**	--	--	**68**	--	--	--	--	**5,600**	--
MW-05	Multiunit 1	Downgradient	8/25/2015	**950**	< 6.0	< 6.0	**950**	< 6.0	--	**1,200**	--	--	**76**	--	--	--	--	**5,900**	--
MW-05	Multiunit 1	Downgradient	11/6/2015	**790**	< 6.0	< 6.0	**790**	< 6.0	--	**1,400**	--	--	**62**	--	--	--	--	**4,600**	--
MW-05	Multiunit 1	Downgradient	6/17/2016	**740**	< 6.0	< 6.0	**740**	< 6.0	--	**1,400**	--	--	**70**	--	--	--	--	**6,000**	--
MW-05	Multiunit 1	Downgradient	6/17/2016	**740**	< 6.0	< 6.0	**740**	< 6.0	--	**1,400**	--	--	**69**	--	--	--	--	**5,700**	--
MW-05	Multiunit 1	Downgradient	9/15/2016	**1,000**	< 6.0	< 6.0	**1,000**	< 6.0	--	**1,400**	--	--	**75**	--	--	--	--	**5,700**	--
MW-05	Multiunit 1	Downgradient	6/22/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	11/7/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-05	Multiunit 1	Downgradient	4/25/2021	**900**	< 6	< 6	**900**	< 6	**0.26**	**1,500**	--	**1.6**	**100**	--	--	--	--	**6,500**	--
MW-05	Multiunit 1	Downgradient	11/16/2021	**850**	< 6	< 6	**850**	< 6	**0.30**	**1,400**	--	**1.6**	**89**	--	--	--	--	**6,500**	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Additional Analyses																
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein (as CaCO3)	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
Multiunit 1 BTV				--	--	--	--	--		--	--	--	--	--	--	--	--	--	--
Multiunit 1 GWPS				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	4/1/1987	--	--	--	**280**	--	--	--	**810**	--	--	**32**	--	--	< 0.05	--	**2,300**
MW-06	Multiunit 1/EW System	Downgradient	9/30/1987	--	--	--	**280**	--	--	--	**760**	--	--	**46**	--	--	< 0.05	--	**2,300**
MW-06	Multiunit 1/EW System	Downgradient	6/15/1988	**414.8**	--	--	**340**	< 0	--	**812**	--	--	**49**	--	--	--	--	**2,690**	--
MW-06	Multiunit 1/EW System	Downgradient	9/21/1988	**329.4**	--	--	**270**	< 0	--	**789**	--	--	**45**	--	--	--	--	**2,430**	--
MW-06	Multiunit 1/EW System	Downgradient	11/29/1988	**244**	--	--	**200**	< 0	--	**1,000**	--	--	**49**	--	--	--	--	**2,270**	--
MW-06	Multiunit 1/EW System	Downgradient	2/27/1989	**488**	--	--	**400**	< 0	--	**757**	--	--	**48**	--	--	--	--	**2,200**	--
MW-06	Multiunit 1/EW System	Downgradient	9/12/1989	**427**	--	--	**350**	< 0	--	**850**	--	--	**44**	--	--	--	--	**2,100**	--
MW-06	Multiunit 1/EW System	Downgradient	3/26/1990	**366**	--	--	**300**	< 0	--	**650**	--	--	**56**	--	--	--	--	**2,100**	--
MW-06	Multiunit 1/EW System	Downgradient	10/30/1990	**335.5**	--	--	**275**	< 0	--	**700**	--	--	**40**	--	--	--	--	**2,050**	--
MW-06	Multiunit 1/EW System	Downgradient	4/2/1991	**396.5**	--	--	**325**	< 0	--	**700**	--	--	**42**	--	--	--	--	**2,050**	--
MW-06	Multiunit 1/EW System	Downgradient	9/24/1991	**366**	--	--	**300**	< 0	--	**720**	--	--	**40.5**	--	--	--	--	**2,085**	--
MW-06	Multiunit 1/EW System	Downgradient	5/5/1992	**366**	--	--	**300**	< 0	--	**700**	--	--	**42**	--	--	--	--	**2,150**	--
MW-06	Multiunit 1/EW System	Downgradient	11/27/1992	**396.5**	--	--	**325**	< 0	--	**650**	--	--	**46**	--	--	--	--	**2,250**	--
MW-06	Multiunit 1/EW System	Downgradient	4/21/1993	**488**	--	--	**400**	< 0	--	**650**	--	--	**47.5**	--	--	--	--	**2,450**	--
MW-06	Multiunit 1/EW System	Downgradient	11/22/1993	**335.5**	--	--	**275**	< 0	--	**650**	--	--	**40**	--	--	--	--	**1,950**	--
MW-06	Multiunit 1/EW System	Downgradient	4/20/1994	**457.5**	--	--	**375**	< 0	--	**650**	--	--	**45**	--	--	--	--	**2,000**	--
MW-06	Multiunit 1/EW System	Downgradient	9/20/1994	**396.5**	--	--	**325**	< 0	--	**650**	--	--	**46**	--	--	--	--	**1,900**	--
MW-06	Multiunit 1/EW System	Downgradient	12/14/1994	--	--	--	--	--	--	**630**	--	--	**34**	--	--	--	--	**1,700**	--
MW-06	Multiunit 1/EW System	Downgradient	4/5/1995	**457.5**	--	--	**375**	< 0	--	**600**	--	--	**42**	--	--	--	--	**2,000**	--
MW-06	Multiunit 1/EW System	Downgradient	11/21/1995	**366**	--	--	**300**	< 0	--	**600**	--	--	**46**	--	--	--	--	**1,900**	--
MW-06	Multiunit 1/EW System	Downgradient	8/14/1996	**396.5**	--	--	**325**	< 0	--	**650**	--	--	**38**	--	--	--	--	**1,900**	--
MW-06	Multiunit 1/EW System	Downgradient	4/23/1997	**396.5**	--	--	**325**	< 0	--	**600**	--	--	**41**	--	--	--	--	**2,050**	--
MW-06	Multiunit 1/EW System	Downgradient	10/14/1997	**762.5**	--	--	**625**	< 0	--	**550**	--	--	**38**	--	--	--	--	**1,700**	--
MW-06	Multiunit 1/EW System	Downgradient	10/21/1998	**396.5**	--	--	**325**	< 0	--	**600**	--	--	**30**	--	--	--	--	**1,500**	--
MW-06	Multiunit 1/EW System	Downgradient	6/9/1999	**457.5**	--	--	**375**	< 0	--	**550**	--	--	**30.5**	--	--	--	--	**1,250**	--
MW-06	Multiunit 1/EW System	Downgradient	12/1/1999	**305**	--	--	**250**	< 0	--	**550**	--	--	**32.5**	--	--	--	--	**2,000**	--
MW-06	Multiunit 1/EW System	Downgradient	6/8/2000	**488**	--	--	**400**	< 0	--	**618**	--	--	**34.7**	--	--	--	--	**1,630**	--
MW-06	Multiunit 1/EW System	Downgradient	11/28/2000	**457.5**	--	--	**375**	< 0	--	**550**	--	--	**37**	--	--	--	--	**2,050**	--
MW-06	Multiunit 1/EW System	Downgradient	8/21/2001	**701.5**	--	--	**575**	< 0	--	**600**	--	--	**33**	--	--	--	--	**1,850**	--
MW-06	Multiunit 1/EW System	Downgradient	12/3/2001	**396.5**	--	--	**325**	< 0	--	**500**	--	--	**29.5**	--	--	--	--	**1,900**	--
MW-06	Multiunit 1/EW System	Downgradient	6/24/2002	**427**	--	--	**350**	< 0	--	**550**	--	--	**40.5**	--	--	--	--	**1,500**	--
MW-06	Multiunit 1/EW System	Downgradient	12/18/2002	**335.5**	--	--	**275**	< 0	--	**450**	--	--	**34.5**	--	--	--	--	**1,550**	--
MW-06	Multiunit 1/EW System	Downgradient	6/3/2003	**366**	--	--	**300**	< 0	--	**500**	--	--	**36**	--	--	--	--	**1,550**	--
MW-06	Multiunit 1/EW System	Downgradient	9/24/2003	**396.5**	--	--	**325**	< 0	--	**500**	--	--	**37.5**	--	--	--	--	**1,450**	--
MW-06	Multiunit 1/EW System	Downgradient	6/16/2004	**2,501**	--	--	**2,050**	< 0	--	**550**	--	--	**34**	--	--	--	--	**1,650**	--
MW-06	Multiunit 1/EW System	Downgradient	11/9/2004	**2,349**	--	--	**1,925**	< 0	--	**499**	--	--	**29.8**	--	--	--	--	**1,320**	--
MW-06	Multiunit 1/EW System	Downgradient	5/12/2005	**305**	--	--	**250**	< 0	--	**550**	--	--	**35.5**	--	--	--	--	**1,250**	--
MW-06	Multiunit 1/EW System	Downgradient	11/1/2005	**396.5**	--	--	**325**	< 0	--	**494**	--	--	**29.6**	--	--	--	--	**1,420**	--
MW-06	Multiunit 1/EW System	Downgradient	5/16/2006	**259.86**	--	--	**213**	< 0	--	**468**	--	--	**27.3**	--	--	--	--	**1,360**	--
MW-06	Multiunit 1/EW System	Downgradient	10/13/2006	**233.02**	--	--	**191**	< 0	--	**471**	--	--	**26.6**	--	--	--	--	**1,320**	--
MW-06	Multiunit 1/EW System	Downgradient	4/18/2007	**235.46**	--	--	**193**	< 0	--	**417**	--	--	**25.2**	--	--	--	--	**1,180**	--
MW-06	Multiunit 1/EW System	Downgradient	11/20/2007	**239.12**	--	--	**196**	< 0	--	**373**	--	--	**22.7**	--	--	--	--	**1,100**	--
MW-06	Multiunit 1/EW System	Downgradient	8/1/2008	**244**	--	--	**200**	< 0	--	**418**	--	--	**25.9**	--	--	--	--	**1,130**	--
MW-06	Multiunit 1/EW System	Downgradient	12/3/2009	**431.88**	--	--	**354**	< 0	--	**467**	--	--	**32.1**	--	--	--	--	**2,560**	--
MW-06	Multiunit 1/EW System	Downgradient	9/28/2012	**140**	< 6.0	< 6.0	**140**	< 6.0	--	**360**	--	--	**22**	--	--	--	--	**960**	--
MW-06	Multiunit 1/EW System	Downgradient	11/20/2013	**460**	< 6.0	< 6.0	**460**	< 6.0	--	**630**	--	--	**41**	--	--	--	--	**3,300**	--
MW-06	Multiunit 1/EW System	Downgradient	3/12/2014	**440**	< 6.0	< 6.0	**440**	< 6.0	--	**580**	--	--	**41**	--	--	--	--	**3,300**	--
MW-06	Multiunit 1/EW System	Downgradient	9/11/2014	**410**	< 6.0	< 6.0	**410**	< 6.0	--	**580**	--	--	**41**	--	--	--	--	**3,300**	--
MW-06	Multiunit 1/EW System	Downgradient	12/8/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	3/19/2015	**430**	< 6.0	< 6.0	**430**	< 6.0	--	**640**	--	--	**38**	--	--	--	--	**3,400**	--
MW-06	Multiunit 1/EW System	Downgradient	6/24/2015	**430**	< 6.0	< 6.0	**430**	< 6.0	--	**620**	--	--	**44**	--	--	--	--	**3,500**	--
MW-06	Multiunit 1/EW System	Downgradient	8/29/2015	**380**	< 6.0	< 6.0	**380**	< 6.0	--	**580**	--	--	**42**	--	--	--	--	**3,000**	--
MW-06	Multiunit 1/EW System	Downgradient	11/7/2015	**430**	< 6.0	< 6.0	**430**	< 6.0	--	**770**	--	--	**46**	--	--	--	--	**4,000**	--
MW-06	Multiunit 1/EW System	Downgradient	6/20/2016	**460**	< 6.0	< 6.0	**460**	< 6.0	--	**670**	--	--	**47**	--	--	--	--	**3,900**	--
MW-06	Multiunit 1/EW System	Downgradient	9/15/2016	**470**	< 6.0	< 6.0	**470**	< 6.0	--	**630**	--	--	**48**	--	--	--	--	**4,000**	--
MW-06	Multiunit 1/EW System	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.9**	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.4**	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	11/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	6/23/2020	--	--	--	--	--	--	--	--	--	--	--	**1.0**	**1.8**	--	--	--
MW-06	Multiunit 1/EW System	Downgradient	11/7/2020	**720**	< 6	< 6	**720**	< 6	--	**1,500**	--	--	**88**	--	**1.0**	**1.1**	--	**7,300**	--
MW-06	Multiunit 1/EW System	Downgradient	4/26/2021	**710**	< 6	< 6	**710**	< 6	**4.7**	**1,600**	--	**4.1**	**100**	--	<0.4	<0.8	--	**7,400**	--
MW-06	Multiunit 1/EW System	Downgradient	11/16/2021	**660**	< 6	< 6	**660**	< 6	**0.33**	**1,700**	--	**0.022**	**95**	--	**0.4**	< 0.6	--	**8,000**	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Additional Analyses																
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein (as CaCO3)	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
Multiunit 1 BTV				--	--	--	--	--		--	--	--	--	--	--	--	--	--	--
Multiunit 1 GWPS				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	4/1/1987	--	--	--	**140**	--	--	--	**400**	--	--	**21**	--	--	< 0.05	--	**770**
MW-07	Multiunit 1	Downgradient	4/1/1987	--	--	--	**140**	--	--	--	**410**	--	--	**21**	--	--	< 0.05	--	**780**
MW-07	Multiunit 1	Downgradient	9/30/1987	--	--	--	**220**	--	--	--	**380**	--	--	**30**	--	--	< 0.05	--	**1,100**
MW-07	Multiunit 1	Downgradient	6/16/1988	**231.8**	--	--	**190**	< 0	--	**352**	--	--	**30**	--	--	--	--	**980**	--
MW-07	Multiunit 1	Downgradient	9/21/1988	**170.8**	--	--	**140**	< 0	--	**326**	--	--	**28**	--	--	--	--	**752**	--
MW-07	Multiunit 1	Downgradient	11/14/1988	**244**	--	--	**200**	< 0	--	**397**	--	--	**39**	--	--	--	--	**872**	--
MW-07	Multiunit 1	Downgradient	3/6/1989	**366**	--	--	**300**	< 0	--	**309**	--	--	**29**	--	--	--	--	**806**	--
MW-07	Multiunit 1	Downgradient	9/12/1989	**305**	--	--	**250**	< 0	--	**285**	--	--	**29**	--	--	--	--	**800**	--
MW-07	Multiunit 1	Downgradient	3/22/1990	**244**	--	--	**200**	< 0	--	**240**	--	--	**37**	--	--	--	--	**800**	--
MW-07	Multiunit 1	Downgradient	9/24/1990	**183**	--	--	**150**	< 0	--	**200**	--	--	**30**	--	--	--	--	**820**	--
MW-07	Multiunit 1	Downgradient	3/27/1991	**222.04**	--	--	**182**	< 0	--	**200**	--	--	**31**	--	--	--	--	**828**	--
MW-07	Multiunit 1	Downgradient	9/24/1991	**305**	--	--	**250**	< 0	--	**260**	--	--	**36**	--	--	--	--	**812**	--
MW-07	Multiunit 1	Downgradient	4/30/1992	**274.5**	--	--	**225**	< 0	--	**200**	--	--	**43**	--	--	--	--	**860**	--
MW-07	Multiunit 1	Downgradient	10/27/1992	**244**	--	--	**200**	< 0	--	**200**	--	--	**36**	--	--	--	--	**720**	--
MW-07	Multiunit 1	Downgradient	4/22/1993	**427**	--	--	**350**	< 0	--	**240**	--	--	**37**	--	--	--	--	**820**	--
MW-07	Multiunit 1	Downgradient	11/22/1993	**275**	--	--	**225**	< 0	--	**260**	--	--	**34**	--	--	--	--	**780**	--
MW-07	Multiunit 1	Downgradient	4/20/1994	**397**	--	--	**325**	< 0	--	**300**	--	--	**34**	--	--	--	--	**940**	--
MW-07	Multiunit 1	Downgradient	9/21/1994	**366**	--	--	**300**	< 0	--	**260**	--	--	**42**	--	--	--	--	**940**	--
MW-07	Multiunit 1	Downgradient	12/14/1994	--	--	--	--	--	--	**260**	--	--	< 25	--	--	--	--	**860**	--
MW-07	Multiunit 1	Downgradient	4/4/1995	**305**	--	--	**250**	< 0	--	**280**	--	--	**38**	--	--	--	--	**880**	--
MW-07	Multiunit 1	Downgradient	11/18/1995	**274.5**	--	--	**225**	< 0	--	**240**	--	--	**39**	--	--	--	--	**820**	--
MW-07	Multiunit 1	Downgradient	8/13/1996	**366**	--	--	**300**	< 0	--	**240**	--	--	**33**	--	--	--	--	**760**	--
MW-07	Multiunit 1	Downgradient	4/15/1997	**335.5**	--	--	**275**	< 0	--	**220**	--	--	**30**	--	--	--	--	**820**	--
MW-07	Multiunit 1	Downgradient	10/7/1997	**305**	--	--	**250**	< 0	--	**240**	--	--	**25.8**	--	--	--	--	**880**	--
MW-07	Multiunit 1	Downgradient	4/13/1998	**213.5**	--	--	**175**	< 0	--	**280**	--	--	**24.2**	--	--	--	--	**860**	--
MW-07	Multiunit 1	Downgradient	10/20/1998	**366**	--	--	**300**	< 0	--	**260**	--	--	**22**	--	--	--	--	**700**	--
MW-07	Multiunit 1	Downgradient	5/11/1999	**305**	--	--	**250**	< 0	--	**260**	--	--	**26.2**	--	--	--	--	**800**	--
MW-07	Multiunit 1	Downgradient	11/30/1999	**366**	--	--	**300**	< 0	--	**280**	--	--	**24.8**	--	--	--	--	**1,140**	--
MW-07	Multiunit 1	Downgradient	6/8/2000	**488**	--	--	**400**	< 0	--	**267**	--	--	**25.3**	--	--	--	--	**863**	--
MW-07	Multiunit 1	Downgradient	11/28/2000	**488**	--	--	**400**	< 0	--	**144**	--	--	**24.8**	--	--	--	--	**1,020**	--
MW-07	Multiunit 1	Downgradient	8/22/2001	**335.5**	--	--	**275**	< 0	--	**280**	--	--	**22**	--	--	--	--	**800**	--
MW-07	Multiunit 1	Downgradient	12/3/2001	**366**	--	--	**300**	< 0	--	**260**	--	--	**22**	--	--	--	--	**1,060**	--
MW-07	Multiunit 1	Downgradient	6/24/2002	**366**	--	--	**300**	< 0	--	**260**	--	--	**26.6**	--	--	--	--	**860**	--
MW-07	Multiunit 1	Downgradient	12/19/2002	**244**	--	--	**200**	< 0	--	**280**	--	--	**24.6**	--	--	--	--	**920**	--
MW-07	Multiunit 1	Downgradient	5/29/2003	**762.5**	--	--	**625**	< 0	--	**360**	--	--	**26.8**	--	--	--	--	**1,100**	--
MW-07	Multiunit 1	Downgradient	12/24/2003	**1,617**	--	--	**1,325**	< 0	--	**300**	--	--	**30.2**	--	--	--	--	**1,120**	--
MW-07	Multiunit 1	Downgradient	6/21/2004	**2,776**	--	--	**2,275**	< 0	--	**320**	--	--	**30.4**	--	--	--	--	**1,180**	--
MW-07	Multiunit 1	Downgradient	11/29/2004	**2,867**	--	--	**2,350**	< 0	--	**280**	--	--	**28.6**	--	--	--	--	**1,210**	--
MW-07	Multiunit 1	Downgradient	6/13/2005	**335.5**	--	--	**275**	< 0	--	**300**	--	--	**29.6**	--	--	--	--	**1,180**	--
MW-07	Multiunit 1	Downgradient	12/14/2005	**488**	--	--	**400**	< 0	--	**366**	--	--	**26.6**	--	--	--	--	**1,710**	--
MW-07	Multiunit 1	Downgradient	5/16/2006	**340.38**	--	--	**279**	< 0	--	**274**	--	--	**26.3**	--	--	--	--	**1,260**	--
MW-07	Multiunit 1	Downgradient	10/11/2006	**370.88**	--	--	**304**	< 0	--	**330**	--	--	**33.8**	--	--	--	--	**1,550**	--
MW-07	Multiunit 1	Downgradient	4/19/2007	**337.94**	--	--	**277**	< 0	--	**269**	--	--	**27.1**	--	--	--	--	**1,280**	--
MW-07	Multiunit 1	Downgradient	11/19/2007	**434.32**	--	--	**356**	< 0	--	**258**	--	--	**25.1**	--	--	--	--	**1,490**	--
MW-07	Multiunit 1	Downgradient	8/7/2008	**414.8**	--	--	**340**	< 0	--	**321**	--	--	**30.1**	--	--	--	--	**1,590**	--
MW-07	Multiunit 1	Downgradient	7/10/2012	**470**	< 6.0	< 6.0	**470**	< 6.0	--	**440**	--	--	**36**	--	--	--	--	**2,000**	--
MW-07	Multiunit 1	Downgradient	9/27/2012	**390**	< 6.0	< 6.0	**390**	< 6.0	--	**800**	--	--	**39**	--	--	--	--	**2,600**	--
MW-07	Multiunit 1	Downgradient	11/19/2013	**420**	< 6.0	< 6.0	**420**	< 6.0	--	**580**	--	--	**38**	--	--	--	--	**1,500**	--
MW-07	Multiunit 1	Downgradient	9/10/2014	**440**	< 6.0	< 6.0	**440**	< 6.0	--	**530**	--	--	**37**	--	--	--	--	**2,100**	--
MW-07	Multiunit 1	Downgradient	3/16/2015	**470**	< 6.0	< 6.0	**470**	< 6.0	--	**480**	--	--	**37**	--	--	--	--	**2,400**	--
MW-07	Multiunit 1	Downgradient	8/26/2015	**470**	< 6.0	< 6.0	**470**	< 6.0	--	**400**	--	--	**40**	--	--	--	--	**2,300**	--
MW-07	Multiunit 1	Downgradient	11/7/2015	**560**	< 5.0	--	**560**	--	--	**390**	--	--	**30**	--	--	--	--	**1,900**	--
MW-07	Multiunit 1	Downgradient	11/7/2015	--	--	--	--	--	--	--	--	--	--	--	**0.611**	**1.19**	--	--	--
MW-07	Multiunit 1	Downgradient	4/26/2016	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.9**	--	--	--
MW-07	Multiunit 1	Downgradient	6/6/2016	--	--	--	--	--	--	--	--	--	--	--	**0.9**	**2.4**	--	--	--
MW-07	Multiunit 1	Downgradient	6/6/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**0.7**	--	--	--
MW-07	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	**0.7**	**1.9**	--	--	--
MW-07	Multiunit 1	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	**0.4**	--	--	--	--
MW-07	Multiunit 1	Downgradient	2/2/2017	**450**	< 6.0	< 6.0	**450**	< 6.0	--	**500**	--	--	**36**	--	--	--	--	**1,800**	--
MW-07	Multiunit 1	Downgradient	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.9**	--	--	--
MW-07	Multiunit 1	Downgradient	4/18/2017	**490**	< 6.0	< 6.0	**490**	< 6.0	--	**600**	--	--	**38**	--	--	--	--	**2,000**	--
MW-07	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.5**	--	--	--
MW-07	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	5/3/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	5/3/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.6	--	--	--
MW-07	Multiunit 1	Downgradient	5/29/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**2.2**	--	--	--
MW-07	Multiunit 1	Downgradient	5/30/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	5/30/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.6	--	--	--
MW-07	Multiunit 1	Downgradient	6/22/2017	**500**	< 6.0	< 6.0	**500**	< 6.0	--	**620**	--	--	**36**	--	--	--	--	**1,700**	--
MW-07	Multiunit 1	Downgradient	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.3	**1.2**	--	--	--
MW-07	Multiunit 1	Downgradient	7/22/2017	**500**	< 6.0	< 6.0	**500**	< 6.0	--	**620**	--	--	**36**	--	--	--	--	**1,700**	--
MW-07	Multiunit 1	Downgradient	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.9**	--	--	--
MW-07	Multiunit 1	Downgradient	8/10/2017	**510**	< 6.0	< 6.0	**510**	< 6.0	--	**630**	--	--	**36**	--	--	--	--	**1,700**	--
MW-07	Multiunit 1	Downgradient	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.2**	--	--	--
MW-07	Multiunit 1	Downgradient	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.2**	--	--	--
MW-07	Multiunit 1	Downgradient	8/17/2017	**520**	< 6.0	< 6.0	**520**	< 6.0	--	**670**	--	--	**43**	--	--	--	--	**1,700**	--
MW-07	Multiunit 1	Downgradient	9/10/2017	**510**	< 6.0	< 6.0	**510**	< 6.0	--	**610**	--	--	**35**	--	--	--	--	**1,600**	--
MW-07	Multiunit 1	Downgradient	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.3**	--	--	--
MW-07	Multiunit 1	Downgradient	10/12/2017	--	--	--	--	--	--	--	--	--	--	--	**1.4**	**1.2**	--	--	--
MW-07	Multiunit 1	Downgradient	10/12/2017	**510**	< 6.0	< 6.0	**510**	< 6.0	--	**550**	--	--	**34**	--	--	--	--	**1,600**	--
MW-07	Multiunit 1	Downgradient	11/30/2017	**500**	< 6.0	< 6.0	**500**	< 6.0	--	**560**	--	--	**38**	--	--	--	--	**1,900**	--
MW-07	Multiunit 1	Downgradient	3/17/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	3/17/2018	--	--	--	--	--	--	--	--	--	--	--	< 0.9	< 0.8	--	--	--
MW-07	Multiunit 1	Downgradient	3/17/2018	--	--	--	--	--	--	--	--	--	--	--	< 0.9	< 0.8	--	--	--
MW-07	Multiunit 1	Downgradient	6/1/2018	--	--	--	--	--	--	--	--	--	--	--	**0.5**	**0.8**	--	--	--
MW-07	Multiunit 1	Downgradient	6/1/2018	**510**	< 6.0	< 6.0	**510**	< 6.0	--	**470**	--	--	**34**	--	--	--	--	**1,700**	--
MW-07	Multiunit 1	Downgradient	11/4/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	11/4/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	11/4/2018	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-07	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-07	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.7	--	--	--
MW-07	Multiunit 1	Downgradient	11/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-07	Multiunit 1	Downgradient	6/23/2020	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.8**	--	--	--
MW-07	Multiunit 1	Downgradient	11/6/2020	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.4**	--	--	--
MW-07	Multiunit 1	Downgradient	11/6/2020	--	--	--	--	--	--	--	--	--	--	--	**0.4**	**1.0**	--	--	--
MW-07	Multiunit 1	Downgradient	4/27/2021	--	--	--	--	--	--	--	--	--	--	--	<0.4	**2.4 J**	--	--	--
MW-07	Multiunit 1	Downgradient	4/27/2021	**480**	< 6	< 6	**480**	< 6	**0.11**	**560**	--	**0.022**	**42**	--	<0.4	**0.9 J**	--	**1,500**	--
MW-07	Multiunit 1	Downgradient	11/18/2021	--	--	--	--	--	--	--	--	--	--	--	< 0.3	**1.6**	--	--	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Additional Analyses																
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Bicarbonate (as CaCO3)	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
Multiunit 1 BTV				--	--	--	--	--		--	--	--	--	--	--	--	--	--	--
Multiunit 1 GWPS				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	10/2/1987	--	--	--	**200**	--	--	--	**680**	--	--	**40**	--	--	< 0.05	--	**1,600**
MW-08	Multiunit 1	Downgradient	6/16/1988	**414.8**	--	--	**340**	< 0	--	**578**	--	--	**43**	--	--	--	--	**1,920**	--
MW-08	Multiunit 1	Downgradient	9/21/1988	**378.2**	--	--	**310**	< 0	--	**597**	--	--	**36**	--	--	--	--	**1,660**	--
MW-08	Multiunit 1	Downgradient	11/14/1988	**366**	--	--	**300**	< 0	--	**648**	--	--	**39**	--	--	--	--	**1,030**	--
MW-08	Multiunit 1	Downgradient	3/8/1989	**366**	--	--	**300**	< 0	--	**608**	--	--	**38**	--	--	--	--	**1,450**	--
MW-08	Multiunit 1	Downgradient	9/12/1989	**366**	--	--	**300**	< 0	--	**470**	--	--	**32**	--	--	--	--	**1,300**	--
MW-08	Multiunit 1	Downgradient	3/22/1990	**305**	--	--	**250**	< 0	--	**400**	--	--	**42**	--	--	--	--	**1,250**	--
MW-08	Multiunit 1	Downgradient	10/29/1990	**274.5**	--	--	**225**	< 0	--	**400**	--	--	**28**	--	--	--	--	**1,300**	--
MW-08	Multiunit 1	Downgradient	3/27/1991	**335.5**	--	--	**275**	< 0	--	**360**	--	--	**30**	--	--	--	--	**1,340**	--
MW-08	Multiunit 1	Downgradient	10/1/1991	**305**	--	--	**250**	< 0	--	**365**	--	--	**30**	--	--	--	--	**1,210**	--
MW-08	Multiunit 1	Downgradient	5/1/1992	**305**	--	--	**250**	< 0	--	**300**	--	--	**29**	--	--	--	--	**1,200**	--
MW-08	Multiunit 1	Downgradient	11/3/1992	**366**	--	--	**300**	< 0	--	**250**	--	--	**31**	--	--	--	--	**1,375**	--
MW-08	Multiunit 1	Downgradient	4/28/1993	**366**	--	--	**300**	< 0	--	**220**	--	--	**36**	--	--	--	--	**1,300**	--
MW-08	Multiunit 1	Downgradient	11/30/1993	**305**	--	--	**250**	< 0	--	**260**	--	--	**40**	--	--	--	--	**1,300**	--
MW-08	Multiunit 1	Downgradient	4/28/1994	**305**	--	--	**250**	< 0	--	**260**	--	--	**46**	--	--	--	--	**1,400**	--
MW-08	Multiunit 1	Downgradient	11/16/1994	**305**	--	--	**250**	< 0	--	**240**	--	--	**40**	--	--	--	--	**1,500**	--
MW-08	Multiunit 1	Downgradient	12/14/1994	--	--	--	--	--	--	**290**	--	--	< 25	--	--	--	--	**1,000**	--
MW-08	Multiunit 1	Downgradient	4/5/1995	**305**	--	--	**250**	< 0	--	**240**	--	--	**35**	--	--	--	--	**1,100**	--
MW-08	Multiunit 1	Downgradient	11/18/1995	**305**	--	--	**250**	< 0	--	**240**	--	--	**41**	--	--	--	--	**1,200**	--
MW-08	Multiunit 1	Downgradient	8/19/1996	**488**	--	--	**400**	< 0	--	**200**	--	--	**30**	--	--	--	--	**1,600**	--
MW-08	Multiunit 1	Downgradient	6/24/1997	**549**	--	--	**450**	< 0	--	**220**	--	--	**23**	--	--	--	--	**1,000**	--
MW-08	Multiunit 1	Downgradient	10/7/1997	**366**	--	--	**300**	< 0	--	**220**	--	--	**30**	--	--	--	--	**1,100**	--
MW-08	Multiunit 1	Downgradient	4/14/1998	**366**	--	--	**300**	< 0	--	**240**	--	--	**24**	--	--	--	--	**1,300**	--
MW-08	Multiunit 1	Downgradient	10/21/1998	**457.5**	--	--	**375**	< 0	--	**220**	--	--	**27**	--	--	--	--	**1,300**	--
MW-08	Multiunit 1	Downgradient	5/11/1999	**396.5**	--	--	**325**	< 0	--	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	12/1/1999	**335.5**	--	--	**275**	< 0	--	**220**	--	--	**26**	--	--	--	--	**1,500**	--
MW-08	Multiunit 1	Downgradient	6/7/2000	**427**	--	--	**350**	< 0	--	**257**	--	--	**23.4**	--	--	--	--	**1,200**	--
MW-08	Multiunit 1	Downgradient	12/12/2000	**488**	--	--	**400**	< 0	--	**260**	--	--	**31**	--	--	--	--	**1,700**	--
MW-08	Multiunit 1	Downgradient	8/22/2001	**488**	--	--	**400**	< 0	--	**235**	--	--	**22**	--	--	--	--	**1,400**	--
MW-08	Multiunit 1	Downgradient	12/3/2001	**518.5**	--	--	**425**	< 0	--	**220**	--	--	**22**	--	--	--	--	**1,700**	--
MW-08	Multiunit 1	Downgradient	6/24/2002	**518.5**	--	--	**425**	< 0	--	**260**	--	--	**30**	--	--	--	--	**1,400**	--
MW-08	Multiunit 1	Downgradient	12/18/2002	**457.5**	--	--	**375**	< 0	--	**260**	--	--	**30**	--	--	--	--	**1,400**	--
MW-08	Multiunit 1	Downgradient	6/3/2003	**305**	--	--	**250**	< 0	--	**240**	--	--	**34**	--	--	--	--	**1,800**	--
MW-08	Multiunit 1	Downgradient	9/23/2003	**366**	--	--	**300**	< 0	--	**320**	--	--	**33**	--	--	--	--	**1,300**	--
MW-08	Multiunit 1	Downgradient	6/16/2004	**2,532**	--	--	**2,075**	< 0	--	**260**	--	--	**31**	--	--	--	--	**1,100**	--
MW-08	Multiunit 1	Downgradient	11/9/2004	**2,898**	--	--	**2,375**	< 0	--	**317**	--	--	**24**	--	--	--	--	**1,280**	--
MW-08	Multiunit 1	Downgradient	5/12/2005	**488**	--	--	**400**	< 0	--	**340**	--	--	**32**	--	--	--	--	**1,100**	--
MW-08	Multiunit 1	Downgradient	11/1/2005	**427**	--	--	**350**	< 0	--	**371**	--	--	**26.7**	--	--	--	--	**1,540**	--
MW-08	Multiunit 1	Downgradient	5/16/2006	**412.36**	--	--	**338**	< 0	--	**355**	--	--	**24.7**	--	--	--	--	**1,480**	--
MW-08	Multiunit 1	Downgradient	10/11/2006	**398.94**	--	--	**327**	< 0	--	**403**	--	--	**30.5**	--	--	--	--	**1,480**	--
MW-08	Multiunit 1	Downgradient	4/18/2007	**428.22**	--	--	**351**	< 0	--	**344**	--	--	**25.2**	--	--	--	--	**1,430**	--
MW-08	Multiunit 1	Downgradient	11/14/2007	**456.28**	--	--	**374**	< 0	--	**365**	--	--	**23.9**	--	--	--	--	**1,520**	--
MW-08	Multiunit 1	Downgradient	5/7/2008	**512.4**	--	--	**420**	< 0	--	**406**	--	--	**27**	--	--	--	--	**1,570**	--
MW-08	Multiunit 1	Downgradient	12/3/2009	**695.4**	--	--	**570**	< 0	--	**508**	--	--	**28.2**	--	--	--	--	**2,580**	--
MW-08	Multiunit 1	Downgradient	9/27/2012	**420**	< 6.0	< 6.0	**420**	< 6.0	--	**400**	--	--	**29**	--	--	--	--	**2,100**	--
MW-08	Multiunit 1	Downgradient	11/19/2013	**430**	< 6.0	< 6.0	**430**	< 6.0	--	**470**	--	--	**28**	--	--	--	--	**1,900**	--
MW-08	Multiunit 1	Downgradient	9/10/2014	**430**	< 6.0	< 6.0	**430**	< 6.0	--	**520**	--	--	**30**	--	--	--	--	**2,000**	--
MW-08	Multiunit 1	Downgradient	3/17/2015	**420**	< 6.0	< 6.0	**420**	< 6.0	--	**630**	--	--	**32**	--	--	--	--	**2,300**	--
MW-08	Multiunit 1	Downgradient	6/29/2015	**430**	< 6.0	< 6.0	**430**	< 6.0	--	**680**	--	--	**34**	--	--	--	--	**2,300**	--
MW-08	Multiunit 1	Downgradient	8/26/2015	**420**	< 6.0	< 6.0	**420**	< 6.0	--	**660**	--	--	**40**	--	--	--	--	**2,500**	--
MW-08	Multiunit 1	Downgradient	12/1/2015	**540**	< 5.0	--	**540**	--	--	**760**	--	--	**34**	--	--	--	--	**2,600**	--
MW-08	Multiunit 1	Downgradient	12/1/2015	--	--	--	--	--	--	--	--	--	--	--	**2.78**	**1.88**	--	--	--
MW-08	Multiunit 1	Downgradient	4/26/2016	--	--	--	--	--	--	--	--	--	--	--	**0.5**	**0.9**	--	--	--
MW-08	Multiunit 1	Downgradient	6/7/2016	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.3**	--	--	--
MW-08	Multiunit 1	Downgradient	6/7/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	< 0.3	**1.3**	--	--	--
MW-08	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.2**	--	--	--
MW-08	Multiunit 1	Downgradient	4/18/2017	**510**	< 6.0	< 6.0	**510**	< 6.0	--	**780**	--	--	**37**	--	--	--	--	**3,200**	--
MW-08	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.0**	--	--	--
MW-08	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	5/3/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	5/3/2017	--	--	--	--	--	--	--	--	--	--	--	**0.5**	**1.4**	--	--	--
MW-08	Multiunit 1	Downgradient	5/30/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	5/30/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.2**	--	--	--
MW-08	Multiunit 1	Downgradient	6/1/2018	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-08	Multiunit 1	Downgradient	6/1/2018	**510**	< 6.0	< 6.0	**510**	< 6.0	--	**750**	--	--	**37**	--	--	--	--	**1,300**	--
MW-08	Multiunit 1	Downgradient	11/4/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	11/4/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	11/4/2018	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-08	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.3**	--	--	--
MW-08	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.1**	--	--	--
MW-08	Multiunit 1	Downgradient	11/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-08	Multiunit 1	Downgradient	6/23/2020	**490**	< 6	< 6	**490**	< 6	--	**830**	--	--	**35**	--	< 0.4	**0.7**	--	**3,100**	--
MW-08	Multiunit 1	Downgradient	6/23/2020	**490**	< 6	< 6	**490**	< 6	--	**830**	--	--	**37**	--	--	--	--	**3,100**	--
MW-08	Multiunit 1	Downgradient	11/6/2020	**540**	< 6	< 6	**540**	< 6	--	**940**	--	--	**47**	--	< 0.4	< 0.8	--	**2,700**	--
MW-08	Multiunit 1	Downgradient	4/27/2021	**570**	< 6	< 6	**570**	< 6	--	**920**	--	--	**44**	--	<0.5	<0.8	--	**2,600**	--
MW-08	Multiunit 1	Downgradient	11/18/2021	**490**	< 6	< 6	**490**	< 6	--	**910**	--	--	**35**	--	**0.4**	**0.9**	--	**2,800**	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Additional Analyses																	
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein (as CaCO3)	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
Multiunit 1 BTV				--	--	--	--	--		--	--	--	--	--	--	--	--	--	--
Multiunit 1 GWPS				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	9/30/1987	--	--	--	**320**	--	--	--	**680**	--	--	**37**	--	--	< 0.05	--	**1,400**
MW-15	Multiunit 1	Downgradient	6/20/1988	**387.96**	--	--	**318**	< 0	--	**614**	--	--	**41**	--	--	--	--	**1,250**	--
MW-15	Multiunit 1	Downgradient	9/22/1988	**414.8**	--	--	**340**	< 0	--	**582**	--	--	**34**	--	--	--	--	**1,180**	--
MW-15	Multiunit 1	Downgradient	11/14/1988	**402.6**	--	--	**330**	< 0	--	**677**	--	--	**39**	--	--	--	--	**1,160**	--
MW-15	Multiunit 1	Downgradient	3/8/1989	**488**	--	--	**400**	< 0	--	**514**	--	--	**33**	--	--	--	--	**1,260**	--
MW-15	Multiunit 1	Downgradient	9/13/1989	**488**	--	--	**400**	< 0	--	**580**	--	--	**40**	--	--	--	--	**1,100**	--
MW-15	Multiunit 1	Downgradient	3/22/1990	**366**	--	--	**300**	< 0	--	**520**	--	--	**41**	--	--	--	--	**1,050**	--
MW-15	Multiunit 1	Downgradient	9/24/1990	**396.5**	--	--	**325**	< 0	--	**600**	--	--	**40**	--	--	--	--	**1,200**	--
MW-15	Multiunit 1	Downgradient	3/27/1991	**427**	--	--	**350**	< 0	--	**480**	--	--	**40**	--	--	--	--	**925**	--
MW-15	Multiunit 1	Downgradient	9/27/1991	**396.5**	--	--	**325**	< 0	--	**600**	--	--	**45**	--	--	--	--	**935**	--
MW-15	Multiunit 1	Downgradient	5/1/1992	**366**	--	--	**300**	< 0	--	**500**	--	--	**39**	--	--	--	--	**900**	--
MW-15	Multiunit 1	Downgradient	10/28/1992	**396.5**	--	--	**325**	< 0	--	**600**	--	--	**40**	--	--	--	--	**900**	--
MW-15	Multiunit 1	Downgradient	4/23/1993	**518.5**	--	--	**425**	< 0	--	**400**	--	--	**41**	--	--	--	--	**1,220**	--
MW-15	Multiunit 1	Downgradient	11/22/1993	**396.5**	--	--	**325**	< 0	--	**500**	--	--	**51**	--	--	--	--	**1,000**	--
MW-15	Multiunit 1	Downgradient	4/20/1994	**488**	--	--	**400**	< 0	--	**500**	--	--	**54**	--	--	--	--	**920**	--
MW-15	Multiunit 1	Downgradient	11/8/1994	**610**	--	--	**500**	< 0	--	**500**	--	--	**50**	--	--	--	--	**1,120**	--
MW-15	Multiunit 1	Downgradient	4/5/1995	**457.5**	--	--	**375**	< 0	--	**500**	--	--	**43**	--	--	--	--	**840**	--
MW-15	Multiunit 1	Downgradient	11/18/1995	**396.5**	--	--	**325**	< 0	--	**500**	--	--	**47**	--	--	--	--	**1,000**	--
MW-15	Multiunit 1	Downgradient	8/14/1996	**427**	--	--	**350**	< 0	--	**500**	--	--	**37**	--	--	--	--	**960**	--
MW-15	Multiunit 1	Downgradient	4/23/1997	**518.5**	--	--	**425**	< 0	--	**400**	--	--	**35**	--	--	--	--	**900**	--
MW-15	Multiunit 1	Downgradient	10/8/1997	**457.5**	--	--	**375**	< 0	--	**400**	--	--	**36**	--	--	--	--	**1,120**	--
MW-15	Multiunit 1	Downgradient	4/14/1998	**335.5**	--	--	**275**	< 0	--	**400**	--	--	**32**	--	--	--	--	**1,150**	--
MW-15	Multiunit 1	Downgradient	5/11/1999	**457.5**	--	--	**375**	< 0	--	**400**	--	--	**32**	--	--	--	--	**820**	--
MW-15	Multiunit 1	Downgradient	12/1/1999	**366**	--	--	**300**	< 0	--	**400**	--	--	**31**	--	--	--	--	**1,180**	--
MW-15	Multiunit 1	Downgradient	6/8/2000	**549**	--	--	**450**	< 0	--	**573**	--	--	**31.3**	--	--	--	--	**1,260**	--
MW-15	Multiunit 1	Downgradient	12/12/2000	**549**	--	--	**450**	< 0	--	**400**	--	--	**40**	--	--	--	--	**1,600**	--
MW-15	Multiunit 1	Downgradient	8/22/2001	**488**	--	--	**400**	< 0	--	**460**	--	--	**32**	--	--	--	--	**1,310**	--
MW-15	Multiunit 1	Downgradient	12/3/2001	**457.5**	--	--	**375**	< 0	--	**350**	--	--	**38**	--	--	--	--	**1,040**	--
MW-15	Multiunit 1	Downgradient	6/24/2002	**579.5**	--	--	**475**	< 0	--	**400**	--	--	**33**	--	--	--	--	**1,060**	--
MW-15	Multiunit 1	Downgradient	12/18/2002	**488**	--	--	**400**	< 0	--	**400**	--	--	**41**	--	--	--	--	**1,060**	--
MW-15	Multiunit 1	Downgradient	5/28/2003	**457.5**	--	--	**375**	< 0	--	**400**	--	--	**36**	--	--	--	--	**800**	--
MW-15	Multiunit 1	Downgradient	12/24/2003	**1,922**	--	--	**1,575**	< 0	--	**500**	--	--	**42**	--	--	--	--	**9,000**	--
MW-15	Multiunit 1	Downgradient	6/16/2004	**1,678**	--	--	**1,375**	< 0	--	**500**	--	--	**40**	--	--	--	--	**220**	--
MW-15	Multiunit 1	Downgradient	11/29/2004	**3,874**	--	--	**3,175**	< 0	--	**480**	--	--	**34**	--	--	--	--	**980**	--
MW-15	Multiunit 1	Downgradient	5/13/2005	**488**	--	--	**400**	< 0	--	**400**	--	--	**51**	--	--	--	--	**960**	--
MW-15	Multiunit 1	Downgradient	12/14/2005	**549**	--	--	**450**	< 0	--	**526**	--	--	**26.6**	--	--	--	--	**1,250**	--
MW-15	Multiunit 1	Downgradient	6/17/2006	**439.2**	--	--	**360**	< 0	--	**450**	--	--	**25.4**	--	--	--	--	**1,080**	--
MW-15	Multiunit 1	Downgradient	10/11/2006	**442.86**	--	--	**363**	< 0	--	**456**	--	--	**33.5**	--	--	--	--	**1,150**	--
MW-15	Multiunit 1	Downgradient	4/18/2007	**450.18**	--	--	**369**	< 0	--	**432**	--	--	**29.5**	--	--	--	--	**1,080**	--
MW-15	Multiunit 1	Downgradient	11/14/2007	**512.4**	--	--	**420**	< 0	--	**367**	--	--	**27**	--	--	--	--	**1,240**	--
MW-15	Multiunit 1	Downgradient	5/7/2008	**549**	--	--	**450**	< 0	--	**414**	--	--	**29.5**	--	--	--	--	**1,180**	--
MW-15	Multiunit 1	Downgradient	11/19/2013	--	--	--	--	--	--	**520**	--	--	**30**	--	--	--	--	**1,900**	--
MW-15	Multiunit 1	Downgradient	11/19/2013	**530**	< 6.0	< 6.0	**530**	< 6.0	--	**510**	--	--	**33**	--	--	--	--	**1,900**	--
MW-15	Multiunit 1	Downgradient	9/9/2014	**560**	< 6.0	< 6.0	**560**	< 6.0	--	**520**	--	--	**38**	--	--	--	--	**2,100**	--
MW-15	Multiunit 1	Downgradient	3/17/2015	**560**	< 6.0	< 6.0	**560**	< 6.0	--	**510**	--	--	**34**	--	--	--	--	**2,000**	--
MW-15	Multiunit 1	Downgradient	6/29/2015	**560**	< 6.0	< 6.0	**560**	< 6.0	--	**500**	--	--	**34**	--	--	--	--	**2,000**	--
MW-15	Multiunit 1	Downgradient	8/26/2015	**570**	< 6.0	< 6.0	**570**	< 6.0	--	**450**	--	--	**38**	--	--	--	--	**2,300**	--
MW-15	Multiunit 1	Downgradient	6/18/2016	**600**	< 6.0	< 6.0	**600**	< 6.0	--	**580**	--	--	**38**	--	--	--	--	**2,100**	--
MW-15	Multiunit 1	Downgradient	9/15/2016	**150**	< 6.0	< 6.0	**150**	< 6.0	--	**510**	--	--	**38**	--	--	--	--	**2,200**	--
MW-15	Multiunit 1	Downgradient	3/20/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	3/20/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.7	--	--	--
MW-15	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-15	Multiunit 1	Downgradient	11/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-15	Multiunit 1	Downgradient	6/23/2020	--	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.8	--	--	--
MW-15	Multiunit 1	Downgradient	11/6/2020	**660**	< 6	< 6	**660**	< 6	--	**640**	--	--	**41**	--	< 0.4	< 0.8	--	**2,200**	--
MW-15	Multiunit 1	Downgradient	4/27/2021	**700**	< 6	< 6	**700**	< 6	**0.17**	**710**	--	**1.0**	**47**	--	<0.4	<0.8	--	**2,100**	--
MW-15	Multiunit 1	Downgradient	11/18/2021	**630**	< 6	< 6	**630**	< 6	**0.11**	**630**	--	**0.72**	**37**	--	**0.6**	< 0.6	--	**2,100**	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Additional Analyses																
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein (as CaCO3)	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
Multiunit 1 BTV				--	--	--	--	--		--	--	--	--	--	--	--	--	--	--
Multiunit 1 GWPS				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	9/30/1987	--	--	--	**330**	--	--	--	**1,200**	--	--	**58**	--	--	< 0.05	--	**4,400**
MW-16	Multiunit 1	Downgradient	6/20/1988	**407.48**	--	--	**334**	< 0	--	**1,150**	--	--	**59**	--	--	--	--	**4,250**	--
MW-16	Multiunit 1	Downgradient	9/21/1988	**488**	--	--	**400**	< 0	--	**1,200**	--	--	**53**	--	--	--	--	**3,870**	--
MW-16	Multiunit 1	Downgradient	11/14/1988	**463.6**	--	--	**380**	< 0	--	**1,510**	--	--	**73**	--	--	--	--	**3,420**	--
MW-16	Multiunit 1	Downgradient	3/8/1989	**488**	--	--	**400**	< 0	--	**1,130**	--	--	**59**	--	--	--	--	**3,740**	--
MW-16	Multiunit 1	Downgradient	9/13/1989	**366**	--	--	**300**	< 0	--	**1,173**	--	--	**56**	--	--	--	--	**3,500**	--
MW-16	Multiunit 1	Downgradient	3/26/1990	**366**	--	--	**300**	< 0	--	**950**	--	--	**52**	--	--	--	--	**3,800**	--
MW-16	Multiunit 1	Downgradient	9/24/1990	**427**	--	--	**350**	< 0	--	**1,000**	--	--	**60**	--	--	--	--	**3,700**	--
MW-16	Multiunit 1	Downgradient	4/2/1991	**457.5**	--	--	**375**	< 0	--	**1,000**	--	--	**47**	--	--	--	--	**3,400**	--
MW-16	Multiunit 1	Downgradient	10/1/1991	**366**	--	--	**300**	< 0	--	**1,000**	--	--	**55**	--	--	--	--	**3,090**	--
MW-16	Multiunit 1	Downgradient	5/7/1992	**457.5**	--	--	**375**	< 0	--	**1,100**	--	--	**46**	--	--	--	--	**3,200**	--
MW-16	Multiunit 1	Downgradient	11/5/1992	**427**	--	--	**350**	< 0	--	**800**	--	--	**48**	--	--	--	--	**2,900**	--
MW-16	Multiunit 1	Downgradient	4/26/1993	**457.5**	--	--	**375**	< 0	--	**700**	--	--	**56**	--	--	--	--	**2,800**	--
MW-16	Multiunit 1	Downgradient	11/23/1993	**396.5**	--	--	**325**	< 0	--	**800**	--	--	**54**	--	--	--	--	**3,000**	--
MW-16	Multiunit 1	Downgradient	4/20/1994	**457.5**	--	--	**375**	< 0	--	**900**	--	--	**64**	--	--	--	--	**2,900**	--
MW-16	Multiunit 1	Downgradient	9/21/1994	**427**	--	--	**350**	< 0	--	**800**	--	--	**55**	--	--	--	--	**2,700**	--
MW-16	Multiunit 1	Downgradient	4/4/1995	**457.5**	--	--	**375**	< 0	--	**800**	--	--	**50**	--	--	--	--	**2,700**	--
MW-16	Multiunit 1	Downgradient	11/21/1995	**274.5**	--	--	**225**	< 0	--	**700**	--	--	**51**	--	--	--	--	**2,000**	--
MW-16	Multiunit 1	Downgradient	8/15/1996	**457.5**	--	--	**375**	< 0	--	**700**	--	--	**44**	--	--	--	--	**2,300**	--
MW-16	Multiunit 1	Downgradient	4/15/1997	**488**	--	--	**400**	< 0	--	**600**	--	--	**41**	--	--	--	--	**1,900**	--
MW-16	Multiunit 1	Downgradient	10/8/1997	**488**	--	--	**400**	< 0	--	**600**	--	--	**43**	--	--	--	--	**1,900**	--
MW-16	Multiunit 1	Downgradient	4/15/1998	**732**	--	--	**600**	< 0	--	**700**	--	--	**41**	--	--	--	--	**1,800**	--
MW-16	Multiunit 1	Downgradient	5/11/1999	**488**	--	--	**400**	< 0	--	**700**	--	--	**44**	--	--	--	--	**1,700**	--
MW-16	Multiunit 1	Downgradient	11/30/1999	**457.5**	--	--	**375**	< 0	--	**700**	--	--	**36**	--	--	--	--	**2,400**	--
MW-16	Multiunit 1	Downgradient	6/8/2000	**701.5**	--	--	**575**	< 0	--	**819**	--	--	**40**	--	--	--	--	**1,930**	--
MW-16	Multiunit 1	Downgradient	12/12/2000	**610**	--	--	**500**	< 0	--	**700**	--	--	**48**	--	--	--	--	**2,300**	--
MW-16	Multiunit 1	Downgradient	8/22/2001	**427**	--	--	**350**	< 0	--	**820**	--	--	**46**	--	--	--	--	**2,200**	--
MW-16	Multiunit 1	Downgradient	12/3/2001	**518.5**	--	--	**425**	< 0	--	**600**	--	--	**38**	--	--	--	--	**2,600**	--
MW-16	Multiunit 1	Downgradient	6/12/2002	**610**	--	--	**500**	< 0	--	**800**	--	--	**42**	--	--	--	--	**2,000**	--
MW-16	Multiunit 1	Downgradient	12/18/2002	**457.5**	--	--	**375**	< 0	--	**600**	--	--	**43**	--	--	--	--	**1,600**	--
MW-16	Multiunit 1	Downgradient	5/29/2003	**579.5**	--	--	**475**	< 0	--	**700**	--	--	**46**	--	--	--	--	**240**	--
MW-16	Multiunit 1	Downgradient	12/24/2003	**1,464**	--	--	**1,200**	< 0	--	**700**	--	--	**44**	--	--	--	--	**1,300**	--
MW-16	Multiunit 1	Downgradient	6/16/2004	**3,142**	--	--	**2,575**	< 0	--	**700**	--	--	**43**	--	--	--	--	**1,800**	--
MW-16	Multiunit 1	Downgradient	11/29/2004	**3,233**	--	--	**2,650**	< 0	--	**650**	--	--	**50**	--	--	--	--	**1,600**	--
MW-16	Multiunit 1	Downgradient	6/13/2005	**396.5**	--	--	**325**	< 0	--	**500**	--	--	**40**	--	--	--	--	**960**	--
MW-16	Multiunit 1	Downgradient	10/31/2005	**335.5**	--	--	**275**	< 0	--	--	--	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	5/16/2006	**340.38**	--	--	**279**	< 0	--	**613**	--	--	**32.5**	--	--	--	--	**1,190**	--
MW-16	Multiunit 1	Downgradient	10/11/2006	**340.38**	--	--	**279**	< 0	--	**624**	--	--	**36.2**	--	--	--	--	**1,160**	--
MW-16	Multiunit 1	Downgradient	4/18/2007	**347.7**	--	--	**285**	< 0	--	**579**	--	--	**31.9**	--	--	--	--	**1,170**	--
MW-16	Multiunit 1	Downgradient	11/14/2007	**375.76**	--	--	**308**	< 0	--	**478**	--	--	**30**	--	--	--	--	**1,120**	--
MW-16	Multiunit 1	Downgradient	5/7/2008	**378.2**	--	--	**310**	< 0	--	**536**	--	--	**32.6**	--	--	--	--	**1,120**	--
MW-16	Multiunit 1	Downgradient	12/4/2009	**326.96**	--	--	**268**	< 0	--	**475**	--	--	**28.1**	--	--	--	--	**1,020**	--
MW-16	Multiunit 1	Downgradient	9/27/2012	**320**	< 6.0	< 6.0	**320**	< 6.0	--	**510**	--	--	**33**	--	--	--	--	**1,300**	--
MW-16	Multiunit 1	Downgradient	11/19/2013	**490**	< 6.0	< 6.0	**490**	< 6.0	--	**700**	--	--	**36**	--	--	--	--	**1,600**	--
MW-16	Multiunit 1	Downgradient	3/12/2014	**490**	< 6.0	< 6.0	**490**	< 6.0	--	**660**	--	--	**37**	--	--	--	--	**1,700**	--
MW-16	Multiunit 1	Downgradient	9/9/2014	**490**	< 6.0	< 6.0	**490**	< 6.0	--	**660**	--	--	**39**	--	--	--	--	**1,700**	--
MW-16	Multiunit 1	Downgradient	3/17/2015	**510**	< 6.0	< 6.0	**510**	< 6.0	--	**680**	--	--	**37**	--	--	--	--	**1,600**	--
MW-16	Multiunit 1	Downgradient	6/29/2015	**520**	< 6.0	< 6.0	**520**	< 6.0	--	**710**	--	--	**39**	--	--	--	--	**1,600**	--
MW-16	Multiunit 1	Downgradient	8/26/2015	**520**	< 6.0	< 6.0	**520**	< 6.0	--	**690**	--	--	**44**	--	--	--	--	**1,800**	--
MW-16	Multiunit 1	Downgradient	11/10/2015	**480**	< 6.0	< 6.0	**480**	< 6.0	--	**1,200**	--	--	**48**	--	--	--	--	**2,500**	--
MW-16	Multiunit 1	Downgradient	6/18/2016	**540**	< 6.0	< 6.0	**540**	< 6.0	--	**1,100**	--	--	**48**	--	--	--	--	**2,600**	--
MW-16	Multiunit 1	Downgradient	9/15/2016	**530**	< 6.0	< 6.0	**530**	< 6.0	--	**1,100**	--	--	**49**	--	--	--	--	**2,600**	--
MW-16	Multiunit 1	Downgradient	3/20/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	3/20/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.6	**2.9**	--	--	--
MW-16	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.9**	--	--	--
MW-16	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.7**	--	--	--
MW-16	Multiunit 1	Downgradient	11/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-16	Multiunit 1	Downgradient	6/23/2020	--	--	--	--	--	--	--	--	--	--	--	**0.9**	**2.2**	--	--	--
MW-16	Multiunit 1	Downgradient	11/6/2020	**610**	< 6	< 6	**610**	< 6	--	**1,300**	--	--	**54**	--	**0.9**	**2.7**	--	**3,000**	--
MW-16	Multiunit 1	Downgradient	4/27/2021	**650**	< 6	< 6	**650**	< 6	--	**1,400**	--	--	**58**	--	**0.9**	**1.1**	--	**3,100**	--
MW-16	Multiunit 1	Downgradient	11/18/2021	**580**	< 6	< 6	**580**	< 6	**0.14**	**1,300**	--	**1.2**	**50**	--	**0.6**	**1.9**	--	**3,100**	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Additional Analyses																	
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Bicarbonate (as CaCO3)	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
Multiunit 1 BTV				--	--	--	--	--		--	--	--	--	--	--	--	--	--	--
Multiunit 1 GWPS				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-17R	Multiunit 1	Downgradient	3/12/2014	**120**	< 6.0	< 6.0	**120**	< 6.0	--	**280**	--	--	**19**	--	--	--	--	**960**	--
MW-17R	Multiunit 1	Downgradient	9/9/2014	**120**	< 6.0	< 6.0	**120**	< 6.0	--	**270**	--	--	**21**	--	--	--	--	**990**	--
MW-17R	Multiunit 1	Downgradient	3/17/2015	**120**	< 6.0	< 6.0	**120**	< 6.0	--	**270**	--	--	**19**	--	--	--	--	**980**	--
MW-17R	Multiunit 1	Downgradient	6/30/2015	**120**	< 6.0	< 6.0	**120**	< 6.0	--	**280**	--	--	**20**	--	--	--	--	**980**	--
MW-17R	Multiunit 1	Downgradient	8/25/2015	**130**	< 6.0	< 6.0	**130**	< 6.0	--	**290**	--	--	**23**	--	--	--	--	**1,000**	--
MW-17R	Multiunit 1	Downgradient	11/4/2015	--	--	--	--	--	--	**420**	--	--	**29**	--	--	--	--	**1,300**	--
MW-17R	Multiunit 1	Downgradient	11/13/2015	**130**	< 6.0	< 6.0	**130**	< 6.0	--	**280**	--	--	**21**	--	--	--	--	**1,100**	--
MW-17R	Multiunit 1	Downgradient	6/18/2016	**130**	< 6.0	< 6.0	**130**	< 6.0	--	**290**	--	--	**20**	--	--	--	--	**1,100**	--
MW-17R	Multiunit 1	Downgradient	9/15/2016	**120**	< 6.0	< 6.0	**120**	< 6.0	--	**260**	--	--	**21**	--	--	--	--	**1,000**	--
MW-17R	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-17R	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.6	**2.4**	--	--	--
MW-17R	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-17R	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.7**	--	--	--
MW-17R	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-17R	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.2**	--	--	--
MW-17R	Multiunit 1	Downgradient	11/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-17R	Multiunit 1	Downgradient	6/22/2020	--	--	--	--	--	--	--	--	--	--	--	**0.8**	**1.1**	--	--	--
MW-17R	Multiunit 1	Downgradient	11/7/2020	**140**	< 6	< 6	**140**	< 6	--	**260**	--	--	**20**	--	**0.8**	**1.2**	--	**1,100**	--
MW-17R	Multiunit 1	Downgradient	4/25/2021	**140**	< 6	< 6	**140**	< 6	**0.094 J**	**290**	--	**0.83**	**22**	--	**0.9**	**1.3**	--	**1,100**	--
MW-17R	Multiunit 1	Downgradient	11/16/2021	**130**	< 6	< 6	**130**	< 6	**0.048 J**	**290**	--	**0.83**	**21**	--	**1.4**	**1.8**	--	**1,100**	--
MW-18	Multiunit 1	Downgradient	9/29/1987	--	--	--	**310**	--	--	--	**1,300**	--	--	**41**	--	--	< 0.05	--	**2,200**
MW-18	Multiunit 1	Downgradient	6/15/1988	**524.6**	--	--	**430**	< 0	--	**1,475**	--	--	**56**	--	--	--	--	**3,600**	--
MW-18	Multiunit 1	Downgradient	9/21/1988	**488**	--	--	**400**	< 0	--	**1,220**	--	--	**49**	--	--	--	--	**2,530**	--
MW-18	Multiunit 1	Downgradient	11/28/1988	**451.4**	--	--	**370**	< 0	--	**1,520**	--	--	**53**	--	--	--	--	**1,830**	--
MW-18	Multiunit 1	Downgradient	2/27/1989	**488**	--	--	**400**	< 0	--	**1,230**	--	--	**53**	--	--	--	--	**2,550**	--
MW-18	Multiunit 1	Downgradient	9/11/1989	**395.28**	--	--	**324**	< 0	--	**1,275**	--	--	**46**	--	--	--	--	**2,300**	--
MW-18	Multiunit 1	Downgradient	3/26/1990	**427**	--	--	**350**	< 0	--	**1,100**	--	--	**48**	--	--	--	--	**2,700**	--
MW-18	Multiunit 1	Downgradient	9/18/1990	**396.5**	--	--	**325**	< 0	--	**1,000**	--	--	**50**	--	--	--	--	**2,400**	--
MW-18	Multiunit 1	Downgradient	5/30/1991	**732**	--	--	**600**	< 0	--	**1,440**	--	--	**56**	--	--	--	--	**4,310**	--
MW-18	Multiunit 1	Downgradient	9/11/1991	**488**	--	--	**400**	< 0	--	**1,440**	--	--	**56**	--	--	--	--	**2,820**	--
MW-18	Multiunit 1	Downgradient	5/5/1992	**915**	--	--	**750**	< 0	--	**1,600**	--	--	**69**	--	--	--	--	**6,400**	--
MW-18	Multiunit 1	Downgradient	10/27/1992	**976**	--	--	**800**	< 0	--	**1,400**	--	--	**81**	--	--	--	--	**6,600**	--
MW-18	Multiunit 1	Downgradient	4/26/1993	**854**	--	--	**700**	< 0	--	**1,300**	--	--	**77**	--	--	--	--	**5,000**	--
MW-18	Multiunit 1	Downgradient	11/23/1993	**579.5**	--	--	**475**	< 0	--	**1,200**	--	--	**63**	--	--	--	--	**3,600**	--
MW-18	Multiunit 1	Downgradient	4/21/1994	**579.5**	--	--	**475**	< 0	--	**1,400**	--	--	**71**	--	--	--	--	**3,600**	--
MW-18	Multiunit 1	Downgradient	9/20/1994	**549**	--	--	**450**	< 0	--	**1,200**	--	--	**73**	--	--	--	--	**3,600**	--
MW-18	Multiunit 1	Downgradient	12/14/1994	--	--	--	--	--	--	**1,000**	--	--	**38**	--	--	--	--	**2,100**	--
MW-18	Multiunit 1	Downgradient	4/5/1995	**854**	--	--	**700**	< 0	--	**1,400**	--	--	**71**	--	--	--	--	**5,000**	--
MW-18	Multiunit 1	Downgradient	12/13/1995	**610**	--	--	**500**	< 0	--	**1,400**	--	--	**70**	--	--	--	--	**5,000**	--
MW-18	Multiunit 1	Downgradient	8/12/1996	**640.5**	--	--	**525**	< 0	--	**1,200**	--	--	**56**	--	--	--	--	**3,800**	--
MW-18	Multiunit 1	Downgradient	4/23/1997	**396.5**	--	--	**325**	< 0	--	**1,200**	--	--	**70**	--	--	--	--	**6,200**	--
MW-18	Multiunit 1	Downgradient	10/20/1997	**579.5**	--	--	**475**	< 0	--	**1,000**	--	--	**47**	--	--	--	--	**2,400**	--
MW-18	Multiunit 1	Downgradient	4/14/1998	**549**	--	--	**450**	< 0	--	**1,100**	--	--	**47**	--	--	--	--	**3,000**	--
MW-18	Multiunit 1	Downgradient	6/8/1999	**488**	--	--	**400**	< 0	--	**1,100**	--	--	**43**	--	--	--	--	**2,600**	--
MW-18	Multiunit 1	Downgradient	12/8/1999	**366**	--	--	**300**	< 0	--	**1,000**	--	--	**45**	--	--	--	--	**3,600**	--
MW-18	Multiunit 1	Downgradient	6/8/2000	**579.5**	--	--	**475**	< 0	--	**990**	--	--	**38**	--	--	--	--	**2,040**	--
MW-18	Multiunit 1	Downgradient	11/28/2000	**518.5**	--	--	**425**	< 0	--	**800**	--	--	**43**	--	--	--	--	**2,400**	--
MW-18	Multiunit 1	Downgradient	8/21/2001	**579.5**	--	--	**475**	< 0	--	**1,240**	--	--	**49**	--	--	--	--	**2,800**	--
MW-18	Multiunit 1	Downgradient	12/5/2001	**610**	--	--	**500**	< 0	--	**1,000**	--	--	**43**	--	--	--	--	**3,800**	--
MW-18	Multiunit 1	Downgradient	6/12/2002	**671**	--	--	**550**	< 0	--	**800**	--	--	**40**	--	--	--	--	**2,200**	--
MW-18	Multiunit 1	Downgradient	12/18/2002	**488**	--	--	**400**	< 0	--	**900**	--	--	**39**	--	--	--	--	**2,600**	--
MW-18	Multiunit 1	Downgradient	6/3/2003	**457.5**	--	--	**375**	< 0	--	**800**	--	--	**47**	--	--	--	**0.067**	**4,600**	--
MW-18	Multiunit 1	Downgradient	9/24/2003	**579.5**	--	--	**475**	< 0	--	**500**	--	--	**22.5**	--	--	--	--	**1,800**	--
MW-18	Multiunit 1	Downgradient	6/16/2004	**2,959**	--	--	**2,425**	< 0	--	**900**	--	--	**43**	--	--	--	--	**2,600**	--
MW-18	Multiunit 1	Downgradient	11/9/2004	**3,233**	--	--	**2,650**	< 0	--	**860**	--	--	**35.7**	--	--	--	--	**1,750**	--
MW-18	Multiunit 1	Downgradient	5/12/2005	**366**	--	--	**300**	< 0	--	**900**	--	--	**47**	--	--	--	--	**2,400**	--
MW-18	Multiunit 1	Downgradient	11/1/2005	**579.5**	--	--	**475**	< 0	--	**962**	--	--	**44.3**	--	--	--	--	**2,770**	--
MW-18	Multiunit 1	Downgradient	5/15/2006	**457.5**	--	--	**375**	< 0	--	**908**	--	--	**41.9**	--	--	--	--	**2,420**	--
MW-18	Multiunit 1	Downgradient	10/13/2006	**386.74**	--	--	**317**	< 0	--	**880**	--	--	**37.6**	--	--	--	--	**2,020**	--
MW-18	Multiunit 1	Downgradient	4/18/2007	**475.8**	--	--	**390**	< 0	--	**864**	--	--	**41.4**	--	--	--	--	**2,300**	--
MW-18	Multiunit 1	Downgradient	11/20/2007	**444.08**	--	--	**364**	< 0	--	**692**	--	--	**32.9**	--	--	--	--	**1,740**	--
MW-18	Multiunit 1	Downgradient	4/30/2008	**524.6**	--	--	**430**	< 0	--	**827**	--	--	**41.5**	--	--	--	--	**1,850**	--
MW-18	Multiunit 1	Downgradient	12/3/2009	**915**	--	--	**750**	< 0	--	**848**	--	--	**49.1**	--	--	--	--	**4,540**	--
MW-18	Multiunit 1	Downgradient	9/27/2012	**730**	< 6.0	< 6.0	**730**	< 6.0	--	**1,000**	--	--	**57**	--	--	--	--	**5,400**	--
MW-18	Multiunit 1	Downgradient	11/19/2013	**720**	< 6.0	< 6.0	**720**	< 6.0	--	**930**	--	--	**57**	--	--	--	--	**4,800**	--
MW-18	Multiunit 1	Downgradient	3/12/2014	**720**	< 6.0	< 6.0	**720**	< 6.0	--	**800**	--	--	**58**	--	--	--	--	**4,900**	--
MW-18	Multiunit 1	Downgradient	9/10/2014	**740**	< 6.0	< 6.0	**740**	< 6.0	--	**920**	--	--	**59**	--	--	--	--	**5,200**	--
MW-18	Multiunit 1	Downgradient	3/18/2015	**750**	< 6.0	< 6.0	**750**	< 6.0	--	**890**	--	--	**55**	--	--	--	--	**5,500**	--
MW-18	Multiunit 1	Downgradient	6/30/2015	**740**	< 6.0	< 6.0	**740**	< 6.0	--	**790**	--	--	**60**	--	--	--	--	**5,200**	--
MW-18	Multiunit 1	Downgradient	8/25/2015	**740**	< 6.0	< 6.0	**740**	< 6.0	--	**760**	--	--	**68**	--	--	--	--	**5,300**	--
MW-18	Multiunit 1	Downgradient	11/6/2015	**750**	< 6.0	< 6.0	**750**	< 6.0	--	**940**	--	--	**56**	--	--	--	--	**5,900**	--
MW-18	Multiunit 1	Downgradient	6/17/2016	**820**	< 6.0	< 6.0	**820**	< 6.0	--	**840**	--	--	**65**	--	--	--	--	**6,600**	--
MW-18	Multiunit 1	Downgradient	9/15/2016	**450**	< 6.0	< 6.0	**450**	< 6.0	--	**790**	--	--	**45**	--	--	--	--	**2,100**	--
MW-18	Multiunit 1	Downgradient	6/22/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	11/7/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-18	Multiunit 1	Downgradient	4/25/2021	**900**	< 6	< 6	**900**	< 6	**0.41**	**1,100**	--	**2.6**	**110**	--	--	--	--	**7,100**	--
MW-18	Multiunit 1	Downgradient	11/16/2021	**850**	< 6	< 6	**850**	< 6	**0.54**	**1,100**	--	**2.5**	**93**	--	--	--	--	**7,400**	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Additional Analyses																
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein (P) as CaCO3	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
Multiunit 1 BTV				--	--	--	--	--		--	--	--	--	--	--	--	--	--	--
Multiunit 1 GWPS				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-23R	Multiunit 1	Downgradient	3/11/2014	--	--	--	--	--	--	**810**	--	--	**36**	--	--	--	--	**1,500**	--
MW-23R	Multiunit 1	Downgradient	3/11/2014	**400**	< 6.0	< 6.0	**400**	< 6.0	--	**830**	--	--	**39**	--	--	--	--	**1,600**	--
MW-23R	Multiunit 1	Downgradient	9/11/2014	**410**	< 6.0	< 6.0	**410**	< 6.0	--	**3,700**	--	--	**130**	--	--	--	--	**6,400**	--
MW-23R	Multiunit 1	Downgradient	12/8/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-23R	Multiunit 1	Downgradient	3/18/2015	**370**	< 6.0	< 6.0	**370**	< 6.0	--	**890**	--	--	**32**	--	--	--	--	**1,500**	--
MW-23R	Multiunit 1	Downgradient	6/30/2015	**360**	< 6.0	< 6.0	**360**	< 6.0	--	**800**	--	--	**33**	--	--	--	--	**1,400**	--
MW-23R	Multiunit 1	Downgradient	11/3/2015	--	--	--	--	--	--	**890**	--	--	**36**	--	--	--	--	**1,500**	--
MW-23R	Multiunit 1	Downgradient	11/13/2015	**370**	< 6.0	< 6.0	**370**	< 6.0	--	**830**	--	--	**33**	--	--	--	--	**1,500**	--
MW-23R	Multiunit 1	Downgradient	6/21/2016	**380**	< 6.0	< 6.0	**380**	< 6.0	--	**750**	--	--	**32**	--	--	--	--	**1,400**	--
MW-23R	Multiunit 1	Downgradient	9/15/2016	**400**	< 6.0	< 6.0	**400**	< 6.0	--	**790**	--	--	**34**	--	--	--	--	**1,500**	--
MW-23R	Multiunit 1	Downgradient	6/21/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-23R	Multiunit 1	Downgradient	11/7/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-23R	Multiunit 1	Downgradient	4/25/2021	**490**	< 6	< 6	**490**	< 6	**0.18**	**1,100**	--	**0.038**	**41**	--	--	--	--	**1,700**	--
MW-23R	Multiunit 1	Downgradient	11/14/2021	**500**	< 6	< 6	**500**	< 6	**0.19**	**1,600**	--	< 0.01	**38**	--	--	--	--	**2,500**	--
MW-24	Multiunit 1	Downgradient	3/19/2015	**170**	< 6.0	< 6.0	**170**	< 6.0	--	**210**	--	--	**36**	--	--	--	--	**6,200**	--
MW-24	Multiunit 1	Downgradient	6/29/2015	**160**	< 6.0	< 6.0	**160**	< 6.0	--	**220**	--	--	**68**	--	--	--	--	**6,000**	--
MW-24	Multiunit 1	Downgradient	8/26/2015	**230**	< 6.0	< 6.0	**230**	< 6.0	--	**190**	--	--	**59**	--	--	--	--	**6,800**	--
MW-24	Multiunit 1	Downgradient	6/20/2016	**320**	< 6.0	< 6.0	**320**	< 6.0	--	**210**	--	--	**45**	--	--	--	--	**7,800**	--
MW-24	Multiunit 1	Downgradient	9/15/2016	**340**	< 6.0	< 6.0	**340**	< 6.0	--	**180**	--	--	**42**	--	--	--	--	**7,800**	--
MW-24	Multiunit 1	Downgradient	4/26/2021	**320**	< 6	< 6	**320**	< 6	**0.16**	**220**	--	**1.9**	**62**	--	--	--	--	**7,700**	--
MW-24	Multiunit 1	Downgradient	11/16/2021	**290**	< 6	< 6	**290**	< 6	**0.22**	**210**	--	**1.8**	**49**	--	--	--	--	**6,900**	--
MW-34	Multiunit 1/EW System	Downgradient	6/23/2020	**210**	< 6	< 6	**210**	< 6	--	**480**	--	--	**28**	--	< 0.4	**0.6**	--	**1,100**	--
MW-36R	Multiunit 1	Downgradient	3/12/2014	**190**	< 6.0	< 6.0	**190**	< 6.0	--	**460**	--	--	**24**	--	--	--	--	**970**	--
MW-36R	Multiunit 1	Downgradient	9/9/2014	**190**	< 6.0	< 6.0	**190**	< 6.0	--	**470**	--	--	**27**	--	--	--	--	**1,000**	--
MW-36R	Multiunit 1	Downgradient	3/19/2015	**240**	< 6.0	< 6.0	**240**	< 6.0	--	**560**	--	--	**26**	--	--	--	--	**1,100**	--
MW-36R	Multiunit 1	Downgradient	6/30/2015	**190**	< 6.0	< 6.0	**190**	< 6.0	--	**460**	--	--	**25**	--	--	--	--	**980**	--
MW-36R	Multiunit 1	Downgradient	8/25/2015	**250**	< 6.0	< 6.0	**250**	< 6.0	--	**560**	--	--	**30**	--	--	--	--	**1,100**	--
MW-36R	Multiunit 1	Downgradient	11/3/2015	--	--	--	--	--	--	**570**	--	--	**26**	--	--	--	--	**1,100**	--
MW-36R	Multiunit 1	Downgradient	11/13/2015	**220**	< 6.0	< 6.0	**220**	< 6.0	--	**530**	--	--	**24**	--	--	--	--	**1,000**	--
MW-36R	Multiunit 1	Downgradient	6/17/2016	**230**	< 6.0	< 6.0	**230**	< 6.0	--	**520**	--	--	**27**	--	--	--	--	**1,100**	--
MW-36R	Multiunit 1	Downgradient	9/15/2016	**160**	< 6.0	< 6.0	**160**	< 6.0	--	**340**	--	--	**25**	--	--	--	--	**960**	--
MW-36R	Multiunit 1	Downgradient	6/21/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-36R	Multiunit 1	Downgradient	11/7/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-36R	Multiunit 1	Downgradient	11/7/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-36R	Multiunit 1	Downgradient	4/25/2021	**230**	< 6	< 6	**230**	< 6	**0.072 J**	**430**	--	**0.25**	**29**	--	--	--	--	**990**	--
MW-36R	Multiunit 1	Downgradient	11/14/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-38R	Multiunit 1	Downgradient	3/12/2014	**430**	< 6.0	< 6.0	**430**	< 6.0	--	**1,200**	--	--	**35**	--	--	--	--	**3,200**	--
MW-38R	Multiunit 1	Downgradient	9/11/2014	**540**	< 6.0	< 6.0	**540**	< 6.0	--	**2,000**	--	--	**50**	--	--	--	--	**5,600**	--
MW-38R	Multiunit 1	Downgradient	3/19/2015	**490**	< 6.0	< 6.0	**490**	< 6.0	--	**1,700**	--	--	**51**	--	--	--	--	**4,900**	--
MW-38R	Multiunit 1	Downgradient	6/30/2015	**270**	< 6.0	< 6.0	**270**	< 6.0	--	**770**	--	--	**30**	--	--	--	--	**3,000**	--
MW-38R	Multiunit 1	Downgradient	8/29/2015	**240**	< 6.0	< 6.0	**240**	< 6.0	--	**650**	--	--	**26**	--	--	--	--	**2,500**	--
MW-38R	Multiunit 1	Downgradient	11/10/2015	**370**	< 6.0	< 6.0	**370**	< 6.0	--	**1,400**	--	--	**51**	--	--	--	--	**4,300**	--
MW-38R	Multiunit 1	Downgradient	6/21/2016	**270**	< 6.0	< 6.0	**270**	< 6.0	--	**690**	--	--	**33**	--	--	--	--	**2,500**	--
MW-38R	Multiunit 1	Downgradient	6/21/2016	**310**	< 6.0	< 6.0	**310**	< 6.0	--	**760**	--	--	**39**	--	--	--	--	**2,700**	--
MW-38R	Multiunit 1	Downgradient	9/15/2016	**240**	< 6.0	< 6.0	**240**	< 6.0	--	**690**	--	--	**36**	--	--	--	--	**2,800**	--
MW-38R	Multiunit 1	Downgradient	9/15/2016	**260**	< 6.0	< 6.0	**260**	< 6.0	--	**670**	--	--	**34**	--	--	--	--	**2,500**	--
MW-38R	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-38R	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**0.8**	--	--	--
MW-38R	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-38R	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-38R	Multiunit 1	Downgradient	11/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-38R	Multiunit 1	Downgradient	11/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-38R	Multiunit 1	Downgradient	6/22/2020	**120**	< 6	< 6	**120**	< 6	--	**290**	--	--	**20**	--	**0.4**	< 0.8	--	**920**	--
MW-38R	Multiunit 1	Downgradient	6/22/2020	**130**	< 6	< 6	**130**	< 6	--	**300**	--	--	**19**	--	< 0.4	**1.1**	--	**910**	--
MW-38R	Multiunit 1	Downgradient	11/6/2020	**120**	< 6	< 6	**120**	< 6	--	**300**	--	--	**16 / 18**	--	< 0.4	< 0.8	--	**970**	--
MW-38R	Multiunit 1	Downgradient	4/27/2021	**130**	< 6	< 6	**130**	< 6	**0.08 J**	**310**	--	< 0.01	**20**	--	<0.4	<0.8	--	**970**	--
MW-38R	Multiunit 1	Downgradient	11/16/2021	**120**	< 6	< 6	**120**	< 6	**0.078 J**	**280**	--	**0.0027**	**17**	--	**0.4**	< 0.6	--	**920**	--
MW-40R	Multiunit 1	Downgradient	2/2/2017	**360**	< 6.0	< 6.0	**360**	< 6.0	--	**1,100**	--	--	**60**	--	--	--	--	**3,400**	--
MW-40R	Multiunit 1	Downgradient	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-40R	Multiunit 1	Downgradient	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.2	**0.6**	--	--	--
MW-40R	Multiunit 1	Downgradient	4/26/2021	--	--	--	--	--	**10**	**2,000**		**3.0**	**97**		<0.4	**2.2**		**5,600**	--
MW-46	Multiunit 1	Downgradient	6/30/2015	**600**	< 6.0	< 6.0	**600**	< 6.0	--	**720**	--	--	**37**	--	--	--	--	**8,000**	--
MW-46	Multiunit 1	Downgradient	11/7/2015	**590**	< 6.0	< 6.0	**590**	< 6.0	--	**850**	--	--	**38**	--	--	--	--	**8,500**	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Additional Analyses																
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein (as CaCO3)	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
Multiunit 1 BTV				--	--	--	--	--		--	--	--	--	--	--	--	--	--	--
Multiunit 1 GWPS				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-52	Multiunit 1	Downgradient	3/17/2015	**130**	< 6.0	< 6.0	**130**	< 6.0	--	**600**	--	--	**27**	--	--	--	--	**1,100**	--
MW-52	Multiunit 1	Downgradient	3/17/2015	**120**	< 6.0	< 6.0	**120**	< 6.0	--	**590**	--	--	**28**	--	--	--	--	**1,100**	--
MW-52	Multiunit 1	Downgradient	8/26/2015	**130**	< 6.0	< 6.0	**130**	< 6.0	--	**540**	--	--	**31**	--	--	--	--	**1,100**	--
MW-52	Multiunit 1	Downgradient	11/3/2015	**130**	< 6.0	< 6.0	**130**	< 6.0	--	**620**	--	--	**28**	--	--	--	--	**1,100**	--
MW-52	Multiunit 1	Downgradient	6/18/2016	**130**	< 6.0	< 6.0	**130**	< 6.0	--	**580**	--	--	**29**	--	--	--	--	**1,100**	--
MW-52	Multiunit 1	Downgradient	9/16/2016	**120**	< 6.0	< 6.0	**120**	< 6.0	--	**540**	--	--	**28**	--	--	--	--	**1,000**	--
MW-52	Multiunit 1	Downgradient	6/20/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-52	Multiunit 1	Downgradient	11/8/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-52	Multiunit 1	Downgradient	4/23/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-52	Multiunit 1	Downgradient	11/13/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-52	Multiunit 1	Downgradient	11/13/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-54	Multiunit 1	Downgradient	9/10/2014	**590**	< 6.0	< 6.0	**590**	< 6.0	--	**3,500**	--	--	**92**	--	--	--	--	**12,000**	--
MW-54	Multiunit 1	Downgradient	3/17/2015	**530**	< 6.0	< 6.0	**530**	< 6.0	--	**1,500**	--	--	**42**	--	--	--	--	**5,000**	--
MW-54	Multiunit 1	Downgradient	8/26/2015	**520**	< 6.0	< 6.0	**520**	< 6.0	--	**1,600**	--	--	**53**	--	--	--	--	**4,800**	--
MW-54	Multiunit 1	Downgradient	11/3/2015	**510**	< 6.0	< 6.0	**510**	< 6.0	--	**3,200**	--	--	**84**	--	--	--	--	**9,600**	--
MW-54	Multiunit 1	Downgradient	6/20/2016	**490**	< 6.0	< 6.0	**490**	< 6.0	--	**1,300**	--	--	**45**	--	--	--	--	**4,200**	--
MW-54	Multiunit 1	Downgradient	9/16/2016	**390**	< 6.0	< 6.0	**390**	< 6.0	--	**1,200**	--	--	**44**	--	--	--	--	**3,800**	--
MW-56	Multiunit 1	Downgradient	3/12/2014	**570**	< 6.0	< 6.0	**570**	< 6.0	--	**1,700**	--	--	**61**	--	--	--	--	**3,700**	--
MW-56	Multiunit 1	Downgradient	9/10/2014	**470**	< 6.0	< 6.0	**470**	< 6.0	--	**1,400**	--	--	**52**	--	--	--	--	**3,100**	--
MW-56	Multiunit 1	Downgradient	3/19/2015	**670**	< 6.0	< 6.0	**670**	< 6.0	--	**2,000**	--	--	**64**	--	--	--	--	**4,600**	--
MW-56	Multiunit 1	Downgradient	6/30/2015	**740**	< 6.0	< 6.0	**740**	< 6.0	--	**1,800**	--	--	**61**	--	--	--	--	**3,900**	--
MW-56	Multiunit 1	Downgradient	8/25/2015	**1,000**	< 6.0	< 6.0	**1,000**	< 6.0	--	**2,000**	--	--	**78**	--	--	--	--	**4,400**	--
MW-56	Multiunit 1	Downgradient	11/5/2015	**950**	< 6.0	< 6.0	**950**	< 6.0	--	**2,000**	--	--	**64**	--	--	--	--	**4,400**	--
MW-56	Multiunit 1	Downgradient	6/18/2016	**710**	< 6.0	< 6.0	**710**	< 6.0	--	**1,600**	--	--	**61**	--	--	--	--	**3,800**	--
MW-56	Multiunit 1	Downgradient	9/15/2016	**380**	< 6.0	< 6.0	**380**	< 6.0	--	**770**	--	--	**40**	--	--	--	--	**1,800**	--
MW-56	Multiunit 1	Downgradient	3/20/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-56	Multiunit 1	Downgradient	3/20/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**2.3**	--	--	--
MW-56	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-56	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**2.7**	--	--	--
MW-56	Multiunit 1	Downgradient	11/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-56	Multiunit 1	Downgradient	6/22/2020	--	--	--	--	--	--	--	--	--	--	--	**1.2**	**2.2**	--	--	--
MW-56	Multiunit 1	Downgradient	11/7/2020	**750**	< 6	< 6	**750**	< 6	--	**2,200**	--	--	**83**	--	< 0.4	**2.2**	--	**4,900**	--
MW-56	Multiunit 1	Downgradient	4/26/2021	**800**	< 6	< 6	**800**	< 6	**0.26**	**2,500**	--	**0.016**	**100**	--	<0.4	**2.2**	--	**5,100**	--
MW-56	Multiunit 1	Downgradient	11/16/2021	**800**	< 6	< 6	**800**	< 6	**0.24**	**2,500**	--	**0.038**	**78**	--	**0.7**	**2.4**	--	**4,900**	--
MW-57	Multiunit 1	Downgradient	3/12/2014	**260**	< 6.0	< 6.0	**260**	< 6.0	--	**540**	--	--	**33**	--	--	--	--	**1,700**	--
MW-57	Multiunit 1	Downgradient	9/9/2014	--	--	--	--	--	--	**470**	--	--	**31**	--	--	--	--	**1,500**	--
MW-57	Multiunit 1	Downgradient	9/9/2014	**240**	< 6.0	< 6.0	**240**	< 6.0	--	**430**	--	--	**28**	--	--	--	--	**1,400**	--
MW-57	Multiunit 1	Downgradient	3/17/2015	**240**	< 6.0	< 6.0	**240**	< 6.0	--	**460**	--	--	**28**	--	--	--	--	**1,400**	--
MW-57	Multiunit 1	Downgradient	6/29/2015	**230**	< 6.0	< 6.0	**230**	< 6.0	--	**450**	--	--	**28**	--	--	--	--	**1,400**	--
MW-57	Multiunit 1	Downgradient	8/26/2015	**240**	< 6.0	< 6.0	**240**	< 6.0	--	**460**	--	--	**35**	--	--	--	--	**1,500**	--
MW-57	Multiunit 1	Downgradient	11/10/2015	**250**	< 6.0	< 6.0	**250**	< 6.0	--	**550**	--	--	**34**	--	--	--	--	**1,600**	--
MW-57	Multiunit 1	Downgradient	11/10/2015	**250**	< 6.0	< 6.0	**250**	< 6.0	--	**590**	--	--	**35**	--	--	--	--	**1,600**	--
MW-57	Multiunit 1	Downgradient	11/10/2015	**250**	< 6.0	< 6.0	**250**	< 6.0	--	**540**	--	--	**31**	--	--	--	--	**1,500**	--
MW-57	Multiunit 1	Downgradient	11/11/2015	**250**	< 6.0	< 6.0	**250**	< 6.0	--	**540**	--	--	**32**	--	--	--	--	**1,500**	--
MW-57	Multiunit 1	Downgradient	6/18/2016	**300**	< 6.0	< 6.0	**300**	< 6.0	--	**540**	--	--	**34**	--	--	--	--	**1,600**	--
MW-57	Multiunit 1	Downgradient	9/15/2016	**200**	< 6.0	< 6.0	**200**	< 6.0	--	**430**	--	--	**26**	--	--	--	--	**1,300**	--
MW-57	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-57	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.3**	--	--	--
MW-57	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-57	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.7	--	--	--
MW-57	Multiunit 1	Downgradient	11/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-57	Multiunit 1	Downgradient	6/22/2020	**400**	< 6	< 6	**400**	< 6	--	**700**	--	--	**46**	--	**0.7**	**1.7**	--	**1,900**	--
MW-57	Multiunit 1	Downgradient	11/6/2020	**510**	< 6	< 6	**510**	< 6	--	**840**	--	--	**47**	--	< 0.4	**2.2**	--	**2,400**	--
MW-57	Multiunit 1	Downgradient	4/27/2021	**440**	< 6	< 6	**440**	< 6	**0.62**	**810**	--	**0.17**	**52**	--	**0.5**	**2.2**	--	**2,000**	--
MW-57	Multiunit 1	Downgradient	11/17/2021	**410**	< 6	< 6	**410**	< 6	**1.4**	**860**	--	**0.28**	**45**	--	**0.7**	**0.7**	--	**1,900**	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Additional Analyses																
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein (as CaCO3)	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
Multiunit 1 BTV				--	--	--	--	--		--	--	--	--	--	--	--	--	--	--
Multiunit 1 GWPS				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	11/8/2015	**320**	< 5.0	--	**320**	--	--	**710**	--	--	**35**	--	--	--	--	**1,400**	--
MW-60	Multiunit 1	Downgradient	11/8/2015	--	--	--	--	--	--	--	--	--	--	--	< 0.521	< 0.422	--	--	--
MW-60	Multiunit 1	Downgradient	4/26/2016	--	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.8	--	--	--
MW-60	Multiunit 1	Downgradient	6/6/2016	--	--	--	--	--	--	--	--	--	--	--	**0.8**	< 0.8	--	--	--
MW-60	Multiunit 1	Downgradient	6/6/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	< 0.2	< 0.7	--	--	--
MW-60	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.0**	--	--	--
MW-60	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.6**	--	--	--
MW-60	Multiunit 1	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	< 0.3	**1.0**	--	--	--
MW-60	Multiunit 1	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	2/2/2017	**120**	< 6.0	< 6.0	**120**	< 6.0	--	**500**	--	--	**28**	--	--	--	--	**1,100**	--
MW-60	Multiunit 1	Downgradient	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.4**	--	--	--
MW-60	Multiunit 1	Downgradient	4/18/2017	**130**	< 6.0	< 6.0	**130**	< 6.0	--	**510**	--	--	**27**	--	--	--	--	**1,100**	--
MW-60	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	**0.6**	**0.6**	--	--	--
MW-60	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	5/3/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	5/3/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--	--
MW-60	Multiunit 1	Downgradient	5/30/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	5/30/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.2**	--	--	--
MW-60	Multiunit 1	Downgradient	6/22/2017	**130**	< 6.0	< 6.0	**130**	< 6.0	--	**510**	--	--	**27**	--	--	--	--	**1,100**	--
MW-60	Multiunit 1	Downgradient	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	**0.5**	**0.9**	--	--	--
MW-60	Multiunit 1	Downgradient	7/22/2017	**130**	< 6.0	< 6.0	**130**	< 6.0	--	**540**	--	--	**28**	--	--	--	--	**1,200**	--
MW-60	Multiunit 1	Downgradient	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.3	**0.8**	--	--	--
MW-60	Multiunit 1	Downgradient	8/10/2017	**130**	< 6.0	< 6.0	**130**	< 6.0	--	**540**	--	--	**28**	--	--	--	--	**1,200**	--
MW-60	Multiunit 1	Downgradient	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-60	Multiunit 1	Downgradient	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-60	Multiunit 1	Downgradient	8/17/2017	**130**	< 6.0	< 6.0	**130**	< 6.0	--	**560**	--	--	**32**	--	--	--	--	**1,200**	--
MW-60	Multiunit 1	Downgradient	9/10/2017	**130**	< 6.0	< 6.0	**130**	< 6.0	--	**520**	--	--	**26**	--	--	--	--	**1,100**	--
MW-60	Multiunit 1	Downgradient	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.7	**0.8**	--	--	--
MW-60	Multiunit 1	Downgradient	10/12/2017	--	--	--	--	--	--	--	--	--	--	--	**0.5**	**1.1**	--	--	--
MW-60	Multiunit 1	Downgradient	10/12/2017	**130**	< 6.0	< 6.0	**130**	< 6.0	--	**480**	--	--	**26**	--	--	--	--	**1,100**	--
MW-60	Multiunit 1	Downgradient	6/21/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	11/8/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	4/24/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-60	Multiunit 1	Downgradient	11/13/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Additional Analyses																
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein (as CaCO3)	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
Multiunit 1 BTV				--	--	--	--	--		--	--	--	--	--	--	--	--	--	--
Multiunit 1 GWPS				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	11/6/2015	**64**	**34**	--	**98**	--	--	**110**	--	--	**18**	--	--	--	--	**1,000**	--
MW-61	Multiunit 1	Downgradient	11/6/2015	--	--	--	--	--	--	--	--	--	--	--	**0.288**	**1.01**	--	--	--
MW-61	Multiunit 1	Downgradient	11/6/2015	**59**	**44**	--	**100**	--	--	**110**	--	--	**19**	--	--	--	--	**1,100**	--
MW-61	Multiunit 1	Downgradient	11/6/2015	--	--	--	--	--	--	--	--	--	--	--	**0.622**	**0.665**	--	--	--
MW-61	Multiunit 1	Downgradient	4/26/2016	--	--	--	--	--	--	--	--	--	--	--	**0.6**	**1.1**	--	--	--
MW-61	Multiunit 1	Downgradient	6/6/2016	--	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.8	--	--	--
MW-61	Multiunit 1	Downgradient	6/6/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	8/21/2016	--	--	--	--	--	--	--	--	--	--	--	**0.4**	**1.0**	--	--	--
MW-61	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	9/13/2016	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.3**	--	--	--
MW-61	Multiunit 1	Downgradient	10/19/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	10/19/2016	--	--	--	--	--	--	--	--	--	--	--	< 0.2	< 0.4	--	--	--
MW-61	Multiunit 1	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	10/20/2016	--	--	--	--	--	--	--	--	--	--	--	< 0.3	**0.7**	--	--	--
MW-61	Multiunit 1	Downgradient	2/2/2017	**66**	**24**	< 6.0	**90**	**12**	--	**120**	--	--	**20**	--	--	--	--	**1,000**	--
MW-61	Multiunit 1	Downgradient	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	2/2/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**2.2**	--	--	--
MW-61	Multiunit 1	Downgradient	4/18/2017	**77**	**11**	< 6.0	**89**	< 6.0	--	**120**	--	--	**20**	--	--	--	--	**1,100**	--
MW-61	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.6	--	--	--
MW-61	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	5/3/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	5/3/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**0.7**	--	--	--
MW-61	Multiunit 1	Downgradient	5/30/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	5/30/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.6	--	--	--
MW-61	Multiunit 1	Downgradient	6/22/2017	**76**	**14**	< 6.0	**90**	**6.8**	--	**120**	--	--	**20**	--	--	--	--	**1,100**	--
MW-61	Multiunit 1	Downgradient	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.6	--	--	--
MW-61	Multiunit 1	Downgradient	7/22/2017	**88**	< 6.0	< 6.0	**88**	< 6.0	--	**130**	--	--	**21**	--	--	--	--	**1,100**	--
MW-61	Multiunit 1	Downgradient	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	**0.5**	< 0.6	--	--	--
MW-61	Multiunit 1	Downgradient	8/10/2017	**88**	< 6.0	< 6.0	**88**	< 6.0	--	**130**	--	--	**21**	--	--	--	--	**1,100**	--
MW-61	Multiunit 1	Downgradient	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-61	Multiunit 1	Downgradient	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.7	--	--	--
MW-61	Multiunit 1	Downgradient	8/17/2017	**89**	< 6.0	< 6.0	**89**	< 6.0	--	**130**	--	--	**24**	--	--	--	--	**1,100**	--
MW-61	Multiunit 1	Downgradient	9/10/2017	**73**	**17**	< 6.0	**90**	**8.3**	--	**120**	--	--	**20**	--	--	--	--	**1,000**	--
MW-61	Multiunit 1	Downgradient	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**0.7**	--	--	--
MW-61	Multiunit 1	Downgradient	10/12/2017	--	--	--	--	--	--	--	--	--	--	--	**0.4**	**1.6**	--	--	--
MW-61	Multiunit 1	Downgradient	10/12/2017	**76**	**14**	< 6.0	**90**	**7.0**	--	**120**	--	--	**19**	--	--	--	--	**1,000**	--
MW-61	Multiunit 1	Downgradient	11/30/2017	**78**	**11**	< 6.0	**90**	< 6.0	--	**120**	--	--	**22**	--	--	--	--	**1,100**	--
MW-61	Multiunit 1	Downgradient	3/17/2018	--	--	--	--	--	--	--	--	--	--	--	< 0.9	< 0.8	--	--	--
MW-61	Multiunit 1	Downgradient	6/1/2018	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-61	Multiunit 1	Downgradient	6/1/2018	**91**	< 6.0	< 6.0	**91**	< 6.0	--	**120**	--	--	**19**	--	--	--	--	**980**	--
MW-61	Multiunit 1	Downgradient	6/1/2018	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-61	Multiunit 1	Downgradient	6/1/2018	**89**	< 6.0	< 6.0	**91**	< 6.0	--	**120**	--	--	**20**	--	--	--	--	**980**	--
MW-61	Multiunit 1	Downgradient	11/3/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	11/3/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	11/3/2018	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-61	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-61	Multiunit 1	Downgradient	5/13/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	5/13/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.7	--	--	--
MW-61	Multiunit 1	Downgradient	11/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-61	Multiunit 1	Downgradient	6/21/2020	--	--	--	--	--	--	--	--	--	--	--	**0.7**	< 0.6	--	--	--
MW-61	Multiunit 1	Downgradient	11/8/2020	**61**	**33**	< 6	**94**	**17**	--	**140**	--	--	**25**	--	< 0.4	< 0.8	--	**1,100**	--
MW-61	Multiunit 1	Downgradient	4/23/2021	**72**	**26**	< 6	**97**	**13**	--	**130**	--	--	**23**	--	<0.4	**0.9**	--	**1,000**	--
MW-61	Multiunit 1	Downgradient	11/13/2021	**59**	**32**	< 6	**91**	**16**	--	**140**	--	--	**21**	--	**0.6**	< 0.6	--	**1,100**	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Additional Analyses																
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein (as CaCO3)	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
Multiunit 1 BTV				--	--	--	--	--		--	--	--	--	--	--	--	--	--	--
Multiunit 1 GWPS				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.6**	--	--	--
MW-75	Multiunit 1	Downgradient	4/18/2017	**94**	< 6.0	< 6.0	**94**	< 6.0	--	**210**	--	--	**21**	--	--	--	--	**1,200**	--
MW-75	Multiunit 1	Downgradient	4/18/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	5/3/2017	--	--	--	--	--	--	--	--	--	--	--	**0.4**	< 0.6	--	--	--
MW-75	Multiunit 1	Downgradient	5/3/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	5/30/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**0.9**	--	--	--
MW-75	Multiunit 1	Downgradient	5/30/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	6/22/2017	**95**	< 6.0	< 6.0	**95**	< 6.0	--	**240**	--	--	**23**	--	--	--	--	**1,300**	--
MW-75	Multiunit 1	Downgradient	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	6/22/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.3	< 0.6	--	--	--
MW-75	Multiunit 1	Downgradient	7/22/2017	**95**	< 6.0	< 6.0	**95**	< 6.0	--	**240**	--	--	**23**	--	--	--	--	**1,300**	--
MW-75	Multiunit 1	Downgradient	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	7/22/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-75	Multiunit 1	Downgradient	8/10/2017	**94**	< 6.0	< 6.0	**94**	< 6.0	--	**240**	--	--	**23**	--	--	--	--	**1,300**	--
MW-75	Multiunit 1	Downgradient	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	8/10/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	**1.0**	--	--	--
MW-75	Multiunit 1	Downgradient	8/17/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.4	< 0.7	--	--	--
MW-75	Multiunit 1	Downgradient	8/17/2017	**95**	< 6.0	< 6.0	**95**	< 6.0	--	**240**	--	--	**26**	--	--	--	--	**1,300**	--
MW-75	Multiunit 1	Downgradient	9/10/2017	**96**	< 6.0	< 6.0	**96**	< 6.0	--	**230**	--	--	**22**	--	--	--	--	**1,200**	--
MW-75	Multiunit 1	Downgradient	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	9/10/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**0.8**	--	--	--
MW-75	Multiunit 1	Downgradient	10/12/2017	--	--	--	--	--	--	--	--	--	--	--	< 0.3	**0.8**	--	--	--
MW-75	Multiunit 1	Downgradient	10/12/2017	**96**	< 6.0	< 6.0	**96**	< 6.0	--	**220**	--	--	**21**	--	--	--	--	**1,200**	--
MW-75	Multiunit 1	Downgradient	11/30/2017	**90**	< 6.0	< 6.0	**90**	< 6.0	--	**230**	--	--	**24**	--	--	--	--	**1,300**	--
MW-75	Multiunit 1	Downgradient	11/30/2017	**90**	< 6.0	< 6.0	**90**	< 6.0	--	**230**	--	--	**24**	--	--	--	--	**1,200**	--
MW-75	Multiunit 1	Downgradient	3/17/2018	--	--	--	--	--	--	--	--	--	--	--	< 0.8	< 0.8	--	--	--
MW-75	Multiunit 1	Downgradient	6/1/2018	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.4**	--	--	--
MW-75	Multiunit 1	Downgradient	6/1/2018	**98**	< 6.0	< 6.0	**98**	< 6.0	--	**210**	--	--	**21**	--	--	--	--	**1,100**	--
MW-75	Multiunit 1	Downgradient	11/3/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	11/3/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	11/3/2018	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-75	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	< 0.7	--	--	--
MW-75	Multiunit 1	Downgradient	5/13/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	5/13/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.6	< 0.7	--	--	--
MW-75	Multiunit 1	Downgradient	11/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-75	Multiunit 1	Downgradient	6/21/2020	--	--	--	--	--	--	--	--	--	--	--	**0.8**	< 0.6	--	--	--
MW-75	Multiunit 1	Downgradient	11/8/2020	**99**	< 6	< 6	**99**	< 6	--	**250**	--	--	**27**	--	< 0.4	< 0.8	--	**1,300**	--
MW-75	Multiunit 1	Downgradient	4/23/2021	**100**	< 6	< 6	**100**	< 6	--	**240**	--	--	**25**	--	<0.5	<0.8	--	**1,300**	--
MW-75	Multiunit 1	Downgradient	11/13/2021	**98**	< 6	< 6	**98**	< 6	--	**240**	--	--	**22**	--	< 0.3	**0.8**	--	**1,300**	--
MW-76	Multiunit 1	Downgradient	4/26/2021	**270**	< 6	< 6	**270**	< 6	--	**200**	--	--	**29**	--	<0.5	<0.8	--	**1,200**	--

Groundwater Sampling Results for the Multiunit 1 Monitoring Wells

				Additional Analyses																
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein (as CaCO3)	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
Multiunit 1 BTV				--	--	--	--	--		--	--	--	--	--	--	--	--	--	--
Multiunit 1 GWPS				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-87	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-87	Multiunit 1	Downgradient	3/19/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.6	**1.5**	--	--	--
MW-87	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-87	Multiunit 1	Downgradient	5/14/2019	--	--	--	--	--	--	--	--	--	--	--	< 0.5	**1.4**	--	--	--
MW-87	Multiunit 1	Downgradient	6/22/2019	**830**	< 6.0	< 6.0	**830**	< 6.0	--	**1,200**	--	--	**83**	--	--	--	--	**6,300**	--
MW-87	Multiunit 1	Downgradient	11/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-87	Multiunit 1	Downgradient	11/19/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-87	Multiunit 1	Downgradient	6/23/2020	**900**	< 6	< 6	**900**	< 6	--	**1,500**	--	--	**78**	--	**0.8**	**2.0**	--	**7,200**	--
MW-87	Multiunit 1	Downgradient	11/6/2020	**800**	< 6	< 6	**800**	< 6	--	**2,000**	--	--	**130**	--	**1.0**	**2.7**	--	**8,300**	--
MW-87	Multiunit 1	Downgradient	4/27/2021	**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	**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	**1,100**	< 6	< 6	**1,100**	< 6	**1.5**	**3,500**	--	**0.43**	**130**	--	**0.7**	< 0.7	--	**13,000**	--
MW-50B	Multiunit 1	--	3/17/2015	**630**	< 6.0	< 6.0	**630**	< 6.0	--	**< 200**	--	--	**79**	--	--	--	--	**4,500**	--

Notes:

BTV exceedances are shown in grey shaded cells. GWPS exceedence are shown in red text.

Duplicate sample dates under the same locations are either field duplicates or are instances of samples with multiple filed/lab sample IDs on the same date.

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

UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Groundwater Sampling Results for the Additional Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																					
			Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate		Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
			Filtered:	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Y	N	N	Y	N	N	N	N
			Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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
DMX-01	Closed Ash Pond 6	Downgradient	4/20/1992	--	5.42	--	466	700	0.87	--	7.7	12,000	21,000	--	--	< 0.05	--	0.023	--	< 0.005	--	< 0.005	--	< 0.010	--	0.87	--	0.011	--	--	< 0.0002	--	--	--	--
DMX-01	Closed Ash Pond 6	Downgradient	3/18/2015	140	--	450	--	3,000	< 0.80	--	--	12,000	20,000	--	< 0.0050	--	--	--	--	--	--	--	< 0.013	--	--	< 0.80	--	--	--	--	--	--	< 0.015	--	--
DMX-01	Closed Ash Pond 6	Downgradient	6/24/2015	140	--	420	--	1,600	< 8.0	--	7.1	11,000	21,000	--	< 0.15	--	--	--	--	--	--	--	< 0.15	--	--	< 8.0	--	--	--	--	--	--	< 0.15	--	--
DMX-01	Closed Ash Pond 6	Downgradient	8/28/2015	140	--	430	--	1,400	< 2.0	--	7.07	12,000	21,000	--	< 0.012	--	--	--	--	--	< 0.0020	--	< 0.012	--	--	< 2.0	--	--	--	--	--	--	0.016	--	--
DMX-01	Closed Ash Pond 6	Downgradient	11/4/2015	140	--	420	--	1,200	< 2.0	--	7.1	9,800	20,000	< 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	Downgradient	6/21/2016	130	--	420	--	1,500	0.67	--	7.02	12,000	20,000	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	0.67	--	--	--	< 0.00020	--	--	--	--	--
DMX-01	Closed Ash Pond 6	Downgradient	4/25/2021	89	--	--	--	--	--	7.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00089 J	--	--	--	--	--	--	0.014	--	--
DMX-01	Closed Ash Pond 6	Downgradient	11/14/2021	99	--	--	--	--	--	6.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00073 J	--	--	--	--	--	--	0.019	--	--
DMX-01	Closed Ash Pond 6	Downgradient	11/14/2021	100	--	--	--	--	--	6.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.001 J	--	--	--	--	--	--	0.021	--	--
MW-01	Closed Ash Pond 6	Downgradient	9/28/1987	--	13	--	430	570	0.90	7.33	7.4	9,000	15,000	--	--	< 0.05	--	0.23	--	--	--	< 0.005	--	< 0.005	--	0.90	--	0.060	--	--	< 0.0001	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	6/27/1988	--	--	436	--	619	0.90	7.17	--	8,644	14,582	--	--	--	--	--	--	--	--	--	--	--	--	0.90	--	--	--	< 0.01	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	9/21/1988	11.5	--	411	--	597	0.90	6.93	--	8,398	15,405	--	--	--	--	--	--	--	--	--	--	--	--	0.90	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	11/20/1988	9.9	--	414	--	463	0.80	7.15	--	7,922	14,475	--	--	--	--	--	--	--	--	--	--	--	--	0.80	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	3/6/1989	12	--	432	--	734	0.80	7.00	--	9,295	15,490	--	--	--	--	--	--	--	--	--	--	--	--	0.80	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	9/11/1989	13.7	--	360	--	678	0.90	7.18	--	8,299	14,710	--	--	--	--	--	--	--	--	--	--	--	--	0.90	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	3/26/1990	14.9	--	380	--	608	0.80	7.20	--	8,327	13,790	--	--	--	--	--	--	--	--	--	--	--	--	0.80	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	9/18/1990	25	--	370	--	578	0.50	7.20	--	7,982	13,565	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	3/27/1991	24.1	--	360	--	788	0.50	7.11	--	9,495	13,460	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	9/11/1991	22.6	--	427	--	779	0.60	7.21	--	10,440	13,450	--	--	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	4/30/1992	30.8	--	360	--	651	0.60	7.23	--	8,840	12,720	--	--	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	10/27/1992	41	--	400	--	569	0.80	7.23	--	7,500	11,910	--	--	--	--	--	--	--	--	--	--	--	--	0.80	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	4/21/1993	36	--	390	--	639	0.60	7.20	--	8,230	12,670	--	--	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	11/23/1993	46	--	380	--	627	0.70	7.12	--	8,650	12,850	--	--	--	--	--	--	--	--	--	--	--	--	0.70	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	4/20/1994	38	--	430	--	728	0.70	7.20	--	8,250	14,340	--	--	--	--	--	--	--	--	--	--	--	--	0.70	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	8/11/1994	41	--	440	--	662	0.70	7.16	--	7,626	12,450	--	--	--	--	--	--	--	--	--	--	--	--	0.70	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	4/6/1995	43	--	410	--	777	0.60	7.14	--	7,930	13,800	--	--	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	11/19/1995	62.3	--	400	--	603	0.80	7.26	--	7,034	12,130	--	--	--	--	--	--	--	--	--	--	--	--	0.80	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	8/13/1996	54.1	--	320	--	575.6	0.70	7.34	--	7,034	12,210	--	--	--	--	--	--	--	--	--	--	--	--	0.70	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	4/23/1997	51.2	--	300	--	590.5	0.70	7.24	--	6,845	11,850	--	--	--	--	--	--	--	--	--	--	--	--	0.70	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	10/20/1997	57.7	--	380	--	549.5	1.0	7.48	--	7,003	11,890	--	--	--	--	--	--	--	--	--	--	--	--	1.0	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	4/6/1998	--	--	--	--	644	0.80	7.33	--	7,334	--	--	--	--	--	--	--	--	--	--	--	--	--	0.80	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	10/19/1998	55.1	--	380	--	591.9	0.70	7.36	--	7,345	11,666	--	--	--	--	--	--	--	--	--	--	--	--	0.70	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	6/9/1999	48.6	--	360	--	650.7	0.70	7.39	--	7,480	13,130	--	--	--	--	--	--	--	--	--	--	--	--	0.70	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	12/6/1999	60	--	440	--	493	1.0	7.37	--	6,334	110,940	--	--	--	--	--	--	--	--	--	--	--	--	1.0	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	5/24/2000	55.3	--	416	--	680.1	0.90	7.13	--	7,484	11,410	--	--	--	--	--	--	--	--	--	--	--	--	0.90	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	11/14/2000	67.4	--	2,460	--	463.5	1.2496	7.02	--	6,052	10,690	--	--	--	--	--	--	--	--	--	--	--	--	1.2496	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	8/22/2001	55.3	--	400	--	540	1.1	7.27	--	5,494	10,790	--	--	--	--	--	--	--	--	--	--	--	--	1.1	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	12/5/2001	69.3	--	360	--	536.5	1.0	7.17	--	6,121	10,710	--	--	--	--	--	--	--	--	--	--	--	--	1.0	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	6/11/2002	68.1	--	400	--	535	1.7	7.59	--	5,928	10,910	--	--	--	--	--	--	--	--	--	--	--	--	1.7	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	12/17/2002	65.7	--	390	--	530.5	1.3	7.27	--	5,879	11,360	--	--	--	--	--	--	--	--	--	--	--	--	1.3	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	5/28/2003	70.5	--	380	--	400.5	1.3	7.15	--	4,102	11,490	--	--	--	--	--	--	--	--	--	--	--	--	1.3	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	12/24/2003	65.9	--	350	--	670	7.8	7.18	--	6,574	10,620	--	--	--	--	--	--	--	--	--	--	--	--	7.8	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	4/21/2004	--	--	410	--	517	1.4	7.20	--	5,337	10,690	--	--	--	--	--	--	--	--	--	--	--	--	1.4	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	11/29/2004	69.6	--	450	--	1,840	1.8	7.24	--	10,277	10,680	--	--	--	--	--	--	--	--	--	--	--	--	1.8	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	6/5/2005	64.8	--	440	--	556.5	1.2	7.25	--	5,145	10,120	--	--	--	--	--	--	--	--	--	--	--	--	1.2	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	12/12/2005	65.3	--	460	--	568.5	--	7.08	--	5,050	10,630	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	5/17/2006	66.9	--	441	--	574	1.83	7.20	--	5,790	10,400	--	--	--	--	--	--	--	--	--	--	--	--	1.83	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	10/12/2006	67.6	--	443	--	673	1.8	7.22	--	6,880	10,600	--	--	--	--	--	--	--	--	--	--	--	--	1.8	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	4/19/2007	70.7	--	431	--	623	1.72	7.24	--	5,870	10,600	--	--	--	--	--	--	--	--	--	--	--	--	1.72	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	11/19/2007	57.8	--	362	--	690	2.0	7.16	--	6,600	11,000	--	--	--	--	--	--	--	--	--	--	--	--	2.0	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	5/8/2008	61.7	--	371	--	660	1.92	7.36	--	7,000	10,600	--	--	--	--	--	--	--	--	--	--	--	--	1.92	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	9/27/2012	62	--	410	--	710	2.6	--	--	6,400	11,000	--	< 0.0010	--	--	--	--	--	--	--	--	--	0.0018	2.6	--	--	--	--	--	--	0.0016	--	--
MW-01	Closed Ash Pond 6	Downgradient	9/27/2012	62	--	390	--	730	2.6	--	--	6,500	11,000	--	< 0.0010	--	--	--	--	--	--	--	--	--	0.0014	2.6	--	--	--	--	--	--	0.0018	--	--
MW-01	Closed Ash Pond 6	Downgradient	11/18/2013	69	--	470	--	720	3.8	--	--	6,400	11,000	--	0.00030	--	--	--	--	--	--	--	--	--	0.0018	3.8	--	--	--	--	--	--	< 0.001	--	--
MW-01	Closed Ash Pond 6	Downgradient	11/18/2013	63	--	470	--	710	3.6	--	--	6,200	11,000	--	0.00051	--	--	--	--	--	--	--	--	--	0.0019	3.6	--	--	--	--	--	--	< 0.001	--	--
MW-01	Closed Ash Pond 6	Downgradient	9/9/2014	63	--	390	--	--	--	--	--	--	--	--	0.00031	--	--	--	--	--	--	--	--	--	0.0015	--	--	--	--	--	--	--	0.0010	--	--
MW-01	Closed Ash Pond 6	Downgradient	9/9/2014	61	--	410	--	650	1.5	--	--	6,100	10,000	--	0.00043	--	--	--	--	--	--	--	--	--	0.0016	1.5	--	--	--	--	--	--	0.00084	--	--
MW-01	Closed Ash Pond 6	Downgradient	3/17/2015	65	--	420	--	630	1.8	--	--	6,100	9,900	--	0.00039	--	--	--	--	--	--	--	--	--	0.0016	1.8	--	--	--	--	--	--	0.00092	--	--
MW-01	Closed Ash Pond 6	Downgradient	6/30/2015	65	--	390	--	680	2.5	--	7.29	5,700	10,000	--	< 0.012	--	--	--	--	--	--	--	--	--	< 0.012	2.5	--	--	--	--	--	--	< 0.012	--	--
MW-01	Closed Ash Pond 6	Downgradient	8/27/2015	66	--	440	--	550	4.2	--	7.16	6,000	9,600	--	< 0.0030	--	--	--	--	--	0.0027	--	< 0.030	--	--	4.2	--	--	--	--	--	--	0.0056	--	--
MW-01	Closed Ash Pond 6	Downgradient	6/17/2016	61	--	420	--	760	3.1	--	7.55	6,100	10,000	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	3.1	--	--	--	< 0.00020	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	9/15/2016	64	--	420	--	560	3.7	--	7.2	6,600	9,800	--	< 0.0010	--	--	--	--	--	--	--	< 0.0025	--	--	3.7	--	--	--	< 0.00020	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	6/21/2020	--	--	--	--	--	--	6.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.073	--	--	--	--	--	--	0.045	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	6/21/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.073	--	--	--	--	--	--	0.041	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	11/8/2020	56	--	--	--	--	--	7.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0015 J	--	--	--	--	--	--	0.00051 J	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	11/8/2020	56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00035 J	--	--	--	--	--	--	0.055 J	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	4/24/2021	56	--	--	--	--	--	7.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.066	--	--	--	--	--	--	0.031	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	4/24/2021	56	--	--	--	--	--	7.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.070	--	--	--	--	--	--	0.034	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	11/13/2021	63	--	--	--	--	--	6.84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.074	--	--	--	--	--	--	0.036	--	--	--

Groundwater Sampling Results for the Additional Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																					
Constituent:				Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate		Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
Filtered:				N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Y	N	N	Y	N	N	N	N
Units:				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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
MW-03	Closed Ash Pond 6	Downgradient	4/1/1987	--	1.2	--	460	1,100	0.50	7.60	7.1	30,000	43,000	--	--	< 0.1	--	< 0.005	--	--	< 0.005	--	< 0.005	--	0.50	--	< 0.05	--	< 0.0001	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	9/29/1987	--	1.6	--	470	1,300	< 0.5	6.99	7.2	36,000	58,000	--	--	< 0.05	--	0.59	--	--	--	--	< 0.005	--	< 0.005	--	< 0.5	--	0.090	--	--	< 0.0001	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	6/28/1988	--	--	472	--	1,152	1.2	7.41	--	30,437	60,998	--	--	--	--	--	--	--	--	--	--	--	--	1.2	--	--	--	< 0.001	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	9/21/1988	2.0	--	405	--	1,006	1.2	7.29	--	31,759	55,105	--	--	--	--	--	--	--	--	--	--	--	--	1.2	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	11/20/1988	1.0	--	476	--	792	1.5	7.34	--	34,816	56,200	--	--	--	--	--	--	--	--	--	--	--	--	1.5	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	2/27/1989	2.0	--	448	--	1,127	1.2	7.37	--	35,052	55,715	--	--	--	--	--	--	--	--	--	--	--	--	1.2	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	9/13/1989	2.0	--	460	--	1,336	1.4	7.21	--	35,948	56,820	--	--	--	--	--	--	--	--	--	--	--	--	1.4	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	3/22/1990	1.0	--	500	--	1,211	1.3	7.20	--	32,683	56,340	--	--	--	--	--	--	--	--	--	--	--	--	1.3	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	10/30/1990	1.0	--	300	--	1,409	0.40	7.32	--	38,450	56,485	--	--	--	--	--	--	--	--	--	--	--	--	0.40	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	4/4/1991	1.0	--	240	--	1,350	0.30	7.21	--	37,010	51,680	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	9/30/1991	1.0	--	204	--	1,276	0.30	7.38	--	43,130	58,250	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	5/7/1992	1.0	--	180	--	1,290	0.30	7.39	--	33,170	52,020	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	11/5/1992	1.0	--	220	--	1,170	0.30	7.17	--	31,495	48,580	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	4/28/1993	1.0	--	350	--	1,249	0.26	7.20	--	31,345	47,800	--	--	--	--	--	--	--	--	--	--	--	--	0.26	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	11/30/1993	2.0	--	280	--	1,216	0.30	7.22	--	31,475	48,630	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	4/21/1994	1.0	--	340	--	1,151	0.30	7.28	--	30,190	46,580	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	9/20/1994	2.0	--	380	--	1,171	0.30	7.23	--	28,895	45,520	--	0.080	--	< 0.5	--	--	--	< 0.0005	--	< 0.02	--	--	0.30	< 0.1	--	--	--	--	< 0.01	0.51	--	--
MW-03	Closed Ash Pond 6	Downgradient	12/14/1994	--	--	430	--	--	--	7.03	--	--	--	< 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	Downgradient	4/6/1995	1.0	--	360	--	1,183	0.20	7.05	--	28,085	43,870	--	--	--	--	--	--	--	--	--	--	--	--	0.20	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	12/12/1995	1.41	--	400	--	1,066	0.30	7.23	--	26,745	41,150	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	8/14/1996	1.16	--	300	--	1,110	0.20	7.22	--	25,150	40,430	--	--	--	--	--	--	--	--	--	--	--	--	0.20	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	4/23/1997	1.6	--	260	--	1,083	0.20	7.21	--	24,100	39,420	--	--	--	--	--	--	--	--	--	--	--	--	0.20	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	10/13/1997	< 0.05	--	300	--	1,164	0.20	7.27	--	25,154	38,450	--	--	--	--	--	--	--	--	--	--	--	--	0.20	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	4/15/1998	1.73	--	320	--	1,052	0.20	7.20	--	22,542	39,920	--	< 0.005	--	0.020	--	--	--	< 0.001	--	< 0.01	--	--	0.20	< 0.005	--	--	--	--	0.010	< 0.005	--	--
MW-03	Closed Ash Pond 6	Downgradient	9/29/1998	1.73	--	70	--	1,228	0.20	7.24	--	25,071	38,140	--	--	--	--	--	--	--	--	--	--	--	--	0.20	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	5/10/1999	4.1	--	50	--	1,075	0.30	7.23	--	22,883	38,650	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	12/8/1999	3.8	--	170	--	990	0.30	6.89	--	20,512	34,270	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	5/10/2000	4.72	--	457	--	1,309	0.30	7.13	--	29,283	35,180	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	11/27/2000	6.01	--	180	--	971.2	0.5938	7.23	--	16,024	36,290	--	--	--	--	--	--	--	--	--	--	--	--	0.5938	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	8/20/2001	5.96	--	210	--	942.2	0.30	7.16	--	27,067	31,650	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	12/4/2001	3.9	--	180	--	1,142	0.50	6.52	--	20,827	33,270	--	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	6/12/2002	4.93	--	180	--	970.2	0.40	7.38	--	20,675	33,320	--	--	--	--	--	--	--	--	--	--	--	--	0.40	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	12/17/2002	4.34	--	200	--	1,059	0.30	7.23	--	18,595	32,590	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	6/3/2003	--	--	190	--	918.4	0.30	7.12	--	18,531	33,050	--	--	--	0.011	--	0.010	0.011	--	--	--	--	--	0.30	--	--	--	--	--	0.27	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	9/24/2003	3.86	--	215	--	975.6	0.54	6.65	--	17,891	32,470	--	--	--	--	--	--	--	--	--	--	--	--	0.54	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	6/16/2004	--	--	250	--	1,062	0.30	7.03	--	18,085	32,180	--	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	11/9/2004	4.2	--	455	--	992.4	0.40	7.25	--	16,893	31,490	--	0.0031	--	0.0438	--	--	--	< 0.0005	--	0.011	--	--	0.40	0.0051	--	--	--	--	0.01055	0.215	--	--
MW-03	Closed Ash Pond 6	Downgradient	5/12/2005	3.64	--	320	--	1,087	0.30	7.43	--	17,858	30,930	--	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	Downgradient	11/1/2005	3.96	--	422	--	1,027	0.40	7.03	--	16,628	30,270	--	0.034	--	0.0036	--	--	--	--	--	0.0050	--	0.0040	0.40	--	--	--	--	--	--	0.21	--	--
MW-03	Closed Ash Pond 6	Downgradient	5/16/2006	4.28	--	423	--	932	0.466	7.19	--	19,300	29,900	--	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	Downgradient	10/12/2006	4.55	--	461	--	1,020	0.359	7.15	--	19,700	28,300	--	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	Downgradient	4/18/2007	5.47	--	427	--	1,190	0.209	7.18	--	18,400	29,400	--	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	Downgradient	11/19/2007	4.11	--	326	--	970	0.40	7.11	--	15,000	28,600	--	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	Downgradient	5/7/2008	4.9	--	346	--	940	0.40	7.05	--	16,400	28,400	--	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	Downgradient	12/3/2009	5.7	--	363	--	880	0.40	7.00	--	15,800	26,600	--	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	Downgradient	9/28/2012	8.8	--	380	--	900	< 8.0	--	--	14,000	23,000	--	< 0.020	--	--	--	--	--	--	--	0.020	--	--	< 8.0	--	--	--	--	--	--	0.16	--	--
MW-03	Closed Ash Pond 6	Downgradient	3/11/2014	7.4	--	410	--	940	< 0.80	--	--	14,000	23,000	--	0.0016	--	--	--	--	--	--	--	0.021	--	--	< 0.80	--	--	--	--	--	--	0.084	--	--
MW-03	Closed Ash Pond 6	Downgradient	9/9/2014	7.7	--	380	--	1,000	< 0.80	--	--	17,000	12,000	--	0.00065	--	--	--	--	--	--	--	< 0.0010	--	--	< 0.80	--	--	--	--	--	--	0.11	--	--
MW-03	Closed Ash Pond 6	Downgradient	3/18/2015	7.1	--	390	--	1,000	< 0.80	--	--	19,000	22,000	--	< 0.0010	--	--	--	--	--	--	--	< 0.0025	--	--	< 0.80	--	--	--	--	--	--	0.079	--	--
MW-03	Closed Ash Pond 6	Downgradient	4/2/2015	--	--	--	--	1,700	--	--	--	3,350	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	6/24/2015	7.7	--	380	--	930	< 8.0	--	7.18	14,000	23,000	--	< 0.030	--	--	--	--	--	--	--	< 0.030	--	--	< 8.0	--	--	--	--	--	--	0.13	--	--
MW-03	Closed Ash Pond 6	Downgradient	8/28/2015	8.2	--	410	--	850	< 2.0	--	7.36	14,000	22,000	--	< 0.012	--	--	--	--	--	< 0.0040	--	< 0.012	--	--	< 2.0	--	--	--	--	--	--	0.13	--	--
MW-03	Closed Ash Pond 6	Downgradient	11/4/2015	8.2	--	440	--	--	--	--	7.23	--	--	--	< 0.0050	--	--	--	--	--	< 0.0025	--	< 0.013	--	--	--	--	--	--	--	--	--	0.077	--	--
MW-03	Closed Ash Pond 6	Downgradient	11/12/2015	7.4	--	360	--	860	< 2.0	--	7.25	14,000	22,000	--	< 0.0010	--	--	--	--	--	--	--	0.0048	--	--	< 2.0	--	--	--	--	--	--	0.10	--	--
MW-03	Closed Ash Pond 6	Downgradient	6/20/2016	7.8	--	420	--	1,000	0.43	--	7.25	14,000	17,000	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	0.43	--	--	--	< 0.00020	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	9/15/2016	8.1	--	390	--	850	0.45	--	7.2	14,000	22,000	--	< 0.0020	--	--	--	--	--	--	--	< 0.0050	--	--	0.45	--	--	--	< 0.00020	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	9/15/2016	7.7	--	370	--	840	0.44	--	7.1	14,000	22,000	--	< 0.0020	--	--	--	--	--	--	--	< 0.0050	--	--	0.44	--	--	--	< 0.00020	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	6/21/2020	--	--	--	--	--	--	6.91	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.001	--	--	--	--	--	--	0.0037	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	11/8/2020	7.5	--	--	--	--	--	7.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0031	--	--	--	--	--	--	0.003	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	4/24/2021	7.8	--	--	--	--	--	7.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00054 J	--	--	--	--	--	--	0.0022	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	11/13/2021	8.4	--	--	--	--	--	6.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00031 J	--	--	--	--	--	--	0.0022	--	--	--

Groundwater Sampling Results for the Additional Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																			
			Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate		Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
			Filtered:	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Y	N	N	Y	N	N	N	N
			Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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
MW-19	Closed Ash Pond 6	Downgradient	9/29/1987	--	**1.6**	--	**480**	**1,200**	< 0.5	**7.03**	**7.2**	**34,000**	**56,000**	--	--	< 0.05	--	**0.60**	--	--	--	< 0.005	--	< 0.005	--	< 0.5	--	**0.11**	--	--	< 0.0001	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	6/14/1988	--	--	**488**	--	**1,518**	**1.1**	**6.90**	--	**45,210**	**75,052**	--	--	--	--	--	--	--	--	--	--	--	--	**1.1**	--	--	--	< 0.001	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	9/18/1988	**2.0**	--	**476**	--	**1,555**	--	**6.97**	--	**46,211**	**74,798**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	11/20/1988	**2.0**	--	**417**	--	**1,306**	**1.1**	**6.91**	--	**43,079**	**71,375**	--	--	--	--	--	--	--	--	--	--	--	--	**1.1**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	2/28/1989	**2.0**	--	**467**	--	**1,643**	**1.2**	**7.02**	--	**49,042**	**75,830**	--	--	--	--	--	--	--	--	--	--	--	--	**1.2**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	9/12/1989	**2.0**	--	**353**	--	**1,248**	**1.3**	**6.92**	--	**46,881**	**71,520**	--	--	--	--	--	--	--	--	--	--	--	--	**1.3**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	3/22/1990	**1.0**	--	**500**	--	**1,466**	**1.0**	**7.00**	--	**46,993**	**69,850**	--	--	--	--	--	--	--	--	--	--	--	--	**1.0**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	10/30/1990	**1.0**	--	**240**	--	**1,405**	**0.20**	**6.98**	--	**42,450**	**63,223**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	4/3/1991	**1.0**	--	**240**	--	**1,393**	**0.20**	**6.88**	--	**37,150**	**56,700**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	9/25/1991	**1.0**	--	**200**	--	**1,302**	**0.20**	**7.12**	--	**38,110**	**55,580**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	5/7/1992	**1.0**	--	**160**	--	**1,255**	**0.20**	**7.10**	--	**34,900**	**54,340**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	11/5/1992	**1.0**	--	**220**	--	**1,404**	**0.20**	**7.01**	--	**34,160**	**53,370**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	4/27/1993	**1.0**	--	**280**	--	**1,220**	**0.18**	**7.05**	--	**34,080**	**47,880**	--	--	--	--	--	--	--	--	--	--	--	--	**0.18**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	12/1/1993	**1.0**	--	**260**	--	**1,156**	**0.20**	**6.83**	--	**33,720**	**49,160**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	5/10/1994	**1.0**	--	**200**	--	**2,243**	**0.20**	**6.94**	--	**82,450**	**128,180**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	11/16/1994	**1.0**	--	**200**	--	**1,155**	**0.20**	**6.98**	--	**25,590**	**45,940**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	4/6/1995	**2.0**	--	**240**	--	**1,192**	**0.20**	**6.94**	--	**30,250**	**45,710**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	12/12/1995	**1.43**	--	**260**	--	**1,048**	**0.20**	**6.98**	--	**27,010**	**41,820**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	8/15/1996	**1.62**	--	**220**	--	**1,001**	**0.20**	**7.04**	--	**24,511**	**34,210**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	4/14/1997	**2.51**	--	**280**	--	**911.2**	**0.20**	**6.98**	--	**23,746**	**41,090**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	10/13/1997	< 0.05	--	**220**	--	**1,007**	**0.20**	**7.04**	--	**24,366**	**38,360**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	5/10/1999	**5.1**	--	**70**	--	**925.5**	**0.20**	**7.06**	--	**20,743**	**36,410**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	12/1/1999	**5.6**	--	**210**	--	**873**	**0.20**	**6.91**	--	**19,252**	**32,430**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	5/30/2000	**6.45**	--	**451**	--	**1,956**	**0.30**	**6.87**	--	**28,225**	**30,950**	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	11/27/2000	**7.25**	--	**230**	--	**601.5**	**0.2564**	**6.96**	--	**13,598**	**31,870**	--	--	--	--	--	--	--	--	--	--	--	--	**0.2564**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	8/21/2001	**5.99**	--	**200**	--	**869**	**0.26**	**7.11**	--	**19,006**	**35,660**	--	--	--	--	--	--	--	--	--	--	--	--	**0.26**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	12/4/2001	**2.0**	--	**210**	--	**952.5**	**0.30**	**6.58**	--	**6,704**	**11,340**	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	6/11/2002	**6.49**	--	**200**	--	**760**	**0.40**	**7.01**	--	**16,328**	**28,580**	--	--	--	--	--	--	--	--	--	--	--	--	**0.40**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	12/17/2002	**6.3**	--	**250**	--	**745**	**0.20**	**6.98**	--	**15,539**	**128,070**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	5/29/2003	**5.93**	--	**220**	--	**977**	**0.21**	**6.89**	--	**14,745**	**28,620**	--	--	--	--	--	--	--	--	--	--	--	--	**0.21**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	12/15/2003	**0.89**	--	**220**	--	**1,763**	**0.45**	**6.86**	--	**26,266**	**28,170**	--	--	--	--	--	--	--	--	--	--	--	--	**0.45**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	6/18/2004	--	--	**300**	--	**930.5**	**0.30**	**6.92**	--	**17,053**	**28,730**	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	11/30/2004	**5.2**	--	**260**	--	**952.5**	**0.26**	**6.98**	--	**11,112**	**30,210**	--	--	--	--	--	--	--	--	--	--	--	--	**0.26**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	6/14/2005	**4.63**	--	**320**	--	**972**	**0.29**	**7.08**	--	**16,135**	**29,650**	--	--	--	--	--	--	--	--	--	--	--	--	**0.29**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	12/12/2005	**4.52**	--	**468**	--	**1,193**	**0.30**	**7.03**	--	**17,202**	**30,250**	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	5/15/2006	**3.42**	--	**477**	--	**1,430**	**0.176**	**6.96**	--	**25,400**	**37,700**	--	--	--	--	--	--	--	--	--	--	--	--	**0.176**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	4/17/2007	**2.99**	--	**484**	--	**2,310**	**0.754**	**7.02**	--	**26,200**	**40,700**	--	--	--	--	--	--	--	--	--	--	--	--	**0.754**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	5/8/2008	**1.3**	--	**353**	--	**1,900**	**0.30**	**7.14**	--	**34,500**	**43,400**	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	11/18/2013	**2.2**	--	**550**	--	**4,300**	< 8.0	--	--	**28,000**	**41,000**	--	**0.00072**	--	--	--	--	--	--	--	< 0.0010	--	--	< 8.0	--	--	--	--	--	**0.014**	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	3/11/2014	**2.0**	--	**430**	--	**2,700**	< 4.0	--	--	**24,000**	**33,000**	--	< 0.00040	--	--	--	--	--	--	--	< 0.0010	--	--	< 4.0	--	--	--	--	--	**0.013**	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	9/9/2014	**2.2**	--	**440**	--	**2,900**	< 2.0	--	--	**27,000**	**39,000**	--	**0.00078**	--	--	--	--	--	--	--	**0.0014**	--	--	< 2.0	--	--	--	--	--	**0.015**	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	12/8/2014	**1.8**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	3/18/2015	**1.9**	--	**440**	--	**1,800**	< 2.0	--	--	**24,000**	**35,000**	--	< 0.0050	--	--	--	--	--	--	--	< 0.013	--	--	< 2.0	--	--	--	--	--	< 0.015	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	6/30/2015	**1.8**	--	**400**	--	**1,900**	< 4.0	--	**7.13**	**23,000**	**36,000**	--	< 0.012	--	--	--	--	--	--	--	< 0.012	--	--	< 4.0	--	--	--	--	--	**0.022**	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	8/25/2015	**1.9**	--	**430**	--	**2,600**	< 2.0	--	**7.0**	**25,000**	**38,000**	--	< 0.030	--	--	--	--	--	--	--	< 0.030	--	--	< 2.0	--	--	--	--	--	< 0.030	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	11/3/2015	**1.8**	--	**480**	--	**2,200**	< 2.0	--	**7.08**	**24,000**	**18,000**	< 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	Downgradient	6/17/2016	**2.1**	--	**450**	--	**2,400**	< 0.40	--	**7.3**	**22,000**	**37,000**	--	< 0.005	--	--	--	--	--	--	--	< 0.005	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	6/21/2020	--	--	--	--	--	--	**6.69**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0015**	--	--	--	--	--	**0.014**	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	11/7/2020	**1.9**	--	--	--	--	--	**6.84**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.002**	--	--	--	--	--	**0.0061**	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	4/25/2021	**2.0**	--	--	--	--	--	**7.50**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.00052**	--	--	--	--	--	**0.0030**	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	4/25/2021	**2.0**	--	--	--	--	--	**7.50**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0013 J**	--	--	--	--	--	**0.0040**	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	11/14/2021	**2.1**	--	--	--	--	--	**6.76**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0016**	--	--	--	--	--	**0.0032**	--	--	--

Groundwater Sampling Results for the Additional Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																				
			Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate		Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
			Filtered:	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Y	N	N	Y	N	N	N	N
			Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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
MW-21	Closed Ash Pond 6	Downgradient	9/27/1987	--	**0.99**	--	**480**	**2,000**	< 0.5	**7.37**	**7.4**	**76,000**	**130,000**	--	--	< 0.05	--	**0.88**	--	--	--	< 0.005	--	< 0.005	--	< 0.5	--	**0.12**	--	--	< 0.0001	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	9/18/1988	**3.0**	--	**420**	--	**992**	--	**7.27**	--	**33,755**	**58,160**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	11/20/1988	**3.0**	--	**402**	--	**1,007**	**0.90**	**7.14**	--	**39,264**	**66,155**	--	--	--	--	--	--	--	--	--	--	--	--	**0.90**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	3/6/1989	**2.0**	--	**399**	--	**2,142**	**0.80**	**7.20**	--	**50,033**	**76,561**	--	--	--	--	--	--	--	--	--	--	--	--	**0.80**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	9/12/1989	**3.0**	--	**440**	--	**1,151**	**0.60**	**7.21**	--	**32,940**	**53,450**	--	--	--	--	--	--	--	--	--	--	--	--	**0.60**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	3/22/1990	**2.0**	--	**500**	--	**1,918**	**0.80**	**7.00**	--	**61,686**	**96,620**	--	--	--	--	--	--	--	--	--	--	--	--	**0.80**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	9/18/1990	**2.0**	--	**500**	--	**1,847**	**0.20**	**7.13**	--	**54,660**	**84,090**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	3/20/1991	**1.0**	--	**640**	--	**2,914**	**0.20**	**7.24**	--	**65,480**	**102,930**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	9/24/1991	**1.0**	--	**500**	--	**2,018**	**0.20**	**7.27**	--	**58,620**	**87,230**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	5/1/1992	**2.0**	--	**400**	--	**2,292**	**0.20**	**7.21**	--	**67,080**	**101,350**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	11/2/1992	**1.0**	--	**400**	--	**2,696**	**0.20**	**7.23**	--	**67,700**	**104,070**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	4/21/1993	**1.0**	--	**500**	--	**3,022**	**0.20**	**7.16**	--	**48,280**	**104,360**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	12/1/1993	**1.0**	--	**500**	--	**2,222**	**0.20**	**7.06**	--	**58,790**	**93,480**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	4/27/1994	**2.0**	--	**400**	--	**2,393**	**0.20**	**7.14**	--	**63,230**	**96,380**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	9/19/1994	**1.0**	--	**400**	--	**2,316**	**0.20**	**7.02**	--	**62,880**	**97,530**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	12/14/1994	--	--	**230**	--	--	--	**6.85**	--	--	--	< 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	Downgradient	4/5/1995	**2.0**	--	**400**	--	**1,663**	**0.10**	**6.90**	--	**45,380**	**71,370**	--	--	--	--	--	--	--	--	--	--	--	--	**0.10**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	12/12/1995	**2.7**	--	**400**	--	**1,752**	**0.10**	**6.97**	--	**47,460**	**71,300**	--	--	--	--	--	--	--	--	--	--	--	--	**0.10**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	8/15/1996	**2.49**	--	**400**	--	**1,765**	**0.10**	**6.98**	--	**46,169**	**73,760**	--	--	--	--	--	--	--	--	--	--	--	--	**0.10**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	6/23/1997	**11**	--	**400**	--	**1,235**	**0.10**	**6.85**	--	**41,615**	**53,930**	--	--	--	--	--	--	--	--	--	--	--	--	**0.10**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	10/14/1997	< 0.05	--	**400**	--	**1,217**	**0.20**	**6.91**	--	**31,146**	**52,640**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	4/13/1998	--	--	**500**	--	**1,328**	**0.10**	**6.65**	--	**35,131**	**63,190**	--	--	--	--	--	--	--	--	--	--	--	--	**0.10**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	5/10/1999	**7.4**	--	**40**	--	**1,669**	**0.20**	**7.13**	--	**48,635**	**77,990**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	12/6/1999	**7.0**	--	**150**	--	**1,737**	**0.10**	**6.81**	--	**49,104**	**75,480**	--	--	--	--	--	--	--	--	--	--	--	--	**0.10**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	5/24/2000	**7.17**	--	**467**	--	**2,499**	**0.20**	**6.79**	--	**47,049**	**73,200**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	11/13/2000	**8.84**	--	**110**	--	**831**	**0.1919**	**7.03**	--	**28,681**	**82,430**	--	--	--	--	--	--	--	--	--	--	--	--	**0.1919**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	8/20/2001	**16.6**	--	**162**	--	**756.5**	**0.24**	**7.00**	--	**18,654**	**46,920**	--	--	--	--	--	--	--	--	--	--	--	--	**0.24**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	12/4/2001	**15.6**	--	**120**	--	**1,215**	**0.20**	**6.62**	--	**31,761**	**50,600**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	6/12/2002	**12.6**	--	**130**	--	**1,350**	**0.20**	**7.00**	--	**36,750**	**56,570**	--	--	--	--	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	12/17/2002	**9.55**	--	**160**	--	**1,559**	**0.20**	**7.04**	--	**39,708**	**64,480**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	6/2/2003	--	--	**210**	--	**6,733**	**0.30**	**6.88**	--	**39,722**	**68,000**	--	--	--	**0.011**	--	--	--	--	--	--	--	--	**0.30**	--	--	--	--	--	--	**0.68**	--	--
MW-21	Closed Ash Pond 6	Downgradient	6/3/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.011**	**0.011**	--	--	--	--	--	--	--	--	--	--	--	**0.74**	--	--
MW-21	Closed Ash Pond 6	Downgradient	9/23/2003	**8.19**	--	**150**	--	**1,407**	**0.37**	**6.33**	--	**38,682**	**66,970**	--	--	--	--	--	--	--	--	--	--	--	--	**0.37**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	6/14/2004	--	--	**160**	--	**2,278**	**0.20**	**6.98**	--	**52,477**	**74,110**	--	--	--	--	--	--	--	--	--	--	--	--	**0.20**	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	11/8/2004	**8.7**	--	**533**	--	**2,120**	**0.20**	**6.69**	--	**51,000**	**74,500**	--	**0.0097**	--	**0.023**	--	--	--	< 0.00005	--	**0.0050**	--	--	**0.20**	**0.00060**	--	--	--	--	**0.00179**	**0.512**	--	--
MW-21	Closed Ash Pond 6	Downgradient	5/11/2005	**7.51**	--	**280**	--	**1,948**	**0.30**	**6.93**	--	**45,323**	**69,780**	--	**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	Downgradient	10/31/2005	**7.81**	--	**480**	--	**1,951**	**0.20**	**6.73**	--	**43,537**	**70,840**	--	**0.060**	--	**0.025**	--	--	--	--	--	--	--	**0.0040**	**0.20**	--	--	--	--	--	--	**0.542**	--	--
MW-21	Closed Ash Pond 6	Downgradient	5/15/2006	**7.06**	--	**484**	--	**1,920**	< 0.5	**6.96**	--	**43,400**	**74,500**	--	**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	Downgradient	10/11/2006	**7.15**	--	**496**	--	**2,090**	< 5000	**7.00**	--	**50,800**	**71,300**	--	**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	Downgradient	4/17/2007	**7.54**	--	**477**	--	**2,450**	< 0.2	**6.94**	--	**52,600**	**74,200**	< 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	Downgradient	11/20/2007	**4.55**	--	**314**	--	**2,260**	**0.30**	**6.97**	--	**58,000**	**77,000**	**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	Downgradient	4/30/2008	**4.4**	--	**325**	--	**2,140**	**0.20**	**6.99**	--	**53,700**	**74,100**	< 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	Downgradient	12/4/2009	**17.2**	--	**355**	--	**1,580**	**0.20**	**6.89**	--	**31,000**	**52,000**	< 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	Downgradient	12/29/2009	**10.7**	--	**480**	--	**1,920**	**0.30**	**7.15**	--	**31,000**	**66,200**	< 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	Downgradient	9/29/2012	**35**	--	**310**	--	**1,300**	< 8.0	--	--	**18,000**	**28,000**	--	**0.02**	--	--	--	--	--	--	--	< 0.020	--	--	< 8.0	--	--	--	--	--	--	**0.19**	--	--
MW-21	Closed Ash Pond 6	Downgradient	11/20/2013	**4.1**	--	**550**	--	**5,500**	< 8.0	--	--	**83,000**	**83,000**	--	**0.00060**	--	--	--	--	--	--	--	**0.0046**	--	--	< 8.0	--	--	--	--	--	--	**0.14**	--	--
MW-21	Closed Ash Pond 6	Downgradient	3/11/2014	**6.1**	--	**430**	--	**2,600**	< 4.0	--	--	**49,000**	**68,000**	--	< 0.0010	--	--	--	--	--	--	--	**0.014**	--	--	< 4.0	--	--	--	--	--	--	**0.16**	--	--
MW-21	Closed Ash Pond 6	Downgradient	9/9/2014	**26**	--	**430**	--	**1,200**	< 2.0	--	--	**27,000**	**36,000**	--	**0.00044**	--	--	--	--	--	--	--	< 0.0010	--	--	< 2.0	--	--	--	--	--	--	**0.11**	--	--
MW-21	Closed Ash Pond 6	Downgradient	12/9/2014	**7.4**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	3/18/2015	**7.6**	--	**460**	--	**2,200**	< 2.0	--	--	**45,000**	**68,000**	--	< 0.0050	--	--	--	--	--	--	--	< 0.013	--	--	< 2.0	--	--	--	--	--	--	**0.12**	--	--
MW-21	Closed Ash Pond 6	Downgradient	6/24/2015	**7.6**	--	**450**	--	**2,500**	< 8.0	--	**6.98**	**46,000**	**68,000**	--	< 0.15	--	--	--	--	--	--	--	< 0.15	--	--	< 8.0	--	--	--	--	--	--	**0.18**	--	--
MW-21	Closed Ash Pond 6	Downgradient	8/28/2015	**25**	--	**410**	--	**1,200**	< 2.0	--	**6.92**	**23,000**	**36,000**	--	< 0.030	--	--	--	--	--	< 0.010	--	< 0.030	--	--	< 2.0	--	--	--	--	--	--	**0.18**	--	--
MW-21	Closed Ash Pond 6	Downgradient	11/4/2015	**6.3**	--	**320**	--	--	--	--	**6.97**	--	--	--	< 0.0020	--	--	--	--	--	< 0.0010	--	< 0.0050	--	--	--	--	--	--	--	--	--	**0.14**	--	--
MW-21	Closed Ash Pond 6	Downgradient	11/13/2015	**2.9**	--	**130**	--	**2,000**	< 4.0	--	**7.04**	**43,000**	**65,000**	--	< 0.0020	--	--	--	--	--	--	--	< 0.0050	--	--	< 4.0	--	--	--	--	--	--	**0.16**	--	--
MW-21	Closed Ash Pond 6	Downgradient	11/13/2015	**3.0**	--	**290**	--	**2,000**	< 4.0	--	**7.06**	**44,000**	**65,000**	--	< 0.0020	--	--	--	--	--	--	--	< 0.0050	--	--	< 4.0	--	--	--	--	--	--	**0.14**	--	--
MW-21	Closed Ash Pond 6	Downgradient	9/15/2016	**6.0**	--	**350**	--	**4,500**	< 0.40	--	**6.9**	**40,000**	**61,000**	--	< 0.0020	--	--	--	--	--	--	--	< 0.0050	--	--	< 0.40	--	--	--	< 0.00020	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	6/21/2020	--	--	--	--	--	--	**6.68**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0046**	--	--	--	--	--	**0.0053**	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	11/8/2020	**4.6**	--	--	--	--	--	**6.84**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0054**	--	--	--	--	--	**0.0035**	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	4/24/2021	**4.5**	--	--	--	--	--	**7.40**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0052**	--	--	--	--	--	**0.0029**	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	11/13/2021	**4.8**	--	--	--	--	--	**6.70**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0059**	--	--	--	--	--	**0.0039**	--	--	--

Groundwater Sampling Results for the Additional Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																					
			Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate		Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
			Filtered:	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Y	N	N	Y	N	N	N	N
			Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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
MW-30	Closed Ash Pond 6	Downgradient	11/20/2013	**47**	--	**480**	--	**770**	< 4.0	--	--	**9,400**	**16,000**	--	**0.0081**	--	--	--	--	--	--	--	**0.013**	--	--	< 4.0	--	--	--	--	--	--	**0.016**	--	--
MW-30	Closed Ash Pond 6	Downgradient	3/11/2014	**33**	--	**450**	--	**790**	< 0.80	--	--	**9,800**	**17,000**	--	**0.022**	--	--	--	--	--	--	--	**0.05**	--	--	< 0.80	--	--	--	--	--	--	**0.014**	--	--
MW-30	Closed Ash Pond 6	Downgradient	9/8/2014	**36**	--	**470**	--	**940**	< 0.80	--	--	**12,000**	**18,000**	--	< 0.0010	--	--	--	--	--	--	--	< 0.0025	--	--	< 0.80	--	--	--	--	--	--	**0.0094**	--	--
MW-30	Closed Ash Pond 6	Downgradient	12/9/2014	**42**	--	--	--	--	--	--	--	**--**	**--**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-30	Closed Ash Pond 6	Downgradient	3/16/2015	**43**	--	**430**	--	**740**	< 0.80	--	--	**9,800**	**15,000**	--	**0.00033**	--	--	--	--	--	--	--	< 0.00050	--	--	< 0.80	--	--	--	--	--	--	**0.0071**	--	--
MW-30	Closed Ash Pond 6	Downgradient	6/24/2015	**38**	--	**390**	--	**800**	< 0.40	--	**7.15**	**9,600**	**16,000**	--	< 0.030	--	--	--	--	--	--	--	< 0.030	--	--	< 0.40	--	--	--	--	--	--	< 0.030	--	--
MW-30	Closed Ash Pond 6	Downgradient	8/28/2015	**41**	--	**410**	--	**780**	< 2.0	--	**7.17**	**9,400**	**15,000**	--	< 0.0030	--	--	--	--	--	--	--	< 0.0030	--	--	< 2.0	--	--	--	--	--	--	**0.051**	--	--
MW-30	Closed Ash Pond 6	Downgradient	11/4/2015	**23**	--	**490**	--	**1,300**	< 2.0	--	**7.04**	**14,000**	**23,000**	< 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	Downgradient	6/21/2016	**37**	--	**430**	--	**900**	**0.51**	--	**7.33**	**9,300**	**16,000**	--	< 0.005	--	--	--	--	--	--	--	**0.0034**	--	--	**0.51**	--	--	--	< 0.00020	--	--	--	--	--
MW-30	Closed Ash Pond 6	Downgradient	4/25/2021	**28**	--	--	--	--	--	**7.48**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0025**	--	--	--	--	--	--	**0.0065**	--	--	--
MW-30	Closed Ash Pond 6	Downgradient	11/13/2021	**23**	--	--	--	--	--	**6.52**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0042**	--	--	--	--	--	--	**0.015**	--	--	--
MW-77S	Closed Ash Pond 6	Downgradient	6/22/2019	**9.6**	--	**440**	--	**2,100**	**1.1**	--	--	**13,000**	**23,000**	**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	Downgradient	4/24/2021	**11**	--	--	--	--	--	**7.72**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0053**	--	--	--	--	--	--	**0.028**	--	--	--
MW-77S	Closed Ash Pond 6	Downgradient	11/13/2021	**11**	--	--	--	--	--	**6.83**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0058**	--	--	--	--	--	--	**0.020**	--	--	--
MW-77S	Closed Ash Pond 6	Downgradient	11/13/2021	**12**	--	--	--	--	--	**6.83**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0057**	--	--	--	--	--	--	**0.020**	--	--	--
MW-78S	Closed Ash Pond 6	Downgradient	6/21/2020	--	--	--	--	--	--	**6.67**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0063**	--	--	--	--	--	--	**0.039**	--	--	--
MW-78S	Closed Ash Pond 6	Downgradient	4/24/2021	**1.5**	--	--	--	--	--	**7.34**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.019**	--	--	--	--	--	--	**0.022**	--	--	--
MW-78S	Closed Ash Pond 6	Downgradient	11/14/2021	**1.6**	--	--	--	--	--	**6.65**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0071**	--	--	--	--	--	--	**0.013**	--	--	--
MW-79S	Closed Ash Pond 6	Downgradient	6/22/2019	**37**	--	**420**	--	**850**	< 0.80	--	--	**8,500**	**15,000**	< 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	Downgradient	6/22/2019	**38**	--	**440**	--	**850**	< 0.80	--	--	**8,500**	**15,000**	< 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	Downgradient	4/24/2021	**17**	--	--	--	--	--	**7.51**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0038**	--	--	--	--	--	--	**0.011**	--	--	--
MW-79S	Closed Ash Pond 6	Downgradient	11/14/2021	**16**	--	--	--	--	--	**6.80**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0036**	--	--	--	--	--	--	**0.0092**	--	--	--
MW-81	Closed Ash Pond 6	Downgradient	6/22/2019	**21**	--	**410**	--	**780**	< 0.80	--	--	**8,500**	**15,000**	< 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	Downgradient	6/21/2020	--	--	--	--	--	--	**6.73**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.021**	--	--	--	--	--	--	**0.027**	--	--	--
MW-81	Closed Ash Pond 6	Downgradient	11/8/2020	**38**	--	--	--	--	--	**6.92**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.018**	--	--	--	--	--	--	**0.0077**	--	--	--
MW-81	Closed Ash Pond 6	Downgradient	4/24/2021	**38**	--	--	--	--	--	**7.52**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.020**	--	--	--	--	--	--	**0.0072**	--	--	--
MW-81	Closed Ash Pond 6	Downgradient	4/24/2021	**40**	--	--	--	--	--	**7.52**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.020**	--	--	--	--	--	--	**0.0073**	--	--	--
MW-81	Closed Ash Pond 6	Downgradient	11/14/2021	**45**	--	--	--	--	--	**6.74**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.023**	--	--	--	--	--	--	**0.0035**	--	--	--
MW-81	Closed Ash Pond 6	Downgradient	11/14/2021	**43**	--	--	--	--	--	**6.74**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.022**	--	--	--	--	--	--	**0.0034**	--	--	--
MW-82S	Closed Ash Pond 6	Downgradient	6/22/2019	**55**	--	**440**	--	**620**	< 0.80	--	--	**5,600**	**10,000**	< 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	Closed Ash Pond 6	Downgradient	6/21/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.13**	--	--	--	--	--	--	**0.0044**	--	--	--
MW-82S	Closed Ash Pond 6	Downgradient	11/8/2020	**60**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.10**	--	--	--	--	--	--	**0.0028**	--	--	--
MW-82S	Closed Ash Pond 6	Downgradient	11/14/2021	**55**	--	**420**	--	**730**	**0.35 J**	**6.44**	**7.3 J**	**7,700**	**11,000**	--	--	--	--	--	--	--	--	--	--	--	**0.060**	**0.35 J**	--	--	--	--	--	**0.00048 J**	--	--	--
MW-11	DFADA	Downgradient	11/18/2021	**0.50**		**510**		**5,600**	**2.9**	**6.56**	**7.1 J**	**140,000**	**79,000**												**0.022**	**2.9**							**0.0034**	--	--	--
EW-14	EW System	Downgradient	6/23/2020	**19**	--	**470**	--	**360**	< 0.8	--	**7.6 J**	**4,900**	**7,600**	< 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-15	EW System	Downgradient	6/23/2020	**19**	--	**430**	--	**670**	< 0.8	--	**7.6 J**	**4,400**	**7,400**	**0.0010**	**0.00099**	--	**0.0089**	--	--	--	**0.00048**	--	--	--	**0.017**	< 0.8	< 0.0005	--	--	--	--	**0.0039**	< 0.001	**0.00012**	**0.8**
IP-03	SIT	Downgradient	6/29/2015	**3.8**	--	**380**	--	**1,000**	< 4.0	--	**7.5**	**13,000**	**21,000**	--	< 0.0030	--	--	--	--	--	--	--	< 0.0030	--	--	< 4.0	--	--	--	--	--	--	**0.11**	--	--
IP-05	SIT	Downgradient	6/29/2015	**0.59**	--	**360**	--	**1,700**	< 4.0	--	**7.23**	**19,000**	**24,000**	--	< 0.0030	--	--	--	--	--	--	--	**0.0041**	--	--	< 4.0	--	--	--	--	--	--	**0.59**	--	--

Groundwater Sampling Results for the Additional Monitoring Wells

				Appendix III Constituents										Appendix IV Constituents																							
			Constituent:	Boron	Boron	Calcium	Calcium	Chloride	Fluoride	pH (Field Measurement)	pH (Laboratory Measurement)	Sulfate		Antimony	Arsenic	Arsenic	Barium	Barium	Beryllium	Beryllium	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Fluoride	Lead	Lead	Lithium	Mercury	Mercury	Molybdenum	Selenium	Thallium	Total Radium
			Filtered:	N	Y	N	Y	N	N	N	N	N	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	Y	N	N	Y	N	N	N	N
			Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	su	su	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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
SUMP-1	SIT	Downgradient	4/23/2021	**72**	--	--	--	--	--	**7.95**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.067**	--	--	--	--	--	--	**0.13**	--	--	--
SUMP-1	SIT	Downgradient	11/17/2021	**73**	--	--	--	**510**	--	**6.06**	--	--	**8,000**	--	--	--	--	--	--	--	--	--	--	--	**0.060**	--	--	--	--	--	--	**0.13**	--	--	--
SUMP-2	SIT	Downgradient	4/23/2021	**35**	--	--	--	--	--	**8.10**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0024**	--	--	--	--	--	--	**0.0054**	--	--	--
SUMP-2	SIT	Downgradient	11/17/2021	**37**	--	--	--	**530**	--	**6.69**	--	--	**7,100**	--	--	--	--	--	--	--	--	--	--	--	**0.00018 J**	--	--	--	--	--	--	**0.0051**	--	--	--
SUMP-3	SIT	Downgradient	4/23/2021	**37**	--	--	--	--	--	**8.05**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0025**	--	--	--	--	--	--	**0.017**	--	--	--
SUMP-3	SIT	Downgradient	11/17/2021	**26**	--	--	--	**960**	--	**7.01**	--	--	**26,000**	--	--	--	--	--	--	--	--	--	--	--	**0.0021**	--	--	--	--	--	--	**0.021**	--	--	--
SUMP-7	SIT	Downgradient	4/23/2021	**56**	--	--	--	--	--	**7.80**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.083**	--	--	--	--	--	--	**0.0054**	--	--	--
SUMP-7	SIT	Downgradient	11/17/2021	**58**	--	--	--	**710**	--	**6.00**	--	--	**9,800**	--	--	--	--	--	--	--	--	--	--	--	**0.082**	--	--	--	--	--	--	**0.0051**	--	--	--
SUMP-8	SIT	Downgradient	4/23/2021	**43**	--	--	--	--	--	**7.82**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.041**	--	--	--	--	--	--	**0.0032**	--	--	--
SUMP-8	SIT	Downgradient	11/17/2021	**46**	--	--	--	**820**	--	**8.50**	--	--	**17,000**	--	--	--	--	--	--	--	--	--	--	--	**0.036**	--	--	--	--	--	--	**0.0037**	--	--	--
SUMP-9	SIT	Downgradient	4/23/2021	**31**	--	--	--	--	--	**7.92**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.025**	--	--	--	--	--	--	**0.0023**	--	--	--
SUMP-9	SIT	Downgradient	11/17/2021	**31**	--	--	--	**630**	--	**6.38**	--	--	**9,800**	--	--	--	--	--	--	--	--	--	--	--	**0.022**	--	--	--	--	--	--	**0.0011**	--	--	--
SUMP-10	SIT	Downgradient	4/23/2021	**52**	--	--	--	--	--	**7.93**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.19**	--	--	--	--	--	--	**0.00085 J**	--	--	--
SUMP-10	SIT	Downgradient	11/17/2021	**55**	--	--	--	**520**	--	**6.55**	--	--	**9,900**	--	--	--	--	--	--	--	--	--	--	--	**0.19**	--	--	--	--	--	--	**0.00089 J**	--	--	--
SUMP-11	SIT	Downgradient	4/23/2021	**36**	--	--	--	--	--	**8.00**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.072**	--	--	--	--	--	--	**0.0055**	--	--	--
SUMP-11	SIT	Downgradient	11/17/2021	**53**	--	--	--	**540**	--	**6.45**	--	--	**10,000**	--	--	--	--	--	--	--	--	--	--	--	**0.18**	--	--	--	--	--	--	**0.0014**	--	--	--
SUMP-12	SIT	Downgradient	4/23/2021	**30**	--	--	--	--	--	**7.98**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.052**	--	--	--	--	--	--	< 0.002	--	--	--
SUMP-12	SIT	Downgradient	11/17/2021	**54**	--	--	--	**520**	--	**6.40**	--	--	**10,000**	--	--	--	--	--	--	--	--	--	--	--	**0.19**	--	--	--	--	--	--	**0.00088 J**	--	--	--
SUMP-13	SIT	Downgradient	4/23/2021	**33**	--	--	--	--	--	**7.99**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.041**	--	--	--	--	--	--	**0.0064**	--	--	--
SUMP-13	SIT	Downgradient	11/17/2021	**37**	--	--	--	**530**	--	**6.66**	--	--	**9,300**	--	--	--	--	--	--	--	--	--	--	--	**0.093**	--	--	--	--	--	--	**0.00097 J**	--	--	--
SUMP-14	SIT	Downgradient	4/23/2021	**31**	--	--	--	--	--	**8.14**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.11**	--	--	--	--	--	--	**0.021**	--	--	--
SUMP-14	SIT	Downgradient	11/17/2021	**31**	--	--	--	**470**	--	**6.43**	--	--	**9,900**	--	--	--	--	--	--	--	--	--	--	--	**0.061**	--	--	--	--	--	--	**0.0032**	--	--	--
SUMP-15	SIT	Downgradient	4/23/2021	**24**	--	--	--	--	--	**8.14**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.18**	--	--	--	--	--	--	**0.0020**	--	--	--
SUMP-15	SIT	Downgradient	11/17/2021	**5.6**	--	--	--	**1,700**	--	**6.95**	--	--	**38,000 J**	--	--	--	--	--	--	--	--	--	--	--	**0.0015**	--	--	--	--	--	--	**0.0032**	--	--	--
SUMP-16	SIT	Downgradient	4/23/2021	**23**	--	--	--	--	--	**8.19**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.082**	--	--	--	--	--	--	**0.0011 J**	--	--	--
SUMP-16	SIT	Downgradient	11/17/2021	**21**	--	--	--	**460**	--	**6.77**	--	--	**8,200**	--	--	--	--	--	--	--	--	--	--	--	**0.029**	--	--	--	--	--	--	**0.0029**	--	--	--
SUMP-17	SIT	Downgradient	4/23/2021	**18**	--	--	--	--	--	**8.07**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0013 J**	--	--	--	--	--	--	**0.0015 J**	--	--	--
SUMP-17	SIT	Downgradient	11/17/2021	**15**	--	--	--	**860**	--	**6.56**	--	--	**15,000**	--	--	--	--	--	--	--	--	--	--	--	**0.0011**	--	--	--	--	--	--	**0.0016**	--	--	--
SUMP-18	SIT	Downgradient	4/23/2021	**5.3**	--	--	--	--	--	**8.25**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0.0011 J**	--	--	--	--	--	--	**0.0033**	--	--	--
SUMP-18	SIT	Downgradient	11/17/2021	**4.6**	--	--	--	**1,700**	--	**7.07**	--	--	**37,000**	--	--	--	--	--	--	--	--	--	--	--	**0.0013**	--	--	--	--	--	--	**0.0036**	--	--	--
SUMP-18	SIT	Downgradient	11/17/2021	**5.4**	--	--	--	**1,700**	--	**7.07**	--	--	**38,000**	--	--	--	--	--	--	--	--	--	--	--	**0.0011**	--	--	--	--	--	--	**0.0032**	--	--	--

Groundwater Sampling Results for the Additional Monitoring Wells

				Additional Analyses																
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
DMX-01	Closed Ash Pond 6	Downgradient	4/20/1992	384	< 1	--	384	--	--	--	2090	--	--	37.5	--	--	0.080	--	3,100
DMX-01	Closed Ash Pond 6	Downgradient	3/18/2015	380	< 6.0	< 6.0	380	< 6.0	--	1,500	--	--	37	--	--	--	--	3,200	--
DMX-01	Closed Ash Pond 6	Downgradient	6/24/2015	380	< 6.0	< 6.0	380	< 6.0	--	1,600	--	--	39	--	--	--	--	3,200	--
DMX-01	Closed Ash Pond 6	Downgradient	8/28/2015	360	< 6.0	< 6.0	360	< 6.0	--	1,600	--	--	47	--	--	--	--	3,400	--
DMX-01	Closed Ash Pond 6	Downgradient	11/4/2015	360	< 6.0	< 6.0	360	< 6.0	--	1,500	--	--	37	--	--	--	--	3,200	--
DMX-01	Closed Ash Pond 6	Downgradient	6/21/2016	370	< 6.0	< 6.0	370	< 6.0	--	1,400	--	--	41	--	--	--	--	3,100	--
DMX-01	Closed Ash Pond 6	Downgradient	4/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DMX-01	Closed Ash Pond 6	Downgradient	11/14/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DMX-01	Closed Ash Pond 6	Downgradient	11/14/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	9/28/1987	--	--	--	270	--	--	--	1,100	--	--	46	--	--	< 0.05	--	2,600
MW-01	Closed Ash Pond 6	Downgradient	6/27/1988	319.6	--	--	262	< 0	--	1,120	--	--	48	--	--	--	--	2,360	--
MW-01	Closed Ash Pond 6	Downgradient	9/21/1988	378.2	--	--	310	< 0	--	1,060	--	--	47	--	--	--	--	2,150	--
MW-01	Closed Ash Pond 6	Downgradient	11/20/1988	366	--	--	300	< 0	--	1,070	--	--	54	--	--	--	--	2,190	--
MW-01	Closed Ash Pond 6	Downgradient	3/6/1989	488	--	--	400	< 0	--	1,080	--	--	53	--	--	--	--	2,190	--
MW-01	Closed Ash Pond 6	Downgradient	9/11/1989	610	--	--	500	< 0	--	1,173	--	--	54	--	--	--	--	2,200	--
MW-01	Closed Ash Pond 6	Downgradient	3/26/1990	427	--	--	350	< 0	--	950	--	--	46	--	--	--	--	2,200	--
MW-01	Closed Ash Pond 6	Downgradient	9/18/1990	305	--	--	250	< 0	--	1,000	--	--	40	--	--	--	--	2,200	--
MW-01	Closed Ash Pond 6	Downgradient	3/27/1991	396.5	--	--	325	< 0	--	1,000	--	--	47	--	--	--	--	2,130	--
MW-01	Closed Ash Pond 6	Downgradient	9/11/1991	305	--	--	250	< 0	--	1,100	--	--	49	--	--	--	--	2,100	--
MW-01	Closed Ash Pond 6	Downgradient	4/30/1992	335.5	--	--	275	< 0	--	1,300	--	--	42	--	--	--	--	2,100	--
MW-01	Closed Ash Pond 6	Downgradient	10/27/1992	396.5	--	--	325	< 0	--	1,000	--	--	49	--	--	--	--	1,900	--
MW-01	Closed Ash Pond 6	Downgradient	4/21/1993	427	--	--	350	< 0	--	900	--	--	55	--	--	--	--	2,000	--
MW-01	Closed Ash Pond 6	Downgradient	11/23/1993	335.5	--	--	275	< 0	--	900	--	--	53	--	--	--	--	2,100	--
MW-01	Closed Ash Pond 6	Downgradient	4/20/1994	305	--	--	250	< 0	--	1,000	--	--	64	--	--	--	--	2,400	--
MW-01	Closed Ash Pond 6	Downgradient	8/11/1994	244	--	--	200	< 0	--	900	--	--	60	--	--	--	--	2,100	--
MW-01	Closed Ash Pond 6	Downgradient	4/6/1995	457.5	--	--	375	< 0	--	1,100	--	--	59	--	--	--	--	2,400	--
MW-01	Closed Ash Pond 6	Downgradient	11/19/1995	335.5	--	--	275	< 0	--	1,000	--	--	55	--	--	--	--	3,000	--
MW-01	Closed Ash Pond 6	Downgradient	8/13/1996	610	--	--	500	< 0	--	900	--	--	43	--	--	--	--	2,200	--
MW-01	Closed Ash Pond 6	Downgradient	4/23/1997	457.5	--	--	375	< 0	--	800	--	--	39	--	--	--	--	1,800	--
MW-01	Closed Ash Pond 6	Downgradient	10/20/1997	457.5	--	--	375	< 0	--	800	--	--	42	--	--	--	--	1,700	--
MW-01	Closed Ash Pond 6	Downgradient	4/6/1998	457.5	--	--	375	< 0	--	--	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	10/19/1998	457.5	--	--	375	< 0	--	1,700	--	--	65	--	--	--	--	3,300	--
MW-01	Closed Ash Pond 6	Downgradient	6/9/1999	457.5	--	--	375	< 0	--	800	--	--	31.5	--	--	--	--	1,600	--
MW-01	Closed Ash Pond 6	Downgradient	12/6/1999	325.1	--	--	266.5	< 0	--	800	--	--	33	--	--	--	--	2,200	--
MW-01	Closed Ash Pond 6	Downgradient	5/24/2000	305	--	--	250	< 0	--	831	--	--	33.8	--	--	--	--	1,660	--
MW-01	Closed Ash Pond 6	Downgradient	11/14/2000	335.5	--	--	275	< 0	--	700	--	--	37	--	--	--	--	1,500	--
MW-01	Closed Ash Pond 6	Downgradient	8/22/2001	732	--	--	600	< 0	--	790	--	--	35	--	--	--	--	1,440	--
MW-01	Closed Ash Pond 6	Downgradient	12/5/2001	427	--	--	350	< 0	--	790	--	--	34.5	--	--	--	--	2,300	--
MW-01	Closed Ash Pond 6	Downgradient	6/11/2002	396.5	--	--	325	< 0	--	800	--	--	31.5	--	--	--	--	1,500	--
MW-01	Closed Ash Pond 6	Downgradient	12/17/2002	305	--	--	250	< 0	--	700	--	--	33	--	--	--	--	1,500	--
MW-01	Closed Ash Pond 6	Downgradient	5/28/2003	366	--	--	300	< 0	--	700	--	--	37.5	--	--	--	--	1,600	--
MW-01	Closed Ash Pond 6	Downgradient	12/24/2003	1,769	--	--	1,450	< 0	--	700	--	--	45	--	--	--	--	1,200	--
MW-01	Closed Ash Pond 6	Downgradient	4/21/2004	2,898	--	--	2,375	< 0	--	800	--	--	31.5	--	--	--	--	1,450	--
MW-01	Closed Ash Pond 6	Downgradient	11/29/2004	2,898	--	--	2,375	< 0	--	860	--	--	34	--	--	--	--	1,680	--
MW-01	Closed Ash Pond 6	Downgradient	6/5/2005	366	--	--	300	< 0	--	800	--	--	47	--	--	--	--	1,350	--
MW-01	Closed Ash Pond 6	Downgradient	12/12/2005	396.5	--	--	325	< 0	--	827	--	--	32	--	--	--	--	1,500	--
MW-01	Closed Ash Pond 6	Downgradient	5/17/2006	330.6	--	--	271	< 0	--	757	--	--	29.2	--	--	--	--	1,310	--
MW-01	Closed Ash Pond 6	Downgradient	10/12/2006	334.3	--	--	274	< 0	--	766	--	--	31.5	--	--	--	--	1,500	--
MW-01	Closed Ash Pond 6	Downgradient	4/19/2007	335.5	--	--	275	< 0	--	746	--	--	31.6	--	--	--	--	1,330	--
MW-01	Closed Ash Pond 6	Downgradient	11/19/2007	348.9	--	--	286	< 0	--	620	--	--	28.6	--	--	--	--	1,220	--
MW-01	Closed Ash Pond 6	Downgradient	5/8/2008	353.8	--	--	290	< 0	--	690	--	--	31.7	--	--	--	--	1,260	--
MW-01	Closed Ash Pond 6	Downgradient	9/27/2012	280	< 6.0	< 6.0	280	< 6.0	--	730	--	--	34	--	--	--	--	1,400	--
MW-01	Closed Ash Pond 6	Downgradient	9/27/2012	280	< 6.0	< 6.0	280	< 6.0	--	740	--	--	35	--	--	--	--	1,500	--
MW-01	Closed Ash Pond 6	Downgradient	11/18/2013	270	< 6.0	< 6.0	270	< 6.0	--	770	--	--	35	--	--	--	--	1,600	--
MW-01	Closed Ash Pond 6	Downgradient	11/18/2013	220	< 6.0	< 6.0	220	< 6.0	--	740	--	--	34	--	--	--	--	1,600	--
MW-01	Closed Ash Pond 6	Downgradient	9/9/2014	--	--	--	--	--	--	700	--	--	36	--	--	--	--	1,600	--
MW-01	Closed Ash Pond 6	Downgradient	9/9/2014	260	< 6.0	< 6.0	260	< 6.0	--	680	--	--	34	--	--	--	--	1,500	--
MW-01	Closed Ash Pond 6	Downgradient	3/17/2015	250	< 6.0	< 6.0	250	< 6.0	--	650	--	--	32	--	--	--	--	1,500	--
MW-01	Closed Ash Pond 6	Downgradient	6/30/2015	260	< 6.0	< 6.0	260	< 6.0	--	650	--	--	33	--	--	--	--	1,400	--
MW-01	Closed Ash Pond 6	Downgradient	8/27/2015	250	< 6.0	< 6.0	250	< 6.0	--	640	--	--	36	--	--	--	--	1,400	--
MW-01	Closed Ash Pond 6	Downgradient	6/17/2016	270	< 6.0	< 6.0	270	< 6.0	--	660	--	--	35	--	--	--	--	1,600	--
MW-01	Closed Ash Pond 6	Downgradient	9/15/2016	200	< 6.0	< 6.0	200	< 6.0	--	620	--	--	33	--	--	--	--	1,300	--
MW-01	Closed Ash Pond 6	Downgradient	6/21/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	6/21/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	11/8/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	11/8/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	4/24/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	4/24/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-01	Closed Ash Pond 6	Downgradient	11/13/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Groundwater Sampling Results for the Additional Monitoring Wells

				Additional Analyses																
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
MW-03	Closed Ash Pond 6	Downgradient	4/1/1987	--	--	--	**490**	--	--	--	**5,100**	--	--	**64**	--	--	**0.64**	--	**5,700**
MW-03	Closed Ash Pond 6	Downgradient	9/29/1987	--	--	--	**520**	--	--	--	**6,100**	--	--	**120**	--	--	< 0.05	--	**7,300**
MW-03	Closed Ash Pond 6	Downgradient	6/28/1988	**578.3**	--	--	**474**	< 0	--	**6,250**	--	--	**129**	--	--	--	--	**7,500**	--
MW-03	Closed Ash Pond 6	Downgradient	9/21/1988	**573.4**	--	--	**470**	< 0	--	**5,490**	--	--	**107**	--	--	--	--	**5,490**	--
MW-03	Closed Ash Pond 6	Downgradient	11/20/1988	**646.6**	--	--	**530**	< 0	--	**6,620**	--	--	**122**	--	--	--	--	**5,540**	--
MW-03	Closed Ash Pond 6	Downgradient	2/27/1989	**732**	--	--	**600**	< 0	--	**5,880**	--	--	**122**	--	--	--	--	**5,950**	--
MW-03	Closed Ash Pond 6	Downgradient	9/13/1989	**732**	--	--	**600**	< 0	--	**5,530**	--	--	**112**	--	--	--	--	**6,800**	--
MW-03	Closed Ash Pond 6	Downgradient	3/22/1990	**732**	--	--	**600**	< 0	--	**5,200**	--	--	**108**	--	--	--	--	**7,400**	--
MW-03	Closed Ash Pond 6	Downgradient	10/30/1990	**701.5**	--	--	**575**	< 0	--	**5,200**	--	--	**100**	--	--	--	--	**7,200**	--
MW-03	Closed Ash Pond 6	Downgradient	4/4/1991	**732**	--	--	**600**	< 0	--	**5,200**	--	--	**104**	--	--	--	--	**7,400**	--
MW-03	Closed Ash Pond 6	Downgradient	9/30/1991	**488**	--	--	**400**	< 0	--	**5,560**	--	--	**106**	--	--	--	--	**7,460**	--
MW-03	Closed Ash Pond 6	Downgradient	5/7/1992	**671**	--	--	**550**	< 0	--	**4,800**	--	--	**91**	--	--	--	--	**6,600**	--
MW-03	Closed Ash Pond 6	Downgradient	11/5/1992	**701.5**	--	--	**575**	< 0	--	**4,400**	--	--	**106**	--	--	--	--	**6,600**	--
MW-03	Closed Ash Pond 6	Downgradient	4/28/1993	**793**	--	--	**650**	< 0	--	**4,000**	--	--	**106**	--	--	--	--	**7,200**	--
MW-03	Closed Ash Pond 6	Downgradient	11/30/1993	**671**	--	--	**550**	< 0	--	**4,400**	--	--	**82**	--	--	--	--	**7,200**	--
MW-03	Closed Ash Pond 6	Downgradient	4/21/1994	**762.5**	--	--	**625**	< 0	--	**4,400**	--	--	**99**	--	--	--	--	**6,800**	--
MW-03	Closed Ash Pond 6	Downgradient	9/20/1994	**610**	--	--	**500**	< 0	--	**4,000**	--	--	**100**	--	--	--	--	**7,200**	--
MW-03	Closed Ash Pond 6	Downgradient	12/14/1994	--	--	--	--	--	--	**3,700**	--	--	**86**	--	--	--	--	**5,000**	--
MW-03	Closed Ash Pond 6	Downgradient	4/6/1995	**823.5**	--	--	**675**	< 0	--	**4,000**	--	--	**98**	--	--	--	--	**6,000**	--
MW-03	Closed Ash Pond 6	Downgradient	12/12/1995	**671**	--	--	**550**	< 0	--	**4,400**	--	--	**94**	--	--	--	--	**6,400**	--
MW-03	Closed Ash Pond 6	Downgradient	8/14/1996	**732**	--	--	**600**	< 0	--	**4,000**	--	--	**84**	--	--	--	--	**7,200**	--
MW-03	Closed Ash Pond 6	Downgradient	4/23/1997	**915**	--	--	**750**	< 0	--	**3,200**	--	--	**87**	--	--	--	--	**5,600**	--
MW-03	Closed Ash Pond 6	Downgradient	10/13/1997	**915**	--	--	**750**	< 0	--	**3,200**	--	--	**73**	--	--	--	--	**6,000**	--
MW-03	Closed Ash Pond 6	Downgradient	4/15/1998	**793**	--	--	**650**	< 0	--	**3,400**	--	--	**72**	--	--	--	--	**5,600**	--
MW-03	Closed Ash Pond 6	Downgradient	9/29/1998	**976**	--	--	**800**	< 0	--	**3,200**	--	--	**70**	--	--	--	--	**5,200**	--
MW-03	Closed Ash Pond 6	Downgradient	5/10/1999	**671**	--	--	**550**	< 0	--	**3,000**	--	--	**76**	--	--	--	--	**5,400**	--
MW-03	Closed Ash Pond 6	Downgradient	12/8/1999	**671**	--	--	**550**	< 0	--	**2,600**	--	--	**69**	--	--	--	--	**6,200**	--
MW-03	Closed Ash Pond 6	Downgradient	5/10/2000	**884.5**	--	--	**725**	< 0	--	**3,280**	--	--	**75.2**	--	--	--	--	**5,310**	--
MW-03	Closed Ash Pond 6	Downgradient	11/27/2000	**976**	--	--	**800**	< 0	--	**2,800**	--	--	**72**	--	--	--	--	**6,200**	--
MW-03	Closed Ash Pond 6	Downgradient	8/20/2001	**457.5**	--	--	**375**	< 0	--	**3,000**	--	--	**76**	--	--	--	--	**6,450**	--
MW-03	Closed Ash Pond 6	Downgradient	12/4/2001	**701.5**	--	--	**575**	< 0	--	**2,200**	--	--	**71**	--	--	--	--	**6,200**	--
MW-03	Closed Ash Pond 6	Downgradient	6/12/2002	**1,068**	--	--	**875**	< 0	--	**2,600**	--	--	**68**	--	--	--	--	**5,200**	--
MW-03	Closed Ash Pond 6	Downgradient	12/17/2002	**793**	--	--	**650**	< 0	--	**2,400**	--	--	**60**	--	--	--	--	**5,000**	--
MW-03	Closed Ash Pond 6	Downgradient	6/3/2003	**701.5**	--	--	**575**	< 0	--	**2,400**	--	--	**66**	--	--	--	**0.29**	**4,000**	--
MW-03	Closed Ash Pond 6	Downgradient	9/24/2003	**793**	--	--	**650**	< 0	--	**2,200**	--	--	**75**	--	--	--	--	**4,200**	--
MW-03	Closed Ash Pond 6	Downgradient	6/16/2004	**2,837**	--	--	**2,325**	< 0	--	**2,600**	--	--	**75**	--	--	--	--	**5,400**	--
MW-03	Closed Ash Pond 6	Downgradient	11/9/2004	**5,704**	--	--	**4,675**	< 0	--	**2,580**	--	--	**65.1**	--	--	--	--	**4,750**	--
MW-03	Closed Ash Pond 6	Downgradient	5/12/2005	**854**	--	--	**700**	< 0	--	**2,400**	--	--	**69**	--	--	--	--	**3,800**	--
MW-03	Closed Ash Pond 6	Downgradient	11/1/2005	**701.5**	--	--	**575**	< 0	--	**2,410**	--	--	**65.6**	--	--	--	--	**4,700**	--
MW-03	Closed Ash Pond 6	Downgradient	5/16/2006	**622.2**	--	--	**510**	< 0	--	**2,150**	--	--	**58.8**	--	--	--	--	**4,370**	--
MW-03	Closed Ash Pond 6	Downgradient	10/12/2006	**621**	--	--	**509**	< 0	--	**2,270**	--	--	**72**	--	--	--	--	**4,890**	--
MW-03	Closed Ash Pond 6	Downgradient	4/18/2007	**628.3**	--	--	**515**	< 0	--	**2,130**	--	--	**58**	--	--	--	--	**4,370**	--
MW-03	Closed Ash Pond 6	Downgradient	11/19/2007	**707.6**	--	--	**580**	< 0	--	**1,420**	--	--	**49.2**	--	--	--	--	**3,240**	--
MW-03	Closed Ash Pond 6	Downgradient	5/7/2008	**683.2**	--	--	**560**	< 0	--	**1,710**	--	--	**63.1**	--	--	--	--	**5,020**	--
MW-03	Closed Ash Pond 6	Downgradient	12/3/2009	**756.4**	--	--	**620**	< 0	--	**1,690**	--	--	**53.7**	--	--	--	--	**4,530**	--
MW-03	Closed Ash Pond 6	Downgradient	9/28/2012	**450**	< 6.0	< 6.0	**450**	< 6.0	--	**2,100**	--	--	**60**	--	--	--	--	**4,100**	--
MW-03	Closed Ash Pond 6	Downgradient	3/11/2014	**480**	< 6.0	< 6.0	**480**	< 6.0	--	**1,700**	--	--	**55**	--	--	--	--	**3,700**	--
MW-03	Closed Ash Pond 6	Downgradient	9/9/2014	**460**	< 6.0	< 6.0	**460**	< 6.0	--	**1,800**	--	--	**61**	--	--	--	--	**3,900**	--
MW-03	Closed Ash Pond 6	Downgradient	3/18/2015	**470**	< 6.0	< 6.0	**470**	< 6.0	--	**1,600**	--	--	**47**	--	--	--	--	**3,500**	--
MW-03	Closed Ash Pond 6	Downgradient	4/2/2015	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	6/24/2015	**440**	< 6.0	< 6.0	**440**	< 6.0	--	**1,800**	--	--	**56**	--	--	--	--	**3,400**	--
MW-03	Closed Ash Pond 6	Downgradient	8/28/2015	**450**	< 6.0	< 6.0	**450**	< 6.0	--	**1,700**	--	--	**65**	--	--	--	--	**3,400**	--
MW-03	Closed Ash Pond 6	Downgradient	11/4/2015	--	--	--	--	--	--	**1,800**	--	--	**57**	--	--	--	--	**4,000**	--
MW-03	Closed Ash Pond 6	Downgradient	11/12/2015	**410**	< 6.0	< 6.0	**410**	< 6.0	--	**1,600**	--	--	**50**	--	--	--	--	**3,300**	--
MW-03	Closed Ash Pond 6	Downgradient	6/20/2016	**480**	< 6.0	< 6.0	**480**	< 6.0	--	**1,800**	--	--	**58**	--	--	--	--	**3,700**	--
MW-03	Closed Ash Pond 6	Downgradient	9/15/2016	**600**	< 6.0	< 6.0	**600**	< 6.0	--	**1,800**	--	--	**61**	--	--	--	--	**3,600**	--
MW-03	Closed Ash Pond 6	Downgradient	9/15/2016	**400**	< 6.0	< 6.0	**400**	< 6.0	--	**1,700**	--	--	**58**	--	--	--	--	**3,500**	--
MW-03	Closed Ash Pond 6	Downgradient	6/21/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	11/8/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	4/24/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-03	Closed Ash Pond 6	Downgradient	11/13/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Groundwater Sampling Results for the Additional Monitoring Wells

				Additional Analyses																	
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
MW-19	Closed Ash Pond 6	Downgradient	9/29/1987	--	--	--	**640**	--	**--**	--	**6,000**	**--**	--	**11**	--	--	< 0.05	--	**7,600**
MW-19	Closed Ash Pond 6	Downgradient	6/14/1988	**732**	--	--	**600**	< 0	--	**8,225**	--	--	**168**	--	--	--	--	**8,425**	--
MW-19	Closed Ash Pond 6	Downgradient	9/18/1988	**773.5**	--	--	**634**	< 0	--	**8,240**	--	--	**136**	--	--	--	--	**8,540**	--
MW-19	Closed Ash Pond 6	Downgradient	11/20/1988	**793**	--	--	**650**	< 0	--	**9,610**	--	--	**146**	--	--	--	--	**7,860**	--
MW-19	Closed Ash Pond 6	Downgradient	2/28/1989	**976**	--	--	**800**	< 0	--	**8,250**	--	--	**153**	--	--	--	--	**8,110**	--
MW-19	Closed Ash Pond 6	Downgradient	9/12/1989	**854**	--	--	**700**	< 0	--	**8,000**	--	--	**125**	--	--	--	--	**8,200**	--
MW-19	Closed Ash Pond 6	Downgradient	3/22/1990	**732**	--	--	**600**	< 0	--	**6,400**	--	--	**116**	--	--	--	--	**8,800**	--
MW-19	Closed Ash Pond 6	Downgradient	10/30/1990	**732**	--	--	**600**	< 0	--	**6,000**	--	--	**110**	--	--	--	--	**7,600**	--
MW-19	Closed Ash Pond 6	Downgradient	4/3/1991	**793**	--	--	**650**	< 0	--	**6,000**	--	--	**111**	--	--	--	--	**7,600**	--
MW-19	Closed Ash Pond 6	Downgradient	9/25/1991	**823.5**	--	--	**675**	< 0	--	**5,800**	--	--	**108**	--	--	--	--	**7,780**	--
MW-19	Closed Ash Pond 6	Downgradient	5/7/1992	**793**	--	--	**650**	< 0	--	**5,200**	--	--	**92**	--	--	--	--	**7,400**	--
MW-19	Closed Ash Pond 6	Downgradient	11/5/1992	**854**	--	--	**700**	< 0	--	**4,800**	--	--	**110**	--	--	--	--	**6,800**	--
MW-19	Closed Ash Pond 6	Downgradient	4/27/1993	**793**	--	--	**650**	< 0	--	**4,400**	--	--	**111**	--	--	--	--	**6,800**	--
MW-19	Closed Ash Pond 6	Downgradient	12/1/1993	**732**	--	--	**600**	< 0	--	**4,800**	--	--	**101**	--	--	--	--	**8,000**	--
MW-19	Closed Ash Pond 6	Downgradient	5/10/1994	**793**	--	--	**650**	< 0	--	**8,000**	--	--	**216**	--	--	--	--	**24,000**	--
MW-19	Closed Ash Pond 6	Downgradient	11/16/1994	**793**	--	--	**650**	< 0	--	**4,000**	--	--	**160**	--	--	--	--	**7,000**	--
MW-19	Closed Ash Pond 6	Downgradient	4/6/1995	**762.5**	--	--	**625**	< 0	--	**4,000**	--	--	**122**	--	--	--	--	**9,000**	--
MW-19	Closed Ash Pond 6	Downgradient	12/12/1995	**701.5**	--	--	**575**	< 0	--	**5,200**	--	--	**150**	--	--	--	--	**10,000**	--
MW-19	Closed Ash Pond 6	Downgradient	8/15/1996	**945.5**	--	--	**775**	< 0	--	**3,600**	--	--	**96**	--	--	--	--	**8,000**	--
MW-19	Closed Ash Pond 6	Downgradient	4/14/1997	**854**	--	--	**700**	< 0	--	**3,600**	--	--	**90**	--	--	--	--	**6,000**	--
MW-19	Closed Ash Pond 6	Downgradient	10/13/1997	**945.5**	--	--	**775**	< 0	--	**3,600**	--	--	**77**	--	--	--	--	**5,400**	--
MW-19	Closed Ash Pond 6	Downgradient	5/10/1999	**854**	--	--	**700**	< 0	--	**2,800**	--	--	**70**	--	--	--	--	**5,200**	--
MW-19	Closed Ash Pond 6	Downgradient	12/1/1999	**640.5**	--	--	**525**	< 0	--	**2,400**	--	--	**60**	--	--	--	--	**6,000**	--
MW-19	Closed Ash Pond 6	Downgradient	5/30/2000	**671**	--	--	**550**	< 0	--	**2,980**	--	--	**71.8**	--	--	--	--	**5,090**	--
MW-19	Closed Ash Pond 6	Downgradient	11/27/2000	**823.5**	--	--	**675**	< 0	--	**2,400**	--	--	**72**	--	--	--	--	**5,000**	--
MW-19	Closed Ash Pond 6	Downgradient	8/21/2001	**701.5**	--	--	**575**	< 0	--	**2,140**	--	--	**68**	--	--	--	--	**4,800**	--
MW-19	Closed Ash Pond 6	Downgradient	12/4/2001	**610**	--	--	**500**	< 0	--	**2,000**	--	--	**61**	--	--	--	--	**5,600**	--
MW-19	Closed Ash Pond 6	Downgradient	6/11/2002	**1,159**	--	--	**950**	< 0	--	**2,000**	--	--	**65**	--	--	--	--	**4,600**	--
MW-19	Closed Ash Pond 6	Downgradient	12/17/2002	**671**	--	--	**550**	< 0	--	**1,600**	--	--	**60**	--	--	--	--	**4,000**	--
MW-19	Closed Ash Pond 6	Downgradient	5/29/2003	**701.5**	--	--	**575**	< 0	--	**2,000**	--	--	**67**	--	--	--	--	**4,600**	--
MW-19	Closed Ash Pond 6	Downgradient	12/15/2003	**2,898**	--	--	**2,375**	< 0	--	**3,200**	--	--	**65**	--	--	--	--	**1,800**	--
MW-19	Closed Ash Pond 6	Downgradient	6/18/2004	**5,887**	--	--	**4,825**	< 0	--	**2,400**	--	--	**63**	--	--	--	--	**5,200**	--
MW-19	Closed Ash Pond 6	Downgradient	11/30/2004	**1,037**	--	--	**850**	< 0	--	**2,800**	--	--	**60**	--	--	--	--	**4,800**	--
MW-19	Closed Ash Pond 6	Downgradient	6/14/2005	**762.5**	--	--	**625**	< 0	--	**2,400**	--	--	**66**	--	--	--	--	**3,200**	--
MW-19	Closed Ash Pond 6	Downgradient	12/12/2005	**945.5**	--	--	**775**	< 0	--	**2,850**	--	--	**62.9**	--	--	--	--	**5,630**	--
MW-19	Closed Ash Pond 6	Downgradient	5/15/2006	**928.4**	--	--	**761**	< 0	--	**2,930**	--	--	**68.4**	--	--	--	--	**5,770**	--
MW-19	Closed Ash Pond 6	Downgradient	4/17/2007	**979.7**	--	--	**803**	< 0	--	**3,030**	--	--	**75.5**	--	--	--	--	**5,890**	--
MW-19	Closed Ash Pond 6	Downgradient	5/8/2008	**1,013**	--	--	**830**	< 0	--	**2,540**	--	--	**87.6**	--	--	--	--	**7,720**	--
MW-19	Closed Ash Pond 6	Downgradient	11/18/2013	**850**	< 6.0	< 6.0	**850**	< 6.0	--	**2,700**	--	--	**77**	--	--	--	--	**7,900**	--
MW-19	Closed Ash Pond 6	Downgradient	3/11/2014	**840**	< 6.0	< 6.0	**840**	< 6.0	--	**2,600**	--	--	**74**	--	--	--	--	**7,000**	--
MW-19	Closed Ash Pond 6	Downgradient	9/9/2014	**800**	< 6.0	< 6.0	**800**	< 6.0	--	**2,700**	--	--	**78**	--	--	--	--	**7,400**	--
MW-19	Closed Ash Pond 6	Downgradient	12/8/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	3/18/2015	**660**	< 6.0	< 6.0	**660**	< 6.0	--	**2,600**	--	--	**67**	--	--	--	--	**6,200**	--
MW-19	Closed Ash Pond 6	Downgradient	6/30/2015	**790**	< 6.0	< 6.0	**790**	< 6.0	--	**2,700**	--	--	**73**	--	--	--	--	**6,200**	--
MW-19	Closed Ash Pond 6	Downgradient	8/25/2015	**780**	< 6.0	< 6.0	**780**	< 6.0	--	**2,700**	--	--	**84**	--	--	--	--	**6,700**	--
MW-19	Closed Ash Pond 6	Downgradient	11/3/2015	**770**	< 6.0	< 6.0	**770**	< 6.0	--	**2,700**	--	--	**68**	--	--	--	--	**6,300**	--
MW-19	Closed Ash Pond 6	Downgradient	6/17/2016	**820**	< 6.0	< 6.0	**820**	< 6.0	--	**2,700**	--	--	**79**	--	--	--	--	**7,300**	--
MW-19	Closed Ash Pond 6	Downgradient	6/21/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	11/7/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	4/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	4/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-19	Closed Ash Pond 6	Downgradient	11/14/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Groundwater Sampling Results for the Additional Monitoring Wells

				Additional Analyses																
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
MW-21	Closed Ash Pond 6	Downgradient	9/27/1987	--	--	--	690	--	--	--	8,000	--	--	220	--	--	< 0.05	--	27,000
MW-21	Closed Ash Pond 6	Downgradient	9/18/1988	480.7	--	--	394	< 0	--	3,590	--	--	123	--	--	--	--	11,200	--
MW-21	Closed Ash Pond 6	Downgradient	11/20/1988	610	--	--	500	< 0	--	5,180	--	--	195	--	--	--	--	13,600	--
MW-21	Closed Ash Pond 6	Downgradient	3/6/1989	1,464	--	--	1,200	< 0	--	4,220	--	--	162	--	--	--	--	15,500	--
MW-21	Closed Ash Pond 6	Downgradient	9/12/1989	671	--	--	550	< 0	--	3,170	--	--	104	--	--	--	--	11,500	--
MW-21	Closed Ash Pond 6	Downgradient	3/22/1990	732	--	--	600	< 0	--	4,800	--	--	150	--	--	--	--	19,000	--
MW-21	Closed Ash Pond 6	Downgradient	9/18/1990	732	--	--	600	< 0	--	4,000	--	--	140	--	--	--	--	17,500	--
MW-21	Closed Ash Pond 6	Downgradient	3/20/1991	1,037	--	--	850	< 0	--	5,600	--	--	156	--	--	--	--	20,900	--
MW-21	Closed Ash Pond 6	Downgradient	9/24/1991	884.5	--	--	725	< 0	--	5,200	--	--	146	--	--	--	--	19,950	--
MW-21	Closed Ash Pond 6	Downgradient	5/1/1992	1,068	--	--	875	< 0	--	6,000	--	--	142	--	--	--	--	22,000	--
MW-21	Closed Ash Pond 6	Downgradient	11/2/1992	1,129	--	--	925	< 0	--	5,500	--	--	172	--	--	--	--	21,500	--
MW-21	Closed Ash Pond 6	Downgradient	4/21/1993	1,159	--	--	950	< 0	--	5,500	--	--	176	--	--	--	--	22,500	--
MW-21	Closed Ash Pond 6	Downgradient	12/1/1993	915	--	--	750	< 0	--	5,000	--	--	192	--	--	--	--	21,000	--
MW-21	Closed Ash Pond 6	Downgradient	4/27/1994	1,007	--	--	825	< 0	--	6,000	--	--	188	--	--	--	--	21,500	--
MW-21	Closed Ash Pond 6	Downgradient	9/19/1994	1,098	--	--	900	< 0	--	5,500	--	--	168	--	--	--	--	21,000	--
MW-21	Closed Ash Pond 6	Downgradient	12/14/1994	--	--	--	--	--	--	4,100	--	--	110	--	--	--	--	14,000	--
MW-21	Closed Ash Pond 6	Downgradient	4/5/1995	915	--	--	750	< 0	--	4,000	--	--	140	--	--	--	--	16,000	--
MW-21	Closed Ash Pond 6	Downgradient	12/12/1995	823.5	--	--	675	< 0	--	5,000	--	--	154	--	--	--	--	20,000	--
MW-21	Closed Ash Pond 6	Downgradient	8/15/1996	854	--	--	700	< 0	--	4,000	--	--	118	--	--	--	--	16,000	--
MW-21	Closed Ash Pond 6	Downgradient	6/23/1997	884.5	--	--	725	< 0	--	3,000	--	--	110	--	--	--	--	11,500	--
MW-21	Closed Ash Pond 6	Downgradient	10/14/1997	762.5	--	--	625	< 0	--	3,000	--	--	104	--	--	--	--	11,500	--
MW-21	Closed Ash Pond 6	Downgradient	4/13/1998	671	--	--	550	< 0	--	3,000	--	--	120	--	--	--	--	13,000	--
MW-21	Closed Ash Pond 6	Downgradient	5/10/1999	945.5	--	--	775	< 0	--	4,000	--	--	118	--	--	--	--	15,500	--
MW-21	Closed Ash Pond 6	Downgradient	12/6/1999	823.5	--	--	675	< 0	--	4,000	--	--	110	--	--	--	--	20,500	--
MW-21	Closed Ash Pond 6	Downgradient	5/24/2000	823.5	--	--	675	< 0	--	4,760	--	--	125	--	--	--	--	16,300	--
MW-21	Closed Ash Pond 6	Downgradient	11/13/2000	1,190	--	--	975	< 0	--	4,000	--	--	166	--	--	--	--	26,000	--
MW-21	Closed Ash Pond 6	Downgradient	8/20/2001	762.5	--	--	625	< 0	--	3,850	--	--	130	--	--	--	--	18,000	--
MW-21	Closed Ash Pond 6	Downgradient	12/4/2001	976	--	--	800	< 0	--	4,000	--	--	106	--	--	--	--	20,000	--
MW-21	Closed Ash Pond 6	Downgradient	6/12/2002	976	--	--	800	< 0	--	3,000	--	--	106	--	--	--	--	13,500	--
MW-21	Closed Ash Pond 6	Downgradient	12/17/2002	854	--	--	700	< 0	--	3,000	--	--	98	--	--	--	--	13,000	--
MW-21	Closed Ash Pond 6	Downgradient	6/2/2003	823.5	--	--	675	< 0	--	3,500	--	--	138	--	--	--	--	12,000	--
MW-21	Closed Ash Pond 6	Downgradient	6/3/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	0.68	--	--
MW-21	Closed Ash Pond 6	Downgradient	9/23/2003	793	--	--	650	< 0	--	4,000	--	--	120	--	--	--	--	15,500	--
MW-21	Closed Ash Pond 6	Downgradient	6/14/2004	8,357	--	--	6,850	< 0	--	4,000	--	--	120	--	--	--	--	19,500	--
MW-21	Closed Ash Pond 6	Downgradient	11/8/2004	7,930	--	--	6,500	< 0	--	4,270	--	--	121	--	--	--	--	16,200	--
MW-21	Closed Ash Pond 6	Downgradient	5/11/2005	1,068	--	--	875	< 0	--	3,500	--	--	118	--	--	--	--	11,500	--
MW-21	Closed Ash Pond 6	Downgradient	10/31/2005	1,037	--	--	850	< 0	--	3,880	--	--	114	--	--	--	--	15,700	--
MW-21	Closed Ash Pond 6	Downgradient	5/15/2006	974.8	--	--	799	< 0	--	3,720	--	--	108	--	--	--	--	15,400	--
MW-21	Closed Ash Pond 6	Downgradient	10/11/2006	999.2	--	--	819	< 0	--	3,640	--	--	120	--	--	--	--	15,700	--
MW-21	Closed Ash Pond 6	Downgradient	4/17/2007	998	--	--	818	< 0	--	3,440	--	--	108	--	--	--	--	14,800	--
MW-21	Closed Ash Pond 6	Downgradient	11/20/2007	1,159	--	--	950	< 0	--	1,950	--	--	96	--	--	--	--	13,500	--
MW-21	Closed Ash Pond 6	Downgradient	4/30/2008	1,159	--	--	950	< 0	--	2,410	--	--	136	--	--	--	--	12,200	--
MW-21	Closed Ash Pond 6	Downgradient	12/4/2009	951.6	--	--	780	< 0	--	1,940	--	--	80.9	--	--	--	--	11,400	--
MW-21	Closed Ash Pond 6	Downgradient	12/29/2009	1,159	--	--	950	20	--	3,180	--	--	97.6	--	--	--	--	12,700	--
MW-21	Closed Ash Pond 6	Downgradient	9/29/2012	490	< 6.0	< 6.0	490	< 6.0	--	1,800	--	--	72	--	--	--	--	7,100	--
MW-21	Closed Ash Pond 6	Downgradient	11/20/2013	1,000	< 6.0	< 6.0	1,000	< 6.0	--	3,900	--	--	110	--	--	--	--	18,000	--
MW-21	Closed Ash Pond 6	Downgradient	3/11/2014	920	< 6.0	< 6.0	920	< 6.0	--	3,400	--	--	110	--	--	--	--	15,000	--
MW-21	Closed Ash Pond 6	Downgradient	9/9/2014	560	< 6.0	< 6.0	560	< 6.0	--	1,700	--	--	84	--	--	--	--	7,200	--
MW-21	Closed Ash Pond 6	Downgradient	12/9/2014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	3/18/2015	850	< 6.0	< 6.0	850	< 6.0	--	3,200	--	--	99	--	--	--	--	15,000	--
MW-21	Closed Ash Pond 6	Downgradient	6/24/2015	850	< 6.0	< 6.0	850	< 6.0	--	3,300	--	--	98	--	--	--	--	14,000	--
MW-21	Closed Ash Pond 6	Downgradient	8/28/2015	540	< 6.0	< 6.0	540	< 6.0	--	2,000	--	--	91	--	--	--	--	7,600	--
MW-21	Closed Ash Pond 6	Downgradient	11/4/2015	--	--	--	--	--	--	3,300	--	--	100	--	--	--	--	16,000	--
MW-21	Closed Ash Pond 6	Downgradient	11/13/2015	700	< 6.0	< 6.0	700	< 6.0	--	1,600	--	--	47	--	--	--	--	6,800	--
MW-21	Closed Ash Pond 6	Downgradient	11/13/2015	710	< 6.0	< 6.0	710	< 6.0	--	1,600	--	--	48	--	--	--	--	6,500	--
MW-21	Closed Ash Pond 6	Downgradient	9/15/2016	1,000	< 6.0	< 6.0	1,000	< 6.0	--	3,000	--	--	97	--	--	--	--	15,000	--
MW-21	Closed Ash Pond 6	Downgradient	6/21/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	11/8/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	4/24/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-21	Closed Ash Pond 6	Downgradient	11/13/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Groundwater Sampling Results for the Additional Monitoring Wells

				Additional Analyses																	
			Constituent:	Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
			Filtered:	N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
MW-30	Closed Ash Pond 6	Downgradient	11/20/2013	**390**	< 6.0	< 6.0	**390**	< 6.0	--	**1,200**	--	--	**36**	--	--	--	--	**2,200**	--
MW-30	Closed Ash Pond 6	Downgradient	3/11/2014	**430**	< 6.0	< 6.0	**430**	< 6.0	--	**1,300**	--	--	**51**	--	--	--	--	**2,100**	--
MW-30	Closed Ash Pond 6	Downgradient	9/8/2014	**470**	< 6.0	< 6.0	**470**	< 6.0	--	**1,500**	--	--	**33**	--	--	--	--	**2,700**	--
MW-30	Closed Ash Pond 6	Downgradient	12/9/2014	--	--	--	--	--	--	**--**	--	--	--	--	--	--	--	**--**	--
MW-30	Closed Ash Pond 6	Downgradient	3/16/2015	**420**	< 6.0	< 6.0	**420**	< 6.0	--	**1,200**	--	--	**37**	--	--	--	--	**2,100**	--
MW-30	Closed Ash Pond 6	Downgradient	6/24/2015	**410**	< 6.0	< 6.0	**410**	< 6.0	--	**1,300**	--	--	**36**	--	--	--	--	**2,000**	--
MW-30	Closed Ash Pond 6	Downgradient	8/28/2015	**390**	< 6.0	< 6.0	**390**	< 6.0	--	**1,200**	--	--	**39**	--	--	--	--	**2,100**	--
MW-30	Closed Ash Pond 6	Downgradient	11/4/2015	**680**	< 6.0	< 6.0	**680**	< 6.0	--	**2,100**	--	--	**47**	--	--	--	--	**3,600**	--
MW-30	Closed Ash Pond 6	Downgradient	6/21/2016	**420**	< 6.0	< 6.0	**420**	< 6.0	--	**1,300**	--	--	**38**	--	--	--	--	**2,100**	--
MW-30	Closed Ash Pond 6	Downgradient	4/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-30	Closed Ash Pond 6	Downgradient	11/13/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-77S	Closed Ash Pond 6	Downgradient	6/22/2019	**580**	< 6.0	< 6.0	**580**	< 6.0	--	**1,100**	--	--	**60**	--	--	--	--	**4,400**	--
MW-77S	Closed Ash Pond 6	Downgradient	4/24/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-77S	Closed Ash Pond 6	Downgradient	11/13/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-77S	Closed Ash Pond 6	Downgradient	11/13/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-78S	Closed Ash Pond 6	Downgradient	6/21/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-78S	Closed Ash Pond 6	Downgradient	4/24/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-78S	Closed Ash Pond 6	Downgradient	11/14/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-79S	Closed Ash Pond 6	Downgradient	6/22/2019	**400**	< 6.0	< 6.0	**400**	< 6.0	--	**1,000**	--	--	**39**	--	--	--	--	**2,100**	--
MW-79S	Closed Ash Pond 6	Downgradient	6/22/2019	**400**	< 6.0	< 6.0	**400**	< 6.0	--	**1,000**	--	--	**40**	--	--	--	--	**2,200**	--
MW-79S	Closed Ash Pond 6	Downgradient	4/24/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-79S	Closed Ash Pond 6	Downgradient	11/14/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-81	Closed Ash Pond 6	Downgradient	6/22/2019	**520**	< 6.0	< 6.0	**520**	< 6.0	--	**800**	--	--	**42**	--	--	--	--	**2,200**	--
MW-81	Closed Ash Pond 6	Downgradient	6/21/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-81	Closed Ash Pond 6	Downgradient	11/8/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-81	Closed Ash Pond 6	Downgradient	4/24/2021	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-81	Closed Ash Pond 6	Downgradient	4/24/2021	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-81	Closed Ash Pond 6	Downgradient	11/14/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-81	Closed Ash Pond 6	Downgradient	11/14/2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-82S	Closed Ash Pond 6	Downgradient	6/22/2019	**260**	< 6.0	< 6.0	**260**	< 6.0	--	**610**	--	--	**25**	--	--	--	--	**1,300**	--
MW-82S	Closed Ash Pond 6	Downgradient	6/21/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-82S	Closed Ash Pond 6	Downgradient	11/8/2020	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-82S	Closed Ash Pond 6	Downgradient	11/14/2021	**200**	**120**	< 6	**320**	**59**	--	**880**	--	--	**27**	--	--	--	--	**1,600**	--
MW-11	DFADA	Downgradient	11/18/2021	**750**	< 6	< 6	**750**	< 6	--	**10,000**		--	**160**	--	--	--	--	**14,000**	--
EW-14	EW System	Downgradient	6/23/2020	**140**	< 6	< 6	**140**	< 6	--	**420**	--	--	**26**	--	< 0.4	< 0.6	--	**1,400**	--
EW-15	EW System	Downgradient	6/23/2020	**140**	< 6	< 6	**140**	< 6	--	**350**	--	--	**26**	--	< 0.4	**0.8**	--	**1,200**	--
IP-03	SIT	Downgradient	6/29/2015	**580**	< 6.0	< 6.0	**580**	< 6.0	--	**1,400**	--	--	**60**	--	--	--	--	**3,500**	--
IP-05	SIT	Downgradient	6/29/2015	**780**	< 6.0	< 6.0	**780**	< 6.0	--	**2,000**	--	--	**81**	--	--	--	--	**6,100**	--

Groundwater Sampling Results for the Additional Monitoring Wells

				Additional Analyses																	
Constituent:				Alkalinity Bicarbonate	Alkalinity Carbonate	Alkalinity Hydroxide	Alkalinity(as CaCO3)	Alkalinity, Phenolphthalein, as CaCO3	Iron	Magnesium	Magnesium	Manganese	Potassium	Potassium	Radium 226	Radium 228	Selenium	Sodium	Sodium
Filtered:				N	N	N	N	N	N	N	Y	N	N	Y	N	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	pCi/L	pCi/L	mg/L	mg/L	mg/L
SUMP-1	SIT	Downgradient	4/23/2021	--	--	--	--	--	**0.19**	--	--	**0.0088 J**	--	--	--	--	--	--	--
SUMP-1	SIT	Downgradient	11/17/2021	--	--	--	--	--	**0.15**	**560**	--	**0.015**	--	--	--	--	--	--	--
SUMP-2	SIT	Downgradient	4/23/2021	--	--	--	--	--	**4.9**	--	--	**0.046**	--	--	--	--	--	--	--
SUMP-2	SIT	Downgradient	11/17/2021	--	--	--	--	--	**5.2**	**490**	--	**0.0047 J**	--	--	--	--	--	--	--
SUMP-3	SIT	Downgradient	4/23/2021	--	--	--	--	--	**0.21**	--	--	**0.64**	--	--	--	--	--	--	--
SUMP-3	SIT	Downgradient	11/17/2021	--	--	--	--	--	**0.27**	**1,200**	--	**0.16**	--	--	--	--	--	--	--
SUMP-7	SIT	Downgradient	4/23/2021	--	--	--	--	--	**0.31**	--	--	**0.052**	--	--	--	--	--	--	--
SUMP-7	SIT	Downgradient	11/17/2021	--	--	--	--	--	**0.30**	**810**	--	**0.057**	--	--	--	--	--	--	--
SUMP-8	SIT	Downgradient	4/23/2021	--	--	--	--	--	**0.62**	--	--	< 0.01	--	--	--	--	--	--	--
SUMP-8	SIT	Downgradient	11/17/2021	--	--	--	--	--	**1.9**	**1,400**	--	**0.0037 J**	--	--	--	--	--	--	--
SUMP-9	SIT	Downgradient	4/23/2021	--	--	--	--	--	**1.8**	--	--	**0.0019 J**	--	--	--	--	--	--	--
SUMP-9	SIT	Downgradient	11/17/2021	--	--	--	--	--	**0.38**	**840**	--	< 0.01	--	--	--	--	--	--	--
SUMP-10	SIT	Downgradient	4/23/2021	--	--	--	--	--	**2.2**	--	--	**0.024**	--	--	--	--	--	--	--
SUMP-10	SIT	Downgradient	11/17/2021	--	--	--	--	--	**2.2**	**480**	--	**0.026**	--	--	--	--	--	--	--
SUMP-11	SIT	Downgradient	4/23/2021	--	--	--	--	--	**0.67**	--	--	**0.0011 J**	--	--	--	--	--	--	--
SUMP-11	SIT	Downgradient	11/17/2021	--	--	--	--	--	**6.8**	**510**	--	**0.034**	--	--	--	--	--	--	--
SUMP-12	SIT	Downgradient	4/23/2021	--	--	--	--	--	**0.86**	--	--	**< 0.01**	--	--	--	--	--	--	--
SUMP-12	SIT	Downgradient	11/17/2021	--	--	--	--	--	**5.5**	**450**	--	**0.016**	--	--	--	--	--	--	--
SUMP-13	SIT	Downgradient	4/23/2021	--	--	--	--	--	**0.15**	--	--	**0.0018 J**	--	--	--	--	--	--	--
SUMP-13	SIT	Downgradient	11/17/2021	--	--	--	--	--	**1.4**	**500**	--	**0.0087 J**	--	--	--	--	--	--	--
SUMP-14	SIT	Downgradient	4/23/2021	--	--	--	--	--	**1.7**	--	--	**0.013**	--	--	--	--	--	--	--
SUMP-14	SIT	Downgradient	11/17/2021	--	--	--	--	--	**3.1**	**420**	--	**0.010**	--	--	--	--	--	--	--
SUMP-15	SIT	Downgradient	4/23/2021	--	--	--	--	--	**0.63**	--	--	**0.088**	--	--	--	--	--	--	--
SUMP-15	SIT	Downgradient	11/17/2021	--	--	--	--	--	**0.97**	**3,500**	--	**0.012**	--	--	--	--	--	--	--
SUMP-16	SIT	Downgradient	4/23/2021	--	--	--	--	--	**0.14**	--	--	< 0.01	--	--	--	--	--	--	--
SUMP-16	SIT	Downgradient	11/17/2021	--	--	--	--	--	**21**	**850**	--	**0.65**	--	--	--	--	--	--	--
SUMP-17	SIT	Downgradient	4/23/2021	--	--	--	--	--	**0.29**	--	--	**0.0012 J**	--	--	--	--	--	--	--
SUMP-17	SIT	Downgradient	11/17/2021	--	--	--	--	--	**0.15**	**960**	--	**0.00042 J**	--	--	--	--	--	--	--
SUMP-18	SIT	Downgradient	4/23/2021	--	--	--	--	--	**0.55**	--	--	**0.032**	--	--	--	--	--	--	--
SUMP-18	SIT	Downgradient	11/17/2021	--	--	--	--	--	**0.31**	**3,200**	--	**0.032**	--	--	--	--	--	--	--
SUMP-18	SIT	Downgradient	11/17/2021	--	--	--	--	--	**0.33**	**3,500**	--	**0.040**	--	--	--	--	--	--	--

Notes:

Duplicate sample dates under the same locations are either field duplicates or are instances of samples with multiple filed/lab sample IDs on the same date.

Abbreviations and Data Qualifiers:

*data appear anomalous
< = less than
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 = Piccocuries per liter
su = standard units

Appendix G

CCR Groundwater Detection Monitoring Statistical Analysis and Results for the CWTP Appendix III Constituent Data Collected Through November 2020

Technical Memorandum

To:	Arizona Public Service Company	**File No:**	14-2021-2005
From:	Mari Wuollet	**Reviewed by:**	Maren Henley, PE
Date:	April 12, 2021		

Subject: **CCR GROUNDWATER DETECTION MONITORING**
STATISTICAL ANALYSIS AND RESULTS FOR THE CWTP
APPENDIX III CONSTITUENT DATA COLLECTED THROUGH NOVEMBER 2020
Arizona Public Service 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 Four Corners Power Plant (Site) in Fruitland, New Mexico. The statistical evaluation was performed by Wood Environment and Infrastructure Solutions, Inc.'s subcontractor, Geosciences Consulting Strategies, 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 (Federal Register, 2018).

The CWTP is a Site CCR unit that is currently in the detection monitoring program. The CCR Rule requires routine evaluations of Appendix III constituent data collected from CWTP downgradient wells to determine if a statistically significant increase (SSI) over background threshold values (BTVs) has occurred. The statistical evaluation documented herein incorporates Appendix III constituent data collected from CWTP downgradient wells MW-62, MW-63, MW-64, and MW-65 through January 2021.

To address an initial exceedance of the fluoride BTV at MW-62 in June 2020, the previous statistical evaluation for the CWTP recommended implementing a 1 of 3 resampling strategy to determine if the initial fluoride exceedance was statistically significant (Wood 2020b). The November 2020 sampling event constitutes the first resampling event practicable in the 1 of 3 resampling strategy; results of the resampling are presented in Section 2.0.

The evaluation presented in Attachment A also includes the update of interwell BTVs for the CWTP based on the recommendations and conclusions of alternative source demonstrations (ASDs) completed by Wood (Wood 2019; Wood 2020c). An update of the intrawell BTVs will be conducted after additional compliance sample data become available per USA EPA Unified Guidance (U.S. EPA, 2009).

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2.0 STATISTICAL EVALUATION RESULTS

Attachment A presents the statistical evaluation and BTV recalculations performed by Geosciences Consulting. The results of the evaluation are summarized as follows:

- There are currently no SSIs over BTVs for Appendix III constituents at the CWTP downgradient wells.
- An initial exceedance of 2.1 mg/L over the boron BTV of 2.0 mg/L was detected at MW-62; this exceedance triggers a 1 of 3 resampling strategy for this constituent and monitoring location.
- An initial exceedance of 1.6 mg/L over the fluoride BTV of 1.5 mg/L was detected at MW-64; this exceedance triggers a 1 of 3 resampling strategy for this constituent and monitoring location.
- An initial exceedance of 2.1 mg/L over the fluoride BTV of 2.0 mg/L was detected at MW-65; this exceedance triggers a 1 of 3 resampling strategy for this constituent and monitoring location.
- Fluoride was detected at 1.8 mg/L during both June 2020 and November 2020 at MW-62, over the fluoride BTV of 1.6 mg/L, but was detected at 1.2 mg/L in January 2021; this resampling nullifies the 0.2 ppm initial exceedances from sampling conducted in 2020.
- A statistically significant decreasing temporal trend is evident for chloride and pH at MW-63; boron, pH and TDS at MW-64; and for boron, calcium, chloride, pH and TDS at MW-65. A statistically significant increasing temporal trend is evident for calcium at MW-63.
- Based on review of the preliminary Exploratory Data Analysis for future updates to the intrawell BTVs for fluoride and pH, results indicate there is insufficient evidence to conclude the two sample populations are statistically different (2015 to 2017, and 2017 to present) and it is practical to combine more recent sample data with historical data to make the interwell BTVs more representative of future sample values.

3.0 RECOMMENDATIONS

Based on the results of the statistical evaluation presented in Attachment A and pursuant to the CCR Rule, continuation of detection monitoring at a semiannual frequency for Appendix III constituents at the CWTP is warranted because there are currently no SSIs over Appendix III constituent BTVs. In accordance with the *Statistical Data Analysis Workplan* developed for the Site and the US EPA's Unified Guidance (Wood, 2020a; US EPA 2009), a 1 of 3 resampling strategy for boron at MW-62 and fluoride at both MW-64 and MW-65 should be implemented as soon as practicable to determine if the initial exceedances of these constituents, are statistically significant. Wood also recommends continued trend testing after each monitoring event and updates to the statistical method selection and BTVs after 1-2 years of future sampling events.

4.0 REFERENCES

Federal Register, 2018. *40 Code of Federal Regulations Part 257 – Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule promulgated April 17, 2015 with Amendments to the National Minimum Criteria (Phase One, Part One) effective August 29, 2018.*

United States Environmental Protection Agency (U.S. 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.

Wood Environment & Infrastructure Solutions, Inc. (Wood), 2019. *Alternative Source Demonstration for Boron, Calcium, Fluoride, and pH at the CWTP*. Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico. Technical Memorandum dated July 15, 2019.

Wood, 2020a. *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. June 2020.

Wood, 2020b. *CCR Groundwater Detection Monitoring Statistical Analysis and Results for the CWTP Appendix III Constituent Data Collected Through June 2020*. Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico. Technical Memorandum dated October 13, 2020.

Wood, 2020c. *Alternative Source Demonstration for Calcium at the CWTP*. Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico. Technical Memorandum dated July 12, 2020.

ATTACHMENT A

Technical Memorandum

To: Maren Henley, PE
Wood Environment & Infrastructure Solutions, Inc.

From: Carla Landrum, PhD
Geoscience Consulting Strategies LLC

Date: March 31, 2021

Subject: **CCR Groundwater Detection Monitoring**
Statistical Evaluation of November 2020 & Preceding CWTP Data
Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico

1.0 INTRODUCTION

This Technical Memorandum (Tech Memo) documents the ongoing statistical evaluation of detection monitoring (i.e., Appendix III 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 routine 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, 2018; Wood Environment & Infrastructure Solutions, Inc. [Wood], 2020a).

The CWTP underwent two Alternative Source Demonstration (ASD) in 2019 and 2020 in response to multiple declarations of statistically significant increases (SSI) over respective Appendix III Background Threshold Values (BTVs) for fluoride, pH, boron and calcium (Wood, 2019a Wood 2020b). The ASDs concluded that the exceedances were not due to a release from the CWTP but were attributable to:

- The varying presence of fill materials at the compliance and background monitoring locations for fluoride;
- Surface-groundwater interactions for pH; and
- Spatial and temporal heterogeneity in the compliance and background well sample concentrations of boron and calcium.

To adequately address this heterogeneity, the BTVs for the CWTP reflect both interwell and intrawell statistical calculations. In response to recommendations put forth by the US EPA Unified Guidance (US EPA 2009), the interwell BTVs for this CCR Unit reflect background groundwater sample data collected through November 2020. Intrawell BTV updates are discussed in Section 3.0.

This Tech Memo documents the routine statistical evaluation of detection monitoring groundwater data collected through November 2020 in compliance groundwater wells at the CWTP. The following sections present data inputs, statistical methods, results and conclusions for the subject analysis.

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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 this CWTP Appendix III constituent statistical analysis ranges from November 2015 through November 2020 and includes the minimum of eight initial, or baseline, sampling rounds required by the Coal Combustion Residuals (CCR) Rule and five subsequent sampling rounds of detection monitoring that occur on a semi-annual frequency. 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).

This data evaluation includes 21 to 24 sample results for boron, calcium, chloride, fluoride, sulfate, total dissolved solids (TDS), and pH at each compliance monitoring well. The first, second, third, fourth, fifth, sixth and seventh rounds of detection monitoring at the CWTP were conducted in November 2017, June 2018, November 2018, May 2019, December 2019, June 2020 and November 2020 respectively; all Appendix III constituents were evaluated in collected samples during these monitoring events except for chloride and sulfate in May 2019 due to the inadvertent exclusion of these analytes on the Chain of Custody in the field. Calcium includes an additional sample in January 2021 to confirm a pre-declared initial exceedances in MW-62 (Wood, 2020c) and this sample is discussed in Section 4.0 below.

Appendix A contains the contents of the ProUCL data upload tables for the subject analysis. Data inputs for this statistical analysis were prepared, and provided by, Wood. The Appendix III analytes are listed by name or chemical symbol as column headers in the ProUCL data upload table. By ProUCL convention (US EPA, 2015), 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." The detection frequency is 100% for all compliance well sample data listed in Appendix A.

3.0 METHODS

The statistical methods and approach to complete the subject analysis are documented in the SDAWP (Wood, 2020a).

Table 1 summarizes updated interwell BTVs, including background groundwater sample data up to November 2020, and the standing intrawell BTVs established in 2019 (Wood 2019b). Table 1 also identifies the type of resampling strategy in effect by constituent.

Updates to intrawell BTVs are important and relevant but need special consideration since they incorporate compliance data and "background", or "baseline", data within the same well to calculate a new BTV. The premise for updating an intrawell BTV is to ensure the "background" or "baseline" statistical population is representative of the future sample population expected from the groundwater monitoring well, assuming no groundwater impact is occurring from the CWTP. Furthermore, updates to the intrawell BTV will make the statistical comparisons more robust by addressing documented inadequacies in the background sample population at the CWTP, per declared in the CWTP ASDs (Wood 2019a; Wood, 2020b). The US EPA suggests updating intrawell BTVs using the following criteria:

- At least 4 – 8 intrawell compliance samples are available;
- There are no SSI declarations when comparing intrawell compliance samples to the established intrawell BTV; and

- A Student's t-test or Wilcoxon rank-sum test between the intrawell BTV statistical sample population and the intrawell statistical compliance population shows no significant difference ($p < 0.01$).

Provided the US EPA guidance above, preliminary EDA was performed as part of this statistical evaluation to assess if intrawell BTV updates are viable for the CWTP.

The subject statistical analysis consists of comparing the November 2020 sample concentrations to corresponding not-to-exceed BTVs in Table 1. If an exceedance exists, the statistical significance of this exceedance is assessed through the prescribed resampling strategy.

4.0 **RESULTS**

Table 2 summarizes: 1) which Appendix III constituents exhibit exceedances above their respective BTVs/intrawell UPL for each compliance well and 2) which constituents exhibit statistically significant ($p<0.05$) temporal trends.

Exploratory Data Analysis (EDA) is a relevant precursor assessment of overall data adequacy for completing the subject analysis. Appendix B and Appendix C contain the raw ProUCL EDA outputs.

This statistical analysis results in the following:

Monitoring Well MW-62. The November 2020 sampling event for fluoride exceeds the intrawell BTV by 0.2 ppm; this exceedance mirrors that of the July 2020 sampling event for fluoride at this location (Table 2), which triggered the 1 of 3 resampling strategy that is in place for fluoride at this monitoring location (Table 2; Wood, 2020c). For an SSI declaration to occur, a 1 of 3 resampling strategy must result in the initial exceedance and two consecutive resample events exceeding the BTV. The two consecutive fluoride concentrations were 1.8 ppm and 1.2 ppm for November 2020 and January 2021, respectively. The January 2021 sampling event, in addition to the infinitesimal 0.2 ppm exceedance for June 2020 and November 2020, suggests there is not sufficient evidence at this time to declare an SSI for fluoride at the CWTP.

The November 2020 sampling event demonstrates an initial exceedance for boron, where the sample concentration exceeds the respective BTV by an infinitesimal 0.1 ppm; thereby triggering a 1 of 3 resampling strategy to determine of this initial exceedance is statistically significant ($p<0.05$). The remaining Appendix III constituent concentrations are below their respective BTVs for the November 2020 sampling event.

There are statistically significant ($p<0.05$) decreasing trends for chloride and TDS at this monitoring location for sample data shown in Appendix A.

Monitoring Well MW-63. There are no Appendix III exceedances for the November 2020 sampling event for this monitoring location. There are statistically significant ($p<0.05$) decreasing trends for chloride and pH, and a statistically significant ($p<0.05$) increasing trend for calcium at this monitoring location for sample data shown in Appendix A.

Monitoring Well MW-64. The November 2020 sampling event demonstrates an initial exceedance for fluoride at this monitoring location, where the sample concentration exceeds the respective BTV by an infinitesimal 0.1 ppm. This initial exceedance triggers a 1 of 3 resampling strategy to determine of this

initial exceedance is statistically significant ($p<0.05$). There are statistically significant ($p<0.05$) decreasing trends for boron, pH and TDS at this monitoring location for sample data shown in Appendix A.

Monitoring Well MW-65. The November 2020 sampling event demonstrates an initial exceedance for fluoride, where the sample concentration exceeds the respective BTV by an infinitesimal 0.1 ppm. This initial exceedance triggers a 1 of 3 resampling strategy to determine of this initial exceedance is statistically significant ($p<0.05$). The remaining Appendix III constituent concentrations are below their respective BTVs for the November 2020 sampling event. There are statistically significant ($p<0.05$) decreasing trends for boron, calcium, chloride, pH and TDS at this monitoring location for sample data shown in Appendix A.

Preliminary Intrawell Exploratory Data Analysis: Appendix C includes preliminary EDA outputs for performing forthcoming updates to the intrawell BTVs for fluoride and pH. Depending on the goodness of fit statistics, a parametric (Student's t) or non-parametric (Mann Wilcox Whitney) comparison was made between "background" or "baseline" (e.g., sample data from 2005 to 2017) and compliance (e.g., sample data from 2017 to current) sample datasets at the 99% confidence level. Results indicate there is insufficient evidence to conclude the two sample populations are statistically different and it is practical to combine more recent sample data with historic data in an effort to make the interwell BTVs more representative of future sample values. The box and whisker plots put forth as part of Appendix C provide a qualitative representation of these comparisons.

Statistically significant ($p<0.05$) temporal trends present in "baseline" sample dataset for pH in both MW-64 and MW-65. These trends are not apparent in the sample dataset post-2017; suggesting that pH temporal fluctuations in these wells between 2005 and 2017 might not be representative of long-term pH variations over time and updates to the intrawell BTVs are necessary.

5.0 CONCLUSIONS

This statistical analysis results in the following conclusions for the CWTP detection monitoring statistical analysis:

- There is insufficient evidence to declare statistically significant increases in Appendix III constituent concentrations over respective BTVs at this time (Table 1).

- The initial exceedance at MW-62 for boron, and MW-64 and MW-65 for fluoride, triggers a 1 of 3 resampling procedure for these monitoring locations. In brief, three statistically independent groundwater samples should be collected at these locations before the next scheduled monitoring event to determine if the November 2020 initial exceedances are statistically significant ($p<0.05$).

- Intrawell BTVs should be updated in accordance with the US EPA Unified Guidance (2009) to address sampling inadequacies put forth in the 2019 and 2020 ASDs for the CWTP (Wood, 2019a; Wood, 2020b).

6.0 **REFERENCES**

Federal Register, 2018. 40 Code of Federal Regulations Part 257 – Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule promulgated April 17, 2015 with Amendments to the National Minimum Criteria (Phase One, Part One) effective August 29, 2018.

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Wood, 2019a. *Alternative Source Demonstration for Boron, Calcium, Fluoride and pH at the CWTP*. Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico. Technical Memorandum dated July 15, 2019.

Wood, 2019b. CCR Groundwater Detection Monitoring Evaluation of May 2019 Data Collected from the CWTP. Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico. Technical Memorandum dated, October 15, 2019.

Wood, 2020a. *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. June 2020.

Wood, 2020b. *Alternative Source Demonstration for Calcium at the CWTP*. Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico. Technical Memorandum dated July 12, 2020.

Wood, 2020c. CCR Groundwater Detection Monitoring Statistical Evaluation of June 2020 & Preceding CWTP Data. Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico. Technical Memorandum, October 5, 2020.

ATTACHMENTS

Table 1 – Interwell and Intrawell BTVs for the Four Corners CWTP
Table 2 – CWTP Downgradient Sample Data Summary

Appendix A – ProUCL Data Upload Table
Appendix B – ProUCL EDA Output Files
Appendix C – ProUCL EDA for Intrawell Datasets

TABLES

Table 1
Interwell and Intrawell BTVs for the Four Corners CWTP
Appendix III Statistical Analysis

Background Wells	Dates Corresponding to Data Used to Derive UPL	Constituent	Interwell (BTV Calculation Method)	Units	Resampling Strategy[1]
MW-71 and MW-72	3/5/2016-11/5/2020	Boron	0.70 (NP-UPL)[2]	mg/L	1 of 2
MW-73	2/2/2017-11/5/2020	Boron	2.0 (NP-UPL)[3]	mg/L	1 of 3
MW-71 and MW-72	3/5/2016-11/05/2020	Calcium	500 (NP-UPL)[2]	mg/L	1 of 2
MW-73	3/5/2016-11/05/2020	Calcium	551 (P-UPL)[3]	mg/L	1 of 2
MW-71, MW-72, and MW-73	3/5/2016-11/05/2020	Chloride	634 (P-UPL)	mg/L	1 of 2
MW-71, MW-72, and MW-73	3/5/2016-11/05/2020	pH (upper limit)	6.93 (P-UPL)[3]	SU	1 of 2
MW-71, MW-72, and MW-73	3/5/2016-11/05/2020	pH (lower limit)	6.48 (P-LPL)[3]	SU	1 of 2
MW-71, MW-72, and MW-73	3/5/2016-11/05/2020	Sulfate	13,000 (NP-UPL)	mg/L	1 of 3
MW-71, MW-72, and MW-73	3/5/2016-11/05/2020	TDS	20,000 (NP-UPL)	mg/L	1 of 3

Compliance Well	Dates Corresponding to Data Used to Derive UPL	Constituent	Intrawell UPL (BTV Calculation Method[1])	Units	Resampling Strategy[1]
MW-62	11/9/2015-10/13/2017	Fluoride	1.6 (NP-UPL)	mg/L	1 of 3
MW-63	11/4/2015-10/13/2017	Fluoride	2.3 (P-UPL)	mg/L	1 of 3
MW-64	11/5/2015-10/13/2017	Fluoride	1.5 (NP-UPL)	mg/L	1 of 3
MW-64	11/5/2015-10/13/2017	pH	7.68 (P-UPL)	SU	1 of 2
MW-64	11/5/2015-10/13/2017	pH	7.25 (P-LPL)	SU	1 of 2
MW-65	11/5/2015-10/13/2017	Fluoride	2.0 (NP-UPL)	mg/L	1 of 3
MW-65	11/5/2015-10/13/2017	pH	8.27 (NP-UPL)	SU	1 of 3
MW-65	11/5/2015-10/13/2017	pH	6.96 (NP-LPL)	SU	1 of 3

Notes:

BTV = background threshold value
CWTP = Combined Waste Treatment Pond
LPL = Lower Prediction Limit
mg/L = milligrams per liter
NP = Non Parametric
P = Parametric
SU = standard units
UPL = Upper Prediction Limit

[1] A 1 of 2 resampling strategy is in place for parametric prediction limits. If a 1 of 3 resampling strategy is in place for a non-parametric prediction limit, the limit represents the second ranked (e.g. second order statistic) concentration value of the data set. If a 1 of 2 resampling strategy is in place for a non-parametric prediction limit, the limit represents the first ranked (e.g., maximum order statistic) concentration value of the data set.

[2] Only applicable to MW-64 and MW-65

[3] Only applicable to MW-62 and MW-63

Table 2
Four Corners CWTP Downgradient Sample Data Summary
Appendix III Statistical Analysis

Well	Sample_ID	SampleDate	Constituent Concentration						
			Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
MW-62	FC-CCR-MW62-110915	11/9/2015	*2.1*	*520*	*150*	*1.6*	*6.63*	*3600*	*6700*
MW-62	FC-CCR-MW-62-042716	4/27/2016	*2.0*	*530*	*150*	*1.6*	*6.77*	*3200*	*6100*
MW-62	FC-CCR-MW62-616	6/5/2016	*2.0*	*510*	*140*	*1.5*	*6.50*	*3300*	*5900*
MW-62	FC-CCR-MW62-816	8/20/2016	*2.3*	*530*	*120*	*1.5*	*7.40*	*3300*	*5800*
MW-62	FC-CCR-MW62-916	9/12/2016	*2.5*	*570*	*130*	*1.5*	*6.73*	*3300*	*2400*
MW-62	FC-CCR-MW62-1016	10/19/2016	*2.2*	*480*	*120*	*1.2*	*6.57*	*3300*	*6000*
MW-62	FC-CCR-MW62-117	2/1/2017	*2.1*	*510*	*110*		*6.68*	*3400*	*5600*
MW-62	FC-CCR-MW62-41617	4/16/2017	*1.9*	*500*	*120*	*1.2*	*6.64*	*3300*	*5900*
MW-62	FC-CCR-MW62-5117	5/1/2017	*1.9*	*520*	*110*	*3.3*	*6.64*	*3800*	*5800*
MW-62	FC-CCR-MW62-52917	5/29/2017	*1.9*	*570*	*120*	*1.2*	*6.50*	*3500*	*5500*
MW-62	FC-CCR-MW62-62117	6/21/2017	*1.9*	*520*	*120*	*1.4*	*6.54*	*3600*	*5700*
MW-62	FC-CCR-MW62-72117	7/21/2017	*2.1*	*540*	*99*	*1.5*	*6.69*	*3300*	*5400*
MW-62	FC-CCR-MW62-8917	8/9/2017	*2.2*	*540*	*110*	*1.4*	*6.41*	*3400*	*5400*
MW-62	FC-CCR-MW62-81617	8/16/2017	*2.1*	*590*	*110*	*1.6*	*6.36*	*3200*	*5400*
MW-62	FC-CCR-MW62-9917	9/9/2017	*2.3*	*570*	*120*	*1.5*	*6.41*	*3300*	*5500*
MW-62	FC-CCR-MW62-101317	10/13/2017	*2.2*	*520*	*130*	*1.5*	*6.46*	*3300*	*5600*
MW-62	FC-CCR-MW62-113017	11/30/2017	2.3	570	130	1.4	6.43	3400	5900
MW-62	FC-CCR-MW62-4618	4/6/2018	2.1	520	--	--	6.70	--	--
MW-62	FC-CCR-MW-62-6318	6/3/2018	1.8	490	120	1.6	6.59	3500	5900
MW-62	FC-CCR-MW62-11218	11/2/2018	2.4	550	110	1.5	6.46	3300	5600
MW-62	FC-CCR-MW62-5719-01	5/7/2019	1.8	540	--	1.4	6.65	--	5800
MW-62	FC-CCR-MW62-120319	12/3/2019	2.1	530	--	1.5	6.37	--	5000
MW-62	FC-CCR-MW62-0620	6/19/2020	1.9	490	82	**1.8**	7	2800	4700
MW-62	FC-CCR-MW62-011421	11/05/2020	**2.1**	510	130	**1.8**	6.57	3500	5300
MW-62	FC-CCR-MW62-011421	01/14/2021	--	--	--	1.2	--	--	--
		Units:	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*SU*	*mg/L*	*mg/L*
		BTV or Intrawell UPL [1,2]:	***2.0***	***551***	***634***	***1.6***	***6.93/6.48***	***13,000***	***20,000***
		Temporal Trend [3]:	*None*	*None*	*Decreasing*	*None*	*None*	*None*	*Decreasing*

Table 2
Four Corners CWTP Downgradient Sample Data Summary
Appendix III Statistical Analysis

Well	Sample_ID	SampleDate	Constituent Concentration						
			Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
MW-63	FC-CCR-MW63-110415	11/4/2015	*1.6*	*420*	*77*	*2.4*	*6.86*	*2800*	*4100*
MW-63	FC-CCR-MW-63-042716	4/27/2016	*1.3*	*500*	*100*	*2.0*	*6.88*	*2300*	*4300*
MW-63	FC-CCR-MW63-616	6/5/2016	*1.4*	*500*	*110*	*1.9*	*6.70*	*2500*	*4400*
MW-63	FC-CCR-MW63-816	8/20/2016	*1.9*	*530*	*98*	*1.9*	*6.92*	*2800*	*4700*
MW-63	FC-CCR-MW63-916	9/12/2016	*2.0*	*550*	*110*	*2.1*	*7.03*	*2800*	*4700*
MW-63	FC-CCR-MW63-1016	10/19/2016	*1.7*	*470*	*100*	*1.8*	*6.82*	*2700*	*4500*
MW-63	FC-CCR-MW63-117	1/31/2017	*1.4*	*510*	*95*	*2.0*	*6.67*	*2600*	*4200*
MW-63	FC-CCR-MW63-41717	4/17/2017	*1.4*	*520*	*98*	*1.6*	*6.78*	*2600*	*4400*
MW-63	FC-CCR-MW63-5217	5/2/2017	*1.4*	*510*	*92*	*2.5*	*6.79*	*4300*	*4300*
MW-63	FC-CCR-MW63-52817	5/28/2017	*1.5*	*550*	*98*	*1.6*	*6.80*	*2700*	*4300*
MW-63	FC-CCR-MW63-62117	6/21/2017	*1.6*	*520*	*100*	*1.9*	*6.78*	*2900*	*4400*
MW-63	FC-CCR-MW63-72117	7/21/2017	*1.8*	*530*	*98*	*2.0*	*6.87*	*2900*	*4600*
MW-63	FC-CCR-MW63-8917	8/9/2017	*1.9*	*530*	*97*	*1.9*	*6.56*	*2900*	*4500*
MW-63	FC-CCR-MW63-81617	8/16/2017	*1.8*	*580*	*100*	*2.1*	*6.53*	*2700*	*4500*
MW-63	FC-CCR-MW63-9917	9/9/2017	*2.0*	*540*	*97*	*2.0*	*6.83*	*2700*	*4300*
MW-63	FC-CCR-MW63-101317	10/13/2017	*1.8*	*500*	*90*	*2.0*	*6.69*	*2700*	*4300*
MW-63	FC-CCR-MW63-113017	11/30/2017	1.7	560	91	1.8	6.72	2700	4500
MW-63	FC-CCR-MW63-4618	4/6/2018	1.3	530	--	--	6.75	--	--
MW-63	FC-CCR-MW-63-6318	6/3/2018	1.4	510	90	1.7	6.76	2600	4500
MW-63	FC-CCR-MW63-112818	11/2/2018	1.9	550	88	1.9	6.66	2800	4300
MW-63	FC-CCR-MW63-5719-02	5/7/2019	1.3	540	--	1.6	6.63	--	4400
MW-63	FC-CCR-MW63-120319	12/3/2019	1.6	550	--	1.8	6.58	--	4300
MW-63	FC-CCR-MW63-0620	06/19/2020	1.5	540	77	2.1	6.53	2400	4200
MW-63	FC-CCR-MW63-1120	11/05/2020	1.7	550	85	2.2	6.72	2800	4200
		Units:	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*SU*	*mg/L*	*mg/L*
		BTV or Intrawell UPL [1,2]:	***2.0***	***551***	***634***	***2.3***	***6.93/6.48***	***13,000***	***20,000***
		Temporal Trend [3]:	*None*	*Increasing*	*Decreasing*	*None*	*Decreasing*	*None*	*None*

Table 2
Four Corners CWTP Downgradient Sample Data Summary
Appendix III Statistical Analysis

Well	Sample_ID	SampleDate	Constituent Concentration						
			Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
MW-64	FC-CCR-MW64-110515	11/5/2015	*0.6*	*87*	*49*	*1.5*	*7.64*	*320*	*780*
MW-64	FC-CCR-MW-64-042716	4/27/2016	*0.62*	*90*	*53*	*1.4*	*7.50*	*340*	*810*
MW-64	FC-CCR-MW64-616	6/5/2016	*0.58*	*86*	*52*	*1.4*	*7.29*	*350*	*800*
MW-64	FC-CCR-MW64-816	8/20/2016	*0.65*	*89*	*46*	*1.3*	*7.68*	*330*	*790*
MW-64	FC-CCR-MW64-916	9/12/2016	*0.67*	*90*	*52*	*1.5*	*7.54*	*320*	*790*
MW-64	FC-CCR-MW64-1016	10/19/2016	*0.64*	*83*	*53*	*1.5*	*7.52*	*330*	*790*
MW-64	FC-CCR-MW64-117	1/31/2017	*0.61*	*85*	*48*	*1.4*	*7.38*	*340*	*800*
MW-64	FC-CCR-MW64-41717	4/17/2017	*0.58*	*85*	*51*	*1.4*	*7.53*	*870*	*800*
MW-64	FC-CCR-MW64-5217	5/2/2017	*0.55*	*86*	*44*	*1.3*	*7.47*	*340*	*780*
MW-64	FC-CCR-MW64-52817	5/28/2017	*0.55*	*93*	*51*	*1.5*	*7.45*	*380*	*780*
MW-64	FC-CCR-MW64-62117	6/21/2017	*0.55*	*86*	*51*	*1.4*	*7.50*	*390*	*770*
MW-64	FC-CCR-MW64-72117	7/21/2017	*0.59*	*88*	*52*	*1.5*	*7.61*	*370*	*790*
MW-64	FC-CCR-MW64-8917	8/9/2017	*0.61*	*89*	*52*	*1.5*	*7.31*	*380*	*890*
MW-64	FC-CCR-MW64-81617	8/16/2017	*0.58*	*89*	*53*	*1.5*	*7.29*	*360*	*790*
MW-64	FC-CCR-MW64-9917	9/9/2017	*0.67*	*90*	*53*	*1.5*	*7.36*	*350*	*810*
MW-64	FC-CCR-MW64-101317	10/13/2017	*0.62*	*82*	*52*	*1.4*	*7.42*	*360*	*790*
MW-64	FC-CCR-MW64-113017	11/30/2017	0.64	90	52	1.4	7.37	350	780
MW-64	FC-CCR-MW-64-6318	6/3/2018	0.48	85	50	1.4	7.54	390	800
MW-64	FC-CCR-MW64-11218	11/2/2018	0.64	88	50	1.4	7.43	350	760
MW-64	FC-CCR-MW64-5719-03	5/7/2019	0.49	89	--	1.4	7.41	--	790
MW-64	FC-CCR-MW64-120319	12/3/2019	0.56	82	--	1.5	7.29	--	720
MW-64	FC-CCR-MW64-0620	06/19/2020	0.47	77	49	1.3	7.22	300	790
MW-64	FC-CCR-MW64-1120	11/05/2020	0.51	73	53	**1.6**	7.49	270	720
		Units:	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*SU*	*mg/L*	*mg/L*
		BTV or Intrawell UPL [1,2]:	***0.7***	***500***	***634***	***1.5***	***7.68/7.25***	***13,000***	***20,000***
		Temporal Trend [3]:	*Decreasing*	*None*	*None*	*None*	*Decreasing*	*None*	*Decreasing*

Table 2
Four Corners CWTP Downgradient Sample Data Summary
Appendix III Statistical Analysis

Well	Sample_ID	SampleDate	Constituent Concentration						
			Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
MW-65	FC-CCR-MW65-110515	11/5/2015	*0.86*	*100*	*52*	*2.0*	*7.50*	*440*	*1000*
MW-65	FC-CCR-MW-65-042716	4/27/2016	*0.76*	*110*	*55*	*1.8*	*7.29*	*460*	*1100*
MW-65	FC-CCR-MW65-616	6/5/2016	*0.75*	*100*	*54*	*2.0*	*7.08*	*460*	*1100*
MW-65	FC-CCR-MW65-816	8/20/2016	*0.79*	*100*	*52*	*1.7*	*8.27*	*450*	*1000*
MW-65	FC-CCR-MW65-916	9/12/2016	*0.83*	*110*	*54*	*2.0*	*7.52*	*480*	*1100*
MW-65	FC-CCR-MW65-1016	10/19/2016	*0.77*	*95*	*54*	*2.0*	*7.36*	*450*	*1000*
MW-65	FC-CCR-MW65-117	2/1/2017	*0.76*	*96*	*51*	*1.8*	*7.35*	*410*	*970*
MW-65	FC-CCR-MW65-41617	4/16/2017	*0.83*	*120*	*60*	*1.8*	*7.21*	*490*	*1300*
MW-65	FC-CCR-MW65-5117	5/1/2017	*0.79*	*110*	*58*	*1.6*	*7.24*	*500*	*1100*
MW-65	FC-CCR-MW65-52917	5/29/2017	*0.98*	*160*	*77*	*1.8*	*7.10*	*790*	*1500*
MW-65	FC-CCR-MW65-62117	6/21/2017	*0.92*	*140*	*68*	*1.9*	*7.06*	*710*	*1400*
MW-65	FC-CCR-MW65-72117	7/21/2017	*0.76*	*110*	*53*	*2.0*	*7.31*	*470*	*1000*
MW-65	FC-CCR-MW65-8917	8/9/2017	*0.76*	*110*	*53*	*2.0*	*7.15*	*500*	*1000*
MW-65	FC-CCR-MW65-81617	8/16/2017	*0.75*	*110*	*53*	*2.0*	*6.96*	*500*	*1000*
MW-65	FC-CCR-MW65-9917	9/9/2017	*0.80*	*110*	*53*	*2.0*	*7.04*	*450*	*1000*
MW-65	FC-CCR-MW65-101317	10/13/2017	*0.75*	*92*	*52*	*1.9*	*7.13*	*400*	*960*
MW-65	FC-CCR-MW65-113017	11/30/2017	0.79	100	53	2.0	7.21	410	990
MW-65	FC-CCR-MW-65-6318	6/3/2018	0.62	98	52	1.9	7.22	480	1000
MW-65	FC-CCR-MW65-11218	11/2/2018	0.77	100	51	1.9	7.18	420	940
MW-65	FC-CCR-MW65-5719-05	5/7/2019	0.60	100	--	1.7	7.13	--	970
MW-65	FC-CCR-MW65-120319	12/3/2019	0.65	89	--	1.9	7.10	--	850
MW-65	FC-CCR-MW65-0620	06/19/2020	0.57	88	48	1.7	7.18	380	940
MW-65	FC-CCR-MW65-1120	11/05/2020	0.61	82	52	**2.1**	7.36	350	780
	Units:		*mg/L*	*mg/L*	*mg/L*	*mg/L*	*SU*	*mg/L*	*mg/L*
	BTV or Intrawell UPL [1,2]:		***0.7***	***500***	***634***	***2***	***8.27/6.96***	***13,000***	***20,000***
	Temporal Trend [3]:		*Decreasing*	*Decreasing*	*Decreasing*	*None*	*Decreasing*	*None*	*Decreasing*

Table 2
Four Corners CWTP Downgradient Sample Data Summary
Appendix III Statistical Analysis

Well	Sample_ID	SampleDate	Constituent Concentration						
			Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS

Notes:

BTV = background threshold value

mg/L = milligrams per liter

TDS = total dissolved solids

UPL = upper prediction limit

SU = standard units

0.75 Value from baseline monitoring period (November 2015 thru October 2017)

Reported value in current sampling round (May 2019) exceeds the BTV or UPL

Statistically significant increasing trend present

Statistically significant decreasing trend present

None Insufficient evidence to identify a trend

[1] See Table 1 for relevant BTV and Intrawell UPL information

[2] For pH, values presented refer to the Upper Prediction Limit/Lower Prediction Limit, respectively

[3] Temporal trends evaluated with Mann-Kendall trend tests ($p<0.05$); tied values (sequential sample concentrations that are equal overtime) can cause misleading trend results.

APPENDIX A

PROUCL DATA UPLOAD TABLE

Appendix A - PROUCL DATA UPLOAD TABLE

StationName	QC_SampleID	SampDate	NumDate	Boron	D_Boron	Calcium	D_Calcium	Chloride	D_Chloride	Fluoride	D_Fluoride	Sulfate	D_Sulfate	DissolvedSolids	D_DissolvedSolids	Field_pH	D_Field_pH
MW-62	FC-CCR-MW62-110915	11/9/2015 0:00	42317.00	2.1	1	520	1	150	1	1.6	1	3600	1	6700	1	6.63	1
MW-62	FC-CCR-MW-62-042716	4/27/2016 0:00	42487.00	2	1	530	1	150	1	1.6	1	3200	1	6100	1	6.77	1
MW-62	FC-CCR-MW62-616	6/5/2016 0:00	42526.00	2	1	510	1	140	1	1.5	1	3300	1	5900	1	6.50	1
MW-62	FC-CCR-MW62-816	8/20/2016 0:00	42602.00	2.3	1	530	1	120	1	1.5	1	3300	1	5800	1	7.40	1
MW-62	FC-CCR-MW62-916	9/12/2016 0:00	42625.00	2.5	1	570	1	130	1	1.5	1	3300	1	2400	1	6.73	1
MW-62	FC-CCR-MW62-1016	10/19/2016 0:00	42662.00	2.2	1	480	1	120	1	1.2	1	3300	1	6000	1	6.57	1
MW-62	FC-CCR-MW62-117	2/1/2017 0:00	42767.00	2.1	1	510	1	110	1	1.4	1	3400	1	5600	1	6.68	1
MW-62	FC-CCR-MW62-41617	4/16/2017 0:00	42841.00	1.9	1	500	1	120	1	1.2	1	3300	1	5900	1	6.64	1
MW-62	FC-CCR-MW62-5117	5/1/2017 0:00	42856.00	1.9	1	520	1	110	1	3.3	1	3800	1	5800	1	6.64	1
MW-62	FC-CCR-MW62-52917	5/29/2017 0:00	42884.00	1.9	1	570	1	120	1	1.2	1	3500	1	5500	1	6.50	1
MW-62	FC-CCR-MW62-62117	6/21/2017 0:00	42907.00	1.9	1	520	1	120	1	1.4	1	3600	1	5700	1	6.54	1
MW-62	FC-CCR-MW62-72117	7/21/2017 0:00	42937.00	2.1	1	540	1	99	1	1.5	1	3300	1	5400	1	6.69	1
MW-62	FC-CCR-MW62-8917	8/9/2017 0:00	42956.00	2.2	1	540	1	110	1	1.4	1	3400	1	5400	1	6.41	1
MW-62	FC-CCR-MW62-81617	8/16/2017 0:00	42963.00	2.1	1	590	1	110	1	1.6	1	3200	1	5400	1	6.36	1
MW-62	FC-CCR-MW62-9917	9/9/2017 0:00	42987.00	2.3	1	570	1	120	1	1.5	1	3300	1	5500	1	6.41	1
MW-62	FC-CCR-MW62-101317	10/13/2017 0:00	43021.00	2.2	1	520	1	130	1	1.5	1	3300	1	5600	1	6.46	1
MW-62	FC-CCR-MW62-113017	11/30/2017 0:00	43069.00	2.3	1	570	1	130	1	1.4	1	3400	1	5900	1	6.43	1
MW-62	FC-CCR-MW62-4618	4/6/2018 0:00	43196.00	2.1	1	520	1	--	--	--	--	--	--	--	--	6.70	1
MW-62	FC-CCR-MW-62-6318	6/3/2018 0:00	43254.00	1.8	1	490	1	120	1	1.6	1	3500	1	5900	1	6.59	1
MW-62	FC-CCR-MW62-11218	11/2/2018 0:00	43406.00	2.4	1	550	1	110	1	1.5	1	3300	1	5600	1	6.46	1
MW-62	FC-CCR-MW62-5719-01	5/7/2019 0:00	43592.00	1.8	1	540	1	--	--	1.4	1	--	--	5800	1	6.65	1
MW-62	FC-CCR-MW62-120319	12/03/2019	43802.00	2.1	1	530	1	NA	0	1.5	1	NA	0	5000	1	6.37	1
MW-62	FC-CCR-MW62-0620	06/19/2020	44001.00	1.9	1	490	1	82	1	1.8	1	2800	1	4700	1	6.90	1
MW-62	FC-CCR-MW62-1120	11/05/2020	44140.00	2.1	1	510	1	130	1	1.8	1	3500	1	5300	1	6.57	1
MW-62	FC-CCR-MW62-011421	01/14/2021	44210.00	--	--	--	--	--	--	1.2	1	--	--	--	--	--	--
MW-63	FC-CCR-MW63-110415	11/4/2015 0:00	42312.00	1.6	1	420	1	77	1	2.4	1	2800	1	4100	1	6.86	1
MW-63	FC-CCR-MW-63-042716	4/27/2016 0:00	42487.00	1.3	1	500	1	100	1	2	1	2300	1	4300	1	6.88	1
MW-63	FC-CCR-MW63-616	6/5/2016 0:00	42526.00	1.4	1	500	1	110	1	1.9	1	2500	1	4400	1	6.70	1
MW-63	FC-CCR-MW63-816	8/20/2016 0:00	42602.00	1.9	1	530	1	98	1	1.9	1	2800	1	4700	1	6.92	1
MW-63	FC-CCR-MW63-916	9/12/2016 0:00	42625.00	2	1	550	1	110	1	2.1	1	2800	1	4700	1	7.03	1
MW-63	FC-CCR-MW63-1016	10/19/2016 0:00	42662.00	1.7	1	470	1	100	1	1.8	1	2700	1	4500	1	6.82	1
MW-63	FC-CCR-MW63-117	1/31/2017 0:00	42766.00	1.4	1	510	1	95	1	2	1	2600	1	4200	1	6.67	1
MW-63	FC-CCR-MW63-41717	4/17/2017 0:00	42842.00	1.4	1	520	1	98	1	1.6	1	2600	1	4400	1	6.78	1
MW-63	FC-CCR-MW63-5217	5/2/2017 0:00	42857.00	1.4	1	510	1	92	1	2.5	1	4300	1	4300	1	6.79	1
MW-63	FC-CCR-MW63-52817	5/28/2017 0:00	42883.00	1.5	1	550	1	98	1	1.6	1	2700	1	4300	1	6.80	1
MW-63	FC-CCR-MW63-62117	6/21/2017 0:00	42907.00	1.6	1	520	1	100	1	1.9	1	2900	1	4400	1	6.78	1
MW-63	FC-CCR-MW63-72117	7/21/2017 0:00	42937.00	1.8	1	530	1	98	1	2	1	2900	1	4600	1	6.87	1
MW-63	FC-CCR-MW63-8917	8/9/2017 0:00	42956.00	1.9	1	530	1	97	1	1.9	1	2900	1	4500	1	6.56	1
MW-63	FC-CCR-MW63-81617	8/16/2017 0:00	42963.00	1.8	1	580	1	100	1	2.1	1	2700	1	4500	1	6.53	1
MW-63	FC-CCR-MW63-9917	9/9/2017 0:00	42987.00	2	1	540	1	97	1	2	1	2700	1	4300	1	6.83	1
MW-63	FC-CCR-MW63-101317	10/13/2017 0:00	43021.00	1.8	1	500	1	90	1	2	1	2700	1	4300	1	6.69	1
MW-63	FC-CCR-MW63-113017	11/30/2017 0:00	43069.00	1.7	1	560	1	91	1	1.8	1	2700	1	4500	1	6.72	1
MW-63	FC-CCR-MW63-4618	4/6/2018 0:00	43196.00	1.3	1	530	1	--	--	--	--	--	--	--	--	6.75	1

Appendix A - PROUCL DATA UPLOAD TABLE

StationName	QC_SampleID	SampDate	NumDate	Boron	D_Boron	Calcium	D_Calcium	Chloride	D_Chloride	Fluoride	D_Fluoride	Sulfate	D_Sulfate	DissolvedSolids	D_DissolvedSolids	Field_pH	D_Field_pH
MW-63	FC-CCR-MW-63-6318	6/3/2018 0:00	43254.00	1.4	1	510	1	90	1	1.7	1	2600	1	4500	1	6.76	1
MW-63	FC-CCR-MW63-112818	11/2/2018 0:00	43406.00	1.9	1	550	1	88	1	1.9	1	2800	1	4300	1	6.66	1
MW-63	FC-CCR-MW63-5719-02	5/7/2019 0:00	43592.00	1.3	1	540	1	--	--	1.6	1	--	--	4400	1	6.63	1
MW-63	FC-CCR-MW63-120319	12/03/2019	43802.00	1.5	1	550	1	NA	0	1.8	1	NA	0	4300	1	6.58	1
MW-63	FC-CCR-MW63-0620	06/19/2020	44001.00	1.5	1	540	1	77	1	2.1	1	2400	1	4200	1	6.53	1
MW-63	FC-CCR-MW63-1120	11/05/2020	44140.00	1.7	1	550	1	85	1	2.2	1	2800	1	4200	1	6.72	1
MW-64	FC-CCR-MW64-110515	11/5/2015 0:00	42313.00	0.64	1	87	1	49	1	1.5	1	320	1	780	1	7.64	1
MW-64	FC-CCR-MW-64-042716	4/27/2016 0:00	42487.00	0.62	1	90	1	53	1	1.4	1	340	1	810	1	7.50	1
MW-64	FC-CCR-MW64-616	6/5/2016 0:00	42526.00	0.58	1	86	1	52	1	1.4	1	350	1	800	1	7.29	1
MW-64	FC-CCR-MW64-816	8/20/2016 0:00	42602.00	0.65	1	89	1	46	1	1.3	1	330	1	790	1	7.68	1
MW-64	FC-CCR-MW64-916	9/12/2016 0:00	42625.00	0.67	1	90	1	52	1	1.5	1	320	1	790	1	7.54	1
MW-64	FC-CCR-MW64-1016	10/19/2016 0:00	42662.00	0.64	1	83	1	53	1	1.5	1	330	1	790	1	7.52	1
MW-64	FC-CCR-MW64-117	1/31/2017 0:00	42766.00	0.61	1	85	1	48	1	1.4	1	340	1	800	1	7.38	1
MW-64	FC-CCR-MW64-41717	4/17/2017 0:00	42842.00	0.58	1	85	1	51	1	1.4	1	870	1	800	1	7.53	1
MW-64	FC-CCR-MW64-5217	5/2/2017 0:00	42857.00	0.55	1	86	1	44	1	1.3	1	340	1	780	1	7.47	1
MW-64	FC-CCR-MW64-52817	5/28/2017 0:00	42883.00	0.55	1	93	1	51	1	1.5	1	380	1	780	1	7.45	1
MW-64	FC-CCR-MW64-62117	6/21/2017 0:00	42907.00	0.55	1	86	1	51	1	1.4	1	390	1	770	1	7.50	1
MW-64	FC-CCR-MW64-72117	7/21/2017 0:00	42937.00	0.59	1	88	1	52	1	1.5	1	370	1	790	1	7.61	1
MW-64	FC-CCR-MW64-8917	8/9/2017 0:00	42956.00	0.61	1	89	1	52	1	1.5	1	380	1	890	1	7.31	1
MW-64	FC-CCR-MW64-81617	8/16/2017 0:00	42963.00	0.58	1	89	1	53	1	1.5	1	360	1	790	1	7.29	1
MW-64	FC-CCR-MW64-9917	9/9/2017 0:00	42987.00	0.67	1	90	1	53	1	1.5	1	350	1	810	1	7.36	1
MW-64	FC-CCR-MW64-101317	10/13/2017 0:00	43021.00	0.62	1	82	1	52	1	1.4	1	360	1	790	1	7.42	1
MW-64	FC-CCR-MW64-113017	11/30/2017 0:00	43069.00	0.64	1	90	1	52	1	1.4	1	350	1	780	1	7.37	1
MW-64	FC-CCR-MW-64-6318	6/3/2018 0:00	43254.00	0.48	1	85	1	50	1	1.4	1	390	1	800	1	7.54	1
MW-64	FC-CCR-MW64-11218	11/2/2018 0:00	43406.00	0.64	1	88	1	50	1	1.4	1	350	1	760	1	7.43	1
MW-64	FC-CCR-MW64-5719-03	5/7/2019 0:00	43592.00	0.49	1	89	1	--	--	1.4	1	--	--	790	1	7.41	1
MW-64	FC-CCR-MW64-120319	12/03/2019	43802.00	0.56	1	82	1	NA	0	1.5	1	NA	0	720	1	7.29	1
MW-64	FC-CCR-MW64-0620	06/19/2020	44001.00	0.47	1	77	1	49	1	1.3	1	300	1	790	1	7.22	1
MW-64	FC-CCR-MW64-1120	11/05/2020	44140.00	0.51	1	73	1	53	1	1.6	1	270	1	720	1	7.49	1
MW-65	FC-CCR-MW65-110515	11/5/2015 0:00	42313.00	0.86	1	100	1	52	1	2	1	440	1	1000	1	7.50	1
MW-65	FC-CCR-MW-65-042716	4/27/2016 0:00	42487.00	0.76	1	110	1	55	1	1.8	1	460	1	1100	1	7.29	1
MW-65	FC-CCR-MW65-616	6/5/2016 0:00	42526.00	0.75	1	100	1	54	1	2	1	460	1	1100	1	7.08	1
MW-65	FC-CCR-MW65-816	8/20/2016 0:00	42602.00	0.79	1	100	1	52	1	1.7	1	450	1	1000	1	8.27	1
MW-65	FC-CCR-MW65-916	9/12/2016 0:00	42625.00	0.83	1	110	1	54	1	2	1	480	1	1100	1	7.52	1
MW-65	FC-CCR-MW65-1016	10/19/2016 0:00	42662.00	0.77	1	95	1	54	1	2	1	450	1	1000	1	7.36	1
MW-65	FC-CCR-MW65-117	2/1/2017 0:00	42767.00	0.76	1	96	1	51	1	1.8	1	410	1	970	1	7.35	1
MW-65	FC-CCR-MW65-41617	4/16/2017 0:00	42841.00	0.83	1	120	1	60	1	1.8	1	490	1	1300	1	7.21	1
MW-65	FC-CCR-MW65-5117	5/1/2017 0:00	42856.00	0.79	1	110	1	58	1	1.6	1	500	1	1100	1	7.24	1
MW-65	FC-CCR-MW65-52917	5/29/2017 0:00	42884.00	0.98	1	160	1	77	1	1.8	1	790	1	1500	1	7.10	1
MW-65	FC-CCR-MW65-62117	6/21/2017 0:00	42907.00	0.92	1	140	1	68	1	1.9	1	710	1	1400	1	7.06	1
MW-65	FC-CCR-MW65-72117	7/21/2017 0:00	42937.00	0.76	1	110	1	53	1	2	1	470	1	1000	1	7.31	1
MW-65	FC-CCR-MW65-8917	8/9/2017 0:00	42956.00	0.76	1	110	1	53	1	2	1	500	1	1000	1	7.15	1
MW-65	FC-CCR-MW65-81617	8/16/2017 0:00	42963.00	0.75	1	110	1	53	1	2	1	500	1	1000	1	6.96	1

Appendix A - PROUCL DATA UPLOAD TABLE

StationName	QC_SampleID	SampDate	NumDate	Boron	D_Boron	Calcium	D_Calcium	Chloride	D_Chloride	Fluoride	D_Fluoride	Sulfate	D_Sulfate	DissolvedSolids	D_DissolvedSolids	Field_pH	D_Field_pH
MW-65	FC-CCR-MW65-9917	9/9/2017 0:00	42987.00	0.8	1	110	1	53	1	2	1	450	1	1000	1	7.04	1
MW-65	FC-CCR-MW65-101317	10/13/2017 0:00	43021.00	0.75	1	92	1	52	1	1.9	1	400	1	960	1	7.13	1
MW-65	FC-CCR-MW65-113017	11/30/2017 0:00	43069.00	0.79	1	100	1	53	1	2	1	410	1	990	1	7.21	1
MW-65	FC-CCR-MW-65-6318	6/3/2018 0:00	43254.00	0.62	1	98	1	52	1	1.9	1	480	1	1000	1	7.22	1
MW-65	FC-CCR-MW65-11218	11/2/2018 0:00	43406.00	0.77	1	100	1	51	1	1.9	1	420	1	940	1	7.18	1
MW-65	FC-CCR-MW65-5719-05	5/7/2019 0:00	43592.00	0.6	1	100	1	--	--	1.7	1	--	--	970	1	7.13	1
MW-65	FC-CCR-MW65-120319	12/03/2019	43802.00	0.65	1	89	1	NA	0	1.9	1	NA	0	850	1	7.10	1
MW-65	FC-CCR-MW65-0620	06/19/2020	44001.00	0.57	1	88	1	48	1	1.7	1	380	1	940	1	7.18	1
MW-65	FC-CCR-MW65-1120	11/05/2020	44140.00	0.61	1	82	1	52	1	2.1	1	350	1	780	1	7.36	1
MW-71	FC-CCR-MW-71-030516	3/5/2016 0:00	42434.00	0.44	1	450	1	660	1	0.05	0	8500	1	13000	1	7.73	1
MW-71	FC-CCR-MW-71-042616	4/26/2016 0:00	42486.00	0.69	1	470	1	670	1	2	0	13000	1	21000	1	6.58	1
MW-71	FC-CCR-MW71-616	6/6/2016 0:00	42527.00	0.7	1	460	1	750	1	0.4	0	13000	1	20000	1	6.47	1
MW-71	FC-CCR-MW71-816	8/21/2016 0:00	42603.00	0.56	1	450	1	590	1	0.8	0	8400	1	14000	1	7.04	1
MW-71	FC-CCR-MW71-916	9/12/2016 0:00	42625.00	0.58	1	460	1	570	1	0.4	0	9300	1	16000	1	6.86	1
MW-71	FC-CCR-MW71-1016	10/20/2016 0:00	42663.00	0.55	1	410	1	580	1	0.4	0	9100	1	15000	1	6.90	1
MW-71	FC-CCR-MW71-117	2/2/2017 0:00	42768.00	0.62	1	440	1	610	1	0.4	0	14000	1	17000	1	6.64	1
MW-71	FC-CCR-MW71-41717	4/17/2017 0:00	42842.00	0.52	1	400	1	550	1	2	0	9400	1	15000	1	6.81	1
MW-71	FC-CCR-MW71-5217	5/2/2017 0:00	42857.00	0.58	1	450	1	560	1	2	0	11000	1	15000	1	6.86	1
MW-71	FC-CCR-MW71-52917	5/29/2017 0:00	42884.00	0.58	1	460	1	580	1	2	0	9900	1	14000	1	6.76	1
MW-71	FC-CCR-MW71-62217	6/22/2017 0:00	42908.00	0.6	1	460	1	620	1	2	0	4600	1	17000	1	6.79	1
MW-71	FC-CCR-MW71-72117	7/21/2017 0:00	42937.00	0.55	1	450	1	590	1	2	0	10000	1	15000	1	7.00	1
MW-71	FC-CCR-MW71-81017	8/10/2017 0:00	42957.00	0.55	1	450	1	560	1	2	0	10000	1	15000	1	6.59	1
MW-71	FC-CCR-MW71-81717	8/17/2017 0:00	42964.00	0.56	1	480	1	570	1	2	0	9500	1	15000	1	6.62	1
MW-71	FC-CCR-MW71-91117	9/11/2017 0:00	42989.00	0.55	1	470	1	570	1	2	0	9900	1	15000	1	6.56	1
MW-71	FC-CCR-MW71-101317	10/13/2017 0:00	43021.00	0.54	1	420	1	570	1	2	0	10000	1	15000	1	6.79	1
MW-71	FC-CCR-MW71-113017	11/30/2017 0:00	43069.00	0.56	1	490	1	540	1	2	0	10000	1	15000	1	6.71	1
MW-71	FC-CCR-MW-71-6218	6/2/2018 0:00	43253.00	0.55	1	420	1	520	1	0.8	0	10000	1	15000	1	6.85	1
MW-71	FC-CCR-MW71-11318	11/3/2018 0:00	43407.00	0.56	1	470	1	520	1	0.8	0	11000	1	16000	1	6.81	1
MW-71	FC-CCR-MW71-031819	3/18/2019 0:00	43542.00	--	--	--	--	--	--	0.8	0	--	--	--	--	6.68	1
MW-71	FC-CCR-MW71-5719	5/6/2019 0:00	43591.00	0.5	1	400	1	--	--	0.8	0	--	--	16000	1	6.66	1
MW-71	FC-CCR-MW71-120219	12/02/2019	43801.00	0.50	1	440	1	500	1	0.8	0	10000	1	16000	1	6.66	1
MW-71	FC-CCR-MW71-0620	06/20/2020	44002.00	0.59	1	450	1	480	1	0.8	0	9900	1	15000	1	6.71	1
MW-71	FC-CCR-MW71-1120	11/05/2020	44140.00	0.59	1	460	1	490	1	0.4	0	10000	1	16000	1	6.78	1
MW-72	FC-CCR-MW72-030716	3/7/2016 0:00	42436.00	0.16	1	480	1	490	1	0.05	0	12000	1	17000	1	7.71	1
MW-72	FC-CCR-MW-72-042616	4/26/2016 0:00	42486.00	0.22	1	470	1	430	1	2	0	11000	1	19000	1	6.87	1
MW-72	FC-CCR-MW72-616	6/6/2016 0:00	42527.00	0.25	1	570	1	530	1	0.4	0	4500	1	9500	1	6.56	1
MW-72	FC-CCR-MW72-816	8/21/2016 0:00	42603.00	0.23	1	450	1	440	1	0.4	0	10000	1	17000	1	6.72	1
MW-72	FC-CCR-MW72-916	9/13/2016 0:00	42626.00	0.24	1	470	1	450	1	0.4	0	10000	1	17000	1	6.17	1
MW-72	FC-CCR-MW72-1016	10/20/2016 0:00	42663.00	0.23	1	400	1	480	1	0.4	0	11000	1	17000	1	6.84	1
MW-72	FC-CCR-MW72-117	2/2/2017 0:00	42768.00	0.23	1	420	1	430	1	0.4	0	11000	1	16000	1	6.63	1
MW-72	FC-CCR-MW72-41717	4/17/2017 0:00	42842.00	0.2	1	440	1	450	1	2	0	610	1	17000	1	6.73	1
MW-72	FC-CCR-MW72-5217	5/2/2017 0:00	42857.00	0.25	1	430	1	450	1	2	0	11000	1	16000	1	6.83	1
MW-72	FC-CCR-MW72-52917	5/29/2017 0:00	42884.00	0.25	1	470	1	460	1	2	0	11000	1	15000	1	6.68	1

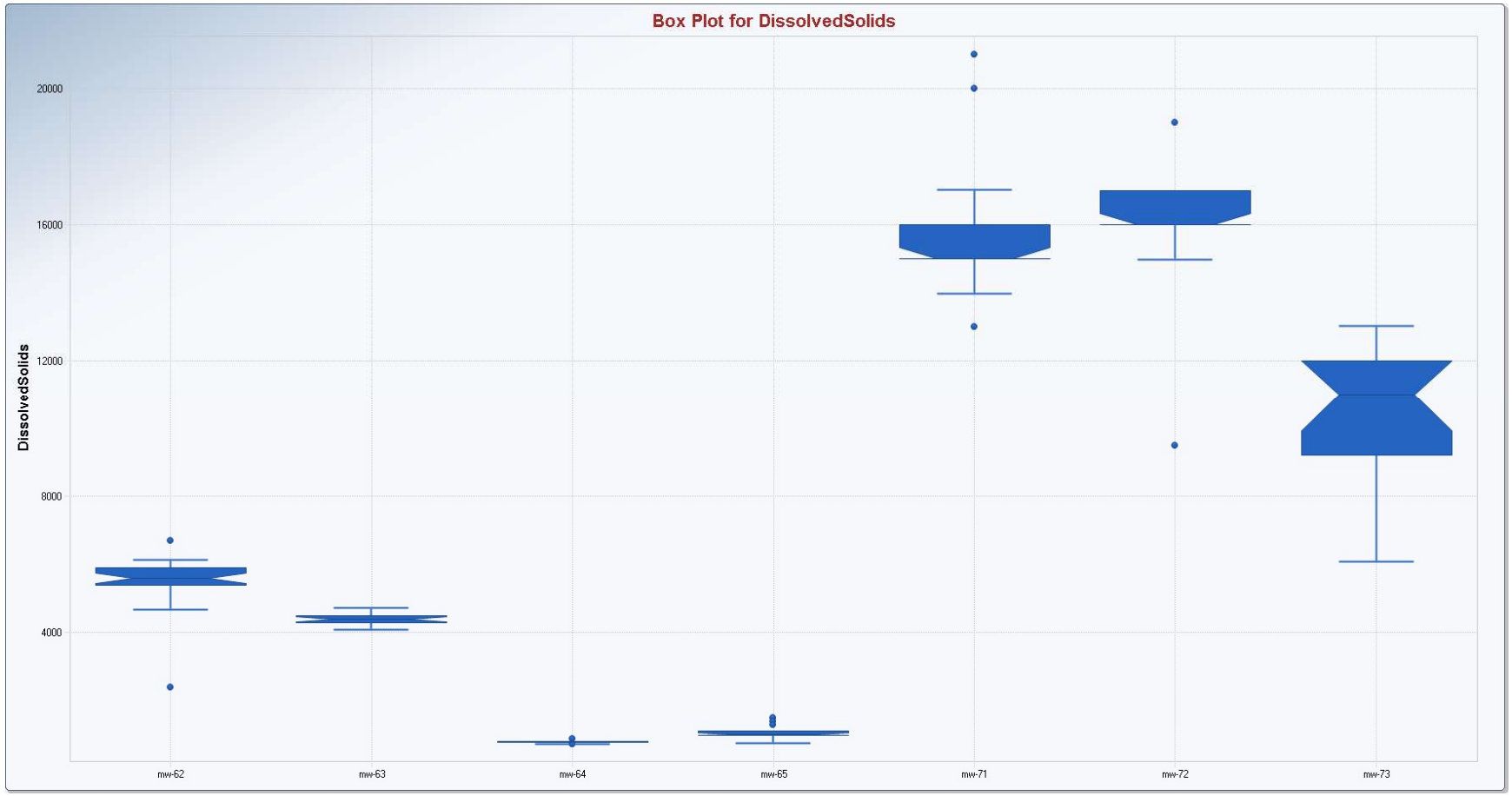
Appendix A - PROUCL DATA UPLOAD TABLE

StationName	QC_SampleID	SampDate	NumDate	Boron	D_Boron	Calcium	D_Calcium	Chloride	D_Chloride	Fluoride	D_Fluoride	Sulfate	D_Sulfate	DissolvedSolids	D_DissolvedSolids	Field_pH	D_Field_pH
MW-72	FC-CCR-MW72-62217	6/22/2017 0:00	42908.00	0.23	1	450	1	450	1	2	0	11000	1	17000	1	6.65	1
MW-72	FC-CCR-MW72-72117	7/21/2017 0:00	42937.00	0.23	1	450	1	460	1	2	0	11000	1	17000	1	6.93	1
MW-72	FC-CCR-MW72-81017	8/10/2017 0:00	42957.00	0.21	1	450	1	460	1	2	0	11000	1	17000	1	6.47	1
MW-72	FC-CCR-MW72-81717	8/17/2017 0:00	42964.00	0.26	1	490	1	450	1	2	0	11000	1	17000	1	6.18	1
MW-72	FC-CCR-MW72-91017	9/10/2017 0:00	42988.00	0.21	1	470	1	460	1	2	0	11000	1	17000	1	6.61	1
MW-72	FC-CCR-MW72-101317	10/13/2017 0:00	43021.00	0.22	1	430	1	450	1	2	0	11000	1	16000	1	6.65	1
MW-72	FC-CCR-MW72-113017	11/30/2017 0:00	43069.00	0.22	1	500	1	450	1	2	0	10000	1	16000	1	6.63	1
MW-72	FC-CCR-MW-72-6218	6/2/2018 0:00	43253.00	0.21	1	410	1	450	1	0.8	0	11000	1	16000	1	6.75	1
MW-72	FC-CCR-MW72-11318	11/3/2018 0:00	43407.00	0.22	1	470	1	450	1	0.8	0	11000	1	16000	1	6.75	1
MW-72	FC-CCR-MW72-031719	3/17/2019 0:00	43541.00	--	--	--	--	--	--	0.8	0	--	--	--	--	6.68	1
MW-72	FC-CCR-MW72-5719	5/6/2019 0:00	43591.00	0.22	1	400	1	--	--	0.8	0	--	--	16000	1	6.85	1
MW-72	FC-CCR-MW72-120219	12/02/2019	43801.00	0.19	1	430	1	430	1	0.8	0	11000	1	16000	1	6.62	1
MW-72	FC-CCR-MW72-0620	06/19/2020	44001.00	0.23	1	440	1	400	1	0.8	0	11000	1	16000	1	6.65	1
MW-72	FC-CCR-MW72-1120	11/05/2020	44140.00	0.24	1	470	1	430	1	0.4	0	10000	1	16000	1	6.70	1
MW-73	FC-CCR-MW73-117	2/2/2017 0:00	42768.00	1.6	1	480	1	380	1	0.4	0	5400	1	8800	1	6.65	1
MW-73	FC-CCR-MW73-41817	4/18/2017 0:00	42843.00	1.6	1	450	1	340	1	0.8	0	5700	1	9200	1	6.70	1
MW-73	FC-CCR-MW73-5217	5/2/2017 0:00	42857.00	1.6	1	470	1	570	1	0.8	0	6900	1	11000	1	6.70	1
MW-73	FC-CCR-MW73-52917	5/29/2017 0:00	42884.00	1.8	1	510	1	290	1	0.8	0	4300	1	6100	1	6.70	1
MW-73	FC-CCR-MW73-62217	6/22/2017 0:00	42908.00	1.6	1	490	1	450	1	0.8	0	6700	1	11000	1	6.74	1
MW-73	FC-CCR-MW73-72217	7/22/2017 0:00	42938.00	1.6	1	490	1	520	1	0.8	0	8000	1	12000	1	6.83	1
MW-73	FC-CCR-MW73-81017	8/10/2017 0:00	42957.00	1.7	1	500	1	540	1	0.8	0	7700	1	12000	1	6.45	1
MW-73	FC-CCR-MW73-81717	8/17/2017 0:00	42964.00	1.7	1	540	1	550	1	0.8	0	7600	1	11000	1	6.50	1
MW-73	FC-CCR-MW73-91017	9/10/2017 0:00	42988.00	1.9	1	520	1	470	1	0.8	0	6000	1	9900	1	6.62	1
MW-73	FC-CCR-MW73-101217	10/12/2017 0:00	43020.00	2	1	510	1	310	1	0.8	0	3900	1	6600	1	6.64	1
MW-73	FC-CCR-MW73-113017	11/30/2017 0:00	43069.00	1.8	1	550	1	420	1	0.8	0	5600	1	8900	1	6.61	1
MW-73	FC-CCR-MW-73-6218	6/2/2018 0:00	43253.00	1.6	1	460	1	550	1	0.8	0	7100	1	12000	1	6.67	1
MW-73	FC-CCR-MW73-11318	11/3/2018 0:00	43407.00	1.7	1	480	1	660	1	0.8	0	7500	1	12000	1	6.64	1
MW-73	FC-CCR-MW73-031819	3/18/2019 0:00	43542.00	--	--	--	--	--	--	0.8	0	--	--	--	--	6.95	1
MW-73	FC-CCR-MW73-5619	5/6/2019 0:00	43591.00	1.6	1	420	1	--	--	0.8	0	--	--	13000	1	6.51	1
MW-73	FC-CCR-MW73-120219	12/02/2019	43801.00	1.6	1	460	1	520	1	0.8	0	7100	1	11000	1	6.49	1
MW-73	FC-CCR-MW73-0620	06/20/2020	44002.00	1.7	1	450	1	520	1	0.8	0	7200	1	12000	1	6.53	1
MW-73	FC-CCR-MW73-1120	11/05/2020	44140.00	1.6	1	480	1	530	1	0.063	1	7100	1	12000	1	6.65	1

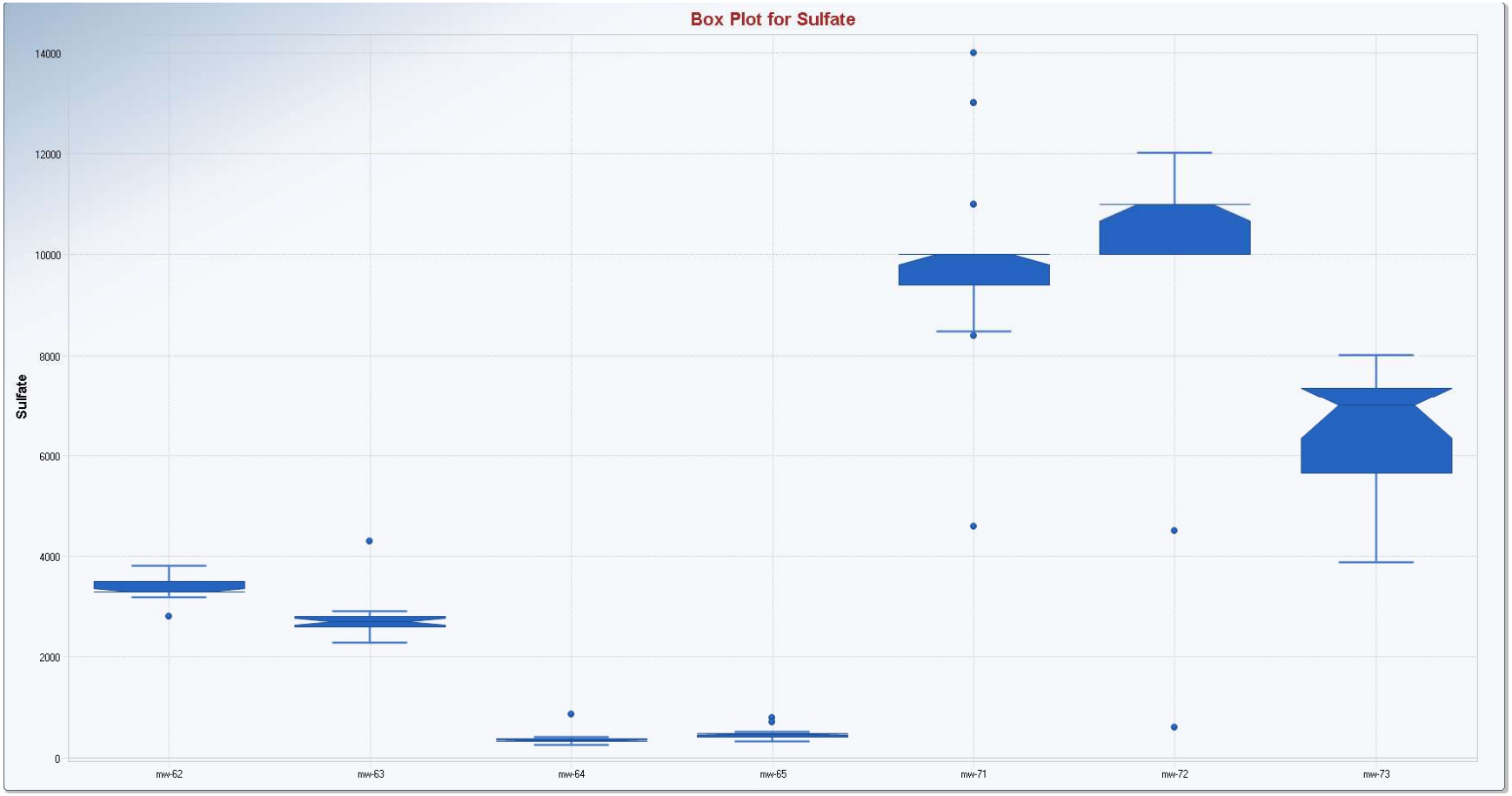
APPENDIX B

PROUCL EDA OUTPUT FILES

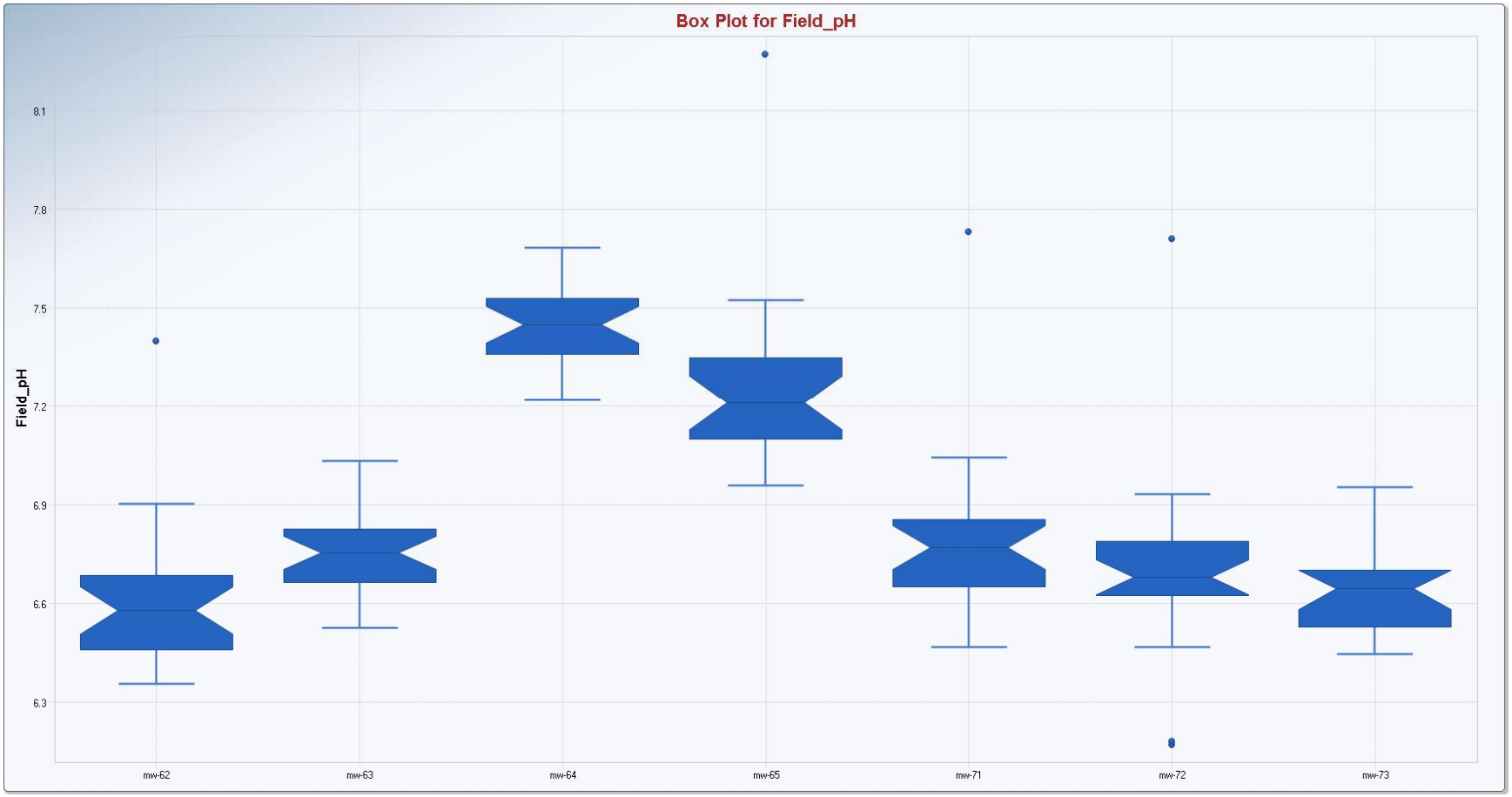
Appendix B
Box and Whisker Plots



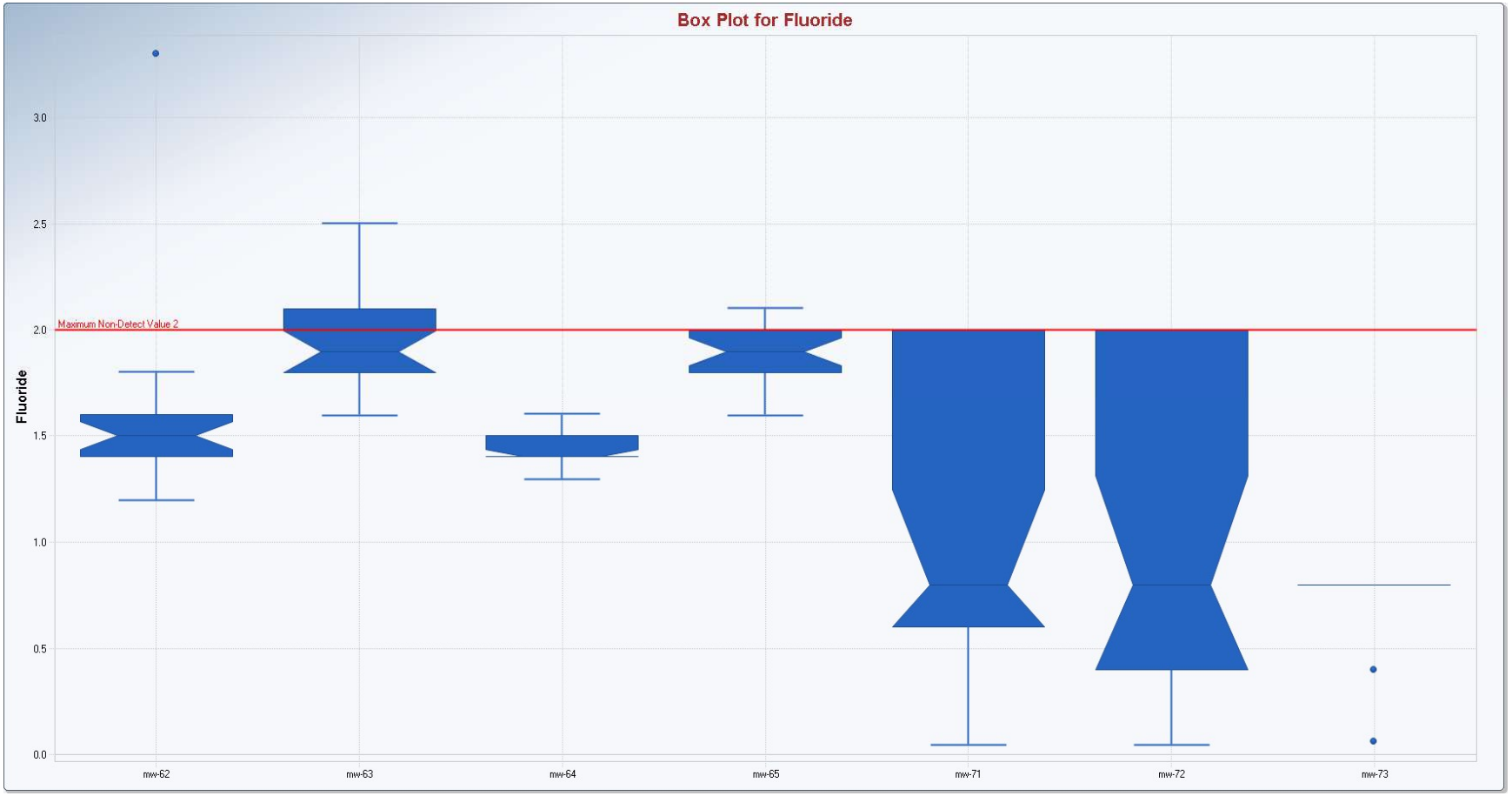
Appendix B
Box and Whisker Plots



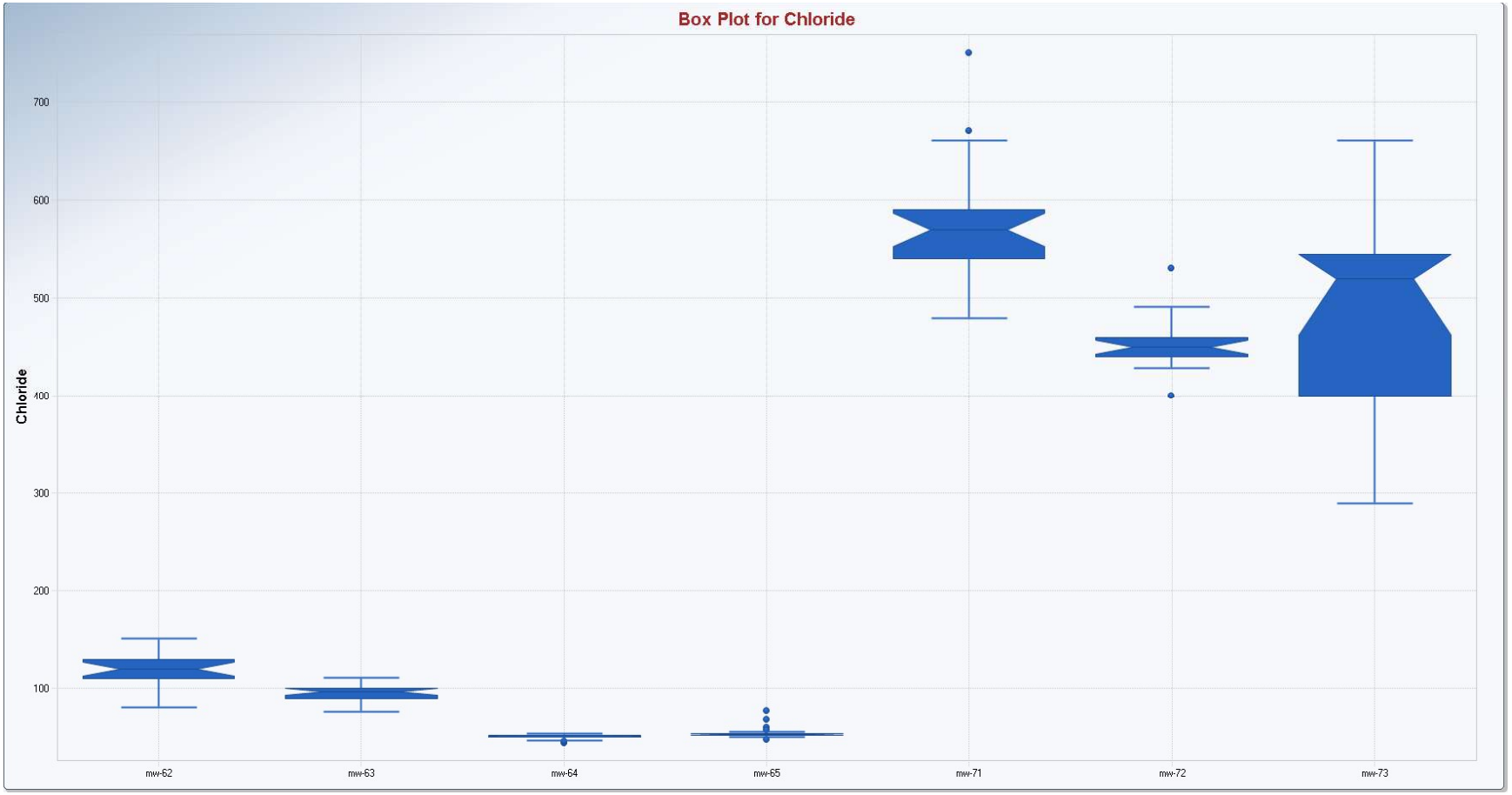
Appendix B
Box and Whisker Plots



Appendix B
Box and Whisker Plots



Appendix B
Box and Whisker Plots



Appendix B
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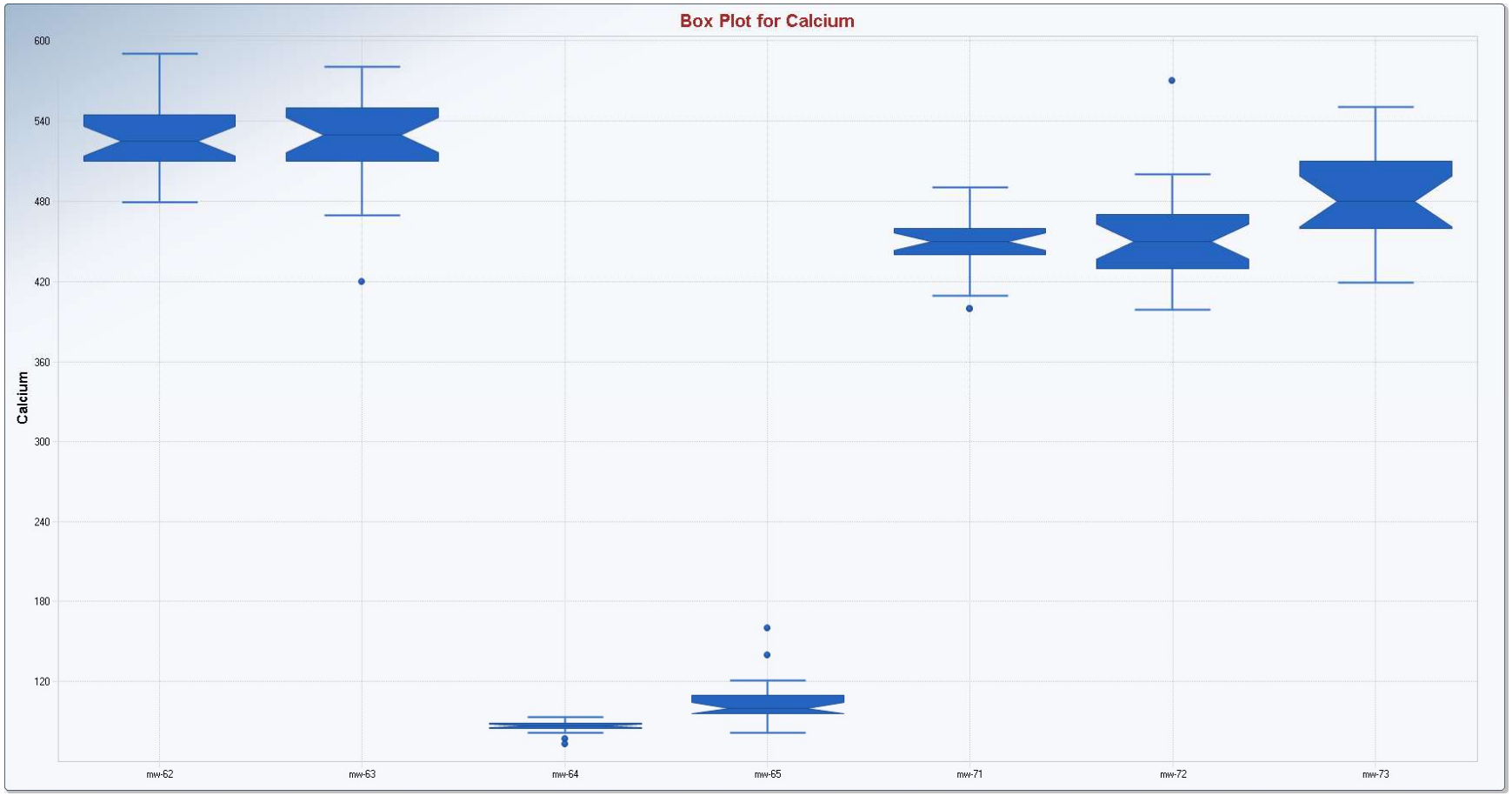
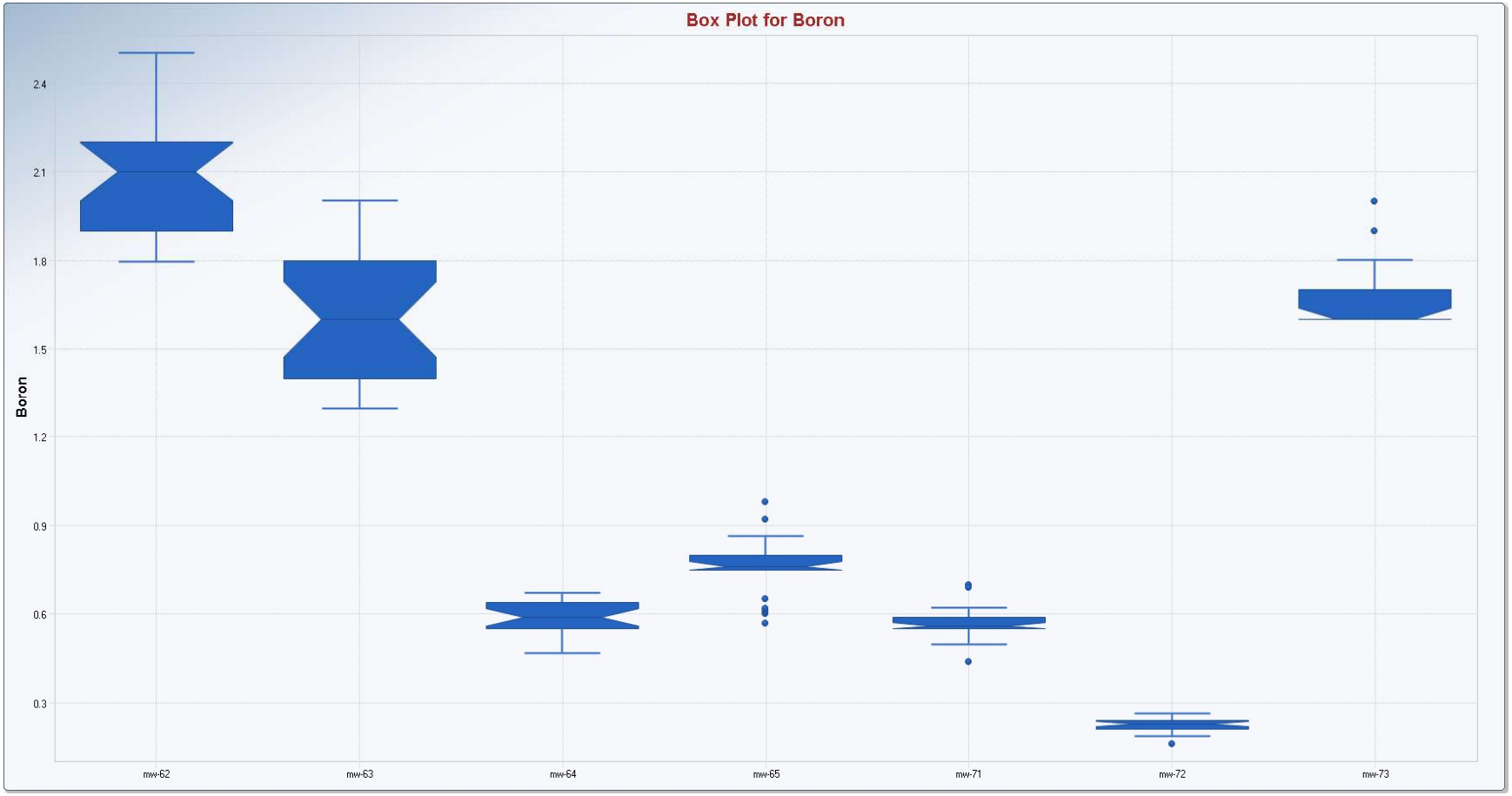


Appendix B
Box and Whisker Plots



Appendix B
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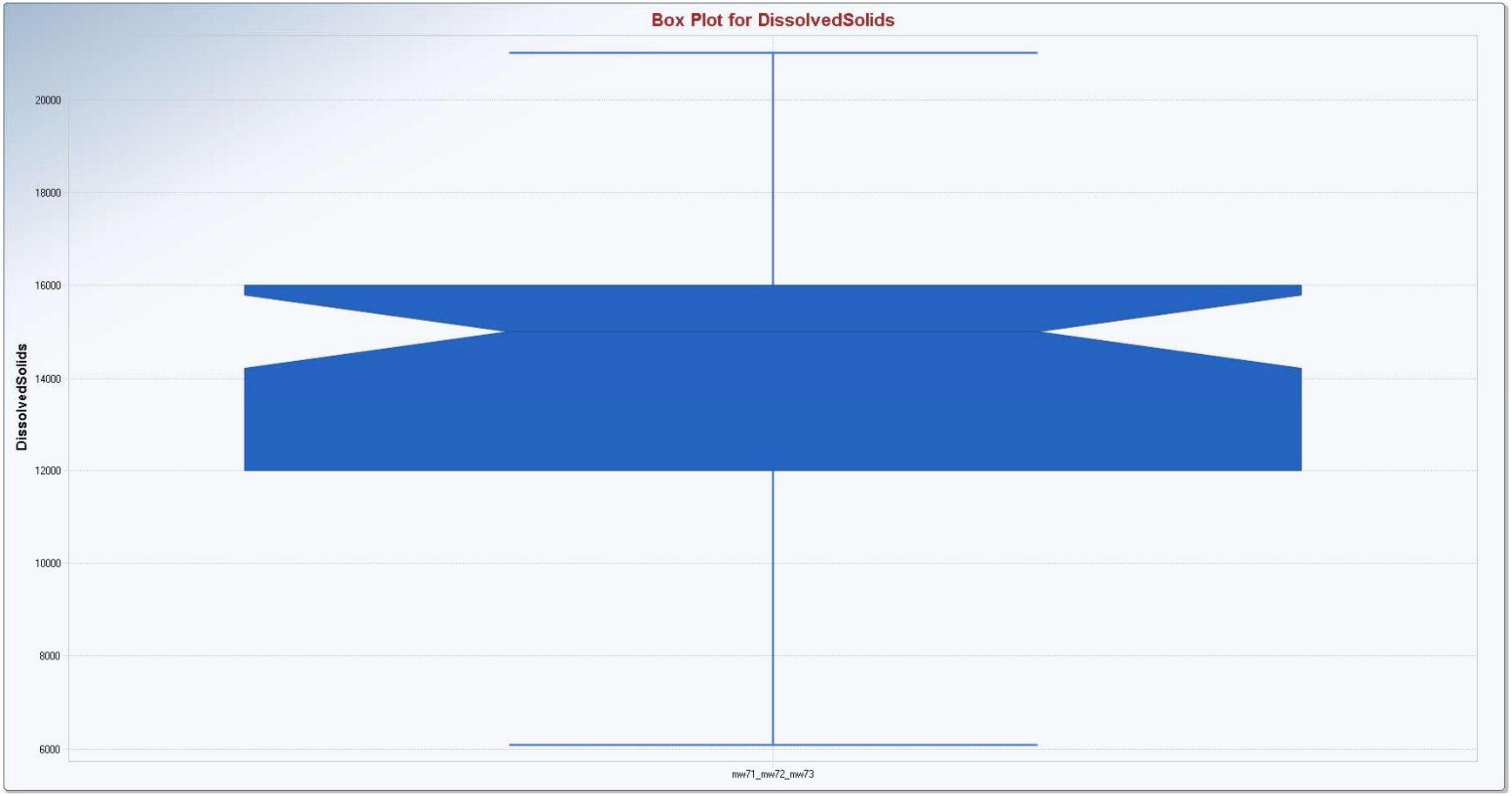

Appendix B
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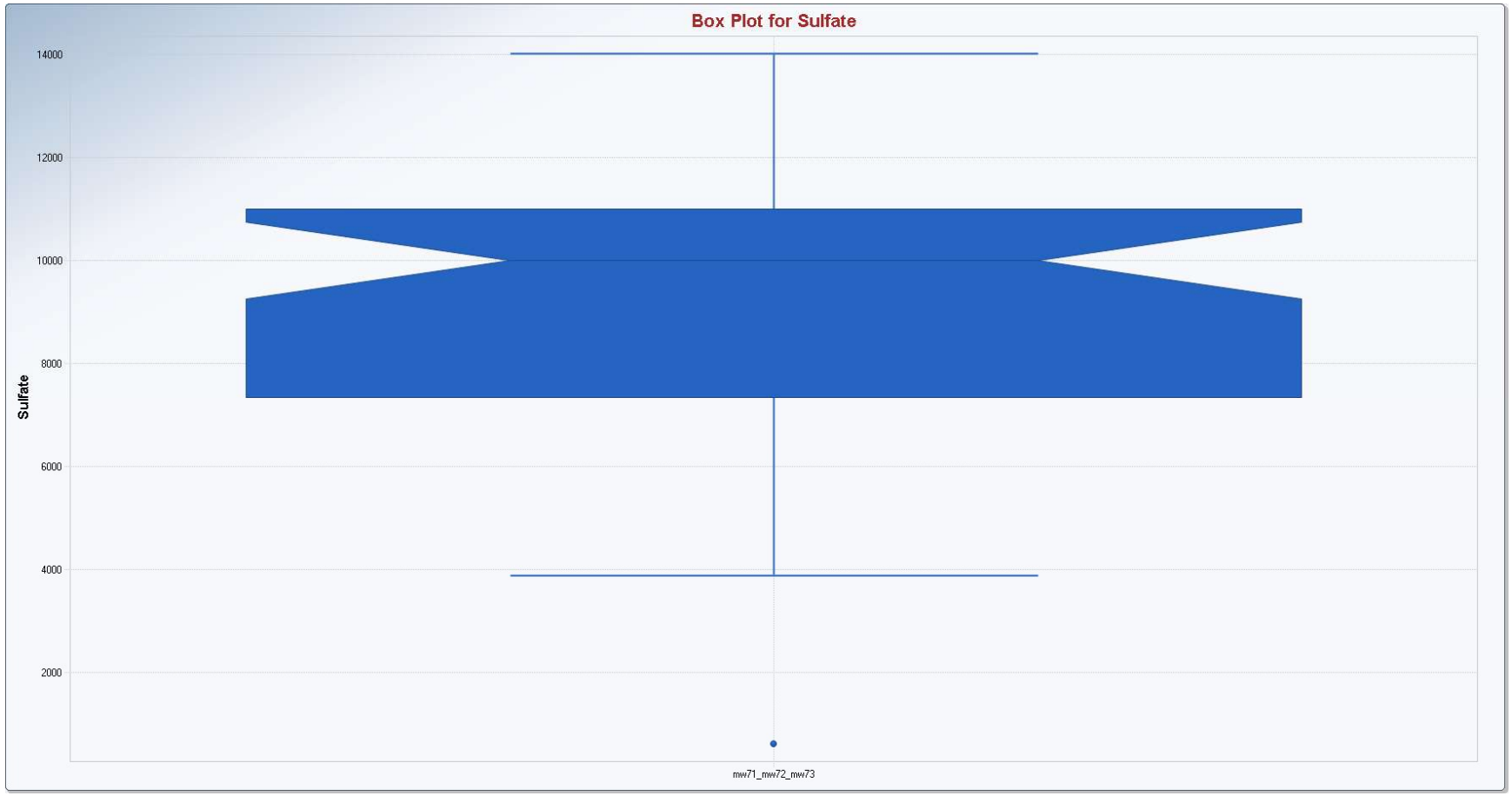

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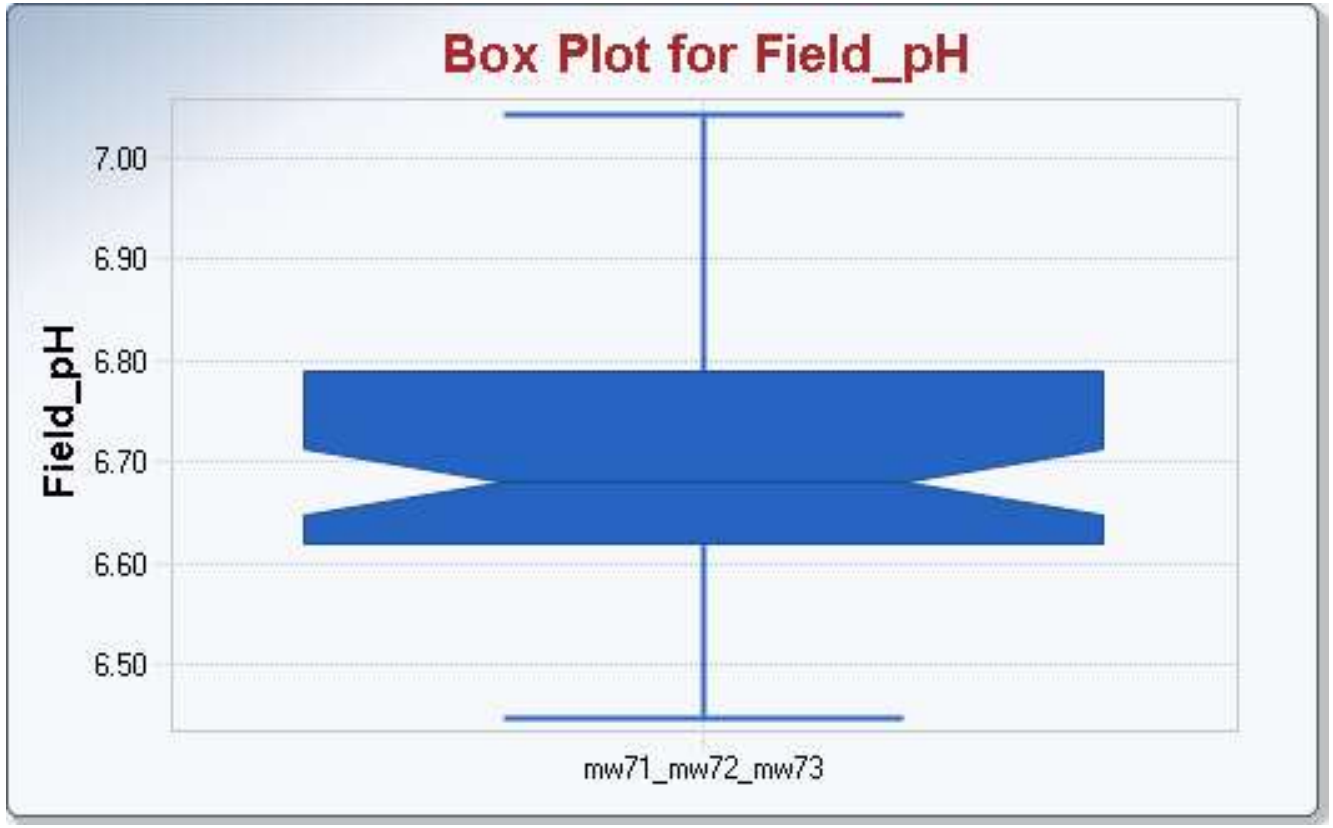

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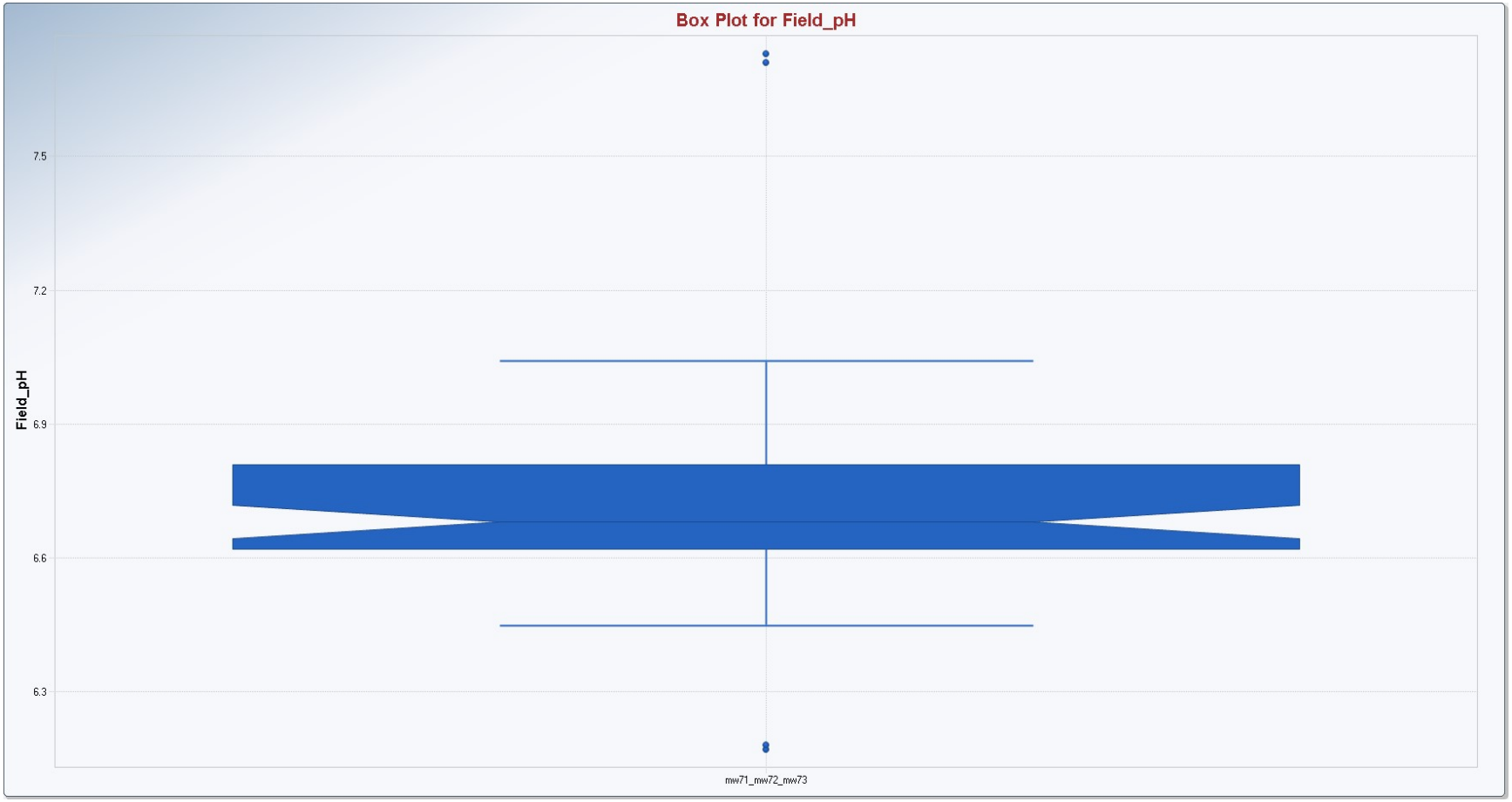

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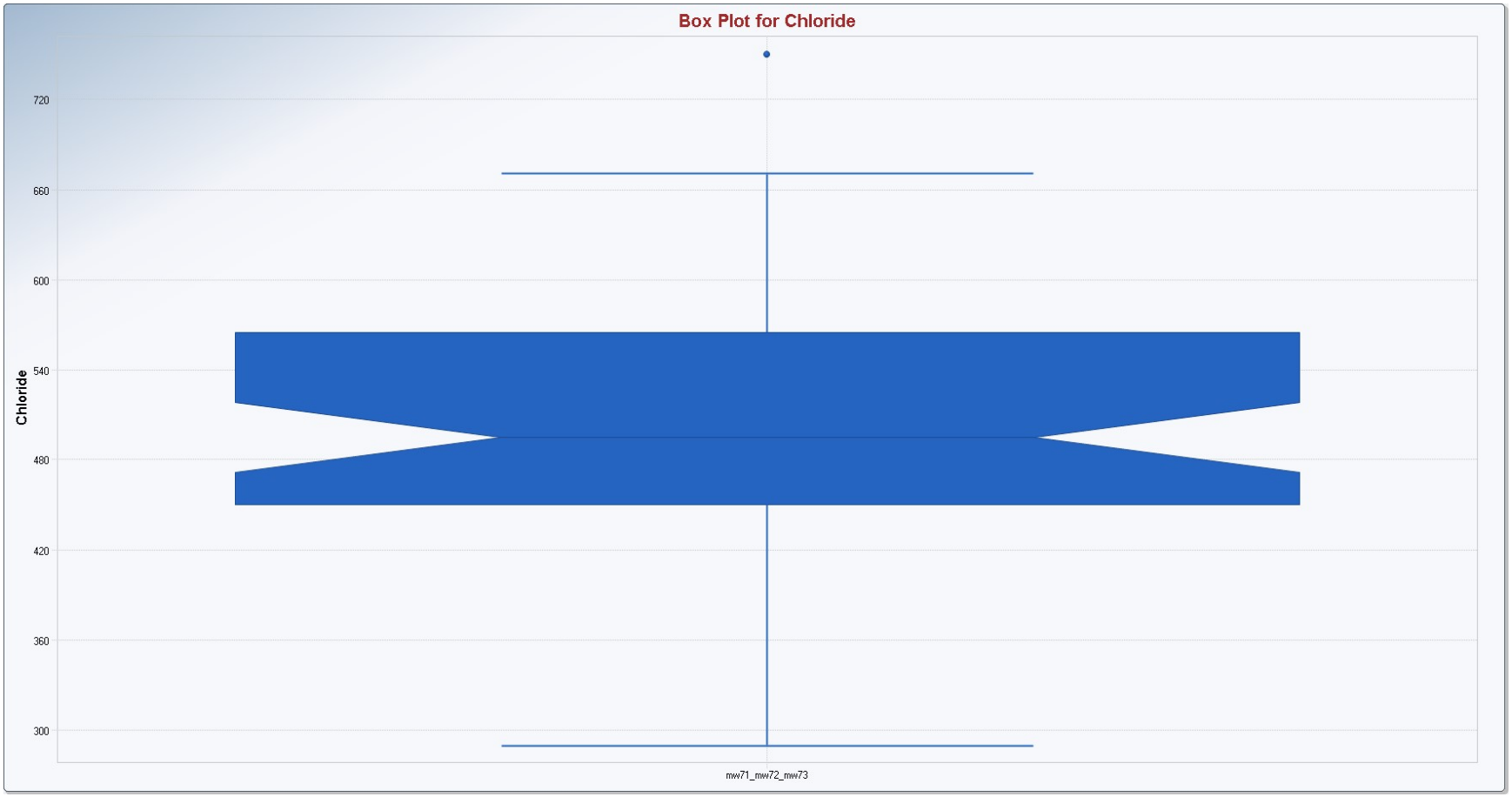

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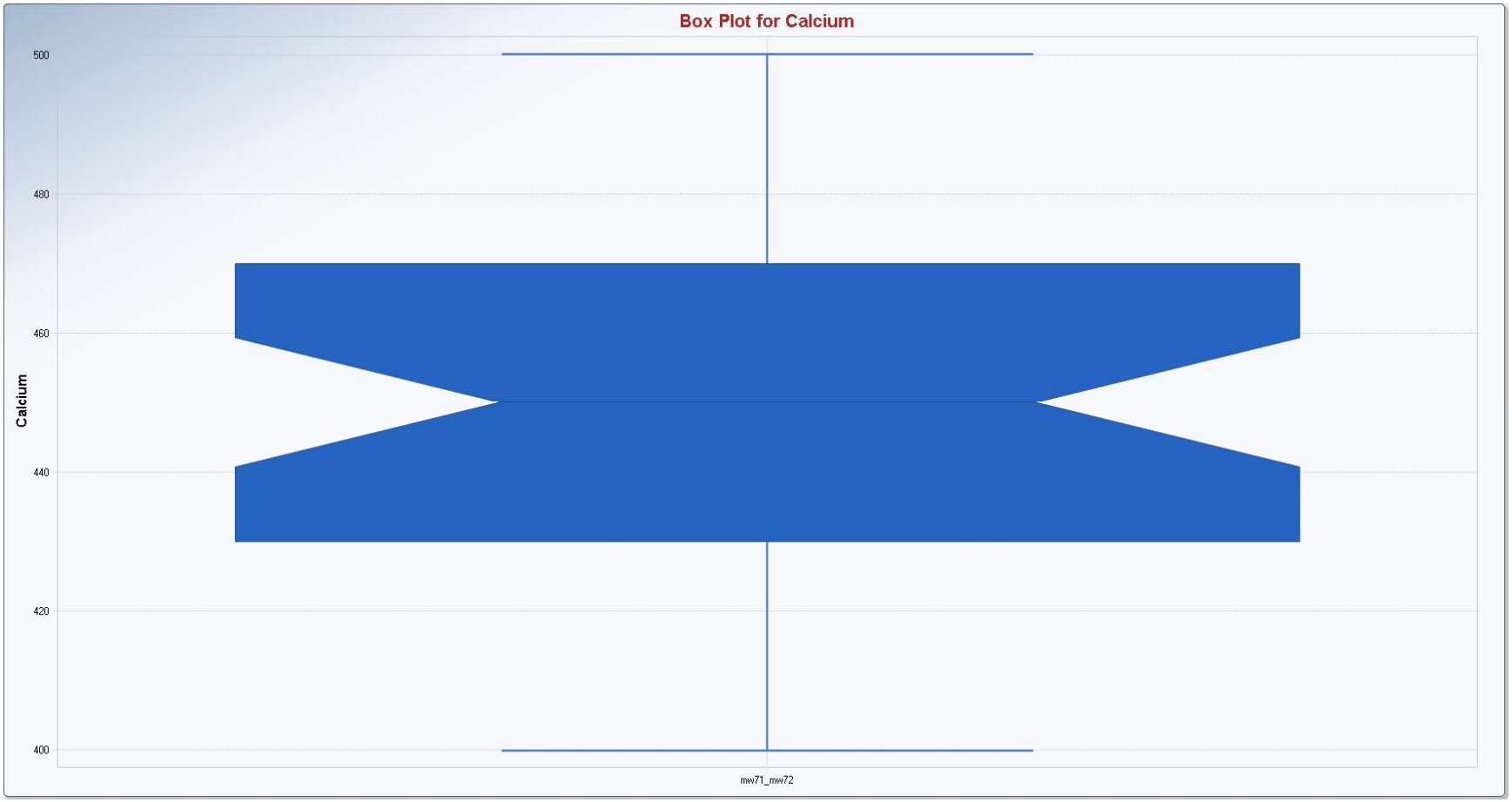

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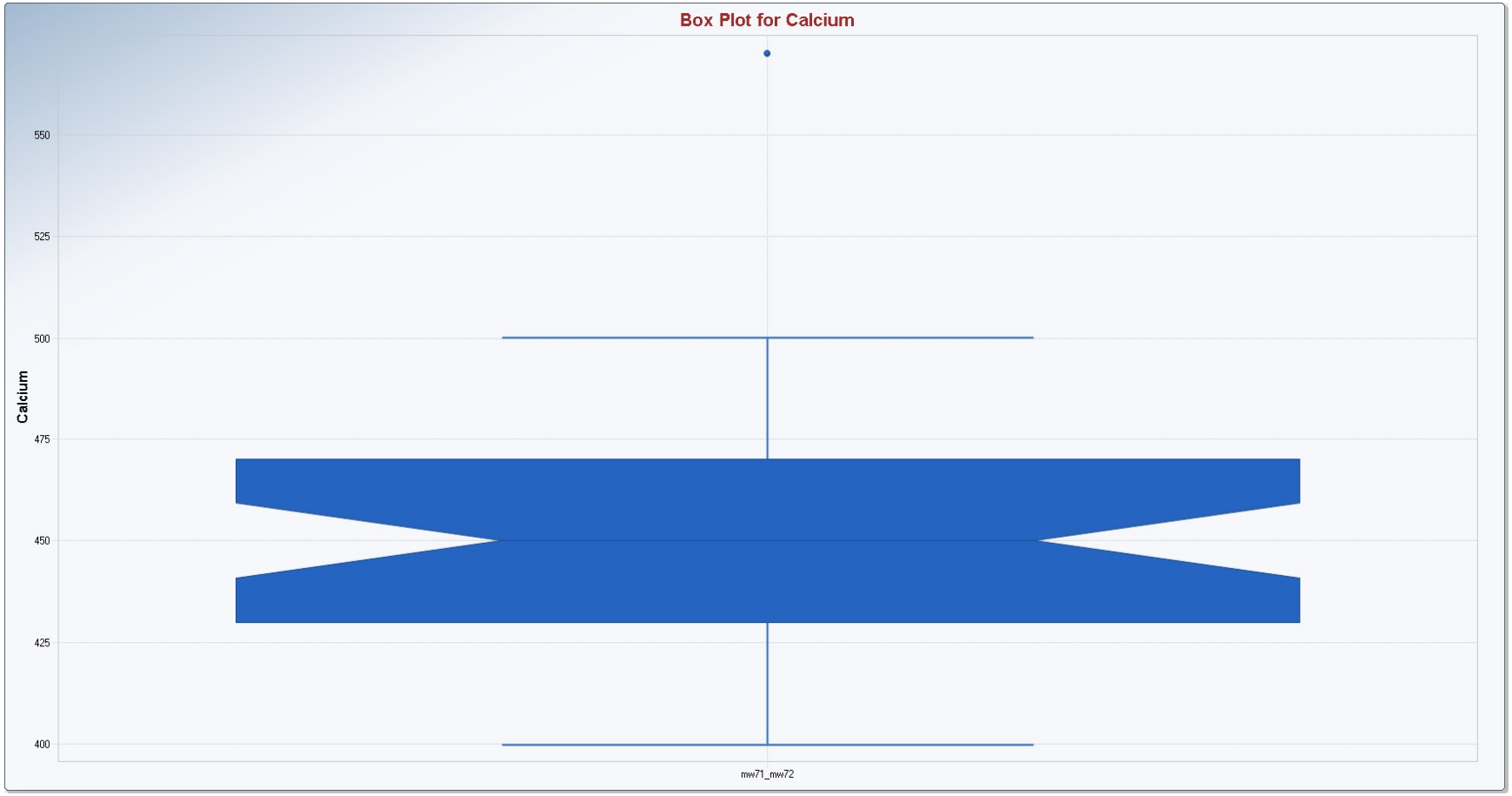
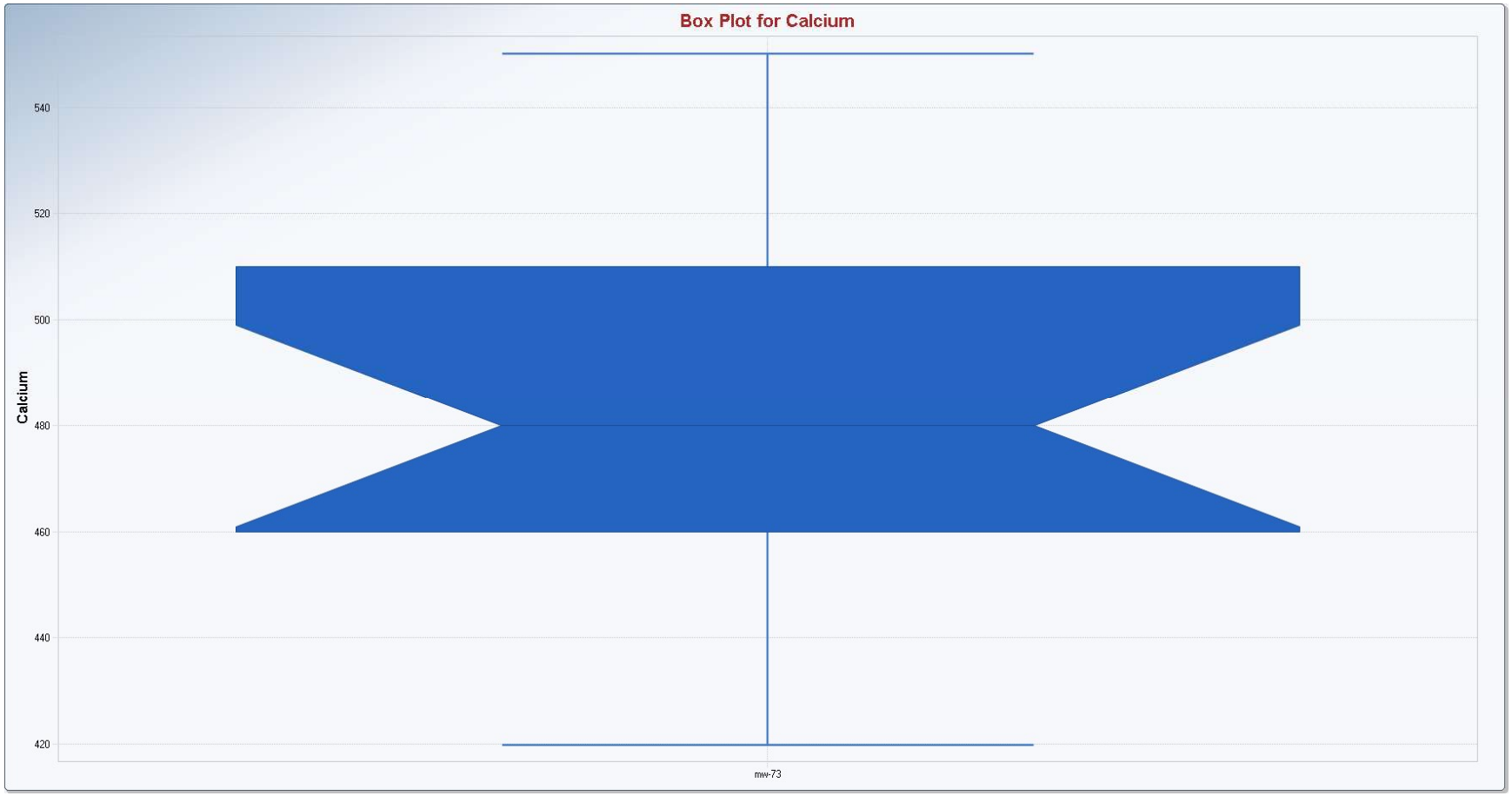
Box and Whisker Plots



Appendix B
Box and Whisker Plots



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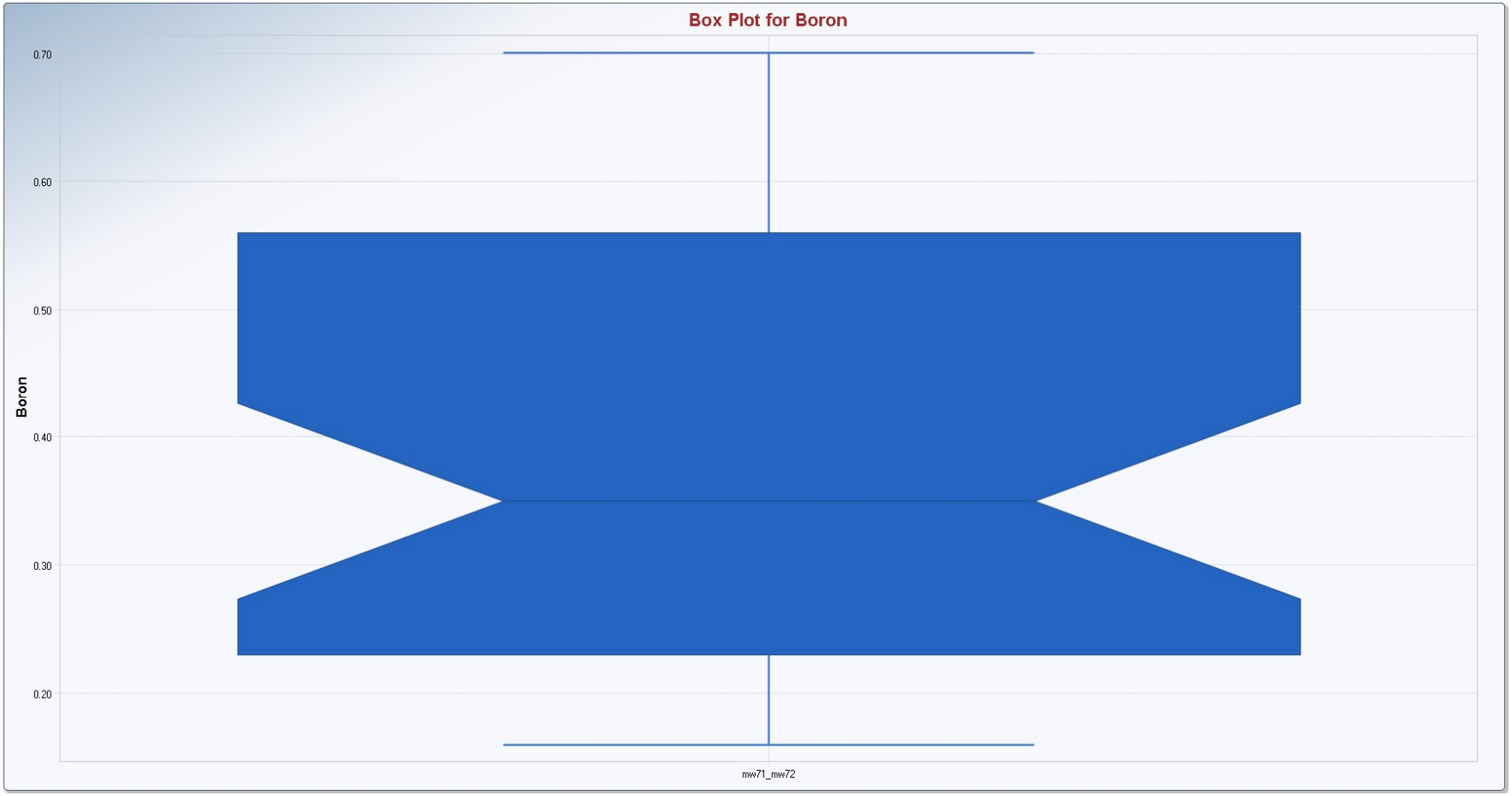
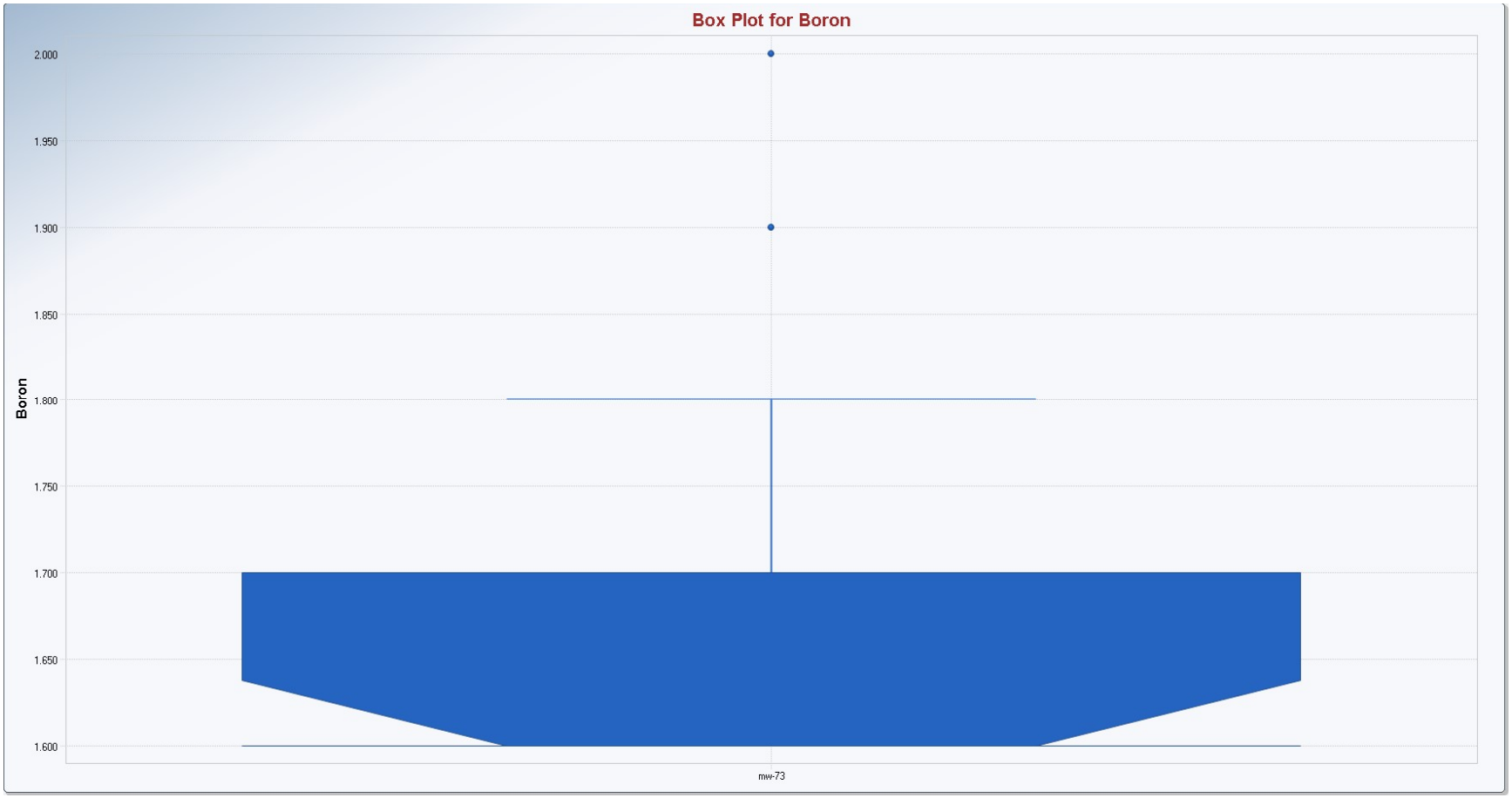
Box and Whisker Plots



Appendix B
Box and Whisker Plots



Appendix B
Goodness of Fit Statistics

	Goodness-of-Fit Test Statistics for Data Sets with Non-Detects	
User Selected Options		
Date/Time of Computation	ProUCL 5.13/3/2021 2:06:07 PM	
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_a.xls	
Full Precision	OFF	
Confidence Coefficient	0.95	
Boron (mw-62)		
Raw Statistics		
Number of Valid Observations	24	
Number of Missing Observations	1	
Number of Distinct Observations	8	
Minimum	1.8	
Maximum	2.5	
Mean of Raw Data	2.092	
Standard Deviation of Raw Data	0.186	
Khat	132.7	
Theta hat	0.0158	
Kstar	116.2	
Theta star	0.018	
Mean of Log Transformed Data	0.734	
Standard Deviation of Log Transformed Data	0.0886	
Normal GOF Test Results		
Correlation Coefficient R	0.978	
Shapiro Wilk Test Statistic	0.95	
Shapiro Wilk Critical (0.05) Value	0.916	
Approximate Shapiro Wilk P Value	0.281	
Lilliefors Test Statistic	0.149	
Lilliefors Critical (0.05) Value	0.177	
Data appear Normal at (0.05) Significance Level		
Gamma GOF Test Results		
Correlation Coefficient R	0.98	
A-D Test Statistic	0.515	
A-D Critical (0.05) Value	0.742	

Appendix B
Goodness of Fit Statistics

K-S Test Statistic	0.155
K-S Critical(0.05) Value	0.177
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.98
Shapiro Wilk Test Statistic	0.953
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.32
Lilliefors Test Statistic	0.16
Lilliefors Critical (0.05) Value	0.177
Data appear Lognormal at (0.05) Significance Level	
Boron (mw-63)	
Raw Statistics	
Number of Valid Observations	24
Number of Distinct Observations	8
Minimum	1.3
Maximum	2
Mean of Raw Data	1.617
Standard Deviation of Raw Data	0.232
Khat	51.05
Theta hat	0.0317
Kstar	44.7
Theta star	0.0362
Mean of Log Transformed Data	0.471
Standard Deviation of Log Transformed Data	0.143
Normal GOF Test Results	
Correlation Coefficient R	0.969
Shapiro Wilk Test Statistic	0.919
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.0574
Lilliefors Test Statistic	0.159
Lilliefors Critical (0.05) Value	0.177
Data appear Normal at (0.05) Significance Level	

Appendix B
Goodness of Fit Statistics

Gamma GOF Test Results	
Correlation Coefficient R	0.969
A-D Test Statistic	0.672
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.164
K-S Critical(0.05) Value	0.177
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.97
Shapiro Wilk Test Statistic	0.921
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.0633
Lilliefors Test Statistic	0.159
Lilliefors Critical (0.05) Value	0.177
Data appear Lognormal at (0.05) Significance Level	
Boron (mw-64)	
Raw Statistics	
Number of Valid Observations	23
Number of Distinct Observations	13
Minimum	0.47
Maximum	0.67
Mean of Raw Data	0.587
Standard Deviation of Raw Data	0.0594
Khat	97.73
Theta hat	0.00601
Kstar	85.01
Theta star	0.0069
Mean of Log Transformed Data	-0.538
Standard Deviation of Log Transformed Data	0.105
Normal GOF Test Results	
Correlation Coefficient R	0.974

Appendix B
Goodness of Fit Statistics

Shapiro Wilk Test Statistic	0.937
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.153
Lilliefors Test Statistic	0.129
Lilliefors Critical (0.05) Value	0.18
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.965
A-D Test Statistic	0.577
A-D Critical (0.05) Value	0.74
K-S Test Statistic	0.14
K-S Critical(0.05) Value	0.181
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.966
Shapiro Wilk Test Statistic	0.922
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.0726
Lilliefors Test Statistic	0.14
Lilliefors Critical (0.05) Value	0.18
Data appear Lognormal at (0.05) Significance Level	
Boron (mw-65)	
Raw Statistics	
Number of Valid Observations	23
Number of Distinct Observations	14
Minimum	0.57
Maximum	0.98
Mean of Raw Data	0.76
Standard Deviation of Raw Data	0.0987
Khat	60.14
Theta hat	0.0126
Kstar	52.32
Theta star	0.0145

Appendix B
Goodness of Fit Statistics

Mean of Log Transformed Data	-0.283
Standard Deviation of Log Transformed Data	0.133
Normal GOF Test Results	
Correlation Coefficient R	0.961
Shapiro Wilk Test Statistic	0.928
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.0978
Lilliefors Test Statistic	0.244
Lilliefors Critical (0.05) Value	0.18
Data appear Approximate Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.961
A-D Test Statistic	0.997
A-D Critical (0.05) Value	0.741
K-S Test Statistic	0.261
K-S Critical(0.05) Value	0.181
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.955
Shapiro Wilk Test Statistic	0.915
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.0504
Lilliefors Test Statistic	0.27
Lilliefors Critical (0.05) Value	0.18
Data appear Approximate_Lognormal at (0.05) Significance Level	
Calcium (mw-62)	
Raw Statistics	
Number of Valid Observations	24
Number of Missing Observations	1
Number of Distinct Observations	10
Minimum	480

Appendix B
Goodness of Fit Statistics

Maximum	590
Mean of Raw Data	530
Standard Deviation of Raw Data	28.74
Khat	357.9
Theta hat	1.481
Kstar	313.2
Theta star	1.692
Mean of Log Transformed Data	6.271
Standard Deviation of Log Transformed Data	0.0539
Normal GOF Test Results	
Correlation Coefficient R	0.98
Shapiro Wilk Test Statistic	0.956
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.371
Lilliefors Test Statistic	0.136
Lilliefors Critical (0.05) Value	0.177
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.981
A-D Test Statistic	0.445
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.134
K-S Critical(0.05) Value	0.177
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.983
Shapiro Wilk Test Statistic	0.961
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.464
Lilliefors Test Statistic	0.128
Lilliefors Critical (0.05) Value	0.177
Data appear Lognormal at (0.05) Significance Level	

Appendix B
Goodness of Fit Statistics

Calcium (mw-63)	
Raw Statistics	
Number of Valid Observations	24
Number of Distinct Observations	10
Minimum	420
Maximum	580
Mean of Raw Data	524.6
Standard Deviation of Raw Data	32.83
Khat	250
Theta hat	2.098
Kstar	218.8
Theta star	2.398
Mean of Log Transformed Data	6.261
Standard Deviation of Log Transformed Data	0.0657
Normal GOF Test Results	
Correlation Coefficient R	0.936
Shapiro Wilk Test Statistic	0.894
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.0156
Lilliefors Test Statistic	0.149
Lilliefors Critical (0.05) Value	0.177
Data appear Approximate Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.932
A-D Test Statistic	0.862
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.156
K-S Critical(0.05) Value	0.177
Data follow Appr. Gamma Distribution at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.918
Shapiro Wilk Test Statistic	0.863

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Goodness of Fit Statistics

Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.00313
Lilliefors Test Statistic	0.159
Lilliefors Critical (0.05) Value	0.177
Data appear Approximate_Lognormal at (0.05) Significance Level	
Calcium (mw-64)	
Raw Statistics	
Number of Valid Observations	23
Number of Distinct Observations	11
Minimum	73
Maximum	93
Mean of Raw Data	86.17
Standard Deviation of Raw Data	4.529
Khat	360.1
Theta hat	0.239
Kstar	313.2
Theta star	0.275
Mean of Log Transformed Data	4.455
Standard Deviation of Log Transformed Data	0.0546
Normal GOF Test Results	
Correlation Coefficient R	0.934
Shapiro Wilk Test Statistic	0.882
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.00978
Lilliefors Test Statistic	0.18
Lilliefors Critical (0.05) Value	0.18
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.928
A-D Test Statistic	1.006
A-D Critical (0.05) Value	0.74
K-S Test Statistic	0.187
K-S Critical(0.05) Value	0.181

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Goodness of Fit Statistics

Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.922
Shapiro Wilk Test Statistic	0.861
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.0035
Lilliefors Test Statistic	0.193
Lilliefors Critical (0.05) Value	0.18
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	
Calcium (mw-65)	
Raw Statistics	
Number of Valid Observations	23
Number of Distinct Observations	12
Minimum	82
Maximum	160
Mean of Raw Data	105.7
Standard Deviation of Raw Data	16.87
Khat	46.7
Theta hat	2.262
Kstar	40.64
Theta star	2.6
Mean of Log Transformed Data	4.649
Standard Deviation of Log Transformed Data	0.146
Normal GOF Test Results	
Correlation Coefficient R	0.898
Shapiro Wilk Test Statistic	0.822
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	5.8678E-4
Lilliefors Test Statistic	0.268

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Goodness of Fit Statistics

Lilliefors Critical (0.05) Value	0.18
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.919
A-D Test Statistic	1.095
A-D Critical (0.05) Value	0.741
K-S Test Statistic	0.242
K-S Critical(0.05) Value	0.181
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.935
Shapiro Wilk Test Statistic	0.888
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.0126
Lilliefors Test Statistic	0.233
Lilliefors Critical (0.05) Value	0.18
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	
Chloride (mw-62)	
Raw Statistics	
Number of Valid Observations	21
Number of Missing Observations	4
Number of Distinct Observations	7
Minimum	82
Maximum	150
Mean of Raw Data	120.5
Standard Deviation of Raw Data	15.78
Khat	58.81
Theta hat	2.05
Kstar	50.44

Appendix B
Goodness of Fit Statistics

Theta star	2.39
Mean of Log Transformed Data	4.783
Standard Deviation of Log Transformed Data	0.136
Normal GOF Test Results	
Correlation Coefficient R	0.963
Shapiro Wilk Test Statistic	0.935
Shapiro Wilk Critical (0.05) Value	0.908
Approximate Shapiro Wilk P Value	0.172
Lilliefors Test Statistic	0.18
Lilliefors Critical (0.05) Value	0.188
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.962
A-D Test Statistic	0.657
A-D Critical (0.05) Value	0.741
K-S Test Statistic	0.171
K-S Critical(0.05) Value	0.189
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.951
Shapiro Wilk Test Statistic	0.916
Shapiro Wilk Critical (0.05) Value	0.908
Approximate Shapiro Wilk P Value	0.0686
Lilliefors Test Statistic	0.179
Lilliefors Critical (0.05) Value	0.188
Data appear Lognormal at (0.05) Significance Level	
Chloride (mw-63)	
Raw Statistics	
Number of Valid Observations	21
Number of Missing Observations	3
Number of Distinct Observations	11

Appendix B
Goodness of Fit Statistics

Minimum	77
Maximum	110
Mean of Raw Data	94.81
Standard Deviation of Raw Data	8.559
Khat	124.3
Theta hat	0.763
Kstar	106.6
Theta star	0.89
Mean of Log Transformed Data	4.548
Standard Deviation of Log Transformed Data	0.0929
Normal GOF Test Results	
Correlation Coefficient R	0.962
Shapiro Wilk Test Statistic	0.925
Shapiro Wilk Critical (0.05) Value	0.908
Approximate Shapiro Wilk P Value	0.104
Lilliefors Test Statistic	0.177
Lilliefors Critical (0.05) Value	0.188
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.958
A-D Test Statistic	0.736
A-D Critical (0.05) Value	0.74
K-S Test Statistic	0.184
K-S Critical(0.05) Value	0.189
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.954
Shapiro Wilk Test Statistic	0.909
Shapiro Wilk Critical (0.05) Value	0.908
Approximate Shapiro Wilk P Value	0.0503
Lilliefors Test Statistic	0.185
Lilliefors Critical (0.05) Value	0.188
Data appear Lognormal at (0.05) Significance Level	

Appendix B
Goodness of Fit Statistics

Chloride (mw-64)	
Raw Statistics	
Number of Valid Observations	21
Number of Missing Observations	2
Number of Distinct Observations	8
Minimum	44
Maximum	53
Mean of Raw Data	50.76
Standard Deviation of Raw Data	2.427
Khat	438.5
Theta hat	0.116
Kstar	375.9
Theta star	0.135
Mean of Log Transformed Data	3.926
Standard Deviation of Log Transformed Data	0.0495
Normal GOF Test Results	
Correlation Coefficient R	0.912
Shapiro Wilk Test Statistic	0.831
Shapiro Wilk Critical (0.05) Value	0.908
Approximate Shapiro Wilk P Value	0.00147
Lilliefors Test Statistic	0.219
Lilliefors Critical (0.05) Value	0.188
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.904
A-D Test Statistic	1.284
A-D Critical (0.05) Value	0.74
K-S Test Statistic	0.223
K-S Critical(0.05) Value	0.189
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	

Appendix B
Goodness of Fit Statistics

Correlation Coefficient R	0.903
Shapiro Wilk Test Statistic	0.817
Shapiro Wilk Critical (0.05) Value	0.908
Approximate Shapiro Wilk P Value	7.9824E-4
Lilliefors Test Statistic	0.219
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	
Chloride (mw-65)	
Raw Statistics	
Number of Valid Observations	21
Number of Missing Observations	2
Number of Distinct Observations	10
Minimum	48
Maximum	77
Mean of Raw Data	55
Standard Deviation of Raw Data	6.465
Khat	88.34
Theta hat	0.623
Kstar	75.75
Theta star	0.726
Mean of Log Transformed Data	4.002
Standard Deviation of Log Transformed Data	0.105
Normal GOF Test Results	
Correlation Coefficient R	0.806
Shapiro Wilk Test Statistic	0.669
Shapiro Wilk Critical (0.05) Value	0.908
Approximate Shapiro Wilk P Value	3.3688E-6
Lilliefors Test Statistic	0.323
Lilliefors Critical (0.05) Value	0.188
Data not Normal at (0.05) Significance Level	

Appendix B
Goodness of Fit Statistics

Gamma GOF Test Results	
Correlation Coefficient R	0.832
A-D Test Statistic	2.512
A-D Critical (0.05) Value	0.74
K-S Test Statistic	0.316
K-S Critical(0.05) Value	0.189
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.835
Shapiro Wilk Test Statistic	0.716
Shapiro Wilk Critical (0.05) Value	0.908
Approximate Shapiro Wilk P Value	1.6817E-5
Lilliefors Test Statistic	0.31
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	
Fluoride (mw-62)	
Raw Statistics	
Number of Valid Observations	24
Number of Missing Observations	1
Number of Distinct Observations	6
Minimum	1.2
Maximum	3.3
Mean of Raw Data	1.546
Standard Deviation of Raw Data	0.408
Khat	22.04
Theta hat	0.0701
Kstar	19.31
Theta star	0.0801
Mean of Log Transformed Data	0.413
Standard Deviation of Log Transformed Data	0.201

Appendix B
Goodness of Fit Statistics

Normal GOF Test Results	
Correlation Coefficient R	0.735
Shapiro Wilk Test Statistic	0.571
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	3.7754E-8
Lilliefors Test Statistic	0.322
Lilliefors Critical (0.05) Value	0.177
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.778
A-D Test Statistic	2.255
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.283
K-S Critical(0.05) Value	0.178
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.835
Shapiro Wilk Test Statistic	0.723
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	7.3212E-6
Lilliefors Test Statistic	0.263
Lilliefors Critical (0.05) Value	0.177
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	23
Number of Missing Observations	1

Appendix B
Goodness of Fit Statistics

Number of Distinct Observations	9
Minimum	1.6
Maximum	2.5
Mean of Raw Data	1.948
Standard Deviation of Raw Data	0.229
Khat	77.15
Theta hat	0.0252
Kstar	67.11
Theta star	0.029
Mean of Log Transformed Data	0.66
Standard Deviation of Log Transformed Data	0.116
Normal GOF Test Results	
Correlation Coefficient R	0.971
Shapiro Wilk Test Statistic	0.941
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.186
Lilliefors Test Statistic	0.149
Lilliefors Critical (0.05) Value	0.18
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.976
A-D Test Statistic	0.441
A-D Critical (0.05) Value	0.741
K-S Test Statistic	0.132
K-S Critical(0.05) Value	0.181
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.977
Shapiro Wilk Test Statistic	0.951
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.313
Lilliefors Test Statistic	0.133
Lilliefors Critical (0.05) Value	0.18

Appendix B
Goodness of Fit Statistics

Data appear Lognormal at (0.05) Significance Level	
Fluoride (mw-64)	
Raw Statistics	
Number of Valid Observations	23
Number of Distinct Observations	4
Minimum	1.3
Maximum	1.6
Mean of Raw Data	1.435
Standard Deviation of Raw Data	0.0775
Khat	356.2
Theta hat	0.00403
Kstar	309.8
Theta star	0.00463
Mean of Log Transformed Data	0.36
Standard Deviation of Log Transformed Data	0.0543
Normal GOF Test Results	
Correlation Coefficient R	0.927
Shapiro Wilk Test Statistic	0.86
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.00326
Lilliefors Test Statistic	0.238
Lilliefors Critical (0.05) Value	0.18
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.926
A-D Test Statistic	1.673
A-D Critical (0.05) Value	0.74
K-S Test Statistic	0.241
K-S Critical(0.05) Value	0.181
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	

Appendix B
Goodness of Fit Statistics

Correlation Coefficient R	0.926
Shapiro Wilk Test Statistic	0.857
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.00293
Lilliefors Test Statistic	0.236
Lilliefors Critical (0.05) Value	0.18
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)	
Raw Statistics	
Number of Valid Observations	23
Number of Distinct Observations	6
Minimum	1.6
Maximum	2.1
Mean of Raw Data	1.891
Standard Deviation of Raw Data	0.131
Khat	210.9
Theta hat	0.00897
Kstar	183.4
Theta star	0.0103
Mean of Log Transformed Data	0.635
Standard Deviation of Log Transformed Data	0.071
Normal GOF Test Results	
Correlation Coefficient R	0.947
Shapiro Wilk Test Statistic	0.894
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.018
Lilliefors Test Statistic	0.231
Lilliefors Critical (0.05) Value	0.18
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	

Appendix B
Goodness of Fit Statistics

Correlation Coefficient R	0.94
A-D Test Statistic	1.196
A-D Critical (0.05) Value	0.74
K-S Test Statistic	0.235
K-S Critical(0.05) Value	0.181

Data not Gamma Distributed at (0.05) Significance Level

Lognormal GOF Test Results

Correlation Coefficient R	0.942
Shapiro Wilk Test Statistic	0.887
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.0123
Lilliefors Test Statistic	0.229
Lilliefors Critical (0.05) Value	0.18

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

Sulfate (mw-62)

Raw Statistics

Number of Valid Observations	21
Number of Missing Observations	4
Number of Distinct Observations	7
Minimum	2800
Maximum	3800
Mean of Raw Data	3362
Standard Deviation of Raw Data	196.2
Khat	300.6
Theta hat	11.19
Kstar	257.7
Theta star	13.05
Mean of Log Transformed Data	8.119
Standard Deviation of Log Transformed Data	0.0596

Appendix B
Goodness of Fit Statistics

Normal GOF Test Results	
Correlation Coefficient R	0.926
Shapiro Wilk Test Statistic	0.883
Shapiro Wilk Critical (0.05) Value	0.908
Approximate Shapiro Wilk P Value	0.0144
Lilliefors Test Statistic	0.233
Lilliefors Critical (0.05) Value	0.188
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.93
A-D Test Statistic	1.081
A-D Critical (0.05) Value	0.74
K-S Test Statistic	0.238
K-S Critical(0.05) Value	0.189
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.916
Shapiro Wilk Test Statistic	0.865
Shapiro Wilk Critical (0.05) Value	0.908
Approximate Shapiro Wilk P Value	0.00648
Lilliefors Test Statistic	0.245
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	
Sulfate (mw-63)	
Raw Statistics	
Number of Valid Observations	21
Number of Missing Observations	3
Number of Distinct Observations	8

Appendix B
Goodness of Fit Statistics

Minimum	2300
Maximum	4300
Mean of Raw Data	2771
Standard Deviation of Raw Data	383.6
Khat	67.88
Theta hat	40.83
Kstar	58.22
Theta star	47.61
Mean of Log Transformed Data	7.92
Standard Deviation of Log Transformed Data	0.119
Normal GOF Test Results	
Correlation Coefficient R	0.761
Shapiro Wilk Test Statistic	0.612
Shapiro Wilk Critical (0.05) Value	0.908
Approximate Shapiro Wilk P Value	5.4103E-7
Lilliefors Test Statistic	0.321
Lilliefors Critical (0.05) Value	0.188
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.785
A-D Test Statistic	2.123
A-D Critical (0.05) Value	0.741
K-S Test Statistic	0.291
K-S Critical(0.05) Value	0.189
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.819
Shapiro Wilk Test Statistic	0.703
Shapiro Wilk Critical (0.05) Value	0.908
Approximate Shapiro Wilk P Value	1.0508E-5
Lilliefors Test Statistic	0.281
Lilliefors Critical (0.05) Value	0.188
Data not Lognormal at (0.05) Significance Level	

Appendix B
Goodness of Fit Statistics

Non-parametric GOF Test Results	
Data do not follow a discernible distribution at (0.05) Level of Significance	
Sulfate (mw-64)	
Raw Statistics	
Number of Valid Observations	21
Number of Missing Observations	2
Number of Distinct Observations	11
Minimum	270
Maximum	870
Mean of Raw Data	371
Standard Deviation of Raw Data	118
Khat	17.24
Theta hat	21.52
Kstar	14.8
Theta star	25.06
Mean of Log Transformed Data	5.887
Standard Deviation of Log Transformed Data	0.22
Normal GOF Test Results	
Correlation Coefficient R	0.652
Shapiro Wilk Test Statistic	0.456
Shapiro Wilk Critical (0.05) Value	0.908
Approximate Shapiro Wilk P Value	6.8123E-9
Lilliefors Test Statistic	0.388
Lilliefors Critical (0.05) Value	0.188
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.705
A-D Test Statistic	3.114
A-D Critical (0.05) Value	0.743
K-S Test Statistic	0.338
K-S Critical(0.05) Value	0.189

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Goodness of Fit Statistics

Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.757
Shapiro Wilk Test Statistic	0.607
Shapiro Wilk Critical (0.05) Value	0.908
Approximate Shapiro Wilk P Value	4.6752E-7
Lilliefors Test Statistic	0.312
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	
Sulfate (mw-65)	
Raw Statistics	
Number of Valid Observations	21
Number of Missing Observations	2
Number of Distinct Observations	14
Minimum	350
Maximum	790
Mean of Raw Data	476.2
Standard Deviation of Raw Data	100.5
Khat	28.76
Theta hat	16.56
Kstar	24.68
Theta star	19.29
Mean of Log Transformed Data	6.148
Standard Deviation of Log Transformed Data	0.183
Normal GOF Test Results	
Correlation Coefficient R	0.854
Shapiro Wilk Test Statistic	0.745
Shapiro Wilk Critical (0.05) Value	0.908
Approximate Shapiro Wilk P Value	4.7192E-5

Appendix B
Goodness of Fit Statistics

Lilliefors Test Statistic	0.311
Lilliefors Critical (0.05) Value	0.188
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.884
A-D Test Statistic	1.463
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.277
K-S Critical(0.05) Value	0.189
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.907
Shapiro Wilk Test Statistic	0.837
Shapiro Wilk Critical (0.05) Value	0.908
Approximate Shapiro Wilk P Value	0.00185
Lilliefors Test Statistic	0.264
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	
DissolvedSolids (mw-62)	
Raw Statistics	
Number of Valid Observations	23
Number of Missing Observations	2
Number of Distinct Observations	13
Minimum	2400
Maximum	6700
Mean of Raw Data	5517
Standard Deviation of Raw Data	786
Khat	35.16
Theta hat	156.9

Appendix B
Goodness of Fit Statistics

Kstar	30.6
Theta star	180.3
Mean of Log Transformed Data	8.601
Standard Deviation of Log Transformed Data	0.192
Normal GOF Test Results	
Correlation Coefficient R	0.809
Shapiro Wilk Test Statistic	0.689
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	2.9013E-6
Lilliefors Test Statistic	0.267
Lilliefors Critical (0.05) Value	0.18
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.786
A-D Test Statistic	2.962
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.298
K-S Critical(0.05) Value	0.181
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.719
Shapiro Wilk Test Statistic	0.551
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	3.2658E-8
Lilliefors Test Statistic	0.316
Lilliefors Critical (0.05) Value	0.18
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	
DissolvedSolids (mw-63)	

Appendix B
Goodness of Fit Statistics

Raw Statistics	
Number of Valid Observations	23
Number of Missing Observations	1
Number of Distinct Observations	7
Minimum	4100
Maximum	4700
Mean of Raw Data	4387
Standard Deviation of Raw Data	157.6
Khat	816.4
Theta hat	5.374
Kstar	709.9
Theta star	6.179
Mean of Log Transformed Data	8.386
Standard Deviation of Log Transformed Data	0.0357
Normal GOF Test Results	
Correlation Coefficient R	0.973
Shapiro Wilk Test Statistic	0.943
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.207
Lilliefors Test Statistic	0.188
Lilliefors Critical (0.05) Value	0.18
Data appear Approximate Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.974
A-D Test Statistic	0.595
A-D Critical (0.05) Value	0.74
K-S Test Statistic	0.19
K-S Critical(0.05) Value	0.181
Data follow Appr. Gamma Distribution at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.975
Shapiro Wilk Test Statistic	0.946

Appendix B
Goodness of Fit Statistics

Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.247
Lilliefors Test Statistic	0.185
Lilliefors Critical (0.05) Value	0.18
Data appear Approximate_Lognormal at (0.05) Significance Level	
DissolvedSolids (mw-64)	
Raw Statistics	
Number of Valid Observations	23
Number of Distinct Observations	8
Minimum	720
Maximum	890
Mean of Raw Data	787.8
Standard Deviation of Raw Data	32.04
Khat	639.3
Theta hat	1.232
Kstar	556
Theta star	1.417
Mean of Log Transformed Data	6.668
Standard Deviation of Log Transformed Data	0.0404
Normal GOF Test Results	
Correlation Coefficient R	0.878
Shapiro Wilk Test Statistic	0.8
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	2.2388E-4
Lilliefors Test Statistic	0.23
Lilliefors Critical (0.05) Value	0.18
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.883
A-D Test Statistic	1.824
A-D Critical (0.05) Value	0.74
K-S Test Statistic	0.232
K-S Critical(0.05) Value	0.181

Appendix B
Goodness of Fit Statistics

Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.883
Shapiro Wilk Test Statistic	0.808
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	3.0944E-4
Lilliefors Test Statistic	0.236
Lilliefors Critical (0.05) Value	0.18
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	
DissolvedSolids (mw-65)	
Raw Statistics	
Number of Valid Observations	23
Number of Distinct Observations	11
Minimum	780
Maximum	1500
Mean of Raw Data	1043
Standard Deviation of Raw Data	162.1
Khat	48.11
Theta hat	21.69
Kstar	41.87
Theta star	24.92
Mean of Log Transformed Data	6.94
Standard Deviation of Log Transformed Data	0.144
Normal GOF Test Results	
Correlation Coefficient R	0.895
Shapiro Wilk Test Statistic	0.815
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	4.1548E-4
Lilliefors Test Statistic	0.301

Appendix B
Goodness of Fit Statistics

Lilliefors Critical (0.05) Value	0.18
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.915
A-D Test Statistic	1.671
A-D Critical (0.05) Value	0.741
K-S Test Statistic	0.292
K-S Critical(0.05) Value	0.181
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.921
Shapiro Wilk Test Statistic	0.862
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.00364
Lilliefors Test Statistic	0.284
Lilliefors Critical (0.05) Value	0.18
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	
Field_pH (mw-62)	
Raw Statistics	
Number of Valid Observations	24
Number of Missing Observations	1
Number of Distinct Observations	19
Minimum	6.36
Maximum	7.4
Mean of Raw Data	6.608
Standard Deviation of Raw Data	0.217
Khat	1009
Theta hat	0.00655
Kstar	883.2

Appendix B
Goodness of Fit Statistics

Theta star	0.00748
Mean of Log Transformed Data	1.888
Standard Deviation of Log Transformed Data	0.0318
Normal GOF Test Results	
Correlation Coefficient R	0.89
Shapiro Wilk Test Statistic	0.81
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	2.7240E-4
Lilliefors Test Statistic	0.17
Lilliefors Critical (0.05) Value	0.177
Data appear Approximate Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.897
A-D Test Statistic	0.933
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.16
K-S Critical(0.05) Value	0.177
Data follow Appr. Gamma Distribution at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.902
Shapiro Wilk Test Statistic	0.83
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	6.7852E-4
Lilliefors Test Statistic	0.16
Lilliefors Critical (0.05) Value	0.177
Data appear Approximate_Lognormal at (0.05) Significance Level	
Field_pH (mw-63)	
Raw Statistics	
Number of Valid Observations	24
Number of Distinct Observations	21
Minimum	6.53

Appendix B
Goodness of Fit Statistics

Maximum	7.03
Mean of Raw Data	6.744
Standard Deviation of Raw Data	0.126
Khat	2986
Theta hat	0.00226
Kstar	2613
Theta star	0.00258
Mean of Log Transformed Data	1.909
Standard Deviation of Log Transformed Data	0.0187
Normal GOF Test Results	
Correlation Coefficient R	0.991
Shapiro Wilk Test Statistic	0.979
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.872
Lilliefors Test Statistic	0.0702
Lilliefors Critical (0.05) Value	0.177
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.991
A-D Test Statistic	0.168
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.0765
K-S Critical(0.05) Value	0.177
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.991
Shapiro Wilk Test Statistic	0.979
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.869
Lilliefors Test Statistic	0.0734
Lilliefors Critical (0.05) Value	0.177
Data appear Lognormal at (0.05) Significance Level	

Appendix B
Goodness of Fit Statistics

Field_pH (mw-64)	
Raw Statistics	
Number of Valid Observations	23
Number of Distinct Observations	19
Minimum	7.22
Maximum	7.68
Mean of Raw Data	7.445
Standard Deviation of Raw Data	0.121
Khat	3983
Theta hat	0.00187
Kstar	3463
Theta star	0.00215
Mean of Log Transformed Data	2.007
Standard Deviation of Log Transformed Data	0.0162
Normal GOF Test Results	
Correlation Coefficient R	0.992
Shapiro Wilk Test Statistic	0.979
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.87
Lilliefors Test Statistic	0.0862
Lilliefors Critical (0.05) Value	0.18
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.992
A-D Test Statistic	0.243
A-D Critical (0.05) Value	0.74
K-S Test Statistic	0.0949
K-S Critical(0.05) Value	0.181
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.992
Shapiro Wilk Test Statistic	0.979

Appendix B
Goodness of Fit Statistics

Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	0.871
Lilliefors Test Statistic	0.0868
Lilliefors Critical (0.05) Value	0.18
Data appear Lognormal at (0.05) Significance Level	
Field_pH (mw-65)	
Raw Statistics	
Number of Valid Observations	23
Number of Distinct Observations	18
Minimum	6.96
Maximum	8.27
Mean of Raw Data	7.259
Standard Deviation of Raw Data	0.262
Khat	852.7
Theta hat	0.00851
Kstar	741.5
Theta star	0.00979
Mean of Log Transformed Data	1.982
Standard Deviation of Log Transformed Data	0.0345
Normal GOF Test Results	
Correlation Coefficient R	0.838
Shapiro Wilk Test Statistic	0.728
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	1.2457E-5
Lilliefors Test Statistic	0.219
Lilliefors Critical (0.05) Value	0.18
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.848
A-D Test Statistic	1.523
A-D Critical (0.05) Value	0.74
K-S Test Statistic	0.208
K-S Critical(0.05) Value	0.181

Appendix B
Goodness of Fit Statistics

Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.853
Shapiro Wilk Test Statistic	0.753
Shapiro Wilk Critical (0.05) Value	0.914
Approximate Shapiro Wilk P Value	3.3056E-5
Lilliefors Test Statistic	0.207
Lilliefors Critical (0.05) Value	0.18
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	

	Goodness-of-Fit Test Statistics for Data Sets with Non-Detects
User Selected Options	
Date/Time of Computation	ProUCL 5.13/3/2021 3:33:12 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_b.xls
Full Precision	OFF
Confidence Coefficient	0.95

Chloride (mw71_mw72_mw73)

Raw Statistics	
Number of Valid Observations	60
Number of Missing Observations	6
Number of Distinct Observations	27
Minimum	290
Maximum	750
Mean of Raw Data	503.7
Standard Deviation of Raw Data	86.02
Khat	33.82
Theta hat	14.89
Kstar	32.14
Theta star	15.67

Appendix B
Goodness of Fit Statistics

Mean of Log Transformed Data	6.207
Standard Deviation of Log Transformed Data	0.176
Normal GOF Test Results	
Correlation Coefficient R	0.985
Approximate Shapiro Wilk Test Statistic	0.975
Approximate Shapiro Wilk P Value	0.47
Lilliefors Test Statistic	0.111
Lilliefors Critical (0.05) Value	0.114
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.986
A-D Test Statistic	0.699
A-D Critical (0.05) Value	0.748
K-S Test Statistic	0.101
K-S Critical(0.05) Value	0.114
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.977
Approximate Shapiro Wilk Test Statistic	0.961
Approximate Shapiro Wilk P Value	0.114
Lilliefors Test Statistic	0.108
Lilliefors Critical (0.05) Value	0.114
Data appear Lognormal at (0.05) Significance Level	
Sulfate (mw71_mw72_mw73)	
Raw Statistics	
Number of Valid Observations	60
Number of Missing Observations	6
Number of Distinct Observations	29
Minimum	610
Maximum	14000
Mean of Raw Data	9107

Appendix B
Goodness of Fit Statistics

Standard Deviation of Raw Data	2541
Khat	7.719
Theta hat	1180
Kstar	7.344
Theta star	1240
Mean of Log Transformed Data	9.051
Standard Deviation of Log Transformed Data	0.451
Normal GOF Test Results	
Correlation Coefficient R	0.952
Approximate Shapiro Wilk Test Statistic	0.913
Approximate Shapiro Wilk P Value	2.1961E-4
Lilliefors Test Statistic	0.206
Lilliefors Critical (0.05) Value	0.114
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.903
A-D Test Statistic	3.654
A-D Critical (0.05) Value	0.752
K-S Test Statistic	0.222
K-S Critical(0.05) Value	0.115
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.796
Approximate Shapiro Wilk Test Statistic	0.674
Approximate Shapiro Wilk P Value	0
Lilliefors Test Statistic	0.219
Lilliefors Critical (0.05) Value	0.114
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	

Appendix B
Goodness of Fit Statistics

DissolvedSolids (mw71_mw72_mw73)	
Raw Statistics	
Number of Valid Observations	63
Number of Missing Observations	3
Number of Distinct Observations	17
Minimum	6100
Maximum	21000
Mean of Raw Data	14492
Standard Deviation of Raw Data	3024
Khat	19.37
Theta hat	748.1
Kstar	18.46
Theta star	785
Mean of Log Transformed Data	9.555
Standard Deviation of Log Transformed Data	0.243
Normal GOF Test Results	
Correlation Coefficient R	0.955
Approximate Shapiro Wilk Test Statistic	0.911
Approximate Shapiro Wilk P Value	1.1650E-4
Lilliefors Test Statistic	0.233
Lilliefors Critical (0.05) Value	0.111
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.93
A-D Test Statistic	3.227
A-D Critical (0.05) Value	0.749
K-S Test Statistic	0.257
K-S Critical(0.05) Value	0.112
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.918
Approximate Shapiro Wilk Test Statistic	0.848

Appendix B
Goodness of Fit Statistics

Approximate Shapiro Wilk P Value	1.3790E-8
Lilliefors Test Statistic	0.265
Lilliefors Critical (0.05) Value	0.111
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	
Field_pH (mw71_mw72_mw73)	
Raw Statistics	
Number of Valid Observations	66
Number of Distinct Observations	41
Minimum	6.17
Maximum	7.73
Mean of Raw Data	6.717
Standard Deviation of Raw Data	0.238
Khat	845.4
Theta hat	0.00794
Kstar	807
Theta star	0.00832
Mean of Log Transformed Data	1.904
Standard Deviation of Log Transformed Data	0.0343
Normal GOF Test Results	
Correlation Coefficient R	0.883
Approximate Shapiro Wilk Test Statistic	0.809
Approximate Shapiro Wilk P Value	1.779E-11
Lilliefors Test Statistic	0.153
Lilliefors Critical (0.05) Value	0.109
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.89
A-D Test Statistic	2.982
A-D Critical (0.05) Value	0.749

Appendix B
Goodness of Fit Statistics

K-S Test Statistic	0.145
K-S Critical(0.05) Value	0.109
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.897
Approximate Shapiro Wilk Test Statistic	0.833
Approximate Shapiro Wilk P Value	5.599E-10
Lilliefors Test Statistic	0.144
Lilliefors Critical (0.05) Value	0.109
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	

	Goodness-of-Fit Test Statistics for Data Sets with Non-Detects
User Selected Options	
Date/Time of Computation	ProUCL 5.13/3/2021 3:38:05 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_d.xls
Full Precision	OFF
Confidence Coefficient	0.95

Boron (mw-73)

Raw Statistics	
Number of Valid Observations	17
Number of Missing Observations	1
Number of Distinct Observations	5
Minimum	1.6
Maximum	2
Mean of Raw Data	1.688
Standard Deviation of Raw Data	0.122
Khat	215.3
Theta hat	0.00784
Kstar	177.4
Theta star	0.00952

Appendix B
Goodness of Fit Statistics

Mean of Log Transformed Data	0.521
Standard Deviation of Log Transformed Data	0.0693
Normal GOF Test Results	
Correlation Coefficient R	0.872
Shapiro Wilk Test Statistic	0.759
Shapiro Wilk Critical (0.05) Value	0.892
Approximate Shapiro Wilk P Value	3.9081E-4
Lilliefors Test Statistic	0.295
Lilliefors Critical (0.05) Value	0.207
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.885
A-D Test Statistic	1.674
A-D Critical (0.05) Value	0.736
K-S Test Statistic	0.305
K-S Critical(0.05) Value	0.208
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.878
Shapiro Wilk Test Statistic	0.767
Shapiro Wilk Critical (0.05) Value	0.892
Approximate Shapiro Wilk P Value	5.3397E-4
Lilliefors Test Statistic	0.3
Lilliefors Critical (0.05) Value	0.207
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	

	Goodness-of-Fit Test Statistics for Data Sets with Non-Detects
User Selected Options	
Date/Time of Computation	ProUCL 5.13/3/2021 3:20:01 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_d.xls

Appendix B
Goodness of Fit Statistics

Full Precision	OFF
Confidence Coefficient	0.95

Calcium (MW-73)

Raw Statistics	
Number of Valid Observations	17
Number of Missing Observations	1
Number of Distinct Observations	11
Minimum	420
Maximum	550
Mean of Raw Data	485.9
Standard Deviation of Raw Data	33.74
Khat	220.5
Theta hat	2.204
Kstar	181.6
Theta star	2.675
Mean of Log Transformed Data	6.184
Standard Deviation of Log Transformed Data	0.0695

Normal GOF Test Results	
Correlation Coefficient R	0.991
Shapiro Wilk Test Statistic	0.983
Shapiro Wilk Critical (0.05) Value	0.892
Approximate Shapiro Wilk P Value	0.966
Lilliefors Test Statistic	0.0986
Lilliefors Critical (0.05) Value	0.207

Data appear Normal at (0.05) Significance Level

Gamma GOF Test Results	
Correlation Coefficient R	0.992
A-D Test Statistic	0.166
A-D Critical (0.05) Value	0.736
K-S Test Statistic	0.0922
K-S Critical(0.05) Value	0.208

Data appear Gamma Distributed at (0.05) Significance Level

Appendix B
Goodness of Fit Statistics

Lognormal GOF Test Results	
Correlation Coefficient R	0.991
Shapiro Wilk Test Statistic	0.984
Shapiro Wilk Critical (0.05) Value	0.892
Approximate Shapiro Wilk P Value	0.974
Lilliefors Test Statistic	0.0903
Lilliefors Critical (0.05) Value	0.207
Data appear 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 5.13/9/2021 10:23:19 AM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_c.xls
Full Precision	OFF
Confidence Coefficient	0.95

Boron (mw71_mw72)

Raw Statistics	
Number of Valid Observations	46
Number of Missing Observations	2
Number of Distinct Observations	21
Minimum	0.16
Maximum	0.7
Mean of Raw Data	0.395
Standard Deviation of Raw Data	0.178
Khat	4.763
Theta hat	0.0829
Kstar	4.467
Theta star	0.0884
Mean of Log Transformed Data	-1.038
Standard Deviation of Log Transformed Data	0.48
Normal GOF Test Results	
Correlation Coefficient R	0.905

Appendix B
Goodness of Fit Statistics

Shapiro Wilk Test Statistic	0.796
Shapiro Wilk Critical (0.05) Value	0.945
Approximate Shapiro Wilk P Value	4.7545E-8
Lilliefors Test Statistic	0.276
Lilliefors Critical (0.05) Value	0.129
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.898
A-D Test Statistic	4.35
A-D Critical (0.05) Value	0.753
K-S Test Statistic	0.257
K-S Critical(0.05) Value	0.131
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.905
Shapiro Wilk Test Statistic	0.798
Shapiro Wilk Critical (0.05) Value	0.945
Approximate Shapiro Wilk P Value	5.3464E-8
Lilliefors Test Statistic	0.245
Lilliefors Critical (0.05) Value	0.129
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	
Calcium (mw71_mw72)	
Raw Statistics	
Number of Valid Observations	46
Number of Missing Observations	2
Number of Distinct Observations	12
Minimum	400
Maximum	570
Mean of Raw Data	451.5

Appendix B
Goodness of Fit Statistics

Standard Deviation of Raw Data	31.05
Khat	222.5
Theta hat	2.03
Kstar	208
Theta star	2.171
Mean of Log Transformed Data	6.11
Standard Deviation of Log Transformed Data	0.0674
Normal GOF Test Results	
Correlation Coefficient R	0.95
Shapiro Wilk Test Statistic	0.919
Shapiro Wilk Critical (0.05) Value	0.945
Approximate Shapiro Wilk P Value	0.00341
Lilliefors Test Statistic	0.145
Lilliefors Critical (0.05) Value	0.129
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.955
A-D Test Statistic	0.838
A-D Critical (0.05) Value	0.747
K-S Test Statistic	0.141
K-S Critical(0.05) Value	0.13
Data not 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	0.945
Approximate Shapiro Wilk P Value	0.0173
Lilliefors Test Statistic	0.146
Lilliefors Critical (0.05) Value	0.129
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	
	Goodness-of-Fit Test Statistics for Data Sets with Non-Detects
User Selected Options	
Date/Time of Computation	ProUCL 5.13/11/2021 12:51:58 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_b.xls
Full Precision	OFF
Confidence Coefficient	0.95
Sulfate (mw71_mw72_mw73) - outlier removed	
Raw Statistics	
Number of Valid Observations	59
Number of Missing Observations	7
Number of Distinct Observations	28
Minimum	3900
Maximum	14000
Mean of Raw Data	9251
Standard Deviation of Raw Data	2303
Khat	13.62
Theta hat	679.3
Kstar	12.94
Theta star	715
Mean of Log Transformed Data	9.095
Standard Deviation of Log Transformed Data	0.291
Normal GOF Test Results	
Correlation Coefficient R	0.96
Approximate Shapiro Wilk Test Statistic	0.914
Approximate Shapiro Wilk P Value	3.0491E-4
Lilliefors Test Statistic	0.204
Lilliefors Critical (0.05) Value	0.115
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.933
A-D Test Statistic	2.875

Appendix B
Goodness of Fit Statistics

A-D Critical (0.05) Value	0.75
K-S Test Statistic	0.227
K-S Critical(0.05) Value	0.116
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.929
Approximate Shapiro Wilk Test Statistic	0.858
Approximate Shapiro Wilk P Value	2.0614E-7
Lilliefors Test Statistic	0.234
Lilliefors Critical (0.05) Value	0.115
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	

	Goodness-of-Fit Test Statistics for Data Sets with Non-Detects
User Selected Options	
Date/Time of Computation	ProUCL 5.13/9/2021 7:58:23 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_b.xls
Full Precision	OFF
Confidence Coefficient	0.95

Field_pH (mw71_mw72_mw73) - pH outlier removed	
Raw Statistics	
Number of Valid Observations	62
Number of Missing Observations	4
Number of Distinct Observations	37
Minimum	6.45
Maximum	7.04
Mean of Raw Data	6.702
Standard Deviation of Raw Data	0.131
Khat	2650
Theta hat	0.00253
Kstar	2522

Appendix B
Goodness of Fit Statistics

Theta star	0.00266
Mean of Log Transformed Data	1.902
Standard Deviation of Log Transformed Data	0.0196
Normal GOF Test Results	
Correlation Coefficient R	0.991
Approximate Shapiro Wilk Test Statistic	0.972
Approximate Shapiro Wilk P Value	0.354
Lilliefors Test Statistic	0.088
Lilliefors Critical (0.05) Value	0.112
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.992
A-D Test Statistic	0.52
A-D Critical (0.05) Value	0.749
K-S Test Statistic	0.109
K-S Critical(0.05) Value	0.113
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.992
Approximate Shapiro Wilk Test Statistic	0.974
Approximate Shapiro Wilk P Value	0.408
Lilliefors Test Statistic	0.0841
Lilliefors Critical (0.05) Value	0.112
Data appear 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 5.13/9/2021 11:13:18 AM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_c.xls
Full Precision	OFF
Confidence Coefficient	0.95

Appendix B
Goodness of Fit Statistics

Calcium (mw71_mw72) - calicum outlier removed	
Raw Statistics	
Number of Valid Observations	45
Number of Missing Observations	3
Number of Distinct Observations	11
Minimum	400
Maximum	500
Mean of Raw Data	448.9
Standard Deviation of Raw Data	25.69
Khat	307.1
Theta hat	1.462
Kstar	286.6
Theta star	1.566
Mean of Log Transformed Data	6.105
Standard Deviation of Log Transformed Data	0.058
Normal GOF Test Results	
Correlation Coefficient R	0.979
Shapiro Wilk Test Statistic	0.943
Shapiro Wilk Critical (0.05) Value	0.945
Approximate Shapiro Wilk P Value	0.0422
Lilliefors Test Statistic	0.162
Lilliefors Critical (0.05) Value	0.131
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.976
A-D Test Statistic	0.917
A-D Critical (0.05) Value	0.747
K-S Test Statistic	0.169
K-S Critical(0.05) Value	0.131
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.975

Appendix B
Goodness of Fit Statistics

Shapiro Wilk Test Statistic	0.935
Shapiro Wilk Critical (0.05) Value	0.945
Approximate Shapiro Wilk P Value	0.0197
Lilliefors Test Statistic	0.173
Lilliefors Critical (0.05) Value	0.131

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

Appendix B
Outlier Statistics

	Outlier Tests for Selected Uncensored Variables
User Selected Options	
Date/Time of Computation	ProUCL 5.13/11/2021 9:15:52 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_a.xls
Full Precision	OFF

Dixon's Outlier Test for Boron (mw-62)

Number of Observations = 24
10% critical value: 0.367
5% critical value: 0.413
1% critical value: 0.497

1. Observation Value 2.5 is a Potential Outlier (Upper Tail)?

Test Statistic: 0.333

For 10% significance level, 2.5 is not an outlier.
For 5% significance level, 2.5 is not an outlier.
For 1% significance level, 2.5 is not an outlier.

2. Observation Value 1.8 is a Potential Outlier (Lower Tail)?

Test Statistic: 0.200

For 10% significance level, 1.8 is not an outlier.
For 5% significance level, 1.8 is not an outlier.
For 1% significance level, 1.8 is not an outlier.

Dixon's Outlier Test for Boron (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 is a Potential Outlier (Upper Tail)?

Appendix B
Outlier Statistics

Number of Observations = 24							
Test Statistic: 0.143							
For 10% significance level, 2 is not an outlier.							
For 5% significance level, 2 is not an outlier.							
For 1% significance level, 2 is not an outlier.							
2. Observation Value 1.3 is a Potential Outlier (Lower Tail)?							
Test Statistic: 0.000							
For 10% significance level, 1.3 is not an outlier.							
For 5% significance level, 1.3 is not an outlier.							
For 1% significance level, 1.3 is not an outlier.							
Dixon's Outlier Test for Boron (mw-64)							
Number of Observations = 23							
10% critical value: 0.374							
5% critical value: 0.421							
1% critical value: 0.505							
1. Observation Value 0.67 is a Potential Outlier (Upper Tail)?							
Test Statistic: 0.111							
For 10% significance level, 0.67 is not an outlier.							
For 5% significance level, 0.67 is not an outlier.							
For 1% significance level, 0.67 is not an outlier.							
2. Observation Value 0.47 is a Potential Outlier (Lower Tail)?							
Test Statistic: 0.111							
For 10% significance level, 0.47 is not an outlier.							
For 5% significance level, 0.47 is not an outlier.							
For 1% significance level, 0.47 is not an outlier.							

Appendix B
Outlier Statistics

Number of Observations = 24
Dixon's Outlier Test for Boron (mw-65)
Number of Observations = 23
10% critical value: 0.374
5% critical value: 0.421
1% critical value: 0.505
1. Observation Value 0.98 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.324
For 10% significance level, 0.98 is not an outlier.
For 5% significance level, 0.98 is not an outlier.
For 1% significance level, 0.98 is not an outlier.
2. Observation Value 0.57 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.138
For 10% significance level, 0.57 is not an outlier.
For 5% significance level, 0.57 is not an outlier.
For 1% significance level, 0.57 is not an outlier.
Dixon's Outlier Test for Calcium (mw-62)
Number of Observations = 24
10% critical value: 0.367
5% critical value: 0.413
1% critical value: 0.497
1. Observation Value 590 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.200
For 10% significance level, 590 is not an outlier.
For 5% significance level, 590 is not an outlier.
For 1% significance level, 590 is not an outlier.

Appendix B
Outlier Statistics

Number of Observations = 24
2. Observation Value 480 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.111
For 10% significance level, 480 is not an outlier.
For 5% significance level, 480 is not an outlier.
For 1% significance level, 480 is not an outlier.
Dixon's Outlier Test for Calcium (mw-63)
Number of Observations = 24
10% critical value: 0.367
5% critical value: 0.413
1% critical value: 0.497
1. Observation Value 580 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.375
For 10% significance level, 580 is an outlier.
For 5% significance level, 580 is not an outlier.
For 1% significance level, 580 is not an outlier.
2. Observation Value 420 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.615
For 10% significance level, 420 is an outlier.
For 5% significance level, 420 is an outlier.
For 1% significance level, 420 is an outlier.
Dixon's Outlier Test for Calcium (mw-64)
Number of Observations = 23
10% critical value: 0.374
5% critical value: 0.421
1% critical value: 0.505

Appendix B
Outlier Statistics

Number of Observations = 24
1. Observation Value 93 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.273
For 10% significance level, 93 is not an outlier.
For 5% significance level, 93 is not an outlier.
For 1% significance level, 93 is not an outlier.
2. Observation Value 73 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.529
For 10% significance level, 73 is an outlier.
For 5% significance level, 73 is an outlier.
For 1% significance level, 73 is an outlier.
Dixon's Outlier Test for Calcium (mw-65)
Number of Observations = 23
10% critical value: 0.374
5% critical value: 0.421
1% critical value: 0.505
1. Observation Value 160 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.563
For 10% significance level, 160 is an outlier.
For 5% significance level, 160 is an outlier.
For 1% significance level, 160 is an outlier.
2. Observation Value 82 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.184
For 10% significance level, 82 is not an outlier.
For 5% significance level, 82 is not an outlier.

Appendix B
Outlier Statistics

Number of Observations = 24
For 1% significance level, 82 is not an outlier.
Dixon's Outlier Test for Chloride (mw-62)
Number of Observations = 21
10% critical value: 0.391
5% critical value: 0.44
1% critical value: 0.524
1. Observation Value 150 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.250
For 10% significance level, 150 is not an outlier.
For 5% significance level, 150 is not an outlier.
For 1% significance level, 150 is not an outlier.
2. Observation Value 82 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.483
For 10% significance level, 82 is an outlier.
For 5% significance level, 82 is an outlier.
For 1% significance level, 82 is not an outlier.
Dixon's Outlier Test for Chloride (mw-63)
Number of Observations = 21
10% critical value: 0.391
5% critical value: 0.44
1% critical value: 0.524
1. Observation Value 110 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.400
For 10% significance level, 110 is an outlier.

Appendix B
Outlier Statistics

Number of Observations = 24
For 5% significance level, 110 is not an outlier.
For 1% significance level, 110 is not an outlier.
2. Observation Value 77 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.348
For 10% significance level, 77 is not an outlier.
For 5% significance level, 77 is not an outlier.
For 1% significance level, 77 is not an outlier.
Dixon's Outlier Test for Chloride (mw-64)
Number of Observations = 21
10% critical value: 0.391
5% critical value: 0.44
1% critical value: 0.524
1. Observation Value 53 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.000
For 10% significance level, 53 is not an outlier.
For 5% significance level, 53 is not an outlier.
For 1% significance level, 53 is not an outlier.
2. Observation Value 44 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.444
For 10% significance level, 44 is an outlier.
For 5% significance level, 44 is an outlier.
For 1% significance level, 44 is not an outlier.
Dixon's Outlier Test for Chloride (mw-65)
Number of Observations = 21

Appendix B
Outlier Statistics

Number of Observations = 24							
10% critical value: 0.391							
5% critical value: 0.44							
1% critical value: 0.524							
1. Observation Value 77 is a Potential Outlier (Upper Tail)?							
Test Statistic: 0.654							
For 10% significance level, 77 is an outlier.							
For 5% significance level, 77 is an outlier.							
For 1% significance level, 77 is an outlier.							
2. Observation Value 48 is a Potential Outlier (Lower Tail)?							
Test Statistic: 0.250							
For 10% significance level, 48 is not an outlier.							
For 5% significance level, 48 is not an outlier.							
For 1% significance level, 48 is not an outlier.							
Dixon's Outlier Test for Fluoride (mw-62)							
Number of Observations = 24							
10% critical value: 0.367							
5% critical value: 0.413							
1% critical value: 0.497							
1. Observation Value 3.3 is a Potential Outlier (Upper Tail)?							
Test Statistic: 0.714							
For 10% significance level, 3.3 is an outlier.							
For 5% significance level, 3.3 is an outlier.							
For 1% significance level, 3.3 is an outlier.							
2. Observation Value 1.2 is a Potential Outlier (Lower Tail)?							
Test Statistic: 0.000							

Appendix B
Outlier Statistics

Number of Observations = 24
For 10% significance level, 1.2 is not an outlier.
For 5% significance level, 1.2 is not an outlier.
For 1% significance level, 1.2 is not an outlier.
Dixon's Outlier Test for Fluoride (mw-63)
Number of Observations = 23
10% critical value: 0.374
5% critical value: 0.421
1% critical value: 0.505
1. Observation Value 2.5 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.333
For 10% significance level, 2.5 is not an outlier.
For 5% significance level, 2.5 is not an outlier.
For 1% significance level, 2.5 is not an outlier.
2. Observation Value 1.6 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.000
For 10% significance level, 1.6 is not an outlier.
For 5% significance level, 1.6 is not an outlier.
For 1% significance level, 1.6 is not an outlier.
Dixon's Outlier Test for Fluoride (mw-64)
Number of Observations = 23
10% critical value: 0.374
5% critical value: 0.421
1% critical value: 0.505
1. Observation Value 1.6 is a Potential Outlier (Upper Tail)?

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Outlier Statistics

Number of Observations = 24
Test Statistic: 0.333
For 10% significance level, 1.6 is not an outlier.
For 5% significance level, 1.6 is not an outlier.
For 1% significance level, 1.6 is not an outlier.
2. Observation Value 1.3 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.000
For 10% significance level, 1.3 is not an outlier.
For 5% significance level, 1.3 is not an outlier.
For 1% significance level, 1.3 is not an outlier.
Dixon's Outlier Test for Fluoride (mw-65)
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: 0.250
For 10% significance level, 2.1 is not an outlier.
For 5% significance level, 2.1 is not an outlier.
For 1% significance level, 2.1 is not an outlier.
2. Observation Value 1.6 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.250
For 10% significance level, 1.6 is not an outlier.
For 5% significance level, 1.6 is not an outlier.
For 1% significance level, 1.6 is not an outlier.

Appendix B
Outlier Statistics

Number of Observations = 24
Dixon's Outlier Test for Sulfate (mw-62)
Number of Observations = 21
10% critical value: 0.391
5% critical value: 0.44
1% critical value: 0.524
1. Observation Value 3800 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.333
For 10% significance level, 3800 is not an outlier.
For 5% significance level, 3800 is not an outlier.
For 1% significance level, 3800 is not an outlier.
2. Observation Value 2800 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.500
For 10% significance level, 2800 is an outlier.
For 5% significance level, 2800 is an outlier.
For 1% significance level, 2800 is not an outlier.
Dixon's Outlier Test for Sulfate (mw-63)
Number of Observations = 21
10% critical value: 0.391
5% critical value: 0.44
1% critical value: 0.524
1. Observation Value 4300 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.778
For 10% significance level, 4300 is an outlier.
For 5% significance level, 4300 is an outlier.
For 1% significance level, 4300 is an outlier.

Appendix B
Outlier Statistics

Number of Observations = 24
2. Observation Value 2300 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.333
For 10% significance level, 2300 is not an outlier.
For 5% significance level, 2300 is not an outlier.
For 1% significance level, 2300 is not an outlier.
Dixon's Outlier Test for Sulfate (mw-64)
Number of Observations = 21
10% critical value: 0.391
5% critical value: 0.44
1% critical value: 0.524
1. Observation Value 870 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.873
For 10% significance level, 870 is an outlier.
For 5% significance level, 870 is an outlier.
For 1% significance level, 870 is an outlier.
2. Observation Value 270 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.417
For 10% significance level, 270 is an outlier.
For 5% significance level, 270 is not an outlier.
For 1% significance level, 270 is not an outlier.
Dixon's Outlier Test for Sulfate (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 = 24
1. Observation Value 790 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.744
For 10% significance level, 790 is an outlier.
For 5% significance level, 790 is an outlier.
For 1% significance level, 790 is an outlier.
2. Observation Value 350 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.333
For 10% significance level, 350 is not an outlier.
For 5% significance level, 350 is not an outlier.
For 1% significance level, 350 is not an outlier.
Dixon's Outlier Test for DissolvedSolids (mw-62)
Number of Observations = 23
10% critical value: 0.374
5% critical value: 0.421
1% critical value: 0.505
1. Observation Value 6700 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.412
For 10% significance level, 6700 is an outlier.
For 5% significance level, 6700 is not an outlier.
For 1% significance level, 6700 is not an outlier.
2. Observation Value 2400 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.722
For 10% significance level, 2400 is an outlier.
For 5% significance level, 2400 is an outlier.

Appendix B
Outlier Statistics

Number of Observations = 24
For 1% significance level, 2400 is an outlier.
Dixon's Outlier Test for DissolvedSolids (mw-63)
Number of Observations = 23
10% critical value: 0.374
5% critical value: 0.421
1% critical value: 0.505
1. Observation Value 4700 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.200
For 10% significance level, 4700 is not an outlier.
For 5% significance level, 4700 is not an outlier.
For 1% significance level, 4700 is not an outlier.
2. Observation Value 4100 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.200
For 10% significance level, 4100 is not an outlier.
For 5% significance level, 4100 is not an outlier.
For 1% significance level, 4100 is not an outlier.
Dixon's Outlier Test for DissolvedSolids (mw-64)
Number of Observations = 23
10% critical value: 0.374
5% critical value: 0.421
1% critical value: 0.505
1. Observation Value 890 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.615
For 10% significance level, 890 is an outlier.

Appendix B
Outlier Statistics

Number of Observations = 24
For 5% significance level, 890 is an outlier.
For 1% significance level, 890 is an outlier.
2. Observation Value 720 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.444
For 10% significance level, 720 is an outlier.
For 5% significance level, 720 is an outlier.
For 1% significance level, 720 is not an outlier.
Dixon's Outlier Test for DissolvedSolids (mw-65)
Number of Observations = 23
10% critical value: 0.374
5% critical value: 0.421
1% critical value: 0.505
1. Observation Value 1500 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.357
For 10% significance level, 1500 is not an outlier.
For 5% significance level, 1500 is not an outlier.
For 1% significance level, 1500 is not an outlier.
2. Observation Value 780 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.308
For 10% significance level, 780 is not an outlier.
For 5% significance level, 780 is not an outlier.
For 1% significance level, 780 is not an outlier.
Dixon's Outlier Test for Field_pH (mw-62)
Number of Observations = 24

Appendix B
Outlier Statistics

Number of Observations = 24
10% critical value: 0.367
5% critical value: 0.413
1% critical value: 0.497
1. Observation Value 7.4 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.636
For 10% significance level, 7.4 is an outlier.
For 5% significance level, 7.4 is an outlier.
For 1% significance level, 7.4 is an outlier.
2. Observation Value 6.36 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.122
For 10% significance level, 6.36 is not an outlier.
For 5% significance level, 6.36 is not an outlier.
For 1% significance level, 6.36 is not an outlier.
Dixon's Outlier Test for Field_pH (mw-63)
Number of Observations = 24
10% critical value: 0.367
5% critical value: 0.413
1% critical value: 0.497
1. Observation Value 7.03 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.319
For 10% significance level, 7.03 is not an outlier.
For 5% significance level, 7.03 is not an outlier.
For 1% significance level, 7.03 is not an outlier.
2. Observation Value 6.53 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.086

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Outlier Statistics

Number of Observations = 24
For 10% significance level, 6.53 is not an outlier.
For 5% significance level, 6.53 is not an outlier.
For 1% significance level, 6.53 is not an outlier.
Dixon's Outlier Test for Field_pH (mw-64)
Number of Observations = 23
10% critical value: 0.374
5% critical value: 0.421
1% critical value: 0.505
1. Observation Value 7.68 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.179
For 10% significance level, 7.68 is not an outlier.
For 5% significance level, 7.68 is not an outlier.
For 1% significance level, 7.68 is not an outlier.
2. Observation Value 7.22 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.179
For 10% significance level, 7.22 is not an outlier.
For 5% significance level, 7.22 is not an outlier.
For 1% significance level, 7.22 is not an outlier.
Dixon's Outlier Test for Field_pH (mw-65)
Number of Observations = 23
10% critical value: 0.374
5% critical value: 0.421
1% critical value: 0.505
1. Observation Value 8.27 is a Potential Outlier (Upper Tail)?

Appendix B
Outlier Statistics

Number of Observations = 24	
Test Statistic: 0.636	
For 10% significance level, 8.27 is an outlier.	
For 5% significance level, 8.27 is an outlier.	
For 1% significance level, 8.27 is an outlier.	
2. Observation Value 6.96 is a Potential Outlier (Lower Tail)?	
Test Statistic: 0.185	
For 10% significance level, 6.96 is not an outlier.	
For 5% significance level, 6.96 is not an outlier.	
For 1% significance level, 6.96 is not an outlier.	
	Outlier Tests for Selected Uncensored Variables
User Selected Options	
Date/Time of Computation	ProUCL 5.13/8/2021 2:40:33 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_d.xls
Full Precision	OFF
Dixon's Outlier Test for Boron (mw-73)	
Number of Observations = 17	
10% critical value: 0.438	
5% critical value: 0.49	
1% critical value: 0.577	
1. Observation Value 2 is a Potential Outlier (Upper Tail)?	
Test Statistic: 0.500	
For 10% significance level, 2 is an outlier.	
For 5% significance level, 2 is an outlier.	
For 1% significance level, 2 is not an outlier.	
2. Observation Value 1.6 is a Potential Outlier (Lower Tail)?	
Test Statistic: 0.000	

Appendix B
Outlier Statistics

Number of Observations = 24	
For 10% significance level, 1.6 is not an outlier.	
For 5% significance level, 1.6 is not an outlier.	
For 1% significance level, 1.6 is not an outlier.	
Dixon's Outlier Test for Calcium (mw-73)	
Number of Observations = 17	
10% critical value: 0.438	
5% critical value: 0.49	
1% critical value: 0.577	
1. Observation Value 550 is a Potential Outlier (Upper Tail)?	
Test Statistic: 0.300	
For 10% significance level, 550 is not an outlier.	
For 5% significance level, 550 is not an outlier.	
For 1% significance level, 550 is not an outlier.	
2. Observation Value 420 is a Potential Outlier (Lower Tail)?	
Test Statistic: 0.300	
For 10% significance level, 420 is not an outlier.	
For 5% significance level, 420 is not an outlier.	
For 1% significance level, 420 is not an outlier.	
Outlier Tests for Selected Uncensored Variables	
User Selected Options	
Date/Time of Computation	ProUCL 5.13/9/2021 9:36:19 AM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_c.xls
Full Precision	OFF
Rosner's Outlier Test for Boron (mw71_mw72)	

Appendix B
Outlier Statistics

Number of Observations = 24

Mean	**0.395**
Standard Deviation	**0.178**
Number of data	**46**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	0.395	0.176	0.7	5	1.733	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 Calcium (mw71_mw72)

Mean	**451.5**
Standard Deviation	**31.05**
Number of data	**46**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	451.5	30.71	570	6	3.857	3.09	3.45

For 5% Significance Level, there is 1 Potential Outlier
Potential outliers is: 570

For 1% Significance Level, there is 1 Potential Outlier
Potential outliers is: 570

	Outlier Tests for Selected Uncensored Variables
User Selected Options	
Date/Time of Computation	ProUCL 5.13/9/2021 7:46:04 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_b.xls
Full Precision	OFF

Appendix B
Outlier Statistics

Number of Observations = 24

Rosner's Outlier Test for Chloride (mw71_mw72_mw73)

Mean	**503.7**
Standard Deviation	**86.02**
Number of data	**60**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	503.7	85.3	750	5	2.888	3.2	3.56

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Sulfate (mw71_mw72_mw73)

Mean	**9107**
Standard Deviation	**2541**
Number of data	**60**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	9107	2520	610	17	3.372	3.2	3.56

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 610

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for DissolvedSolids (mw71_mw72_mw73)

Mean	**14492**

Appendix B
Outlier Statistics

Number of Observations = 24

Standard Deviation	**3024**
Number of data	**63**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	14492	3000	6100	24	2.797	3.218	3.578

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Field_pH (mw71_mw72_mw73)

Mean	**6.717**
Standard Deviation	**0.238**
Number of data	**66**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	6.717	0.236	7.73	1	4.298	3.236	3.596

For 5% Significance Level, there is 1 Potential Outlier
Potential outliers is: 7.73

For 1% Significance Level, there is 1 Potential Outlier
Potential outliers is: 7.73

Appendix B
Summary Statistics

General Statistics on Uncensored Data

Date/Time of Computation ProUCL 5.13/2/2021 9:42:03 AM

User Selected Options

From File CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1.xls

Full Precision OFF

From File: CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1.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
Boron (mw-62)	24	1	24	0	0.00%	N/A	N/A	2.092	0.0347	0.186	0.0891
Boron (mw-63)	24	0	24	0	0.00%	N/A	N/A	1.617	0.0536	0.232	0.143
Boron (mw-64)	23	0	23	0	0.00%	N/A	N/A	0.587	0.00353	0.0594	0.101
Boron (mw-65)	23	0	23	0	0.00%	N/A	N/A	0.76	0.00975	0.0987	0.13
Boron (mw-71)	23	1	23	0	0.00%	N/A	N/A	0.566	0.00309	0.0556	0.0982
Boron (mw-72)	23	1	23	0	0.00%	N/A	N/A	0.224	4.7945E-4	0.0219	0.0978
Boron (mw-73)	17	1	17	0	0.00%	N/A	N/A	1.688	0.0149	0.122	0.0722
Calcium (mw-62)	24	1	24	0	0.00%	N/A	N/A	530	826.1	28.74	0.0542
Calcium (mw-63)	24	0	24	0	0.00%	N/A	N/A	524.6	1078	32.83	0.0626
Calcium (mw-64)	23	0	23	0	0.00%	N/A	N/A	86.17	20.51	4.529	0.0526
Calcium (mw-65)	23	0	23	0	0.00%	N/A	N/A	105.7	284.7	16.87	0.16
Calcium (mw-71)	23	1	23	0	0.00%	N/A	N/A	448.3	578.7	24.06	0.0537
Calcium (mw-72)	23	1	23	0	0.00%	N/A	N/A	454.8	1372	37.03	0.0814
Calcium (mw-73)	17	1	17	0	0.00%	N/A	N/A	485.9	1138	33.74	0.0694
Chloride (mw-62)	21	4	21	0	0.00%	N/A	N/A	120.5	249	15.78	0.131
Chloride (mw-63)	21	3	21	0	0.00%	N/A	N/A	94.81	73.26	8.559	0.0903
Chloride (mw-64)	21	2	21	0	0.00%	N/A	N/A	50.76	5.89	2.427	0.0478
Chloride (mw-65)	21	2	21	0	0.00%	N/A	N/A	55	41.8	6.465	0.118
Chloride (mw-71)	22	2	22	0	0.00%	N/A	N/A	575	3855	62.09	0.108
Chloride (mw-72)	22	2	22	0	0.00%	N/A	N/A	452.3	637.4	25.25	0.0558
Chloride (mw-73)	16	2	16	0	0.00%	N/A	N/A	476.3	10678	103.3	0.217
Fluoride (mw-62)	24	1	24	0	0.00%	N/A	N/A	1.546	0.166	0.408	0.264
Fluoride (mw-63)	23	1	23	0	0.00%	N/A	N/A	1.948	0.0526	0.229	0.118
Fluoride (mw-64)	23	0	23	0	0.00%	N/A	N/A	1.435	0.00601	0.0775	0.054
Fluoride (mw-65)	23	0	23	0	0.00%	N/A	N/A	1.891	0.0172	0.131	0.0693

Appendix B
Summary Statistics

User Selected Options											
Fluoride (mw-71)	24	0	0	24	100.00%	0.05	2	N/A	N/A	N/A	N/A
Fluoride (mw-72)	24	0	0	24	100.00%	0.05	2	N/A	N/A	N/A	N/A
Fluoride (mw-73)	18	0	1	17	94.44%	0.4	0.8	0.063	0	0	N/A
Sulfate (mw-62)	21	4	21	0	0.00%	N/A	N/A	3362	38476	196.2	0.0583
Sulfate (mw-63)	21	3	21	0	0.00%	N/A	N/A	2771	147143	383.6	0.138
Sulfate (mw-64)	21	2	21	0	0.00%	N/A	N/A	371	13929	118	0.318
Sulfate (mw-65)	21	2	21	0	0.00%	N/A	N/A	476.2	10095	100.5	0.211
Sulfate (mw-71)	22	2	22	0	0.00%	N/A	N/A	10023	3423745	1850	0.185
Sulfate (mw-72)	22	2	22	0	0.00%	N/A	N/A	10096	6534273	2556	0.253
Sulfate (mw-73)	16	2	16	0	0.00%	N/A	N/A	6488	1478500	1216	0.187
DissolvedSolids (mw-62)	23	2	23	0	0.00%	N/A	N/A	5517	617866	786	0.142
DissolvedSolids (mw-63)	23	1	23	0	0.00%	N/A	N/A	4387	24822	157.6	0.0359
DissolvedSolids (mw-64)	23	0	23	0	0.00%	N/A	N/A	787.8	1027	32.04	0.0407
DissolvedSolids (mw-65)	23	0	23	0	0.00%	N/A	N/A	1043	26278	162.1	0.155
DissolvedSolids (mw-71)	23	1	23	0	0.00%	N/A	N/A	15696	3130435	1769	0.113
DissolvedSolids (mw-72)	23	1	23	0	0.00%	N/A	N/A	16239	2769763	1664	0.102
DissolvedSolids (mw-73)	17	1	17	0	0.00%	N/A	N/A	10500	3926250	1981	0.189
Field_pH (mw-62)	24	1	24	0	0.00%	N/A	N/A	6.608	0.047	0.217	0.0328
Field_pH (mw-63)	24	0	24	0	0.00%	N/A	N/A	6.744	0.0159	0.126	0.0187
Field_pH (mw-64)	23	0	23	0	0.00%	N/A	N/A	7.445	0.0146	0.121	0.0162
Field_pH (mw-65)	23	0	23	0	0.00%	N/A	N/A	7.259	0.0684	0.262	0.036
Field_pH (mw-71)	24	0	24	0	0.00%	N/A	N/A	6.786	0.0594	0.244	0.0359
Field_pH (mw-72)	24	0	24	0	0.00%	N/A	N/A	6.703	0.0793	0.282	0.042
Field_pH (mw-73)	18	0	18	0	0.00%	N/A	N/A	6.643	0.0154	0.124	0.0187

General Statistics on Uncensored Data

Date/Time of Computation ProUCL 5.13/11/2021 12:39:03 PM

User Selected Options

From File CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_b.xls

Full Precision OFF

From File: CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_b.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

Appendix B
Summary Statistics

User Selected Options											
Boron (mw71_mw72_mw73)	63	3	63	0	0.00%	N/A	N/A	0.744	0.362	0.601	0.808
lcium (mw71_mw72_mw73)	63	3	63	0	0.00%	N/A	N/A	460.8	1230	35.07	0.0761
oride (mw71_mw72_mw73)	60	6	60	0	0.00%	N/A	N/A	503.7	7400	86.02	0.171
oride (mw71_mw72_mw73)	66	0	1	65	98.48%	0.05	2	0.0543	3.7556E-5	0.00613	0.113
ulfate (mw71_mw72_mw73)	60	6	60	0	0.00%	N/A	N/A	9107	6458429	2541	0.279
olids (mw71_mw72_mw73)	63	3	63	0	0.00%	N/A	N/A	14492	9146226	3024	0.209
d_pH (mw71_mw72_mw73)	66	0	66	0	0.00%	N/A	N/A	6.717	0.0564	0.238	0.0354

General Statistics on Uncensored Data

Date/Time of Computation ProUCL 5.13/23/2021 4:19:26 PM

User Selected Options

From File CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_e.xls

Full Precision OFF

From File: CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_e.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
Boron (mw71_mw72)	46	2	46	0	0.00%	N/A	N/A	0.395	0.0317	0.178	0.451
Calcium (mw71_mw72)	46	2	46	0	0.00%	N/A	N/A	451.5	964.3	31.05	0.0688

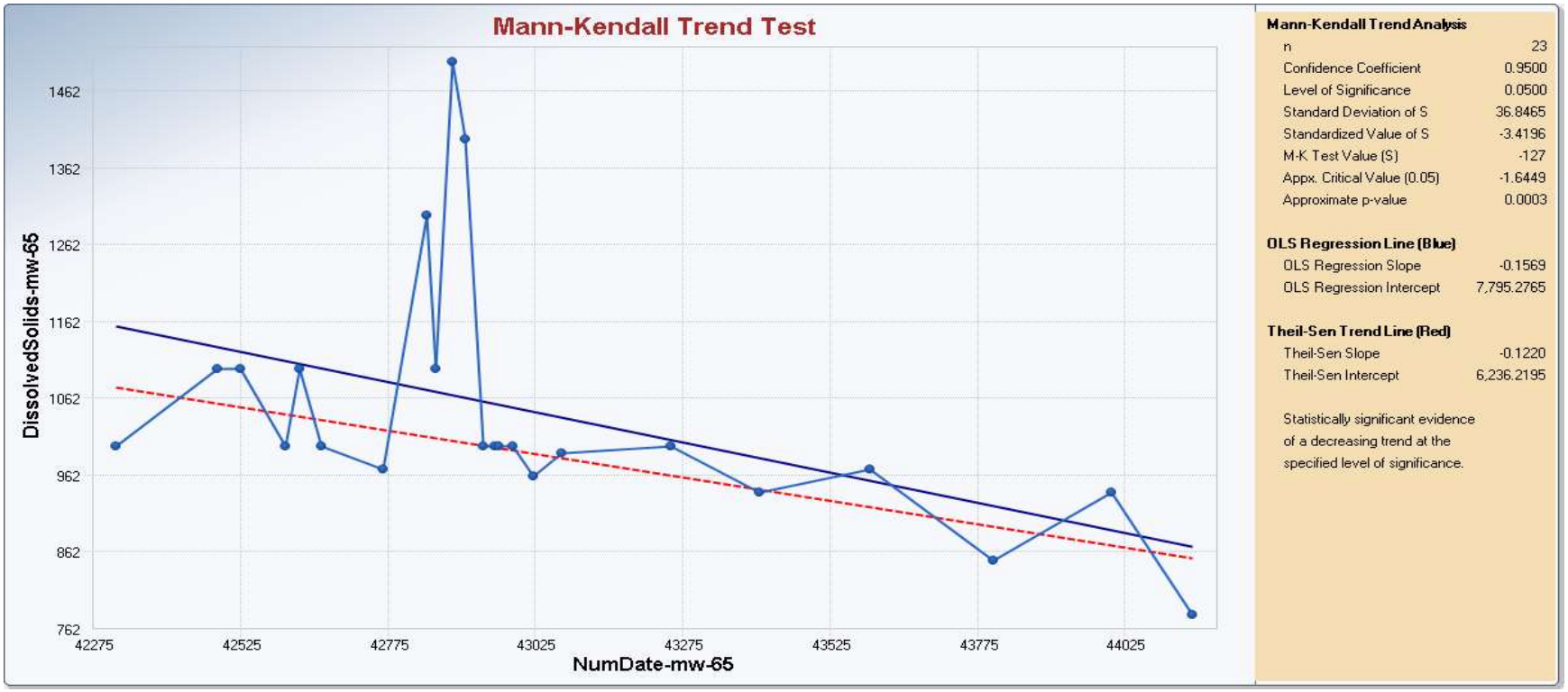
General Statistics for Raw Data Sets using Detected Data Only

Variable	NumObs	# Missing	Minimum	Maximum	Mean	Median	Var	SD	MAD/0.675	Skewness	CV
Boron (mw71_mw72)	46	2	0.16	0.7	0.395	0.35	0.0317	0.178	0.222	0.128	0.451
Calcium (mw71_mw72)	46	2	400	570	451.5	450	964.3	31.05	29.65	0.913	0.0688

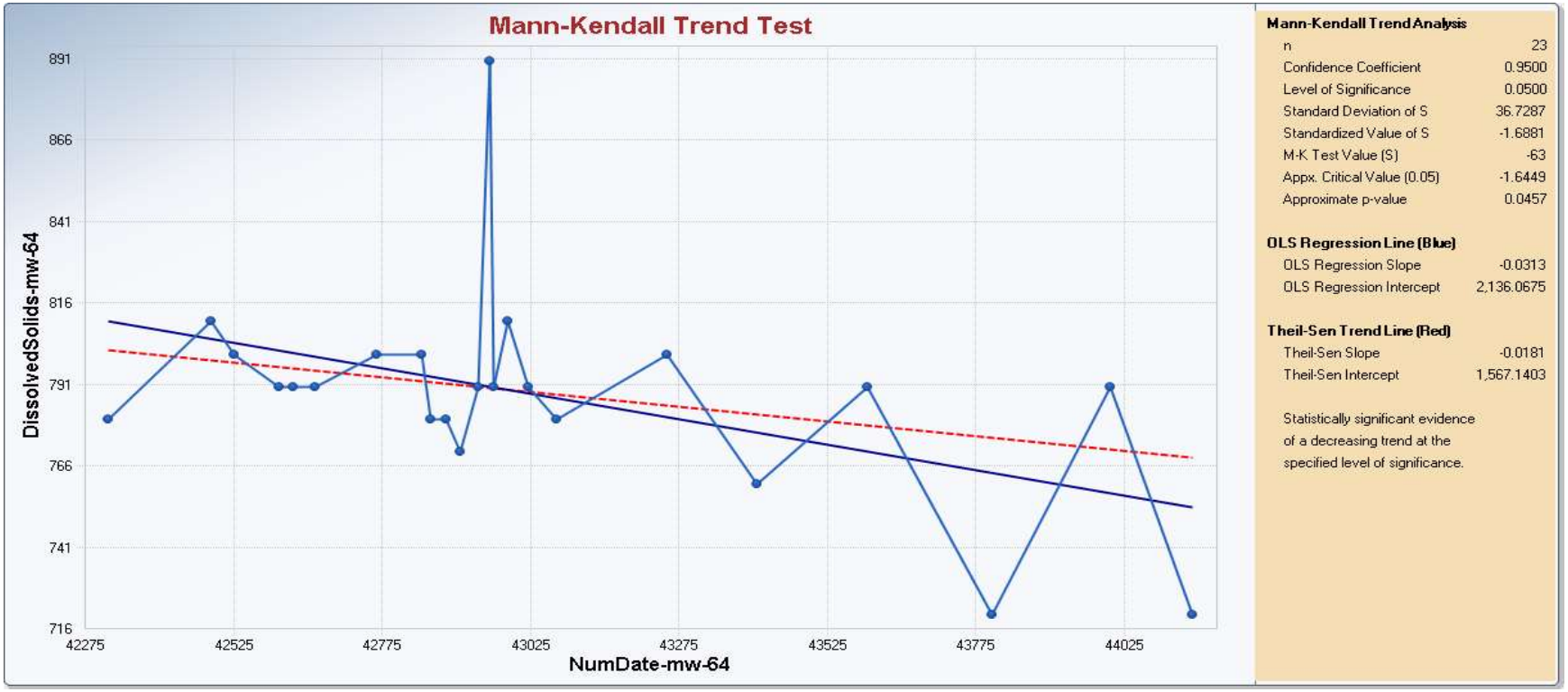
Percentiles using all Detects (Ds) and Non-Detects (NDs)

Variable	NumObs	# Missing	10%ile	20%ile	25%ile(Q1)	50%ile(Q2)	75%ile(Q3)	80%ile	90%ile	95%ile	99%ile
Boron (mw71_mw72)	46	2	0.21	0.22	0.23	0.35	0.56	0.56	0.59	0.615	0.696
Calcium (mw71_mw72)	46	2	410	430	432.5	450	470	470	480	490	538.5

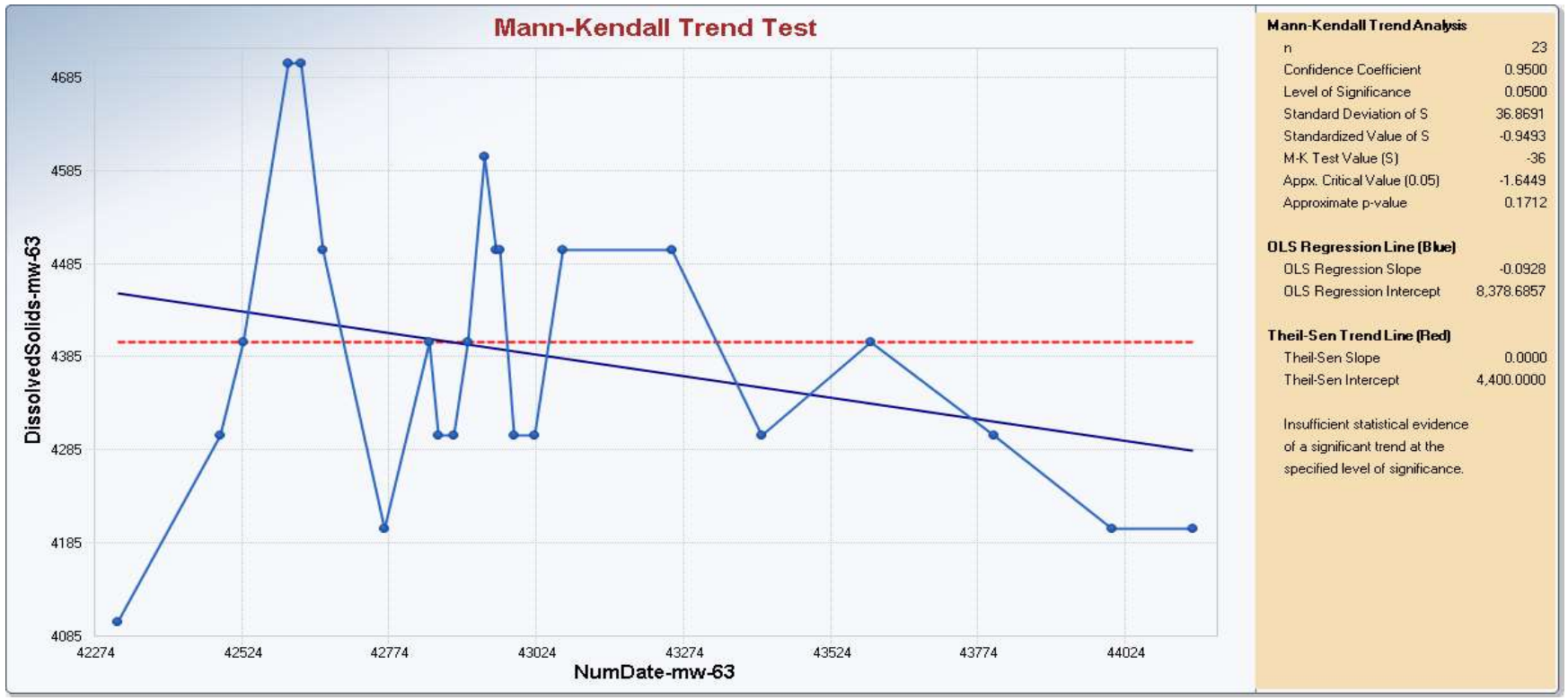
Appendix B
Mann-Kendall Trend Test



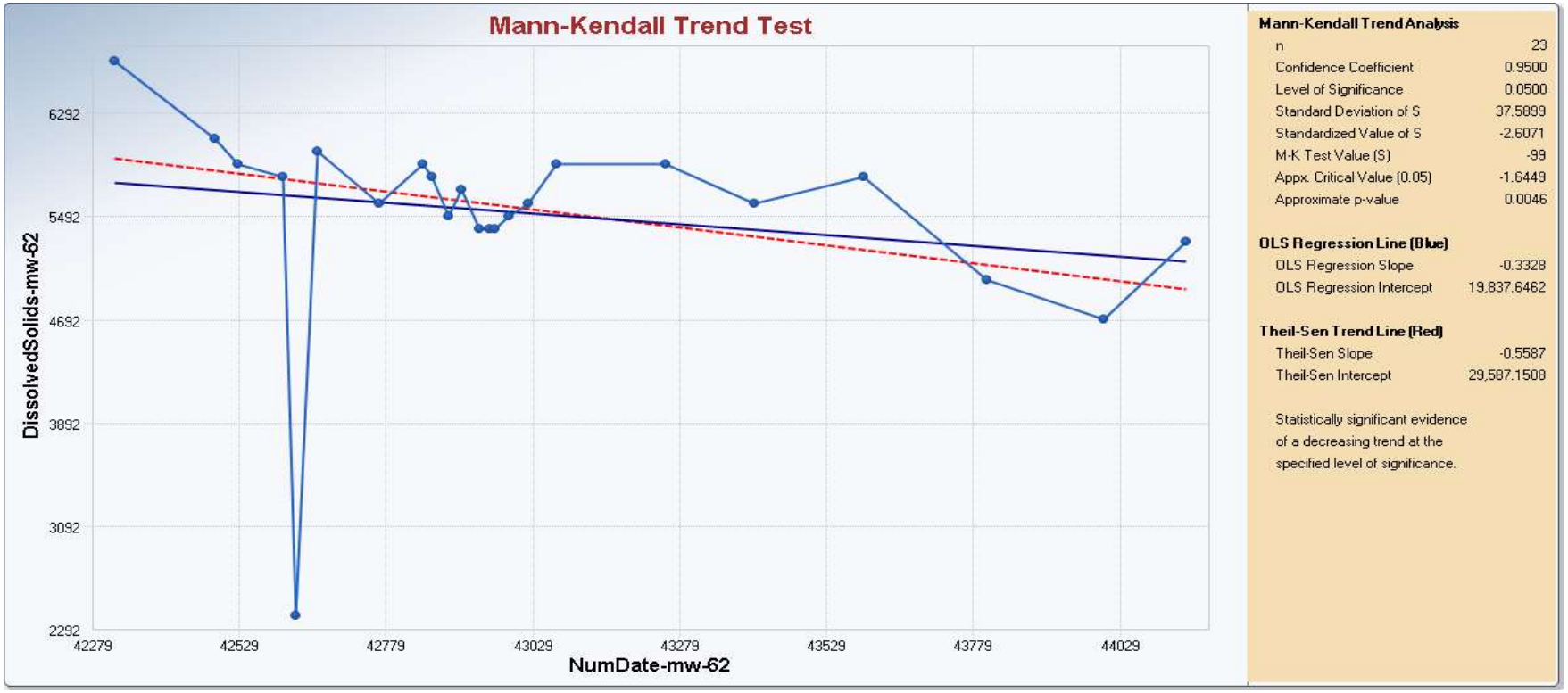
Appendix B
Mann-Kendall Trend Test



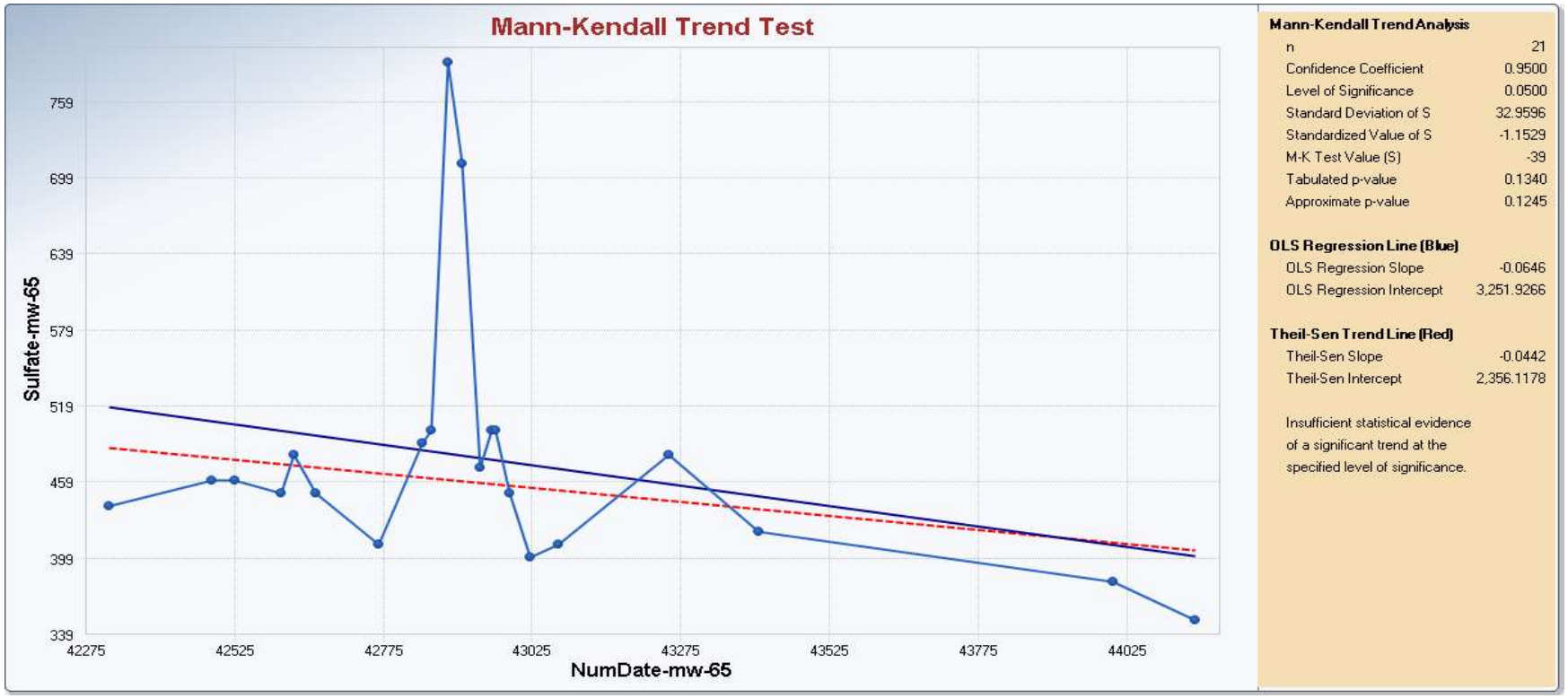
Appendix B
Mann-Kendall Trend Test



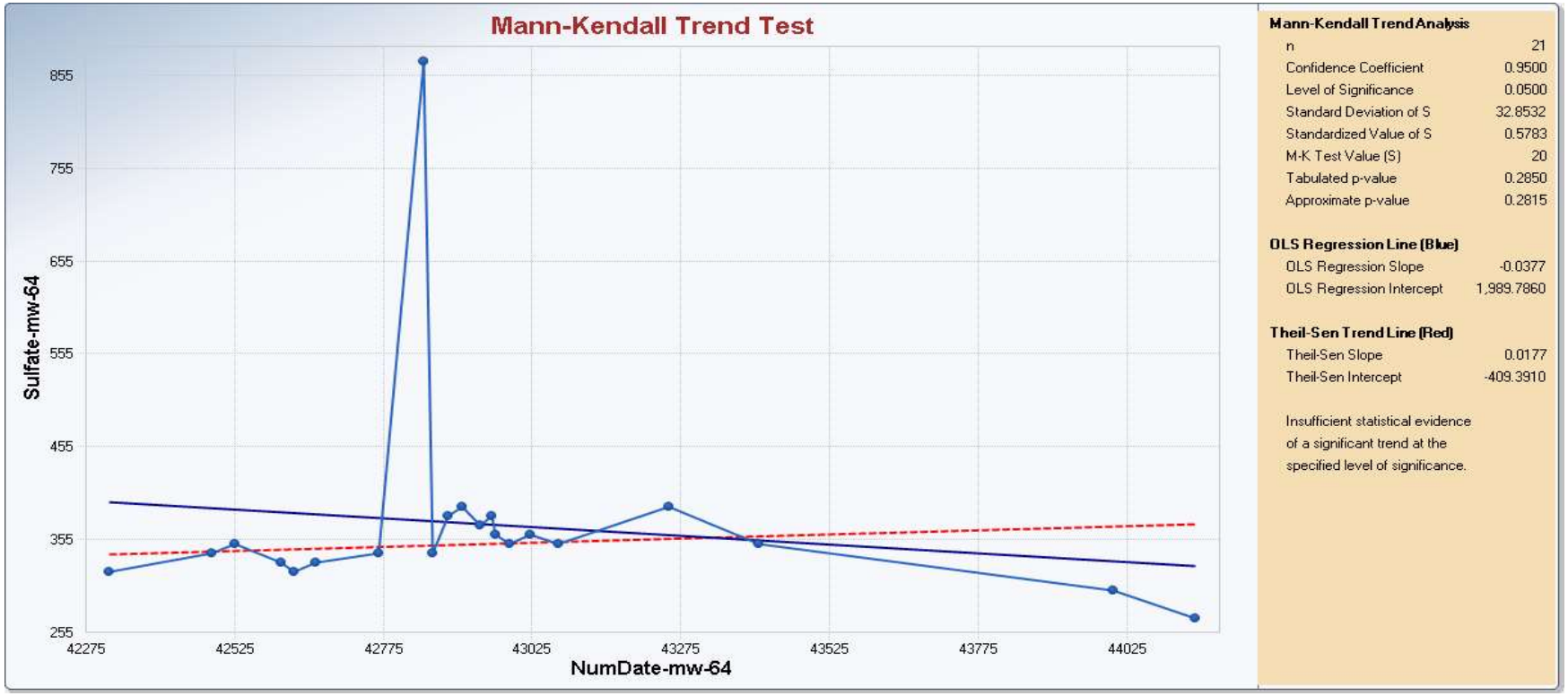
Appendix B
Mann-Kendall Trend Test



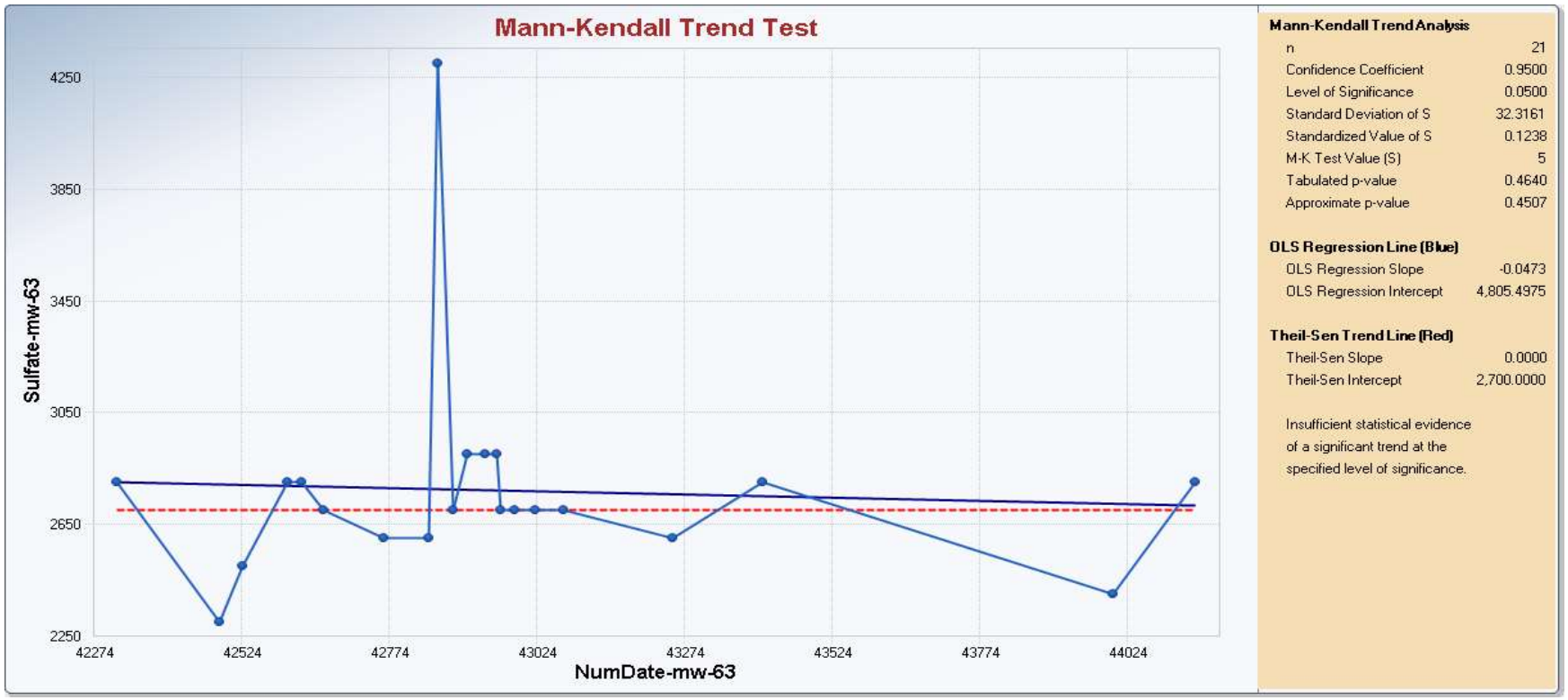
Appendix B
Mann-Kendall Trend Test



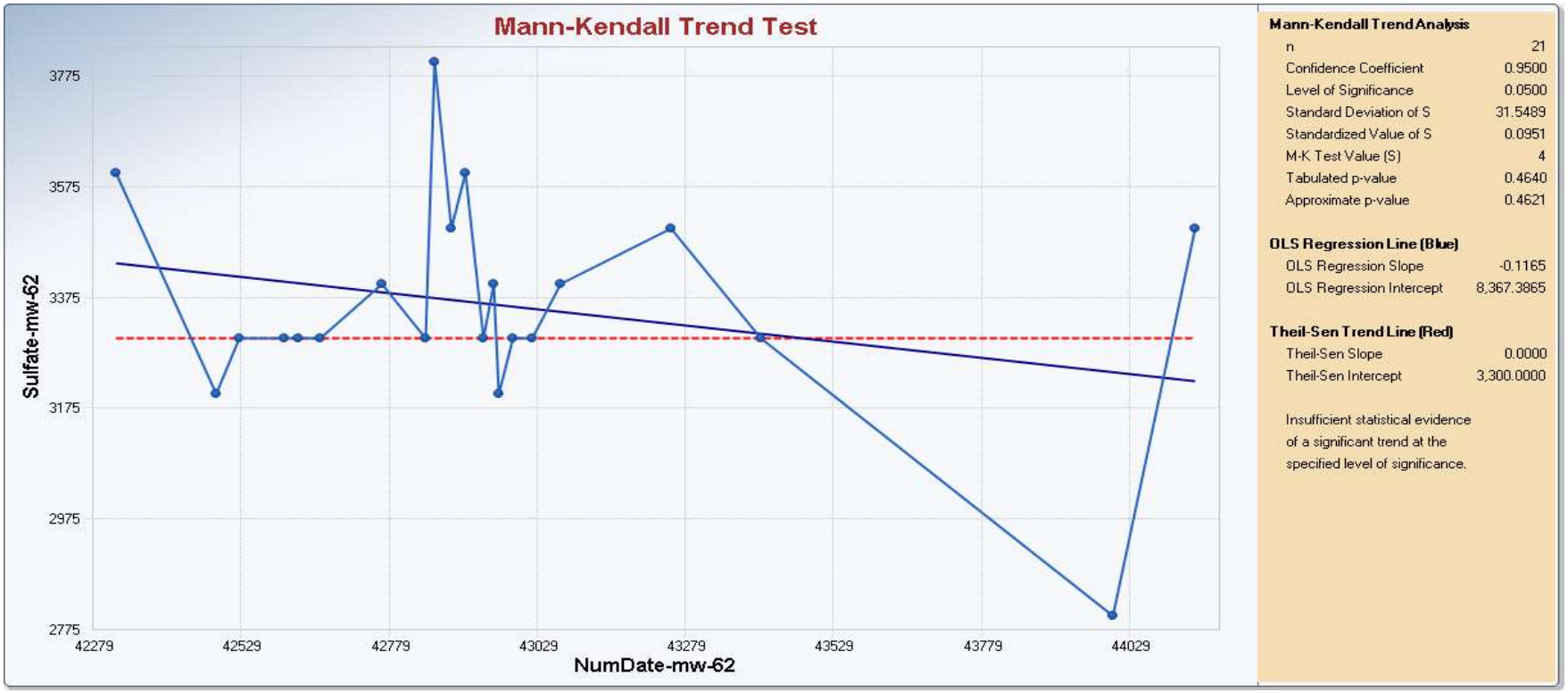
Appendix B
Mann-Kendall Trend Test



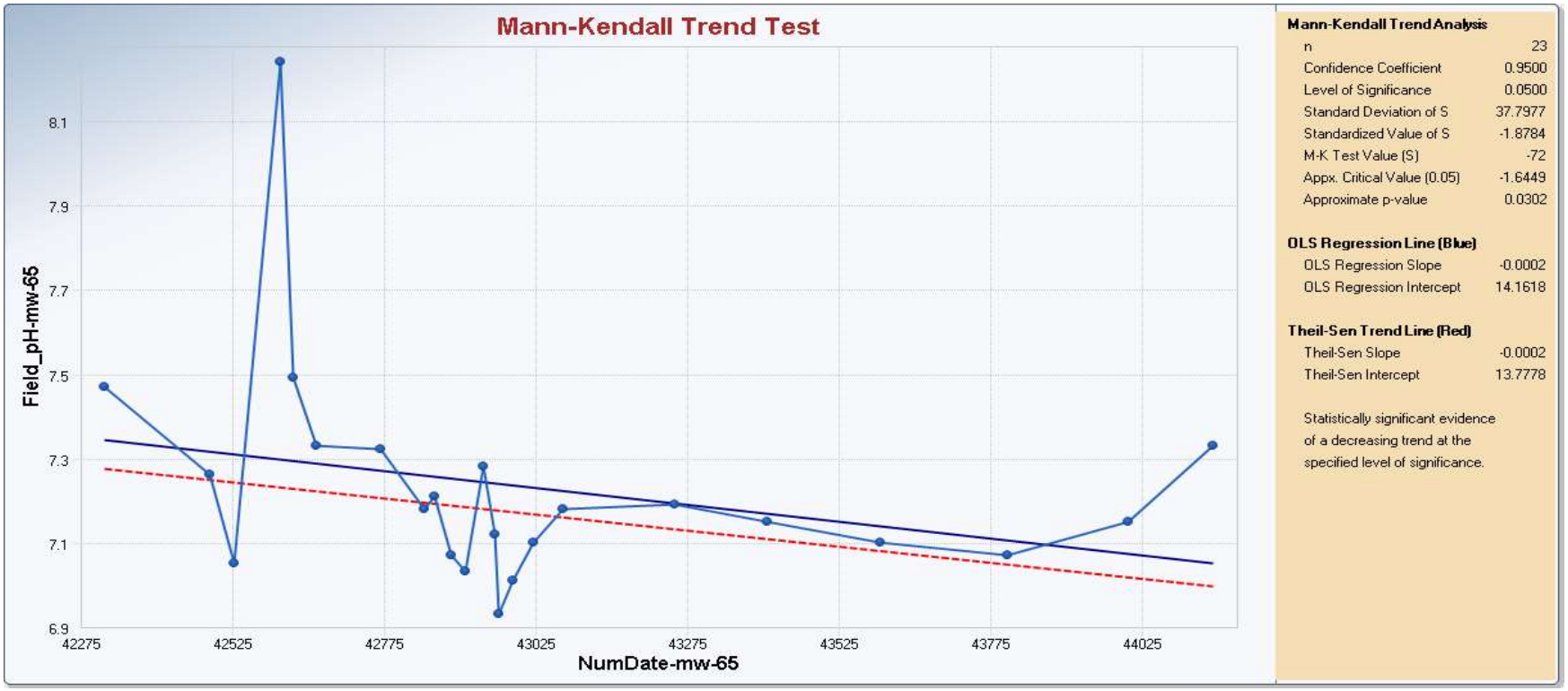
Appendix B
Mann-Kendall Trend Test



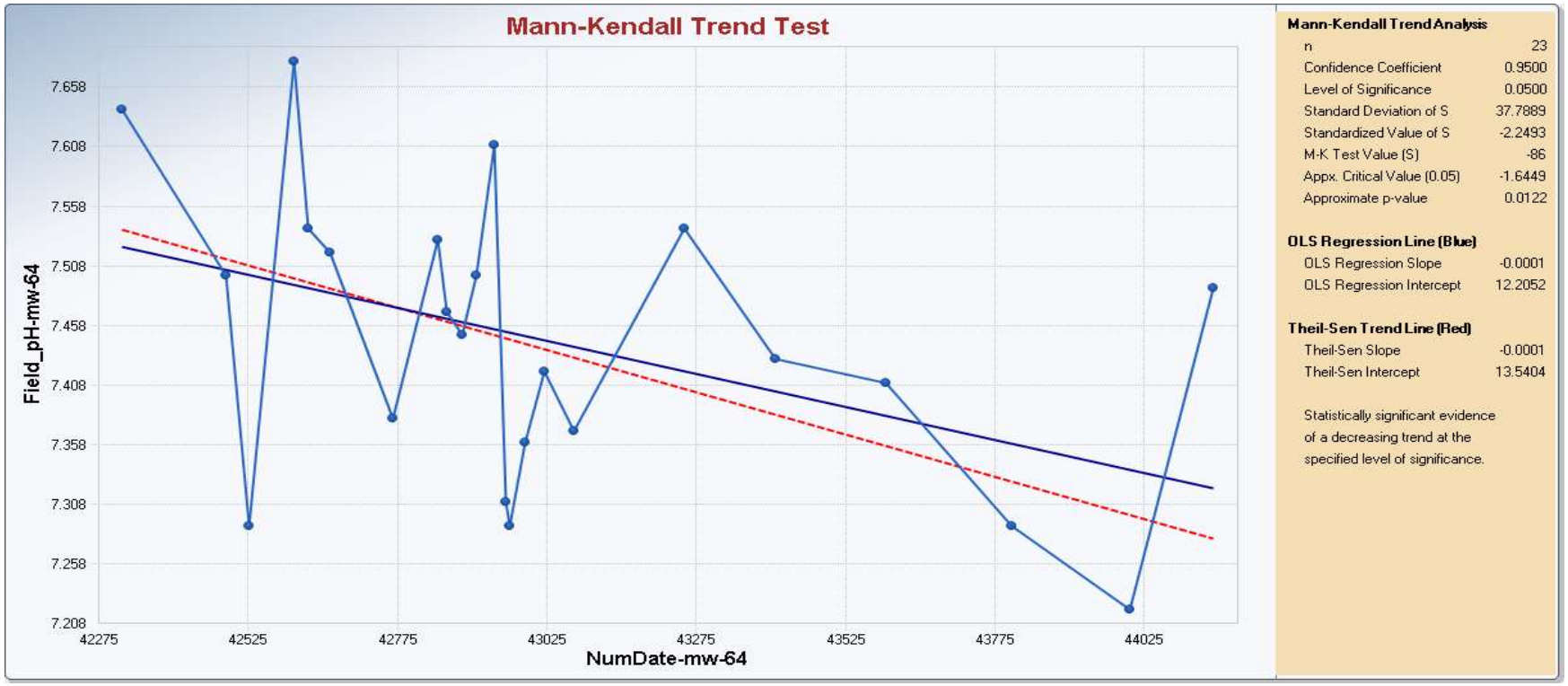
Appendix B
Mann-Kendall Trend Test



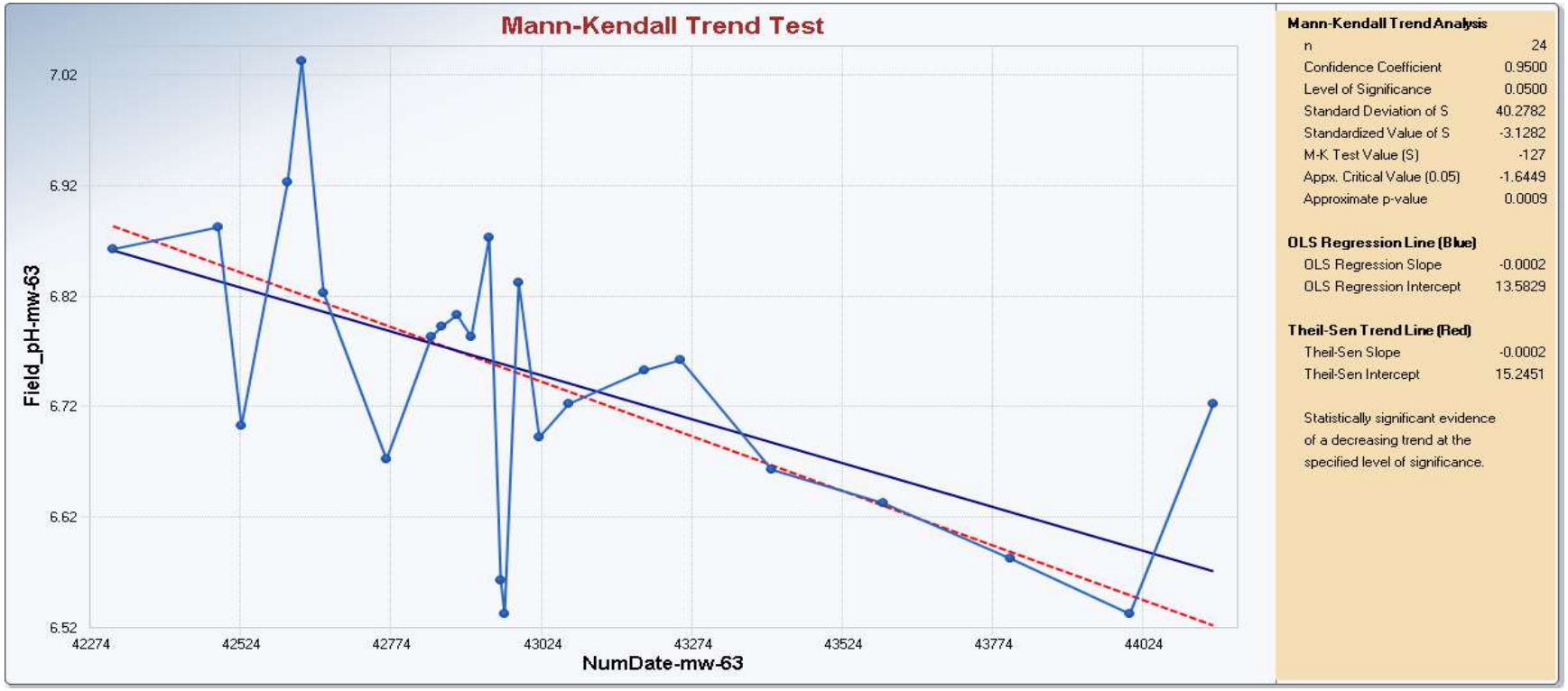
Appendix B
Mann-Kendall Trend Test



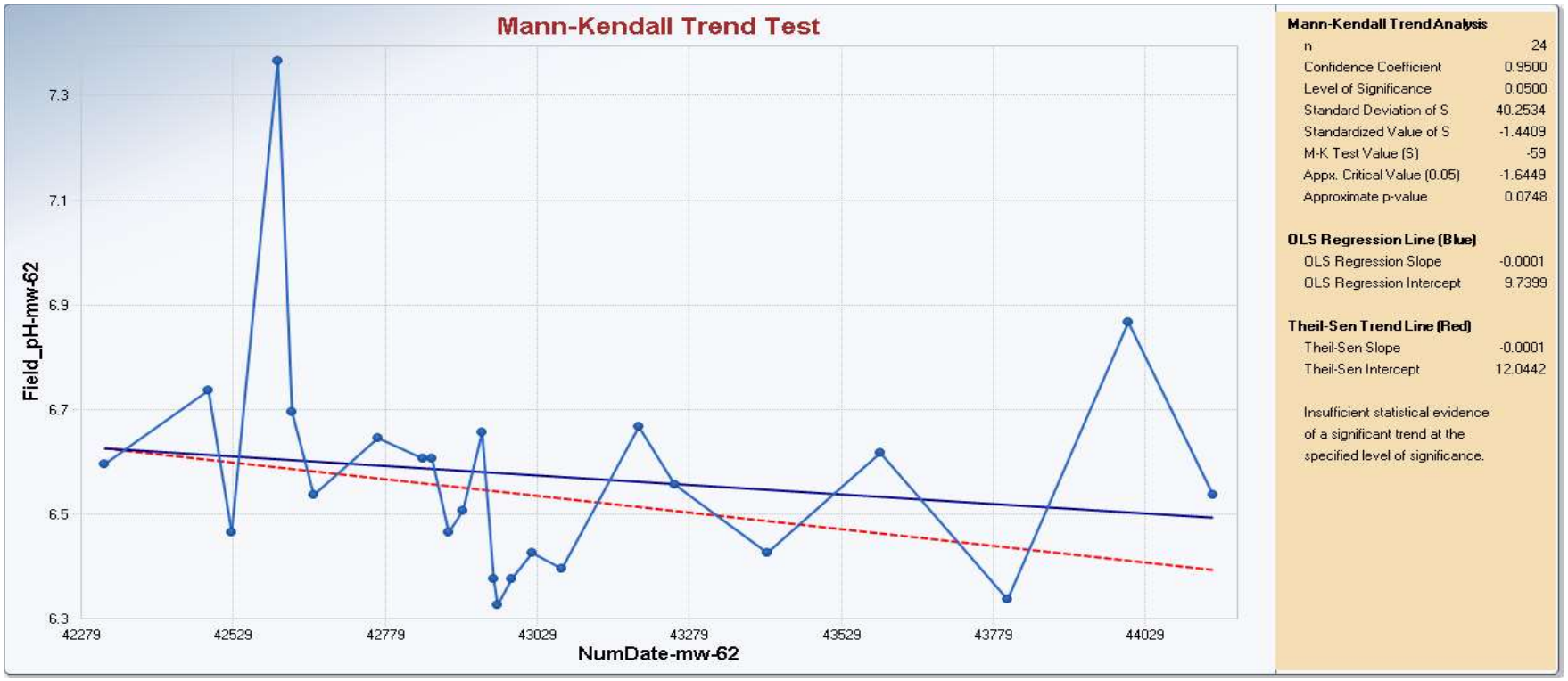
Appendix B
Mann-Kendall Trend Test



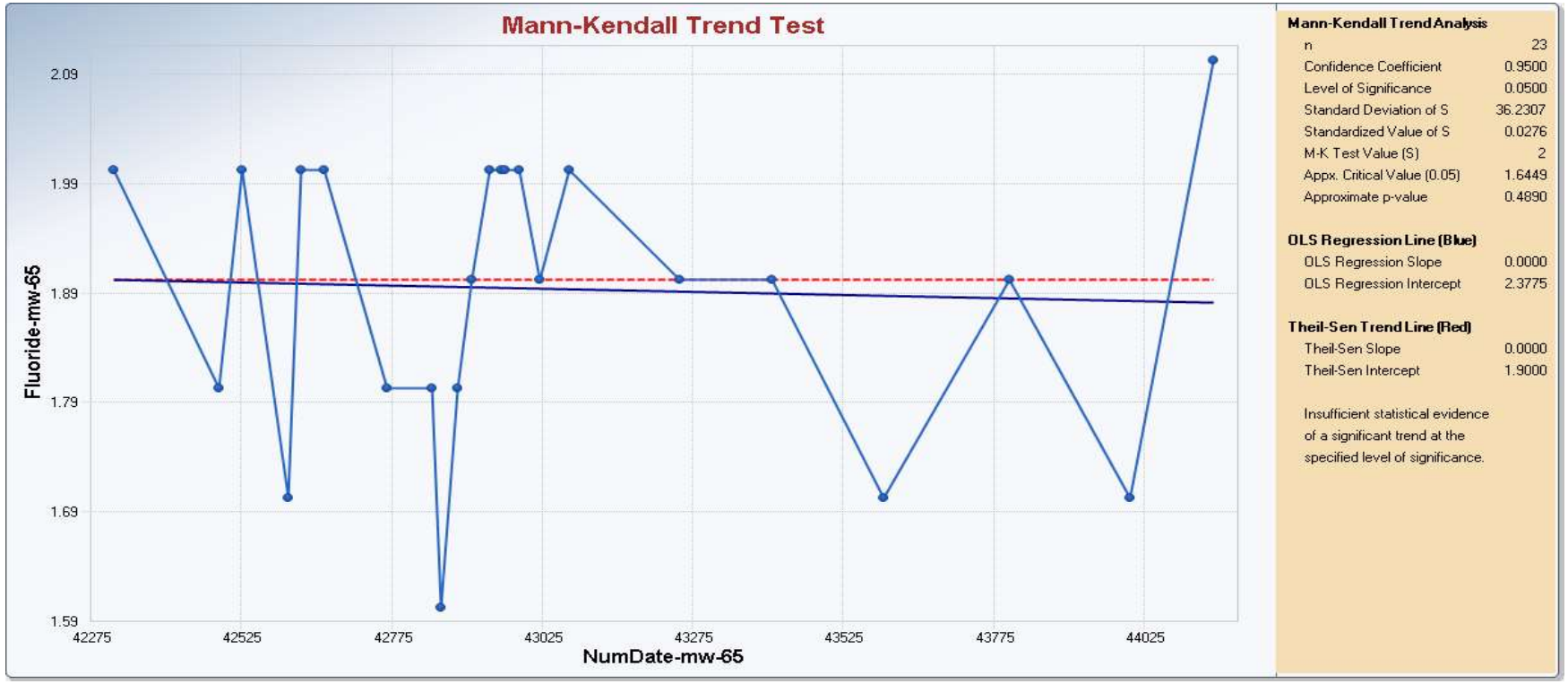
Appendix B
Mann-Kendall Trend Test



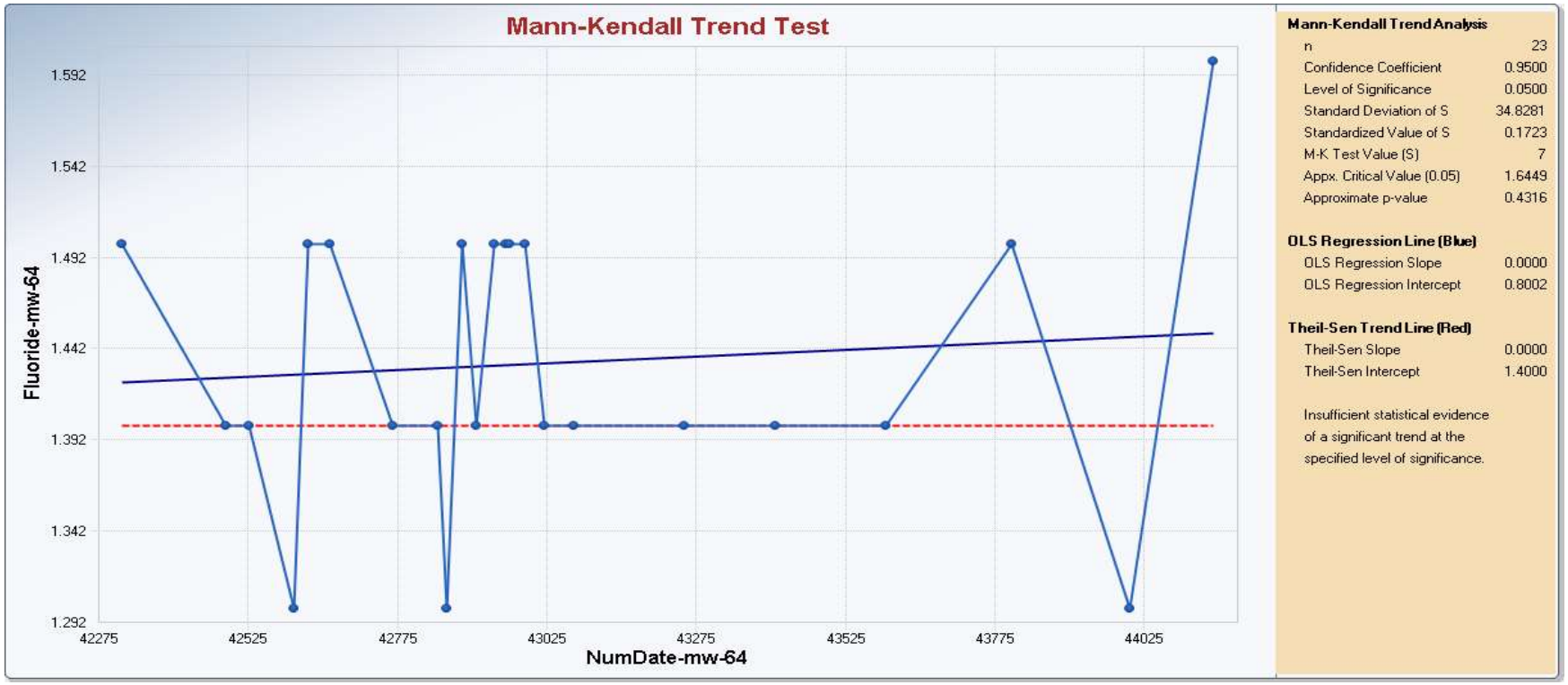
Appendix B
Mann-Kendall Trend Test



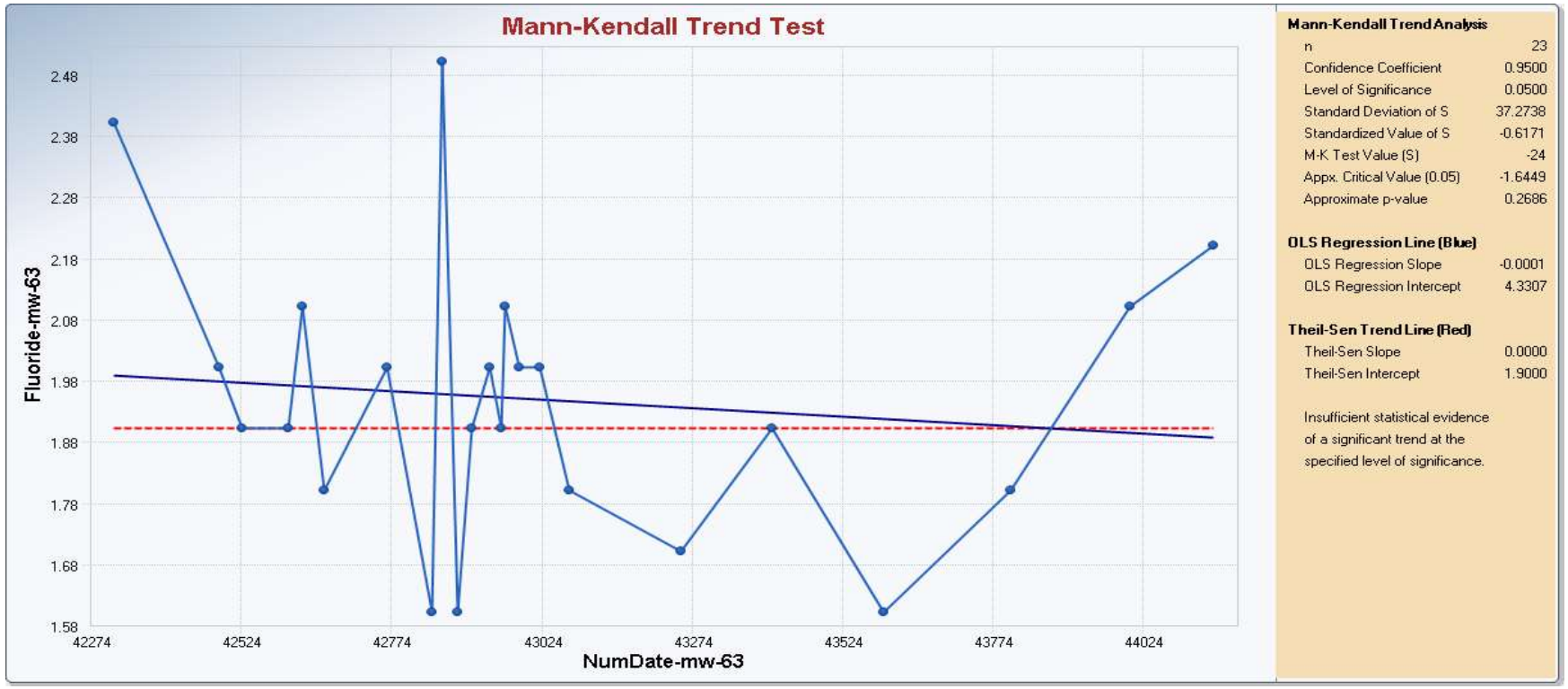
Appendix B
Mann-Kendall Trend Test



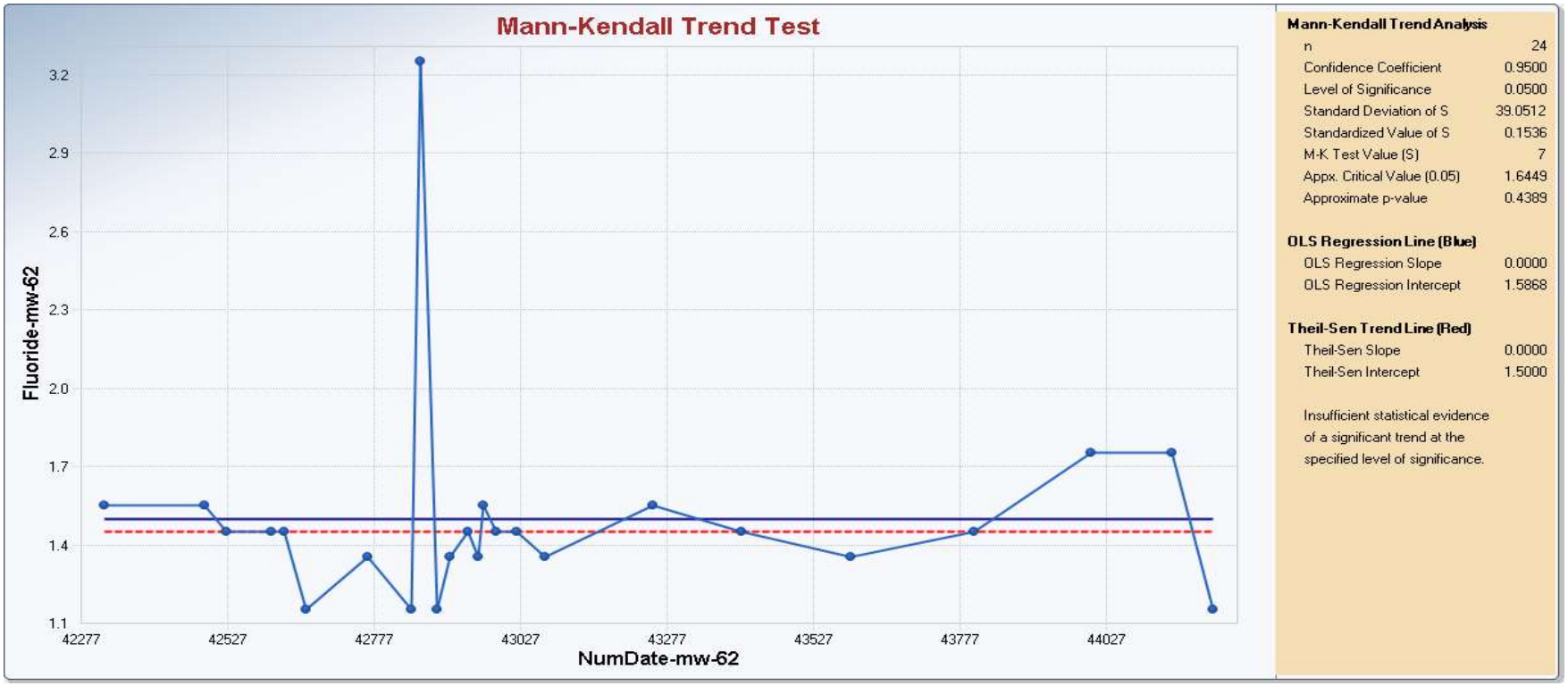
Appendix B
Mann-Kendall Trend Test



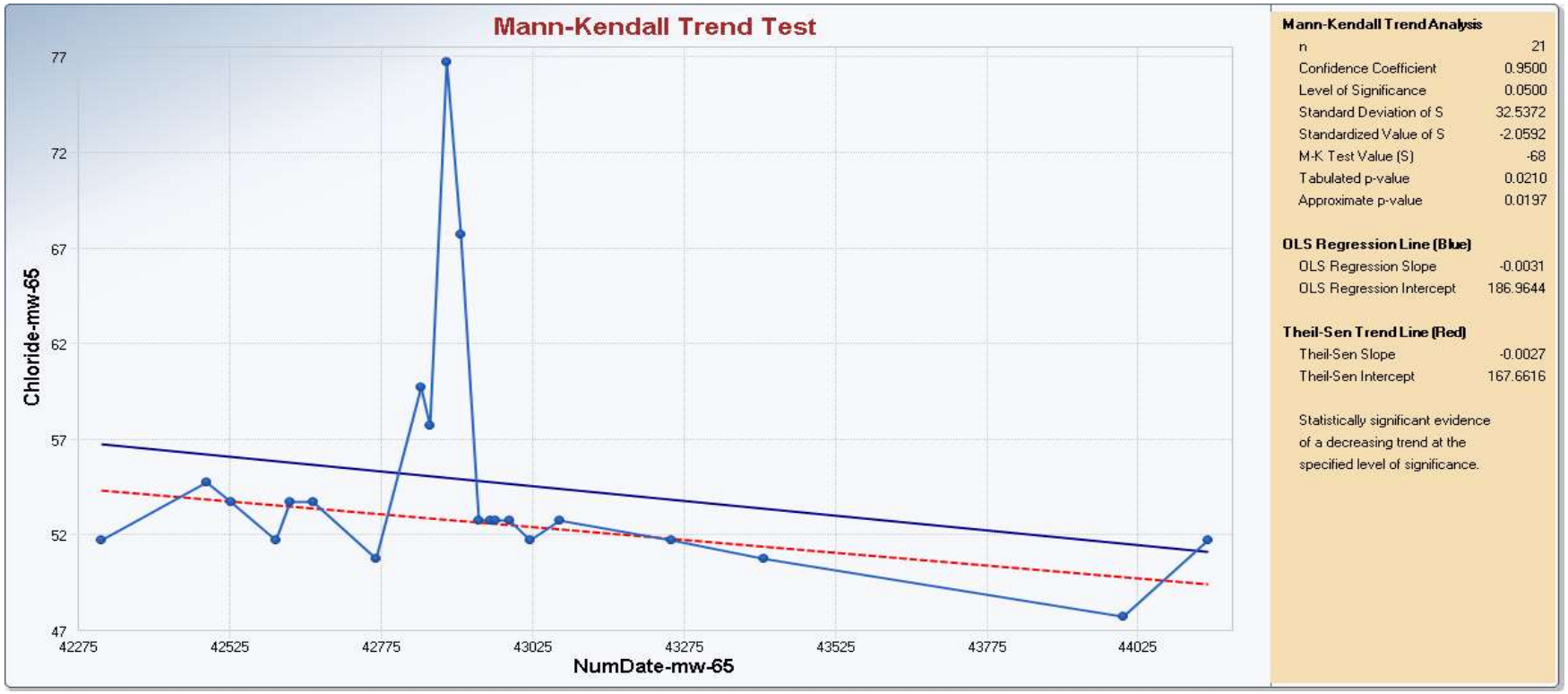
Appendix B
Mann-Kendall Trend Test



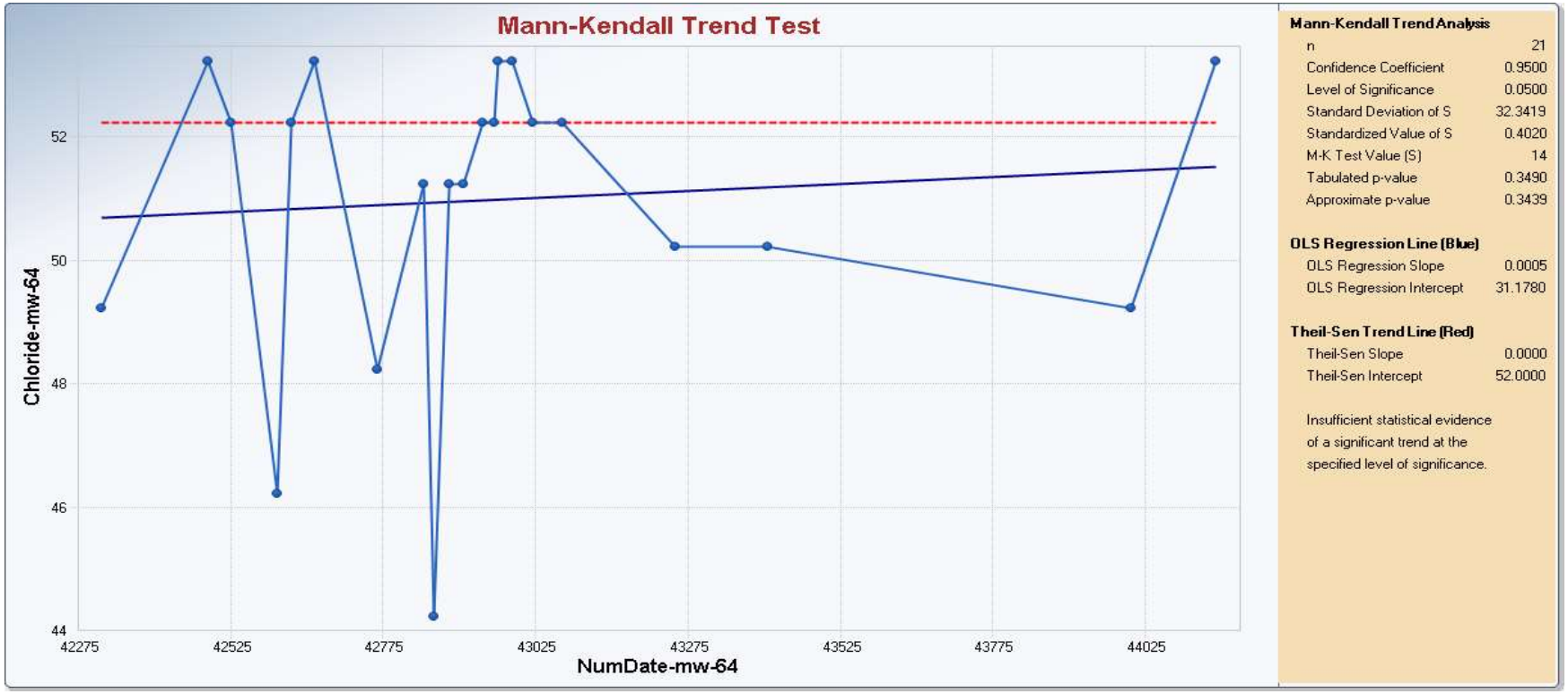
Appendix B
Mann-Kendall Trend Test



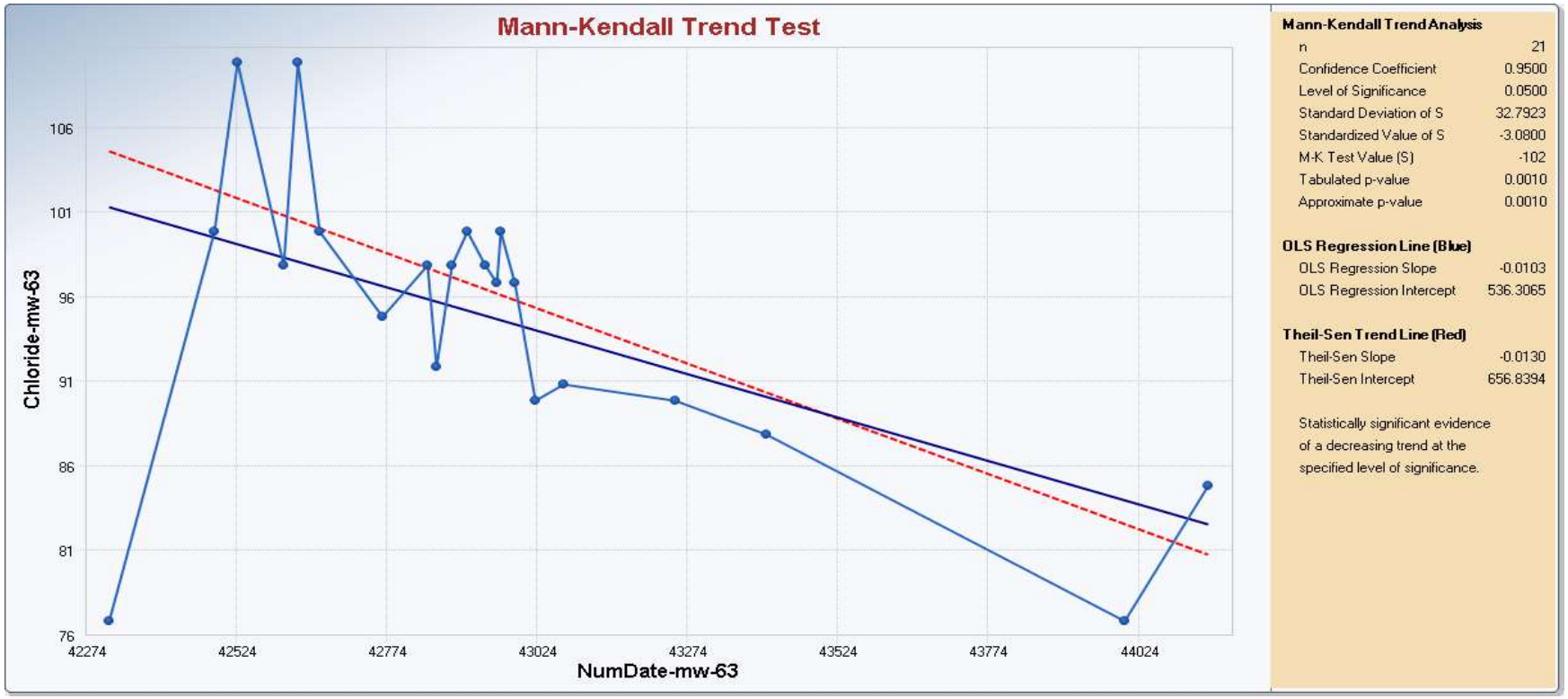
Appendix B
Mann-Kendall Trend Test



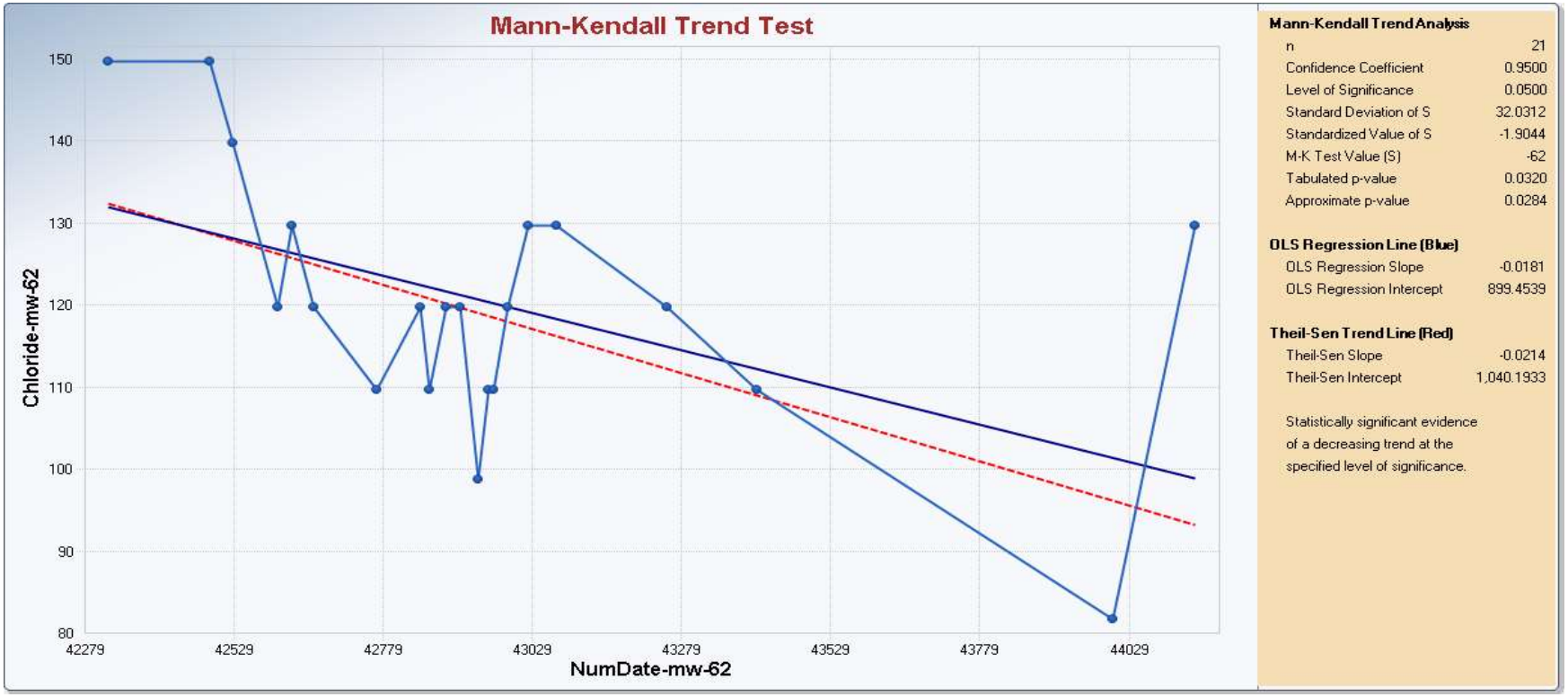
Appendix B
Mann-Kendall Trend Test



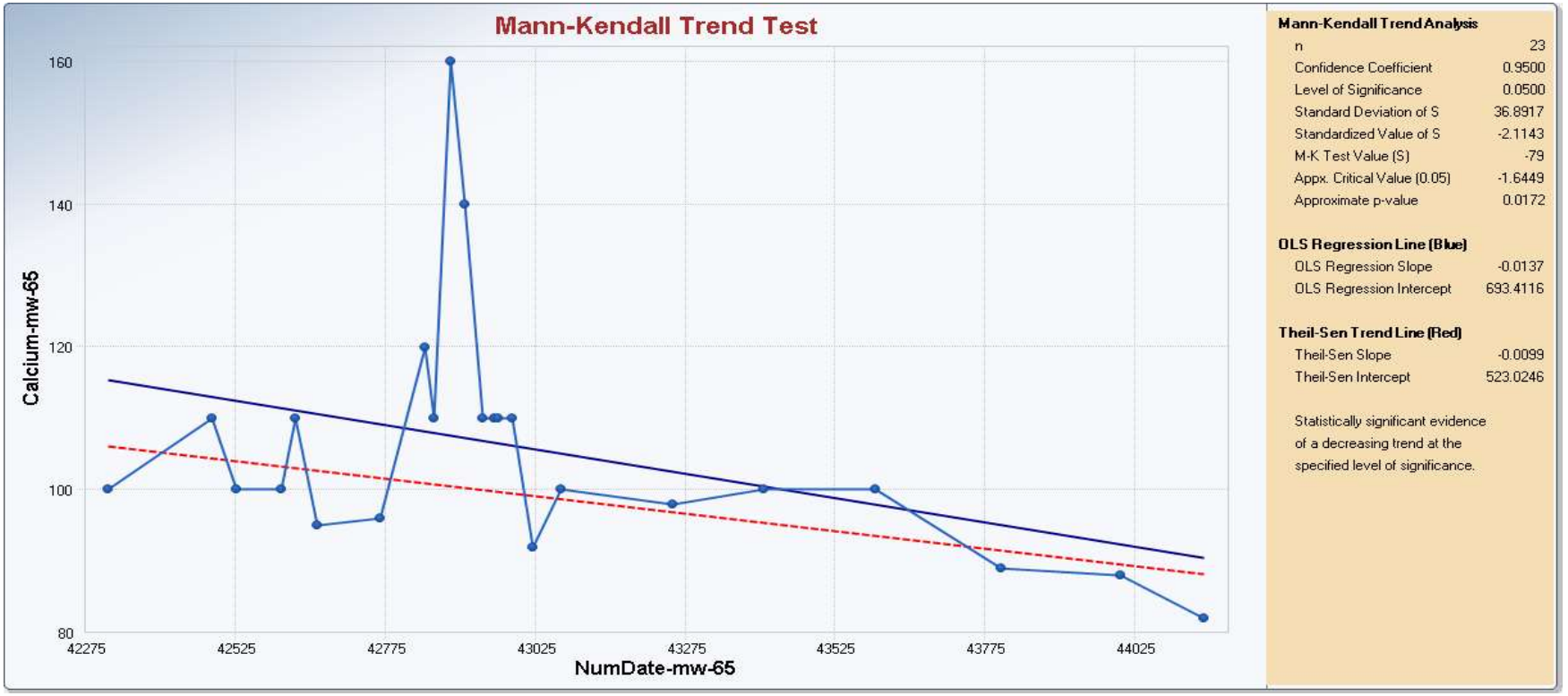
Appendix B
Mann-Kendall Trend Test



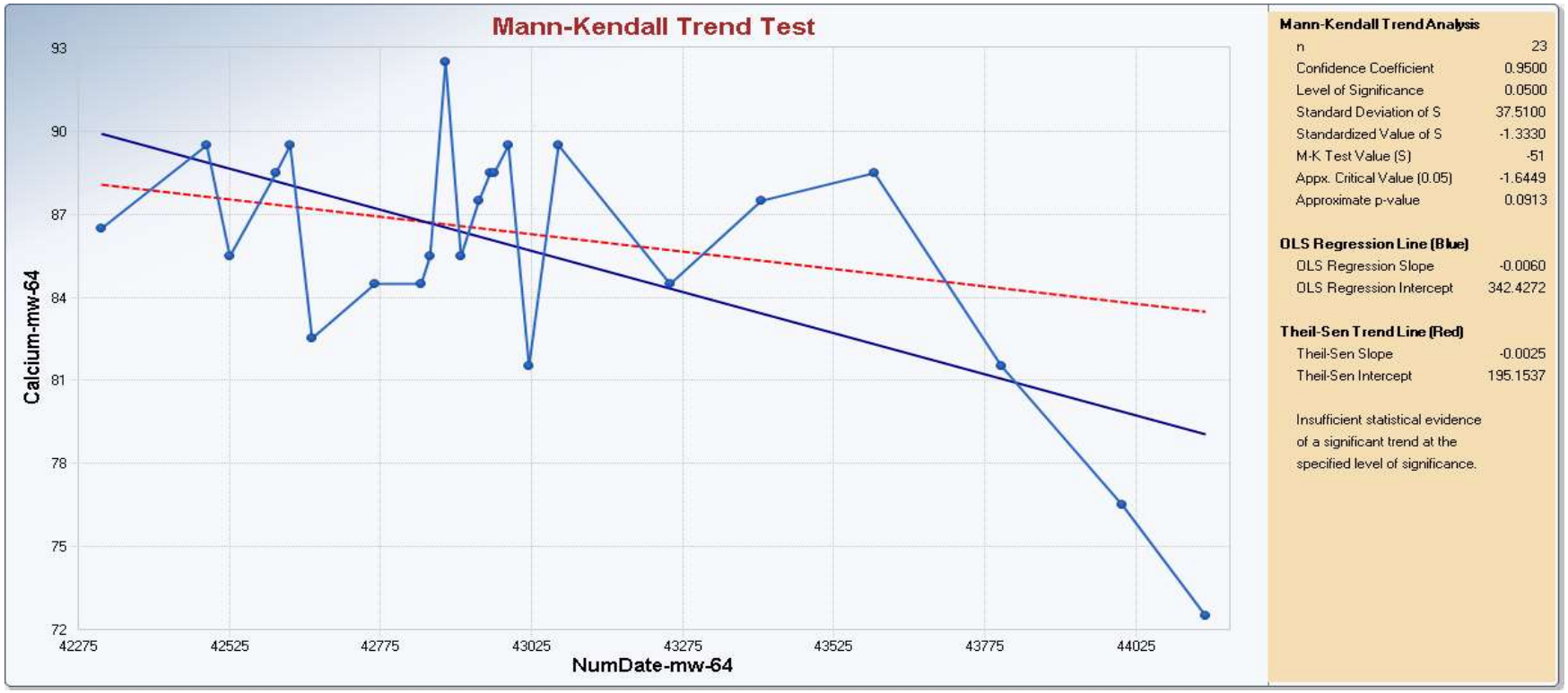
Appendix B
Mann-Kendall Trend Test



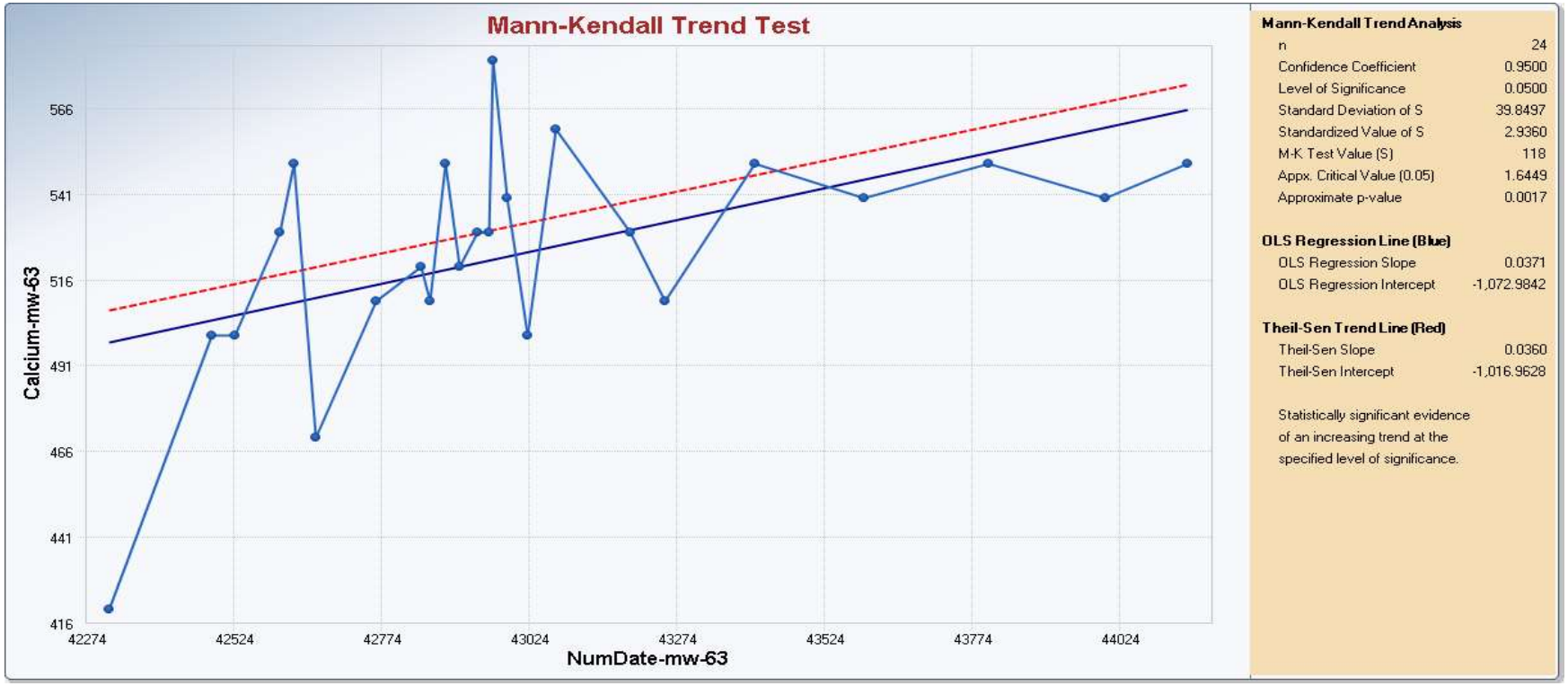
Appendix B
Mann-Kendall Trend Test



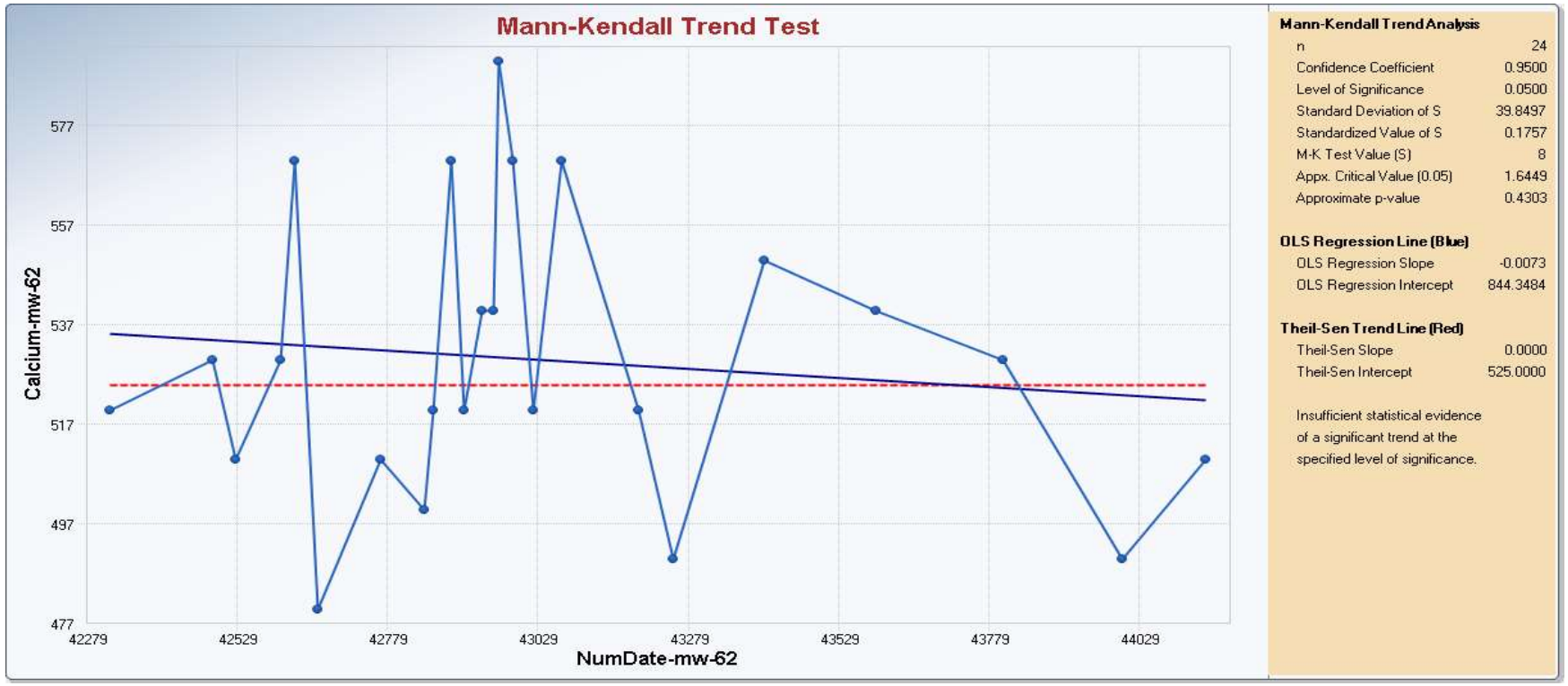
Appendix B
Mann-Kendall Trend Test



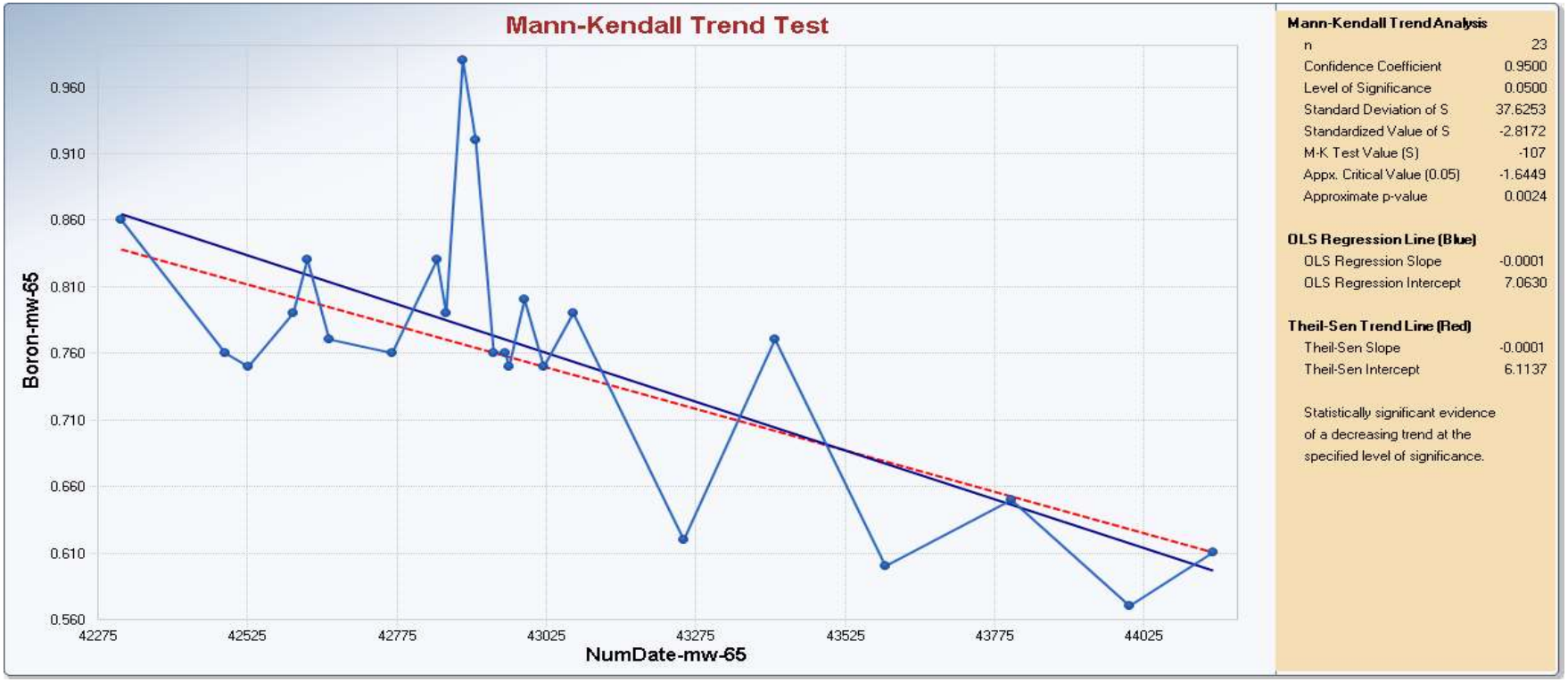
Appendix B
Mann-Kendall Trend Test



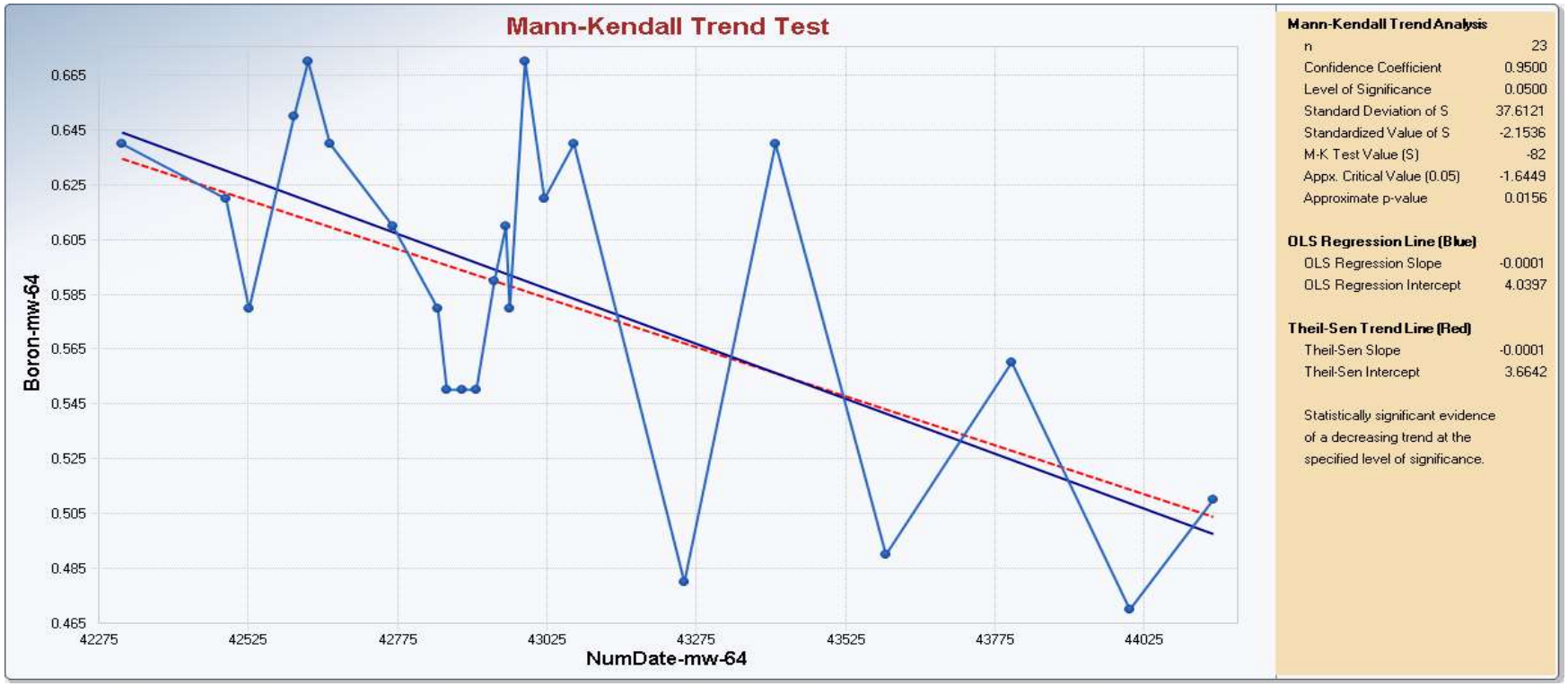
Appendix B
Mann-Kendall Trend Test



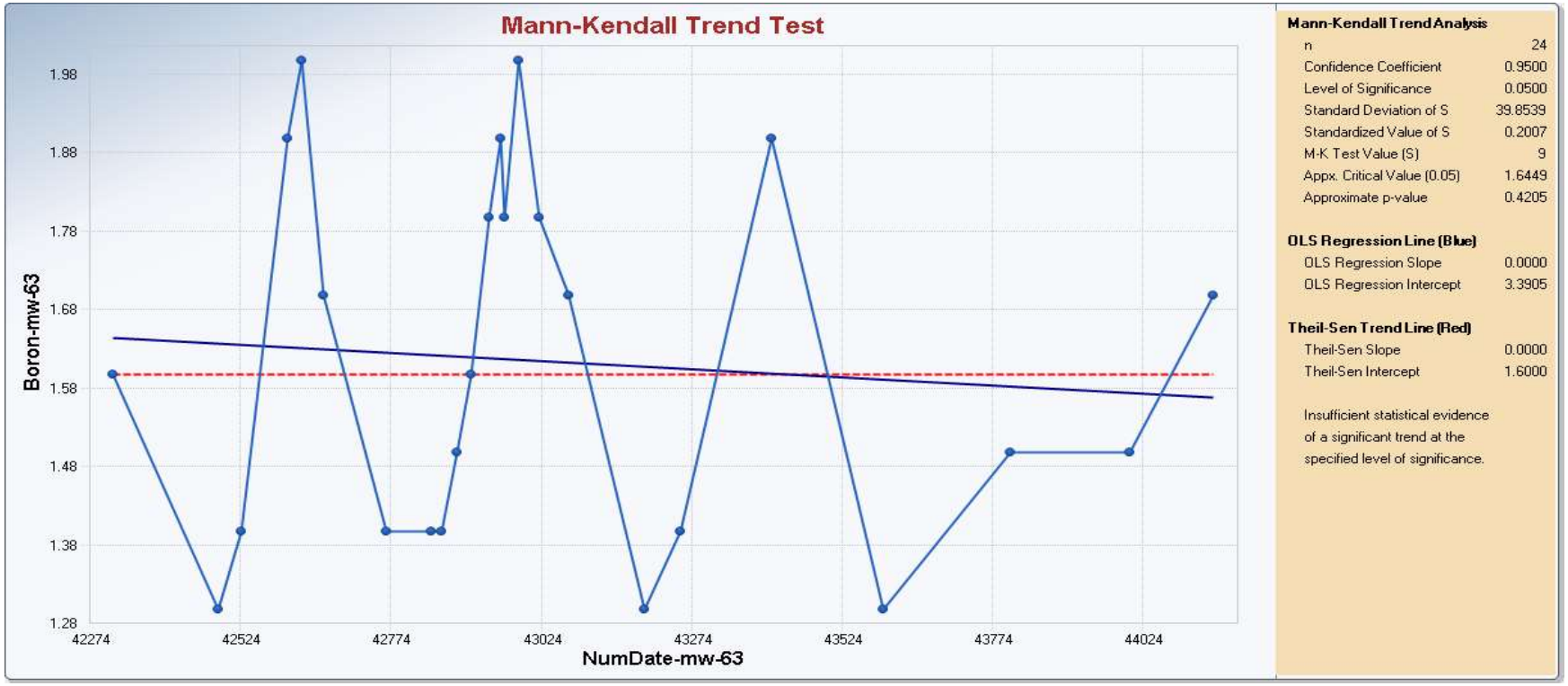
Appendix B
Mann-Kendall Trend Test



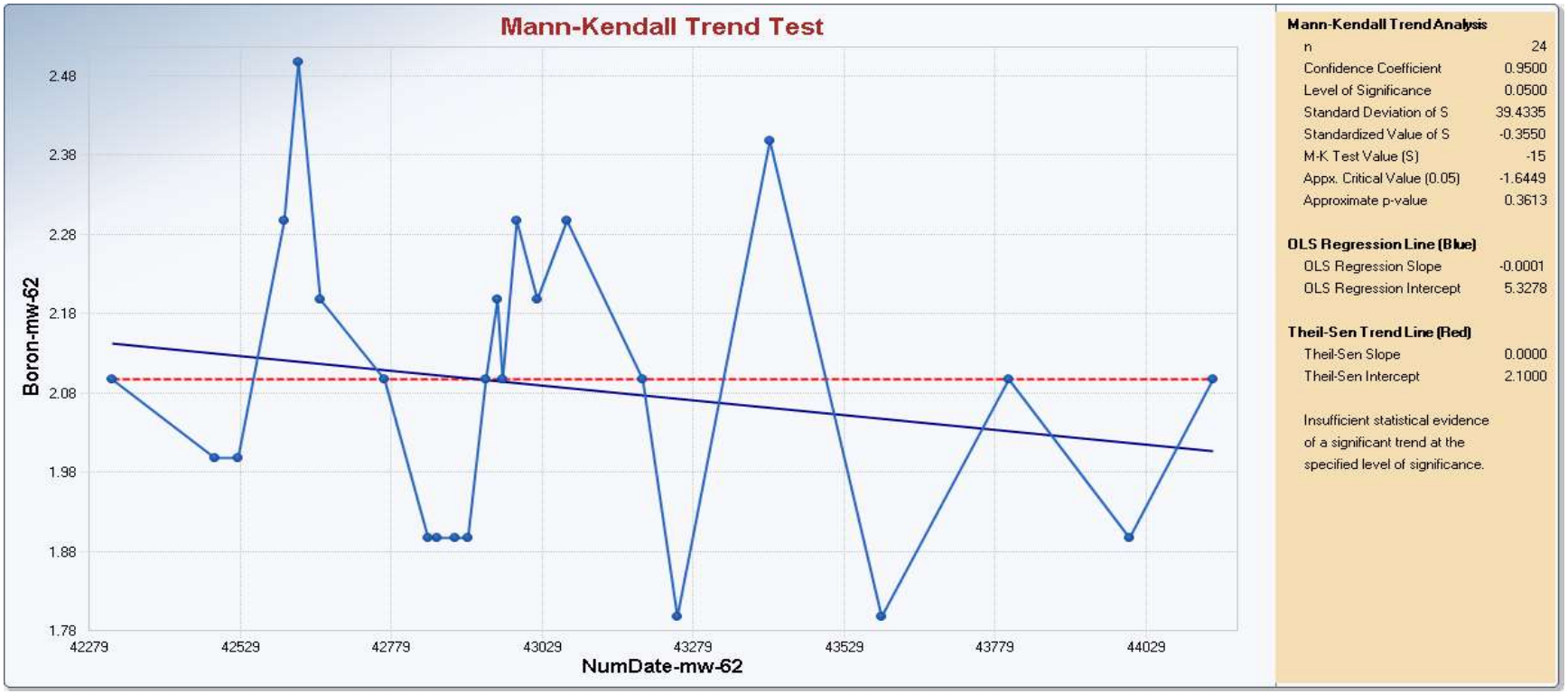
Appendix B
Mann-Kendall Trend Test



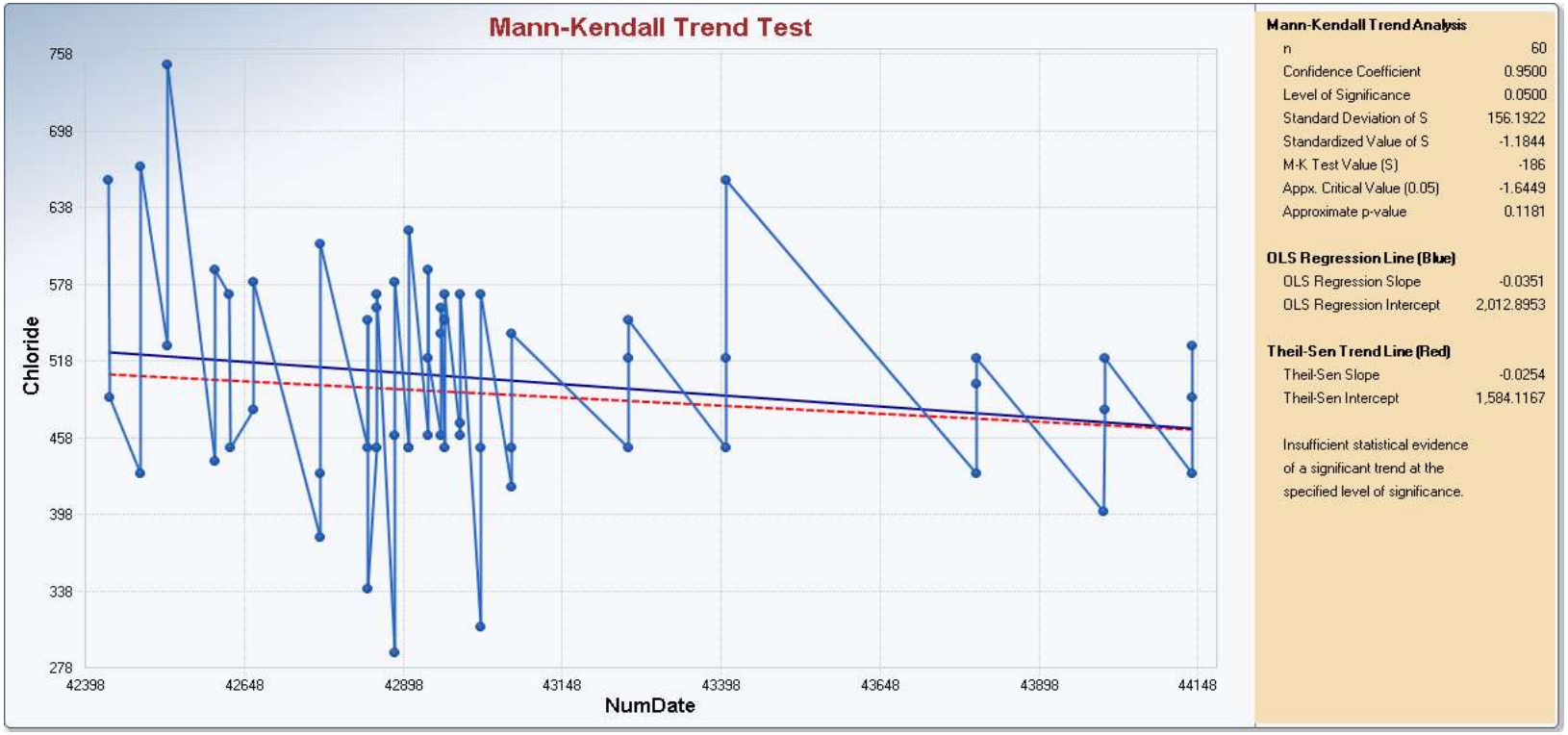
Appendix B
Mann-Kendall Trend Test



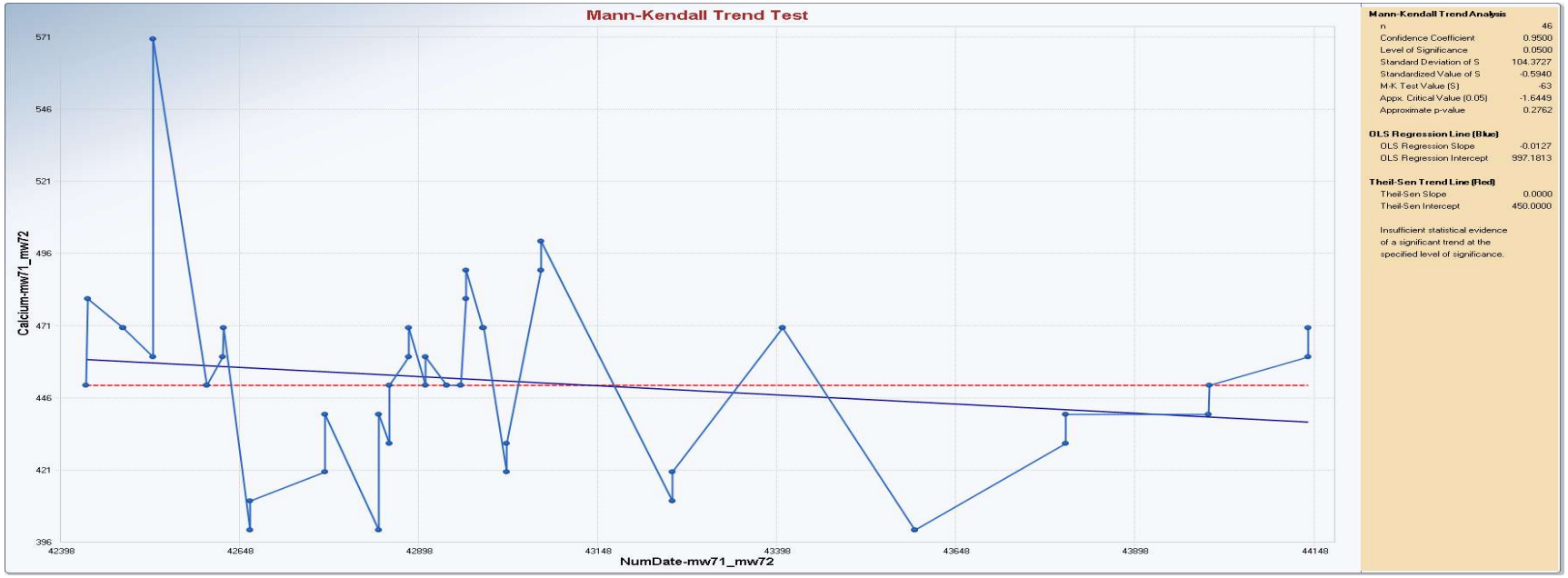
Appendix B
Mann-Kendall Trend Test



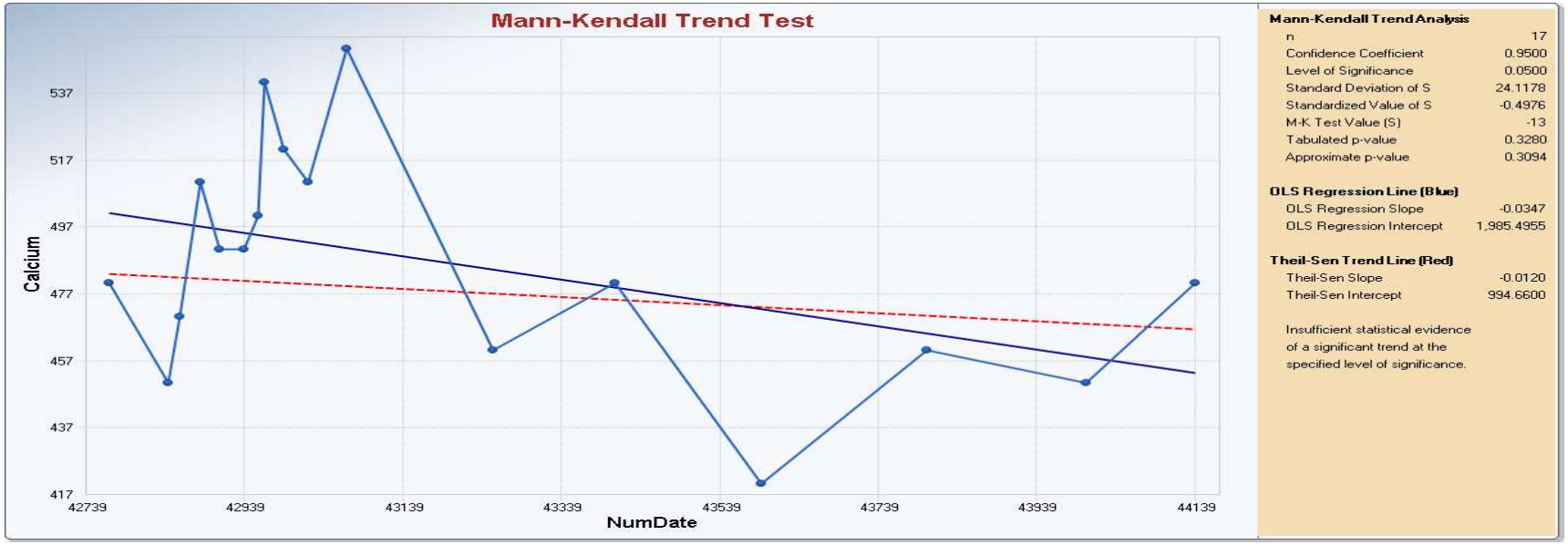
Appendix B
Mann-Kendall Trend Test



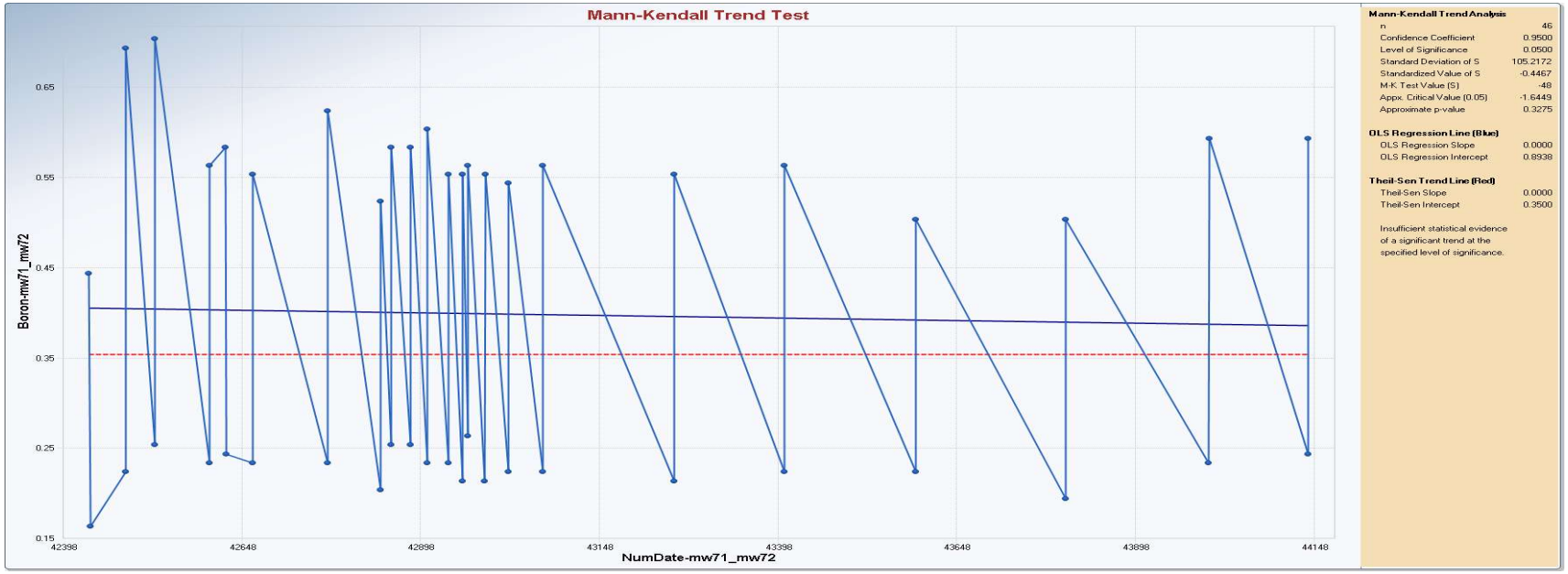
Appendix B
Mann-Kendall Trend Test



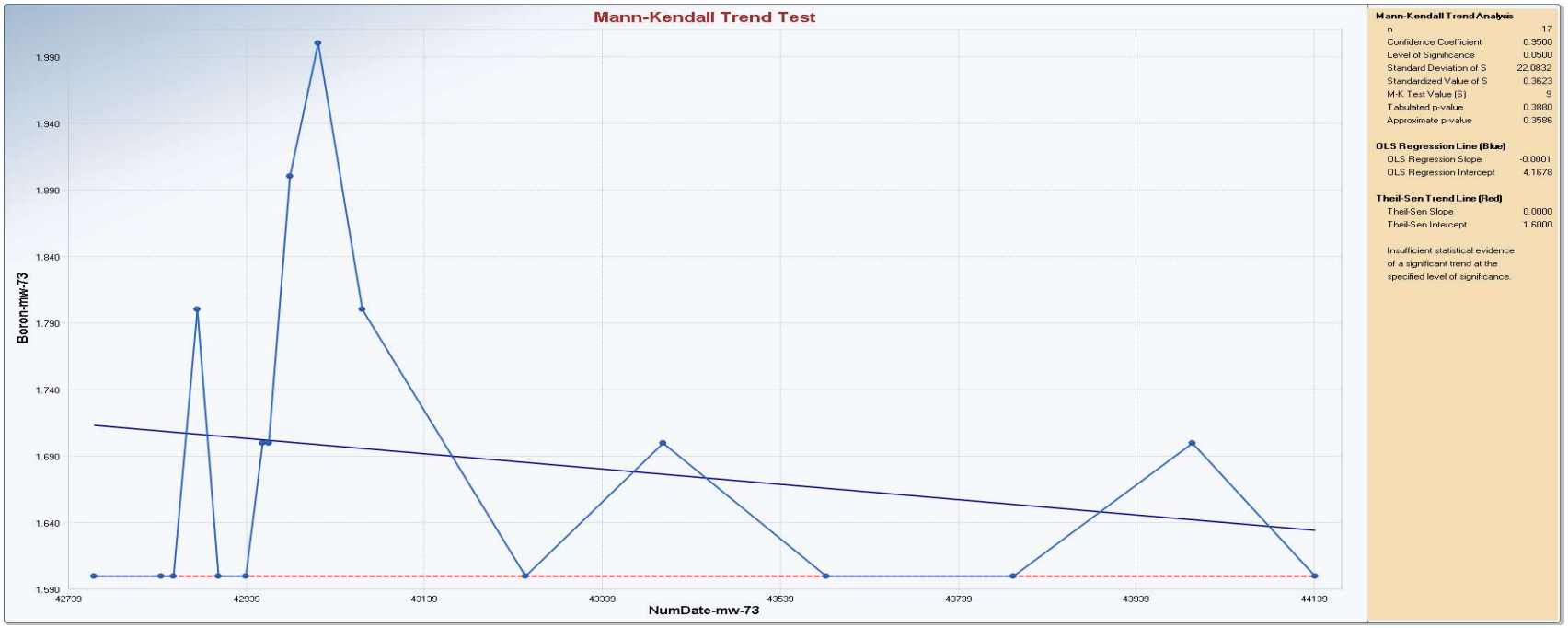
Appendix B
Mann-Kendall Trend Test



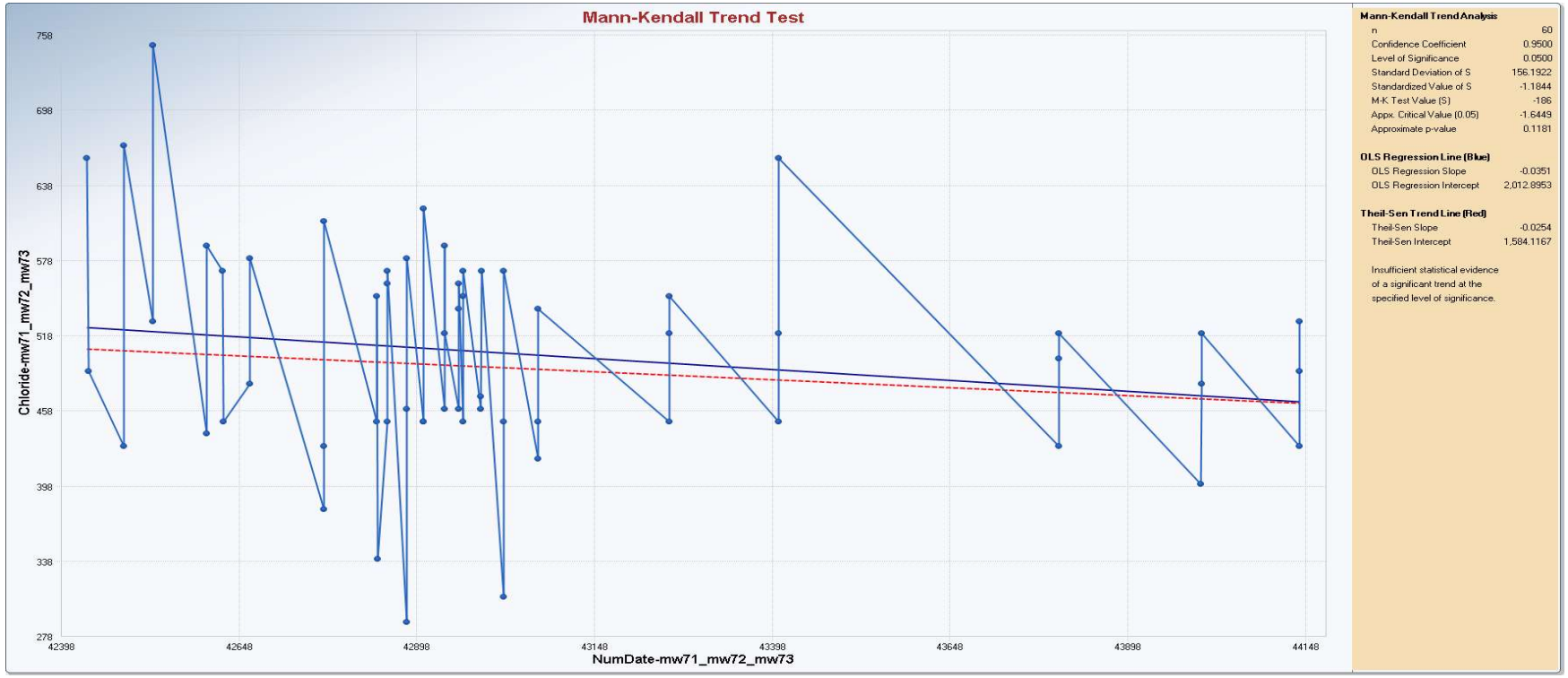
Appendix B
Mann-Kendall Trend Test



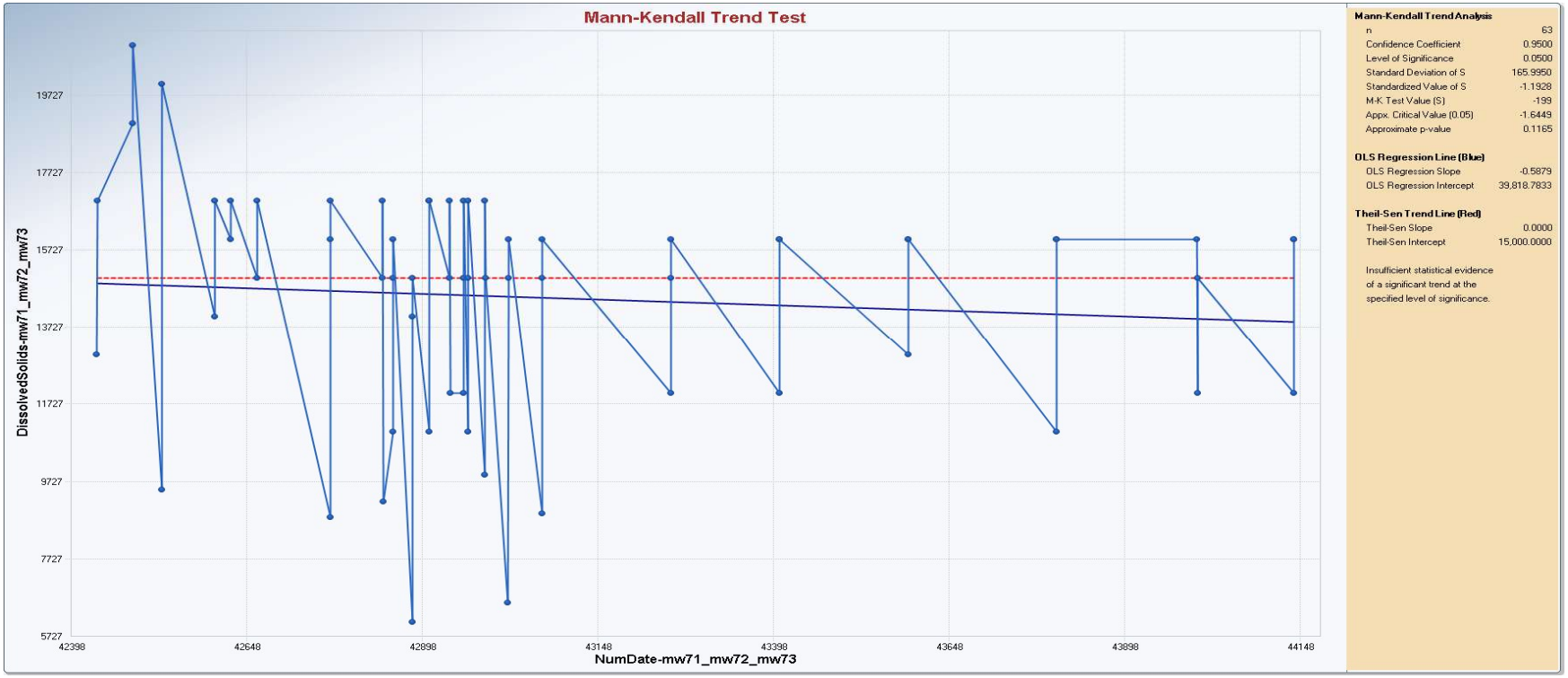
Appendix B
Mann-Kendall Trend Test



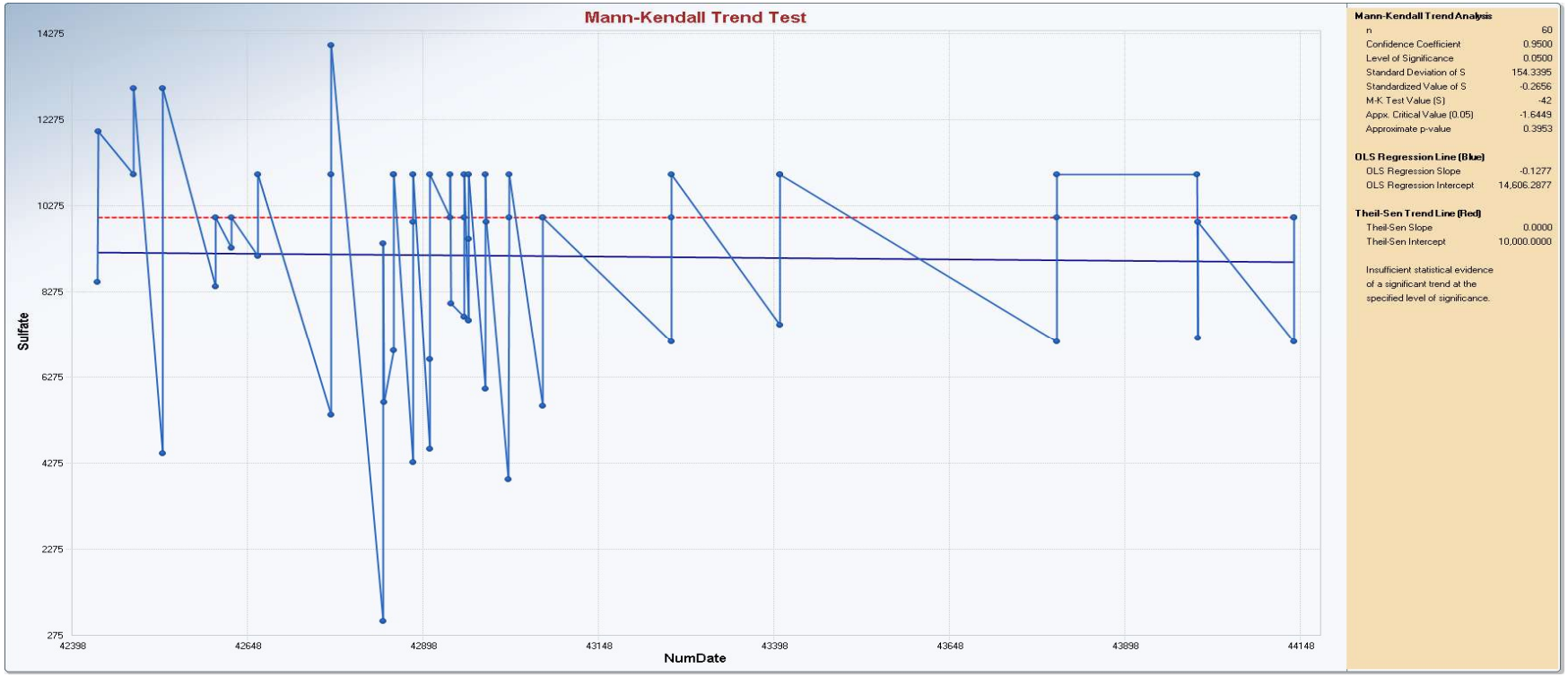
Appendix B
Mann-Kendall Trend Test



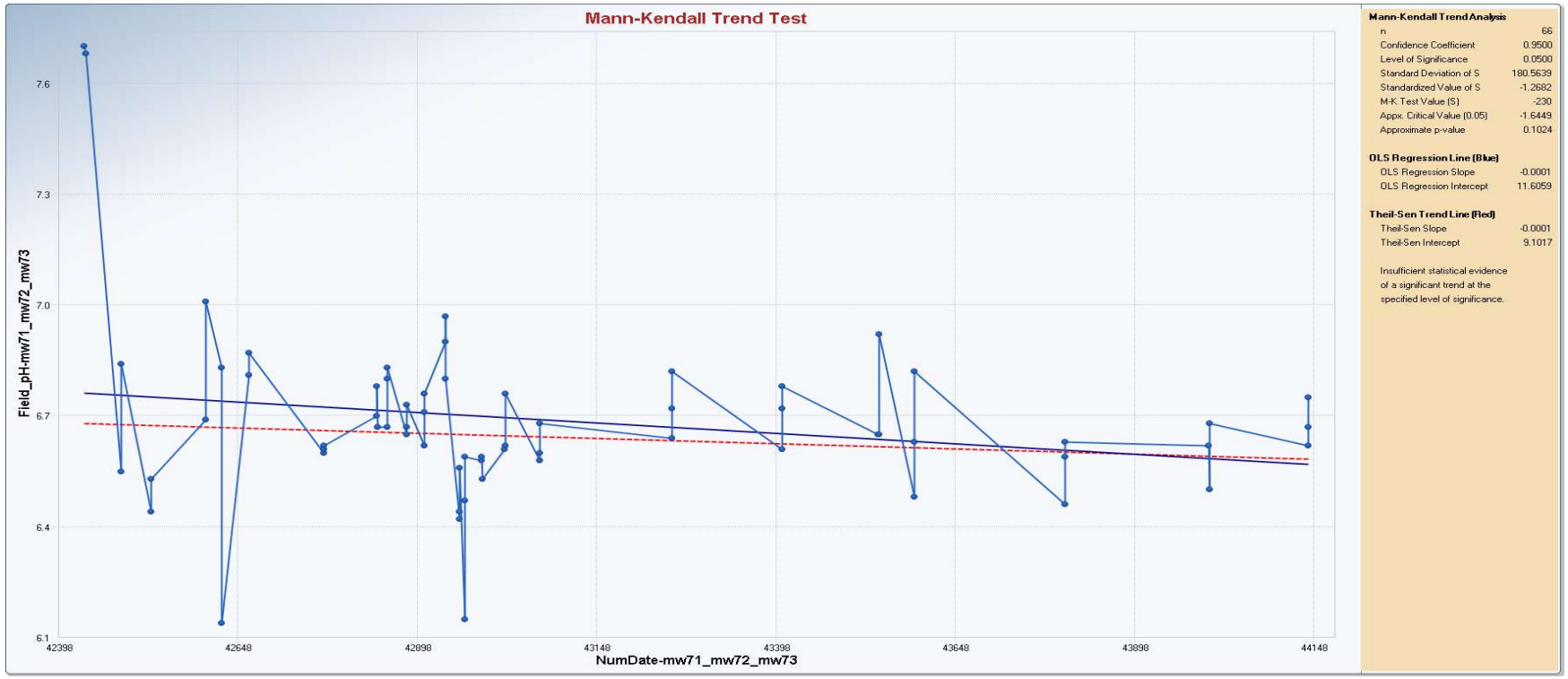
Appendix B
Mann-Kendall Trend Test



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 5.13/2/2021 11:04:12 AM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_a.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Boron-mw-62

General Statistics	
Number of Events Reported (m)	25
Number of Missing Events	1
Number or Reported Events Used	24
Number Values Reported (n)	25
Number Values Missing	1
Number Values Used	24
Minimum	1.8
Maximum	2.5
Mean	2.092
Geometric Mean	2.084
Median	2.1
Standard Deviation	0.186
Coefficient of Variation	0.0891

Mann-Kendall Test	
M-K Test Value (S)	-15
Critical Value (0.05)	-1.645
Standard Deviation of S	39.43
Standardized Value of S	-0.355
Approximate p-value	0.361

Insufficient evidence to identify a significant trend at the specified level of significance.

Boron-mw-63

General Statistics	
Number of Events Reported (m)	24
Number of Missing Events	0
Number or Reported Events Used	24

Appendix B
Time Series Statistics

Number Values Reported (n)	24
Minimum	1.3
Maximum	2
Mean	1.617
Geometric Mean	1.601
Median	1.6
Standard Deviation	0.232
Coefficient of Variation	0.143
Mann-Kendall Test	
M-K Test Value (S)	9
Critical Value (0.05)	1.645
Standard Deviation of S	39.85
Standardized Value of S	0.201
Approximate p-value	0.42
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Boron-mw-64	
General Statistics	
Number of Events Reported (m)	23
Number of Missing Events	0
Number or Reported Events Used	23
Number Values Reported (n)	23
Minimum	0.47
Maximum	0.67
Mean	0.587
Geometric Mean	0.584
Median	0.59
Standard Deviation	0.0594
Coefficient of Variation	0.101
Mann-Kendall Test	
M-K Test Value (S)	-82
Critical Value (0.05)	-1.645
Standard Deviation of S	37.61
Standardized Value of S	-2.154
Approximate p-value	0.0156

Appendix B
Time Series Statistics

Statistically significant evidence of a decreasing trend at the specified level of significance.	
Boron-mw-65	
General Statistics	
Number of Events Reported (m)	23
Number of Missing Events	0
Number or Reported Events Used	23
Number Values Reported (n)	23
Minimum	0.57
Maximum	0.98
Mean	0.76
Geometric Mean	0.753
Median	0.76
Standard Deviation	0.0987
Coefficient of Variation	0.13
Mann-Kendall Test	
M-K Test Value (S)	-107
Critical Value (0.05)	-1.645
Standard Deviation of S	37.63
Standardized Value of S	-2.817
Approximate p-value	0.00242
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 5.13/2/2021 11:37:16 AM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_a.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05
Calcium-mw-62	
General Statistics	

Appendix B
Time Series Statistics

Number of Events Reported (m)	25
Number of Missing Events	1
Number or Reported Events Used	24
Number Values Reported (n)	25
Number Values Missing	1
Number Values Used	24
Minimum	480
Maximum	590
Mean	530
Geometric Mean	529.3
Median	525
Standard Deviation	28.74
Coefficient of Variation	0.0542
Mann-Kendall Test	
M-K Test Value (S)	8
Critical Value (0.05)	1.645
Standard Deviation of S	39.85
Standardized Value of S	0.176
Approximate p-value	0.43
Insufficient evidence to identify a significant trend at the specified level of significance.	
Calcium-mw-63	
General Statistics	
Number of Events Reported (m)	24
Number of Missing Events	0
Number or Reported Events Used	24
Number Values Reported (n)	24
Minimum	420
Maximum	580
Mean	524.6
Geometric Mean	523.5
Median	530
Standard Deviation	32.83
Coefficient of Variation	0.0626
Mann-Kendall Test	

Appendix B
Time Series Statistics

M-K Test Value (S)	118
Critical Value (0.05)	1.645
Standard Deviation of S	39.85
Standardized Value of S	2.936
Approximate p-value	0.00166
Statistically significant evidence of an increasing trend at the specified level of significance.	
Calcium-mw-64	
General Statistics	
Number of Events Reported (m)	23
Number of Missing Events	0
Number or Reported Events Used	23
Number Values Reported (n)	23
Minimum	73
Maximum	93
Mean	86.17
Geometric Mean	86.05
Median	87
Standard Deviation	4.529
Coefficient of Variation	0.0526
Mann-Kendall Test	
M-K Test Value (S)	-51
Critical Value (0.05)	-1.645
Standard Deviation of S	37.51
Standardized Value of S	-1.333
Approximate p-value	0.0913
Insufficient evidence to identify a significant trend at the specified level of significance.	
Calcium-mw-65	
General Statistics	
Number of Events Reported (m)	23
Number of Missing Events	0
Number or Reported Events Used	23
Number Values Reported (n)	23

Appendix B
Time Series Statistics

Minimum	82
Maximum	160
Mean	105.7
Geometric Mean	104.5
Median	100
Standard Deviation	16.87
Coefficient of Variation	0.16
Mann-Kendall Test	
M-K Test Value (S)	-79
Critical Value (0.05)	-1.645
Standard Deviation of S	36.89
Standardized Value of S	-2.114
Approximate p-value	0.0172
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 5.13/2/2021 12:27:54 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_a.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Chloride-mw-62

General Statistics	
Number of Events Reported (m)	25
Number of Missing Events	4
Number or Reported Events Used	21
Number Values Reported (n)	25
Number Values Missing	4
Number Values Used	21
Minimum	82
Maximum	150
Mean	120.5
Geometric Mean	119.5

Appendix B
Time Series Statistics

Median	120
Standard Deviation	15.78
Coefficient of Variation	0.131
Mann-Kendall Test	
M-K Test Value (S)	-62
Tabulated p-value	0.032
Standard Deviation of S	32.03
Standardized Value of S	-1.904
Approximate p-value	0.0284
Statistically significant evidence of a decreasing trend at the specified level of significance.	
Chloride-mw-63	
General Statistics	
Number of Events Reported (m)	24
Number of Missing Events	3
Number or Reported Events Used	21
Number Values Reported (n)	24
Number Values Missing	3
Number Values Used	21
Minimum	77
Maximum	110
Mean	94.81
Geometric Mean	94.43
Median	97
Standard Deviation	8.559
Coefficient of Variation	0.0903
Mann-Kendall Test	
M-K Test Value (S)	-102
Tabulated p-value	0.001
Standard Deviation of S	32.79
Standardized Value of S	-3.08
Approximate p-value	0.00104
Statistically significant evidence of a decreasing trend at the specified level of significance.	

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Time Series Statistics

Chloride-mw-64	
General Statistics	
Number of Events Reported (m)	23
Number of Missing Events	2
Number or Reported Events Used	21
Number Values Reported (n)	23
Number Values Missing	2
Number Values Used	21
Minimum	44
Maximum	53
Mean	50.76
Geometric Mean	50.7
Median	52
Standard Deviation	2.427
Coefficient of Variation	0.0478
Mann-Kendall Test	
M-K Test Value (S)	14
Tabulated p-value	0.349
Standard Deviation of S	32.34
Standardized Value of S	0.402
Approximate p-value	0.344
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Chloride-mw-65	
General Statistics	
Number of Events Reported (m)	23
Number of Missing Events	2
Number or Reported Events Used	21
Number Values Reported (n)	23
Number Values Missing	2
Number Values Used	21
Minimum	48
Maximum	77
Mean	55
Geometric Mean	54.69

Appendix B
Time Series Statistics

Median	53
Standard Deviation	6.465
Coefficient of Variation	0.118
Mann-Kendall Test	
M-K Test Value (S)	-68
Tabulated p-value	0.021
Standard Deviation of S	32.54
Standardized Value of S	-2.059
Approximate p-value	0.0197
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 5.13/2/2021 12:41:56 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_a.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Fluoride-mw-62

General Statistics	
Number of Events Reported (m)	25
Number of Missing Events	1
Number or Reported Events Used	24
Number Values Reported (n)	25
Number Values Missing	1
Number Values Used	24
Minimum	1.2
Maximum	3.3
Mean	1.546
Geometric Mean	1.511
Median	1.5
Standard Deviation	0.408
Coefficient of Variation	0.264

Appendix B
Time Series Statistics

Mann-Kendall Test	
M-K Test Value (S)	7
Critical Value (0.05)	1.645
Standard Deviation of S	39.05
Standardized Value of S	0.154
Approximate p-value	0.439
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Fluoride-mw-63	
General Statistics	
Number of Events Reported (m)	24
Number of Missing Events	1
Number or Reported Events Used	23
Number Values Reported (n)	24
Number Values Missing	1
Number Values Used	23
Minimum	1.6
Maximum	2.5
Mean	1.948
Geometric Mean	1.935
Median	1.9
Standard Deviation	0.229
Coefficient of Variation	0.118
Mann-Kendall Test	
M-K Test Value (S)	-24
Critical Value (0.05)	-1.645
Standard Deviation of S	37.27
Standardized Value of S	-0.617
Approximate p-value	0.269
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Fluoride-mw-64	
General Statistics	
Number of Events Reported (m)	23

Appendix B
Time Series Statistics

Number of Missing Events	0
Number or Reported Events Used	23
Number Values Reported (n)	23
Minimum	1.3
Maximum	1.6
Mean	1.435
Geometric Mean	1.433
Median	1.4
Standard Deviation	0.0775
Coefficient of Variation	0.054
Mann-Kendall Test	
M-K Test Value (S)	7
Critical Value (0.05)	1.645
Standard Deviation of S	34.83
Standardized Value of S	0.172
Approximate p-value	0.432
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Fluoride-mw-65	
General Statistics	
Number of Events Reported (m)	23
Number of Missing Events	0
Number or Reported Events Used	23
Number Values Reported (n)	23
Minimum	1.6
Maximum	2.1
Mean	1.891
Geometric Mean	1.887
Median	1.9
Standard Deviation	0.131
Coefficient of Variation	0.0693
Mann-Kendall Test	
M-K Test Value (S)	2
Critical Value (0.05)	1.645
Standard Deviation of S	36.23

Appendix B
Time Series Statistics

Standardized Value of S	0.0276
Approximate p-value	0.489
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 5.13/2/2021 1:23:24 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_a.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05
Field_pH-mw-62	
General Statistics	
Number of Events Reported (m)	25
Number of Missing Events	1
Number or Reported Events Used	24
Number Values Reported (n)	25
Number Values Missing	1
Number Values Used	24
Minimum	6.36
Maximum	7.4
Mean	6.608
Geometric Mean	6.605
Median	6.58
Standard Deviation	0.217
Coefficient of Variation	0.0328
Mann-Kendall Test	
M-K Test Value (S)	-59
Critical Value (0.05)	-1.645
Standard Deviation of S	40.25
Standardized Value of S	-1.441
Approximate p-value	0.0748
Insufficient evidence to identify a significant	

Appendix B
Time Series Statistics

trend at the specified level of significance.	
Field_pH-mw-63	
General Statistics	
Number of Events Reported (m)	24
Number of Missing Events	0
Number or Reported Events Used	24
Number Values Reported (n)	24
Minimum	6.53
Maximum	7.03
Mean	6.744
Geometric Mean	6.743
Median	6.755
Standard Deviation	0.126
Coefficient of Variation	0.0187
Mann-Kendall Test	
M-K Test Value (S)	-127
Critical Value (0.05)	-1.645
Standard Deviation of S	40.28
Standardized Value of S	-3.128
Approximate p-value	8.7927E-4
Statistically significant evidence of a decreasing	
trend at the specified level of significance.	
Field_pH-mw-64	
General Statistics	
Number of Events Reported (m)	23
Number of Missing Events	0
Number or Reported Events Used	23
Number Values Reported (n)	23
Minimum	7.22
Maximum	7.68
Mean	7.445
Geometric Mean	7.444
Median	7.45
Standard Deviation	0.121
Coefficient of Variation	0.0162

Appendix B
Time Series Statistics

Mann-Kendall Test	
M-K Test Value (S)	-86
Critical Value (0.05)	-1.645
Standard Deviation of S	37.79
Standardized Value of S	-2.249
Approximate p-value	0.0122
Statistically significant evidence of a decreasing	
trend at the specified level of significance.	
Field_pH-mw-65	
General Statistics	
Number of Events Reported (m)	23
Number of Missing Events	0
Number or Reported Events Used	23
Number Values Reported (n)	23
Minimum	6.96
Maximum	8.27
Mean	7.259
Geometric Mean	7.254
Median	7.21
Standard Deviation	0.262
Coefficient of Variation	0.036
Mann-Kendall Test	
M-K Test Value (S)	-72
Critical Value (0.05)	-1.645
Standard Deviation of S	37.8
Standardized Value of S	-1.878
Approximate p-value	0.0302
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 5.13/2/2021 2:11:33 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_a.xls

Appendix B
Time Series Statistics

Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05
Sulfate-mw-62	
General Statistics	
Number of Events Reported (m)	25
Number of Missing Events	4
Number or Reported Events Used	21
Number Values Reported (n)	25
Number Values Missing	4
Number Values Used	21
Minimum	2800
Maximum	3800
Mean	3362
Geometric Mean	3356
Median	3300
Standard Deviation	196.2
Coefficient of Variation	0.0583
Mann-Kendall Test	
M-K Test Value (S)	4
Tabulated p-value	0.464
Standard Deviation of S	31.55
Standardized Value of S	0.0951
Approximate p-value	0.462
Insufficient evidence to identify a significant trend at the specified level of significance.	
Sulfate-mw-63	
General Statistics	
Number of Events Reported (m)	24
Number of Missing Events	3
Number or Reported Events Used	21
Number Values Reported (n)	24
Number Values Missing	3
Number Values Used	21

Appendix B
Time Series Statistics

Minimum	2300
Maximum	4300
Mean	2771
Geometric Mean	2751
Median	2700
Standard Deviation	383.6
Coefficient of Variation	0.138
Mann-Kendall Test	
M-K Test Value (S)	5
Tabulated p-value	0.464
Standard Deviation of S	32.32
Standardized Value of S	0.124
Approximate p-value	0.451
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Sulfate-mw-64	
General Statistics	
Number of Events Reported (m)	23
Number of Missing Events	2
Number or Reported Events Used	21
Number Values Reported (n)	23
Number Values Missing	2
Number Values Used	21
Minimum	270
Maximum	870
Mean	371
Geometric Mean	360.2
Median	350
Standard Deviation	118
Coefficient of Variation	0.318
Mann-Kendall Test	
M-K Test Value (S)	20
Tabulated p-value	0.285
Standard Deviation of S	32.85
Standardized Value of S	0.578

Appendix B
Time Series Statistics

Approximate p-value	0.282

Insufficient evidence to identify a significant trend at the specified level of significance.

Sulfate-mw-65

General Statistics	
Number of Events Reported (m)	23
Number of Missing Events	2
Number or Reported Events Used	21
Number Values Reported (n)	23
Number Values Missing	2
Number Values Used	21
Minimum	350
Maximum	790
Mean	476.2
Geometric Mean	467.9
Median	460
Standard Deviation	100.5
Coefficient of Variation	0.211

Mann-Kendall Test	
M-K Test Value (S)	-39
Tabulated p-value	0.134
Standard Deviation of S	32.96
Standardized Value of S	-1.153
Approximate p-value	0.124

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 5.13/2/2021 2:35:13 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_a.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Appendix B
Time Series Statistics

DissolvedSolids-mw-62	
General Statistics	
Number of Events Reported (m)	25
Number of Missing Events	2
Number or Reported Events Used	23
Number Values Reported (n)	25
Number Values Missing	2
Number Values Used	23
Minimum	2400
Maximum	6700
Mean	5517
Geometric Mean	5439
Median	5600
Standard Deviation	786
Coefficient of Variation	0.142
Mann-Kendall Test	
M-K Test Value (S)	-99
Critical Value (0.05)	-1.645
Standard Deviation of S	37.59
Standardized Value of S	-2.607
Approximate p-value	0.00457
Statistically significant evidence of a decreasing trend at the specified level of significance.	
DissolvedSolids-mw-63	
General Statistics	
Number of Events Reported (m)	24
Number of Missing Events	1
Number or Reported Events Used	23
Number Values Reported (n)	24
Number Values Missing	1
Number Values Used	23
Minimum	4100
Maximum	4700
Mean	4387
Geometric Mean	4384

Appendix B
Time Series Statistics

Median	4400
Standard Deviation	157.6
Coefficient of Variation	0.0359
Mann-Kendall Test	
M-K Test Value (S)	-36
Critical Value (0.05)	-1.645
Standard Deviation of S	36.87
Standardized Value of S	-0.949
Approximate p-value	0.171
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
DissolvedSolids-mw-64	
General Statistics	
Number of Events Reported (m)	23
Number of Missing Events	0
Number or Reported Events Used	23
Number Values Reported (n)	23
Minimum	720
Maximum	890
Mean	787.8
Geometric Mean	787.2
Median	790
Standard Deviation	32.04
Coefficient of Variation	0.0407
Mann-Kendall Test	
M-K Test Value (S)	-63
Critical Value (0.05)	-1.645
Standard Deviation of S	36.73
Standardized Value of S	-1.688
Approximate p-value	0.0457
Statistically significant evidence of a decreasing	
trend at the specified level of significance.	
DissolvedSolids-mw-65	

Appendix B
Time Series Statistics

General Statistics	
Number of Events Reported (m)	23
Number of Missing Events	0
Number or Reported Events Used	23
Number Values Reported (n)	23
Minimum	780
Maximum	1500
Mean	1043
Geometric Mean	1033
Median	1000
Standard Deviation	162.1
Coefficient of Variation	0.155
Mann-Kendall Test	
M-K Test Value (S)	-127
Critical Value (0.05)	-1.645
Standard Deviation of S	36.85
Standardized Value of S	-3.42
Approximate p-value	3.1358E-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 5.13/8/2021 2:13:06 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_d.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05
Boron-mw-73	
General Statistics	
Number of Events Reported (m)	18
Number of Missing Events	1
Number or Reported Events Used	17
Number Values Reported (n)	18
Number Values Missing	1

Appendix B
Time Series Statistics

Number Values Used	17
Minimum	1.6
Maximum	2
Mean	1.688
Geometric Mean	1.684
Median	1.6
Standard Deviation	0.122
Coefficient of Variation	0.0722

Mann-Kendall Test

M-K Test Value (S)	9
Tabulated p-value	0.388
Standard Deviation of S	22.08
Standardized Value of S	0.362
Approximate p-value	0.359

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 5.13/8/2021 2:31:58 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_c.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Boron-mw71_mw72

General Statistics

Number of Events Reported (m)	48
Number of Missing Events	2
Number or Reported Events Used	46
Number Values Reported (n)	48
Number Values Missing	2
Number Values Used	46
Minimum	0.16
Maximum	0.7
Mean	0.395

Appendix B
Time Series Statistics

Geometric Mean	0.354
Median	0.35
Standard Deviation	0.178
Coefficient of Variation	0.451
Mann-Kendall Test	
M-K Test Value (S)	-48
Critical Value (0.05)	-1.645
Standard Deviation of S	105.2
Standardized Value of S	-0.447
Approximate p-value	0.328
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 5.13/2/2021 8:23:49 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_d.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Calcium

General Statistics	
Number of Events Reported (m)	18
Number of Missing Events	1
Number or Reported Events Used	17
Number Values Reported (n)	18
Number Values Missing	1
Number Values Used	17
Minimum	420
Maximum	550
Mean	485.9
Geometric Mean	484.8
Median	480
Standard Deviation	33.74
Coefficient of Variation	0.0694

Appendix B
Time Series Statistics

Mann-Kendall Test	
M-K Test Value (S)	-13
Tabulated p-value	0.328
Standard Deviation of S	24.12
Standardized Value of S	-0.498
Approximate p-value	0.309
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 5.13/8/2021 2:33:49 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_c.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05
Calcium-mw71_mw72	
General Statistics	
Number of Events Reported (m)	48
Number of Missing Events	2
Number or Reported Events Used	46
Number Values Reported (n)	48
Number Values Missing	2
Number Values Used	46
Minimum	400
Maximum	570
Mean	451.5
Geometric Mean	450.5
Median	450
Standard Deviation	31.05
Coefficient of Variation	0.0688
Mann-Kendall Test	
M-K Test Value (S)	-63
Critical Value (0.05)	-1.645

Appendix B
Time Series Statistics

Standard Deviation of S	104.4	
Standardized Value of S	-0.594	
Approximate p-value	0.276	
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 5.13/3/2021 10:19:50 AM	
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_b.xls	
Full Precision	OFF	
Confidence Coefficient	0.95	
Level of Significance	0.05	
Chloride		
General Statistics		
Number of Events Reported (m)		66
Number of Missing Events		6
Number or Reported Events Used		60
Number Values Reported (n)		66
Number Values Missing		6
Number Values Used		60
Minimum		290
Maximum		750
Mean		503.7
Geometric Mean		496.2
Median		495
Standard Deviation		86.02
Coefficient of Variation		0.171
Mann-Kendall Test		
M-K Test Value (S)		-186
Critical Value (0.05)		-1.645
Standard Deviation of S		156.2
Standardized Value of S		-1.184
Approximate p-value		0.118

Appendix B
Time Series Statistics

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 5.13/3/2021 10:23:21 AM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_b.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05
Field_pH	
General Statistics	
Number of Events Reported (m)	66
Number of Missing Events	0
Number or Reported Events Used	66
Number Values Reported (n)	66
Minimum	6.17
Maximum	7.73
Mean	6.717
Geometric Mean	6.713
Median	6.68
Standard Deviation	0.238
Coefficient of Variation	0.0354
Mann-Kendall Test	
M-K Test Value (S)	-230
Critical Value (0.05)	-1.645
Standard Deviation of S	180.6
Standardized Value of S	-1.268
Approximate p-value	0.102
Insufficient evidence to identify a significant trend at the specified level of significance.	

Appendix B
Time Series Statistics

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.13/8/2021 2:13:06 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_d.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Boron-mw-73

General Statistics	
Number of Events Reported (m)	18
Number of Missing Events	1
Number or Reported Events Used	17
Number Values Reported (n)	18
Number Values Missing	1
Number Values Used	17
Minimum	1.6
Maximum	2
Mean	1.688
Geometric Mean	1.684
Median	1.6
Standard Deviation	0.122
Coefficient of Variation	0.0722

Mann-Kendall Test	
M-K Test Value (S)	9
Tabulated p-value	0.388
Standard Deviation of S	22.08
Standardized Value of S	0.362
Approximate p-value	0.359

Insufficient evidence to identify a significant trend at the specified level of significance.

Appendix B
Time Series Statistics

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.13/8/2021 2:31:58 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_c.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Boron-mw71_mw72

General Statistics	
Number of Events Reported (m)	48
Number of Missing Events	2
Number or Reported Events Used	46
Number Values Reported (n)	48
Number Values Missing	2
Number Values Used	46
Minimum	0.16
Maximum	0.7
Mean	0.395
Geometric Mean	0.354
Median	0.35
Standard Deviation	0.178
Coefficient of Variation	0.451

Mann-Kendall Test	
M-K Test Value (S)	-48
Critical Value (0.05)	-1.645
Standard Deviation of S	105.2
Standardized Value of S	-0.447
Approximate p-value	0.328

Insufficient evidence to identify a significant trend at the specified level of significance.

Appendix B
Time Series Statistics

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.13/2/2021 8:23:49 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_d.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Calcium (MW-73)

General Statistics	
Number of Events Reported (m)	18
Number of Missing Events	1
Number or Reported Events Used	17
Number Values Reported (n)	18
Number Values Missing	1
Number Values Used	17
Minimum	420
Maximum	550
Mean	485.9
Geometric Mean	484.8
Median	480
Standard Deviation	33.74
Coefficient of Variation	0.0694

Mann-Kendall Test	
M-K Test Value (S)	-13
Tabulated p-value	0.328
Standard Deviation of S	24.12
Standardized Value of S	-0.498
Approximate p-value	0.309

Insufficient evidence to identify a significant trend at the specified level of significance.

Appendix B
Time Series Statistics

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.13/8/2021 2:33:49 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_c.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Calcium-mw71_mw72

General Statistics	
Number of Events Reported (m)	48
Number of Missing Events	2
Number or Reported Events Used	46
Number Values Reported (n)	48
Number Values Missing	2
Number Values Used	46
Minimum	400
Maximum	570
Mean	451.5
Geometric Mean	450.5
Median	450
Standard Deviation	31.05
Coefficient of Variation	0.0688

Mann-Kendall Test	
M-K Test Value (S)	-63
Critical Value (0.05)	-1.645
Standard Deviation of S	104.4
Standardized Value of S	-0.594
Approximate p-value	0.276

Insufficient evidence to identify a significant trend at the specified level of significance.

Appendix B
Time Series Statistics

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.13/3/2021 10:19:50 AM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_b.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Chloride MW71_MW72_MW73

General Statistics	
Number of Events Reported (m)	66
Number of Missing Events	6
Number or Reported Events Used	60
Number Values Reported (n)	66
Number Values Missing	6
Number Values Used	60
Minimum	290
Maximum	750
Mean	503.7
Geometric Mean	496.2
Median	495
Standard Deviation	86.02
Coefficient of Variation	0.171

Mann-Kendall Test	
M-K Test Value (S)	-186
Critical Value (0.05)	-1.645
Standard Deviation of S	156.2
Standardized Value of S	-1.184
Approximate p-value	0.118

Insufficient evidence to identify a significant trend at the specified level of significance.

Appendix B
Time Series Statistics

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.13/3/2021 10:23:21 AM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_b.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Field_pH MW71_MW72_MW73

General Statistics	
Number of Events Reported (m)	66
Number of Missing Events	0
Number or Reported Events Used	66
Number Values Reported (n)	66
Minimum	6.17
Maximum	7.73
Mean	6.717
Geometric Mean	6.713
Median	6.68
Standard Deviation	0.238
Coefficient of Variation	0.0354

Mann-Kendall Test	
M-K Test Value (S)	-230
Critical Value (0.05)	-1.645
Standard Deviation of S	180.6
Standardized Value of S	-1.268
Approximate p-value	0.102

Insufficient evidence to identify a significant trend at the specified level of significance.

Appendix B
Time Series Statistics

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.13/3/2021 10:26:14 AM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_b.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Sulfate MW71_MW72_MW73

General Statistics	
Number of Events Reported (m)	66
Number of Missing Events	6
Number or Reported Events Used	60
Number Values Reported (n)	66
Number Values Missing	6
Number Values Used	60
Minimum	610
Maximum	14000
Mean	9107
Geometric Mean	8524
Median	10000
Standard Deviation	2541
Coefficient of Variation	0.279

Mann-Kendall Test	
M-K Test Value (S)	-42
Critical Value (0.05)	-1.645
Standard Deviation of S	154.3
Standardized Value of S	-0.266
Approximate p-value	0.395

Insufficient evidence to identify a significant trend at the specified level of significance.

Appendix B
Time Series Statistics

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.13/3/2021 12:29:29 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_b.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

DissolvedSolids MW71_MW72_MW73

General Statistics	
Number of Events Reported (m)	66
Number of Missing Events	3
Number or Reported Events Used	63
Number Values Reported (n)	66
Number Values Missing	3
Number Values Used	63
Minimum	6100
Maximum	21000
Mean	14492
Geometric Mean	14120
Median	15000
Standard Deviation	3024
Coefficient of Variation	0.209

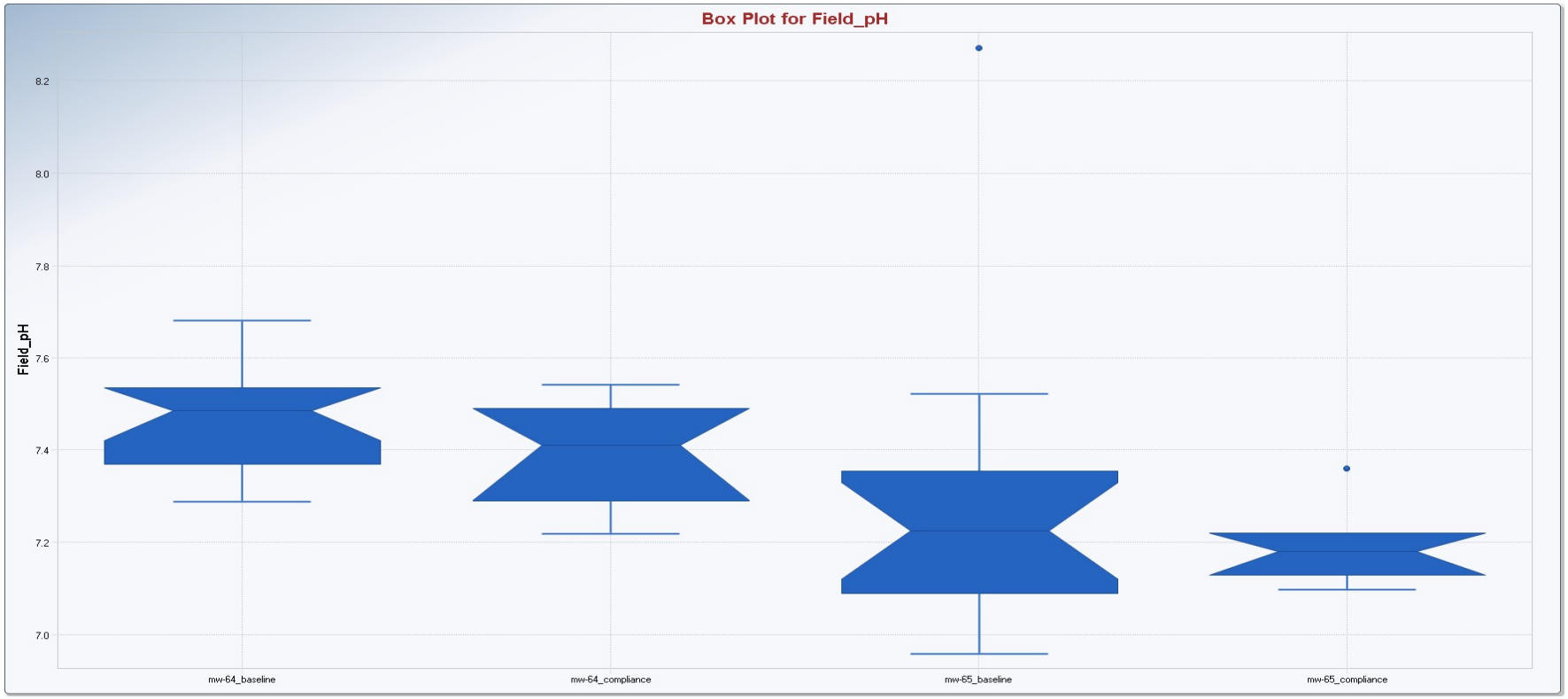
Mann-Kendall Test	
M-K Test Value (S)	-199
Critical Value (0.05)	-1.645
Standard Deviation of S	166
Standardized Value of S	-1.193
Approximate p-value	0.116

Insufficient evidence to identify a significant trend at the specified level of significance.

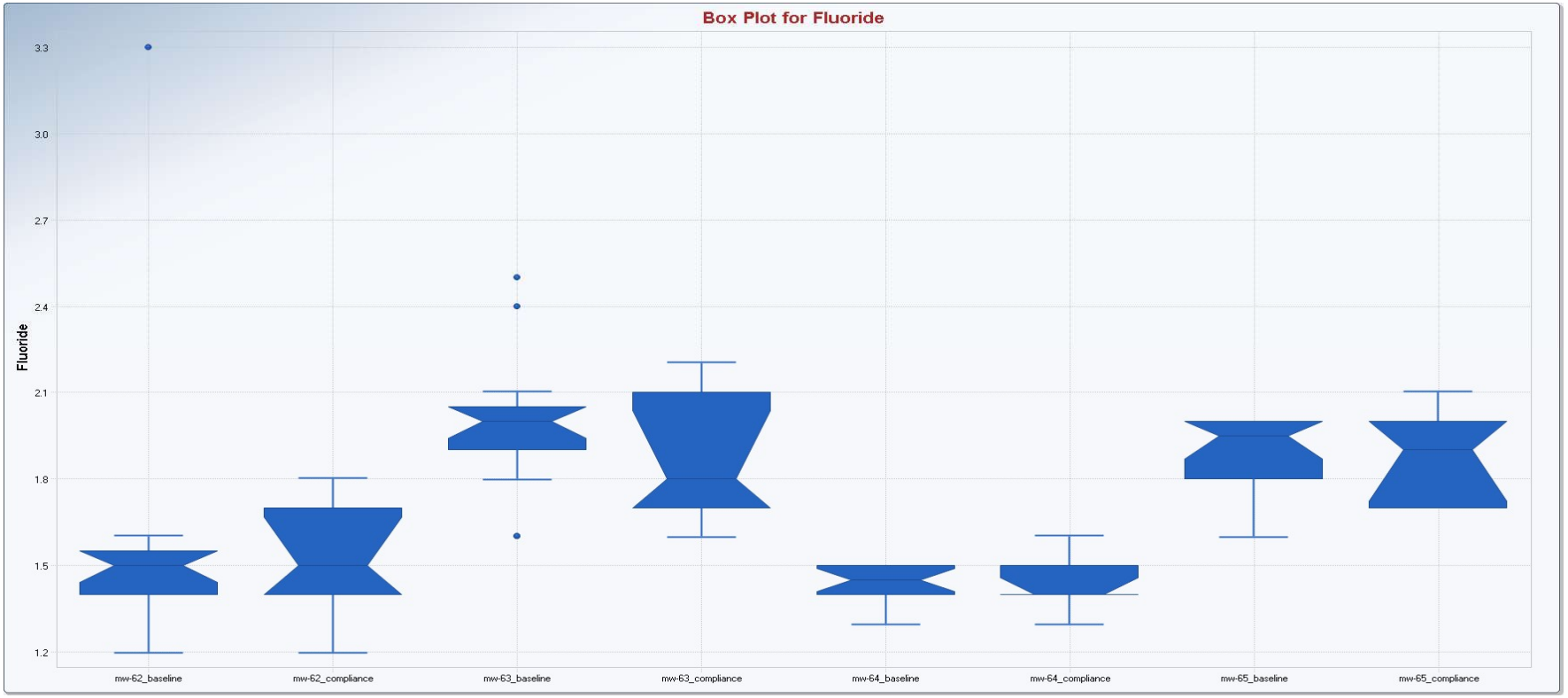
APPENDIX C

PROUCL EDA OUTPUT FILES
(Intrawell Datasets)

Appendix C
Intrawell Box and Whisker Plots



Appendix C
Intrawell Box and Whisker Plots



Appendix C
Intrawell Comparison Statistics

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 5.13/22/2021 6:09:56 PM	
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_a.xls	
Full Precision	OFF	
Confidence Coefficient	99%	
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: Fluoride(mw-65_baseline)		
Sample 2 Data: Fluoride(mw-65_compliance)		
Raw Statistics		
	Sample 1	Sample 2
Number of Valid Observations	16	7
Number of Distinct Observations	5	4
Minimum	1.6	1.7
Maximum	2	2.1
Mean	1.894	1.886
Median	1.95	1.9
SD	0.129	0.146
SE of Mean	0.0322	0.0553
Wilcoxon-Mann-Whitney (WMW) Test		
H0: Mean/Median of Sample 1 = Mean/Median of Sample 2		
Sample 1 Rank Sum W-Stat	196	
WMW U-Stat	60	
Mean (U)	56	
SD(U) - Adj ties	14.4	
Lower U-Stat Critical Value (0.005)	19	
Upper U-Stat Critical Value (0.995)	93	
Standardized WMW U-Stat	0.278	
Approximate P-Value	0.781	

Appendix C
Intrawell Comparison Statistics

Alternative Hypothesis	Sample 1 Mean/Median <> Sample 2 Mean/Median					
Conclusion with Alpha = 0.01						
Do Not Reject H0, Conclude Sample 1 = Sample 2						
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 5.13/22/2021 6:07:27 PM					
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_a.xls					
Full Precision	OFF					
Confidence Coefficient	99%					
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: Fluoride(mw-64_baseline)						
Sample 2 Data: Fluoride(mw-64_compliance)						
Raw Statistics						
	Sample 1	Sample 2				
Number of Valid Observations	16	7				
Number of Distinct Observations	3	4				
Minimum	1.3	1.3				
Maximum	1.5	1.6				
Mean	1.438	1.429				
Median	1.45	1.4				
SD	0.0719	0.0951				
SE of Mean	0.018	0.036				
Wilcoxon-Mann-Whitney (WMW) Test						
H0: Mean/Median of Sample 1 = Mean/Median of Sample 2						
Sample 1 Rank Sum W-Stat	199					
WMW U-Stat	63					
Mean (U)	56					
SD(U) - Adj ties	13.87					

Appendix C
Intrawell Comparison Statistics

Alternative Hypothesis	Sample 1 Mean/Median <> Sample 2 Mean/Median							
Lower U-Stat Critical Value (0.005)	19							
Upper U-Stat Critical Value (0.995)	93							
Standardized WMW U-Stat	0.505							
Approximate P-Value	0.613							
Conclusion with Alpha = 0.01								
Do Not Reject H0, Conclude Sample 1 = Sample 2								
t-Test Sample 1 vs Sample 2 Comparison for Uncensored Full Data Sets without NDs								
User Selected Options								
Date/Time of Computation	ProUCL 5.13/22/2021 5:28:43 PM							
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_a.xls							
Full Precision	OFF							
Confidence Coefficient	99%							
Substantial Difference (S)	0.000							
Selected Null Hypothesis	Sample 1 Mean = Sample 2 Mean (Two Sided Alternative)							
Alternative Hypothesis	Sample 1 Mean <> Sample 2 Mean							
Sample 1 Data: Fluoride(mw-63_baseline)								
Sample 2 Data: Fluoride(mw-63_compliance)								
Raw Statistics								
	Sample 1	Sample 2						
Number of Valid Observations	16	7						
Number of Missing Observations	0	1						
Number of Distinct Observations	7	6						
Minimum	1.6	1.6						
Maximum	2.5	2.2						
Mean	1.981	1.871						
Median	2	1.8						
SD	0.234	0.214						
SE of Mean	0.0586	0.0808						
Sample 1 vs Sample 2 Two-Sample t-Test								

Appendix C
Intrawell Comparison Statistics

Alternative Hypothesis	Sample 1 Mean/Median <> Sample 2 Mean/Median								
H0: Mean of Sample 1 = Mean of Sample 2									
		t-Test	Lower C.Val	Upper C.Val					
Method	DF	Value	t (0.005)	t (0.995)	P-Value				
Pooled (Equal Variance)	21	1.060	-2.831	2.831	0.301				
Welch-Satterthwaite (Unequal Variance)	12.6	1.100	-3.012	3.012	0.292				
Pooled SD: 0.229									
Conclusion with Alpha = 0.010									
Student t (Pooled): Do Not Reject H0, Conclude Sample 1 = Sample 2									
Welch-Satterthwaite: Do Not Reject H0, Conclude Sample 1 = Sample 2									
Test of Equality of Variances									
Variance of Sample 1	0.055								
Variance of Sample 2	0.0457								
Numerator DF	Denominator DF	F-Test Value	P-Value						
15	6	1.202	0.873						
Conclusion with Alpha = 0.01									
Two variances appear to be equal									
Wilcoxon-Mann-Whitney Sample 1 vs Sample 2 Comparison Test for Data Sets with Non-Detects									
User Selected Options									
Date/Time of Computation	ProUCL 5.13/22/2021 5:25:49 PM								
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_a.xls								
Full Precision	OFF								
Confidence Coefficient	99%								
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: Fluoride(mw-62_baseline)									
Sample 2 Data: Fluoride(mw-62_compliance)									
Raw Statistics									
	Sample 1	Sample 2							
Number of Valid Data	16	8							
Number of Missing Observations	0	1							
Number of Non-Detects	0	0							

Appendix C
Intrawell Comparison Statistics

Alternative Hypothesis	Sample 1 Mean/Median <> Sample 2 Mean/Median	
Number of Detect Data	16	8
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non-detects	0.00%	0.00%
Minimum Detect	1.2	1.2
Maximum Detect	3.3	1.8
Mean of Detects	1.556	1.525
Median of Detects	1.5	1.5
SD of Detects	0.484	0.205

Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Sample 1 = Mean/Median of Sample 2

Sample 1 Rank Sum W-Stat	192
WMW U-Stat	56
Mean (U)	64
SD(U) - Adj ties	15.92
Lower U-Stat Critical Value (0.005)	23
Upper U-Stat Critical Value (0.995)	105
Standardized WMW U-Stat	-0.504
Approximate P-Value	0.614

Conclusion with Alpha = 0.01

Do Not Reject H0, Conclude Sample 1 = Sample 2

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 5.13/22/2021 5:16:39 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1.xls
Full Precision	OFF
Confidence Coefficient	99%
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

Appendix C
Intrawell Comparison Statistics

Alternative Hypothesis	Sample 1 Mean/Median <> Sample 2 Mean/Median	

Sample 1 Data: Field_pH(mw-65_baseline)
Sample 2 Data: Field_pH(mw-65_compliance)

Raw Statistics

	Sample 1	Sample 2
Number of Valid Observations	16	7
Number of Distinct Observations	16	6
Minimum	6.96	7.1
Maximum	8.27	7.36
Mean	7.286	7.197
Median	7.225	7.18
SD	0.308	0.0834
SE of Mean	0.077	0.0315

Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Sample 1 = Mean/Median of Sample 2

Sample 1 Rank Sum W-Stat	196
WMW U-Stat	60
Mean (U)	56
SD(U) - Adj ties	14.95
Lower U-Stat Critical Value (0.005)	19
Upper U-Stat Critical Value (0.995)	93
Standardized WMW U-Stat	0.268
Approximate P-Value	0.789

Conclusion with Alpha = 0.01
Do Not Reject H0, Conclude Sample 1 = Sample 2

t-Test Sample 1 vs Sample 2 Comparison for Uncensored Full Data Sets without NDs

User Selected Options	
Date/Time of Computation	ProUCL 5.13/22/2021 5:07:39 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1.xls
Full Precision	OFF

Appendix C
Intrawell Comparison Statistics

Alternative Hypothesis	Sample 1 Mean/Median <> Sample 2 Mean/Median
Confidence Coefficient	99%
Substantial Difference (S)	0.000
Selected Null Hypothesis	Sample 1 Mean = Sample 2 Mean (Two Sided Alternative)
Alternative Hypothesis	Sample 1 Mean <> Sample 2 Mean

Sample 1 Data: Field_pH(mw-64_baseline)
Sample 2 Data: Field_pH(mw-64_compliance)

Raw Statistics

	Sample 1	Sample 2
Number of Valid Observations	16	7
Number of Distinct Observations	14	7
Minimum	7.29	7.22
Maximum	7.68	7.54
Mean	7.468	7.393
Median	7.485	7.41
SD	0.121	0.111
SE of Mean	0.0302	0.0419

Sample 1 vs Sample 2 Two-Sample t-Test

H0: Mean of Sample 1 = Mean of Sample 2

		t-Test	Lower C.Val	Upper C.Val	
Method	DF	Value	t (0.005)	t (0.995)	P-Value
Pooled (Equal Variance)	21	1.407	-2.831	2.831	0.174
Welch-Satterthwaite (Unequal Variance)	12.5	1.457	-3.012	3.012	0.170

Pooled SD: 0.118
Conclusion with Alpha = 0.010
Student t (Pooled): Do Not Reject H0, Conclude Sample 1 = Sample 2
Welch-Satterthwaite: Do Not Reject H0, Conclude Sample 1 = Sample 2

Test of Equality of Variances

Variance of Sample 1	0.0146
Variance of Sample 2	0.0123

Numerator DF	Denominator DF	F-Test Value	P-Value

Appendix C
Intrawell Comparison Statistics

Alternative Hypothesis	Sample 1 Mean/Median <> Sample 2 Mean/Median							
15	6	1.187	0.887					
Conclusion with Alpha = 0.01								
Two variances appear to be equal								

Appendix C
Intrawell Goodness of Fit Statistics

	Goodness-of-Fit Test Statistics for Data Sets with Non-Detects
User Selected Options	
Date/Time of Computation	ProUCL 5.13/22/2021 5:22:56 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_a.xls
Full Precision	OFF
Confidence Coefficient	0.95

Fluoride (mw-62_baseline)

Raw Statistics	
Number of Valid Observations	16
Number of Distinct Observations	5
Minimum	1.2
Maximum	3.3
Mean of Raw Data	1.556
Standard Deviation of Raw Data	0.484
Khat	16.72
Theta hat	0.0931
Kstar	13.62
Theta star	0.114
Mean of Log Transformed Data	0.412
Standard Deviation of Log Transformed Data	0.231

Normal GOF Test Results	
Correlation Coefficient R	0.701
Shapiro Wilk Test Statistic	0.524
Shapiro Wilk Critical (0.05) Value	0.887
Approximate Shapiro Wilk P Value	6.2845E-7
Lilliefors Test Statistic	0.402
Lilliefors Critical (0.05) Value	0.213

Data not Normal at (0.05) Significance Level

Gamma GOF Test Results	
Correlation Coefficient R	0.751
A-D Test Statistic	2.235
A-D Critical (0.05) Value	0.737
K-S Test Statistic	0.36

Appendix C
Intrawell Goodness of Fit Statistics

K-S Critical(0.05) Value	0.215
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.789
Shapiro Wilk Test Statistic	0.653
Shapiro Wilk Critical (0.05) Value	0.887
Approximate Shapiro Wilk P Value	1.8703E-5
Lilliefors Test Statistic	0.338
Lilliefors Critical (0.05) Value	0.213
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-62_compliance)	
Raw Statistics	
Number of Valid Observations	8
Number of Missing Observations	1
Number of Distinct Observations	5
Minimum	1.2
Maximum	1.8
Mean of Raw Data	1.525
Standard Deviation of Raw Data	0.205
Khat	62.49
Theta hat	0.0244
Kstar	39.14
Theta star	0.039
Mean of Log Transformed Data	0.414
Standard Deviation of Log Transformed Data	0.136
Normal GOF Test Results	
Correlation Coefficient R	0.969
Shapiro Wilk Test Statistic	0.933
Shapiro Wilk Critical (0.05) Value	0.818

Appendix C
Intrawell Goodness of Fit Statistics

Approximate Shapiro Wilk P Value	0.606
Lilliefors Test Statistic	0.173
Lilliefors Critical (0.05) Value	0.283
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.967
A-D Test Statistic	0.31
A-D Critical (0.05) Value	0.715
K-S Test Statistic	0.168
K-S Critical(0.05) Value	0.293
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.97
Shapiro Wilk Test Statistic	0.937
Shapiro Wilk Critical (0.05) Value	0.818
Approximate Shapiro Wilk P Value	0.621
Lilliefors Test Statistic	0.159
Lilliefors Critical (0.05) Value	0.283
Data appear Lognormal at (0.05) Significance Level	
Fluoride (mw-63_baseline)	
Raw Statistics	
Number of Valid Observations	16
Number of Distinct Observations	7
Minimum	1.6
Maximum	2.5
Mean of Raw Data	1.981
Standard Deviation of Raw Data	0.234
Khat	77.79
Theta hat	0.0255
Kstar	63.24
Theta star	0.0313
Mean of Log Transformed Data	0.677
Standard Deviation of Log Transformed Data	0.117

Appendix C
Intrawell Goodness of Fit Statistics

Normal GOF Test Results	
Correlation Coefficient R	0.947
Shapiro Wilk Test Statistic	0.904
Shapiro Wilk Critical (0.05) Value	0.887
Approximate Shapiro Wilk P Value	0.0841
Lilliefors Test Statistic	0.218
Lilliefors Critical (0.05) Value	0.213
Data appear Approximate Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.953
A-D Test Statistic	0.696
A-D Critical (0.05) Value	0.736
K-S Test Statistic	0.202
K-S Critical(0.05) Value	0.214
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.953
Shapiro Wilk Test Statistic	0.914
Shapiro Wilk Critical (0.05) Value	0.887
Approximate Shapiro Wilk P Value	0.127
Lilliefors Test Statistic	0.196
Lilliefors Critical (0.05) Value	0.213
Data appear Lognormal at (0.05) Significance Level	
Fluoride (mw-63_compliance)	
Raw Statistics	
Number of Valid Observations	7
Number of Missing Observations	1
Number of Distinct Observations	6
Minimum	1.6
Maximum	2.2
Mean of Raw Data	1.871

Appendix C
Intrawell Goodness of Fit Statistics

Standard Deviation of Raw Data	0.214
Khat	91.17
Theta hat	0.0205
Kstar	52.19
Theta star	0.0359
Mean of Log Transformed Data	0.621
Standard Deviation of Log Transformed Data	0.113
Normal GOF Test Results	
Correlation Coefficient R	0.976
Shapiro Wilk Test Statistic	0.945
Shapiro Wilk Critical (0.05) Value	0.803
Approximate Shapiro Wilk P Value	0.77
Lilliefors Test Statistic	0.202
Lilliefors Critical (0.05) Value	0.304
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.98
A-D Test Statistic	0.268
A-D Critical (0.05) Value	0.708
K-S Test Statistic	0.202
K-S Critical(0.05) Value	0.311
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.982
Shapiro Wilk Test Statistic	0.957
Shapiro Wilk Critical (0.05) Value	0.803
Approximate Shapiro Wilk P Value	0.86
Lilliefors Test Statistic	0.188
Lilliefors Critical (0.05) Value	0.304
Data appear Lognormal at (0.05) Significance Level	
Fluoride (mw-64_baseline)	

Appendix C
Intrawell Goodness of Fit Statistics

Raw Statistics	
Number of Valid Observations	16
Number of Distinct Observations	3
Minimum	1.3
Maximum	1.5
Mean of Raw Data	1.438
Standard Deviation of Raw Data	0.0719
Khat	416.7
Theta hat	0.00345
Kstar	338.6
Theta star	0.00425
Mean of Log Transformed Data	0.362
Standard Deviation of Log Transformed Data	0.0509
Normal GOF Test Results	
Correlation Coefficient R	0.884
Shapiro Wilk Test Statistic	0.768
Shapiro Wilk Critical (0.05) Value	0.887
Approximate Shapiro Wilk P Value	9.5020E-4
Lilliefors Test Statistic	0.308
Lilliefors Critical (0.05) Value	0.213
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.877
A-D Test Statistic	1.685
A-D Critical (0.05) Value	0.736
K-S Test Statistic	0.314
K-S Critical(0.05) Value	0.214
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.883
Shapiro Wilk Test Statistic	0.766
Shapiro Wilk Critical (0.05) Value	0.887
Approximate Shapiro Wilk P Value	8.8547E-4

Appendix C
Intrawell Goodness of Fit Statistics

Lilliefors Test Statistic	0.305
Lilliefors Critical (0.05) Value	0.213
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_compliance)	
Raw Statistics	
Number of Valid Observations	7
Number of Distinct Observations	4
Minimum	1.3
Maximum	1.6
Mean of Raw Data	1.429
Standard Deviation of Raw Data	0.0951
Khat	269.3
Theta hat	0.0053
Kstar	154
Theta star	0.00928
Mean of Log Transformed Data	0.355
Standard Deviation of Log Transformed Data	0.0655
Normal GOF Test Results	
Correlation Coefficient R	0.92
Shapiro Wilk Test Statistic	0.87
Shapiro Wilk Critical (0.05) Value	0.803
Approximate Shapiro Wilk P Value	0.12
Lilliefors Test Statistic	0.332
Lilliefors Critical (0.05) Value	0.304
Data appear Approximate Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.928
A-D Test Statistic	0.625
A-D Critical (0.05) Value	0.708

Appendix C
Intrawell Goodness of Fit Statistics

K-S Test Statistic	0.336
K-S Critical(0.05) Value	0.311
Data follow Appr. Gamma Distribution at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.925
Shapiro Wilk Test Statistic	0.878
Shapiro Wilk Critical (0.05) Value	0.803
Approximate Shapiro Wilk P Value	0.143
Lilliefors Test Statistic	0.325
Lilliefors Critical (0.05) Value	0.304
Data appear Approximate_Lognormal at (0.05) Significance Level	
Fluoride (mw-65_baseline)	
Raw Statistics	
Number of Valid Observations	16
Number of Distinct Observations	5
Minimum	1.6
Maximum	2
Mean of Raw Data	1.894
Standard Deviation of Raw Data	0.129
Khat	220.7
Theta hat	0.00858
Kstar	179.3
Theta star	0.0106
Mean of Log Transformed Data	0.636
Standard Deviation of Log Transformed Data	0.0703
Normal GOF Test Results	
Correlation Coefficient R	0.9
Shapiro Wilk Test Statistic	0.801
Shapiro Wilk Critical (0.05) Value	0.887
Approximate Shapiro Wilk P Value	0.00276
Lilliefors Test Statistic	0.295
Lilliefors Critical (0.05) Value	0.213
Data not Normal at (0.05) Significance Level	

Appendix C
Intrawell Goodness of Fit Statistics

Gamma GOF Test Results	
Correlation Coefficient R	0.889
A-D Test Statistic	1.383
A-D Critical (0.05) Value	0.736
K-S Test Statistic	0.3
K-S Critical(0.05) Value	0.214
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.897
Shapiro Wilk Test Statistic	0.797
Shapiro Wilk Critical (0.05) Value	0.887
Approximate Shapiro Wilk P Value	0.00234
Lilliefors Test Statistic	0.291
Lilliefors Critical (0.05) Value	0.213
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_compliance)	
Raw Statistics	
Number of Valid Observations	7
Number of Distinct Observations	4
Minimum	1.7
Maximum	2.1
Mean of Raw Data	1.886
Standard Deviation of Raw Data	0.146
Khat	192
Theta hat	0.00982
Kstar	109.8
Theta star	0.0172
Mean of Log Transformed Data	0.632
Standard Deviation of Log Transformed Data	0.0782

Appendix C
Intrawell Goodness of Fit Statistics

Normal GOF Test Results	
Correlation Coefficient R	0.953
Shapiro Wilk Test Statistic	0.9
Shapiro Wilk Critical (0.05) Value	0.803
Approximate Shapiro Wilk P Value	0.395
Lilliefors Test Statistic	0.253
Lilliefors Critical (0.05) Value	0.304
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.953
A-D Test Statistic	0.468
A-D Critical (0.05) Value	0.708
K-S Test Statistic	0.266
K-S Critical(0.05) Value	0.311
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.95
Shapiro Wilk Test Statistic	0.893
Shapiro Wilk Critical (0.05) Value	0.803
Approximate Shapiro Wilk P Value	0.353
Lilliefors Test Statistic	0.266
Lilliefors Critical (0.05) Value	0.304
Data appear 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 5.13/14/2021 6:06:22 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1.xls
Full Precision	OFF
Confidence Coefficient	0.95

Field_pH (mw-64_baseline)

Appendix C
Intrawell Goodness of Fit Statistics

Raw Statistics	
Number of Valid Observations	16
Number of Distinct Observations	14
Minimum	7.29
Maximum	7.68
Mean of Raw Data	7.468
Standard Deviation of Raw Data	0.121
Khat	4078
Theta hat	0.00183
Kstar	3314
Theta star	0.00225
Mean of Log Transformed Data	2.011
Standard Deviation of Log Transformed Data	0.0162
Normal GOF Test Results	
Correlation Coefficient R	0.987
Shapiro Wilk Test Statistic	0.959
Shapiro Wilk Critical (0.05) Value	0.887
Approximate Shapiro Wilk P Value	0.721
Lilliefors Test Statistic	0.104
Lilliefors Critical (0.05) Value	0.213
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.985
A-D Test Statistic	0.253
A-D Critical (0.05) Value	0.736
K-S Test Statistic	0.109
K-S Critical(0.05) Value	0.214
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.987
Shapiro Wilk Test Statistic	0.959
Shapiro Wilk Critical (0.05) Value	0.887

Appendix C
Intrawell Goodness of Fit Statistics

Approximate Shapiro Wilk P Value	0.716
Lilliefors Test Statistic	0.107
Lilliefors Critical (0.05) Value	0.213
Data appear Lognormal at (0.05) Significance Level	
Field_pH (mw-64_compliance)	
Raw Statistics	
Number of Valid Observations	7
Number of Distinct Observations	7
Minimum	7.22
Maximum	7.54
Mean of Raw Data	7.393
Standard Deviation of Raw Data	0.111
Khat	5174
Theta hat	0.00143
Kstar	2957
Theta star	0.0025
Mean of Log Transformed Data	2
Standard Deviation of Log Transformed Data	0.015
Normal GOF Test Results	
Correlation Coefficient R	0.992
Shapiro Wilk Test Statistic	0.977
Shapiro Wilk Critical (0.05) Value	0.803
Approximate Shapiro Wilk P Value	0.97
Lilliefors Test Statistic	0.133
Lilliefors Critical (0.05) Value	0.304
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.991
A-D Test Statistic	0.175
A-D Critical (0.05) Value	0.708
K-S Test Statistic	0.139
K-S Critical(0.05) Value	0.311
Data appear Gamma Distributed at (0.05) Significance Level	

Appendix C
Intrawell Goodness of Fit Statistics

Lognormal GOF Test Results	
Correlation Coefficient R	0.991
Shapiro Wilk Test Statistic	0.976
Shapiro Wilk Critical (0.05) Value	0.803
Approximate Shapiro Wilk P Value	0.965
Lilliefors Test Statistic	0.135
Lilliefors Critical (0.05) Value	0.304
Data appear Lognormal at (0.05) Significance Level	
Field_pH (mw-65_baseline)	
Raw Statistics	
Number of Valid Observations	16
Number of Distinct Observations	16
Minimum	6.96
Maximum	8.27
Mean of Raw Data	7.286
Standard Deviation of Raw Data	0.308
Khat	628.8
Theta hat	0.0116
Kstar	511
Theta star	0.0143
Mean of Log Transformed Data	1.985
Standard Deviation of Log Transformed Data	0.0407
Normal GOF Test Results	
Correlation Coefficient R	0.866
Shapiro Wilk Test Statistic	0.772
Shapiro Wilk Critical (0.05) Value	0.887
Approximate Shapiro Wilk P Value	7.1778E-4
Lilliefors Test Statistic	0.217
Lilliefors Critical (0.05) Value	0.213
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	

Appendix C
Intrawell Goodness of Fit Statistics

Correlation Coefficient R	0.876
A-D Test Statistic	0.987
A-D Critical (0.05) Value	0.736
K-S Test Statistic	0.207
K-S Critical(0.05) Value	0.214
Data follow Appr. Gamma Distribution at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.879
Shapiro Wilk Test Statistic	0.795
Shapiro Wilk Critical (0.05) Value	0.887
Approximate Shapiro Wilk P Value	0.00155
Lilliefors Test Statistic	0.206
Lilliefors Critical (0.05) Value	0.213
Data appear Approximate_Lognormal at (0.05) Significance Level	
Field_pH (mw-65_compliance)	
Raw Statistics	
Number of Valid Observations	7
Number of Distinct Observations	6
Minimum	7.1
Maximum	7.36
Mean of Raw Data	7.197
Standard Deviation of Raw Data	0.0834
Khat	8745
Theta hat	8.2299E-4
Kstar	4997
Theta star	0.00144
Mean of Log Transformed Data	1.974
Standard Deviation of Log Transformed Data	0.0115
Normal GOF Test Results	
Correlation Coefficient R	0.938
Shapiro Wilk Test Statistic	0.897
Shapiro Wilk Critical (0.05) Value	0.803
Approximate Shapiro Wilk P Value	0.236

Appendix C
Intrawell Goodness of Fit Statistics

Lilliefors Test Statistic	0.249
Lilliefors Critical (0.05) Value	0.304
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.941
A-D Test Statistic	0.524
A-D Critical (0.05) Value	0.708
K-S Test Statistic	0.255
K-S Critical(0.05) Value	0.311
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.939
Shapiro Wilk Test Statistic	0.901
Shapiro Wilk Critical (0.05) Value	0.803
Approximate Shapiro Wilk P Value	0.252
Lilliefors Test Statistic	0.247
Lilliefors Critical (0.05) Value	0.304
Data appear Lognormal at (0.05) Significance Level	

Appendix C
Intrawell Summary Statistics

General Statistics on Uncensored Data

Date/Time of Computation ProUCL 5.13/14/2021 8:05:09 PM

User Selected Options

From File CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_a.xls

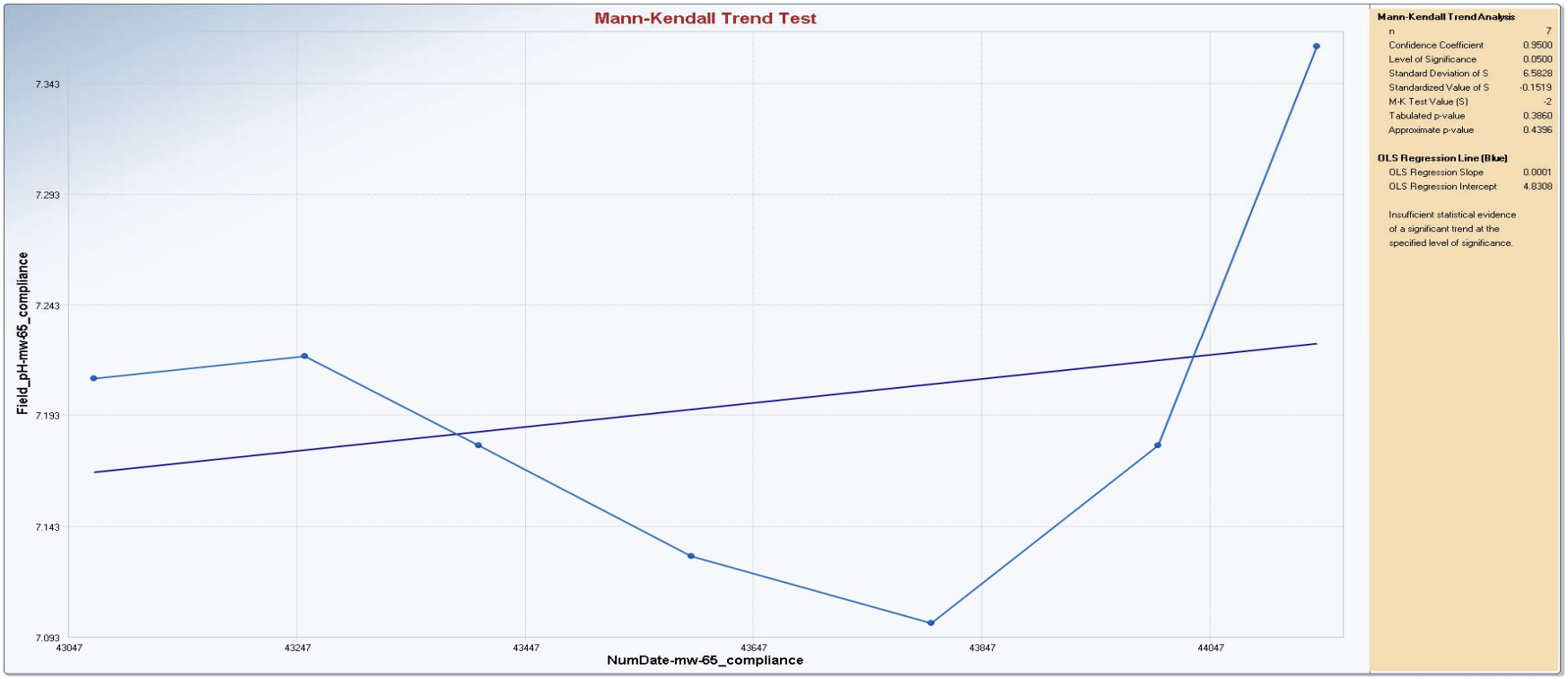
Full Precision OFF

From File: CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1_a.xls

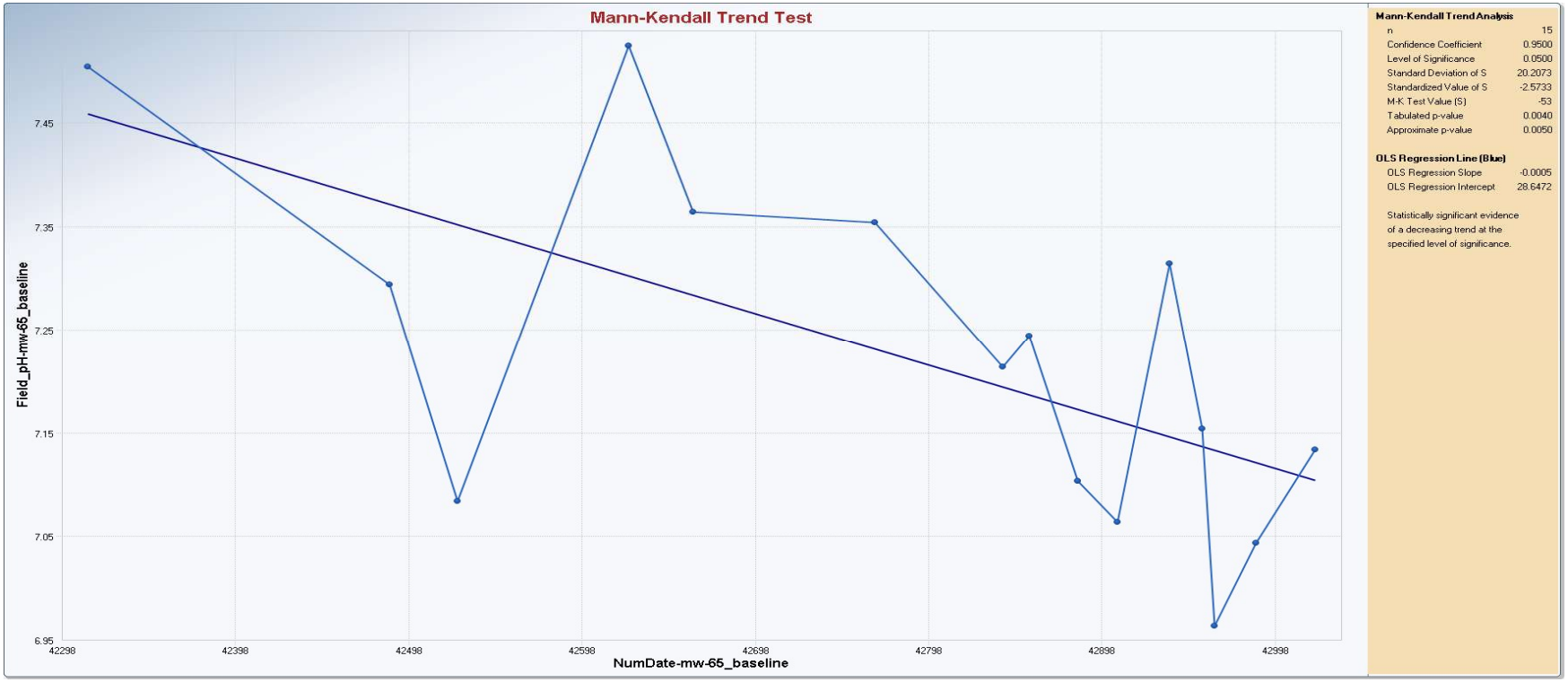
General Statistics for Censored Data Set (with NDs) using Kaplan Meier Method

Variable	NumObs	# Missing	Num Ds	NumNDs	% NDs	Min ND	Max ND	KM Mean	KM Var	KM SD	KM CV
Fluoride (mw-62_baseline)	16	0	16	0	0.00%	N/A	N/A	1.556	0.235	0.484	0.311
uoride (mw-62_compliance)	8	1	8	0	0.00%	N/A	N/A	1.525	0.0421	0.205	0.135
Fluoride (mw-63_baseline)	16	0	16	0	0.00%	N/A	N/A	1.981	0.055	0.234	0.118
uoride (mw-63_compliance)	7	1	7	0	0.00%	N/A	N/A	1.871	0.0457	0.214	0.114
Fluoride (mw-64_baseline)	16	0	16	0	0.00%	N/A	N/A	1.438	0.00517	0.0719	0.05
uoride (mw-64_compliance)	7	0	7	0	0.00%	N/A	N/A	1.429	0.00905	0.0951	0.0666
Fluoride (mw-65_baseline)	16	0	16	0	0.00%	N/A	N/A	1.894	0.0166	0.129	0.0681
uoride (mw-65_compliance)	7	0	7	0	0.00%	N/A	N/A	1.886	0.0214	0.146	0.0776
Field_pH (mw-62_baseline)	0	16	0	0	NaN%	N/A	N/A	N/A	N/A	N/A	N/A
ld_pH (mw-62_compliance)	0	9	0	0	NaN%	N/A	N/A	N/A	N/A	N/A	N/A
Field_pH (mw-63_baseline)	0	16	0	0	NaN%	N/A	N/A	N/A	N/A	N/A	N/A
ld_pH (mw-63_compliance)	0	8	0	0	NaN%	N/A	N/A	N/A	N/A	N/A	N/A
Field_pH (mw-64_baseline)	16	0	16	0	0.00%	N/A	N/A	7.468	0.0146	0.121	0.0162
ld_pH (mw-64_compliance)	7	0	7	0	0.00%	N/A	N/A	7.393	0.0123	0.111	0.015
Field_pH (mw-65_baseline)	16	0	16	0	0.00%	N/A	N/A	7.286	0.095	0.308	0.0423
ld_pH (mw-65_compliance)	7	0	7	0	0.00%	N/A	N/A	7.197	0.00696	0.0834	0.0116

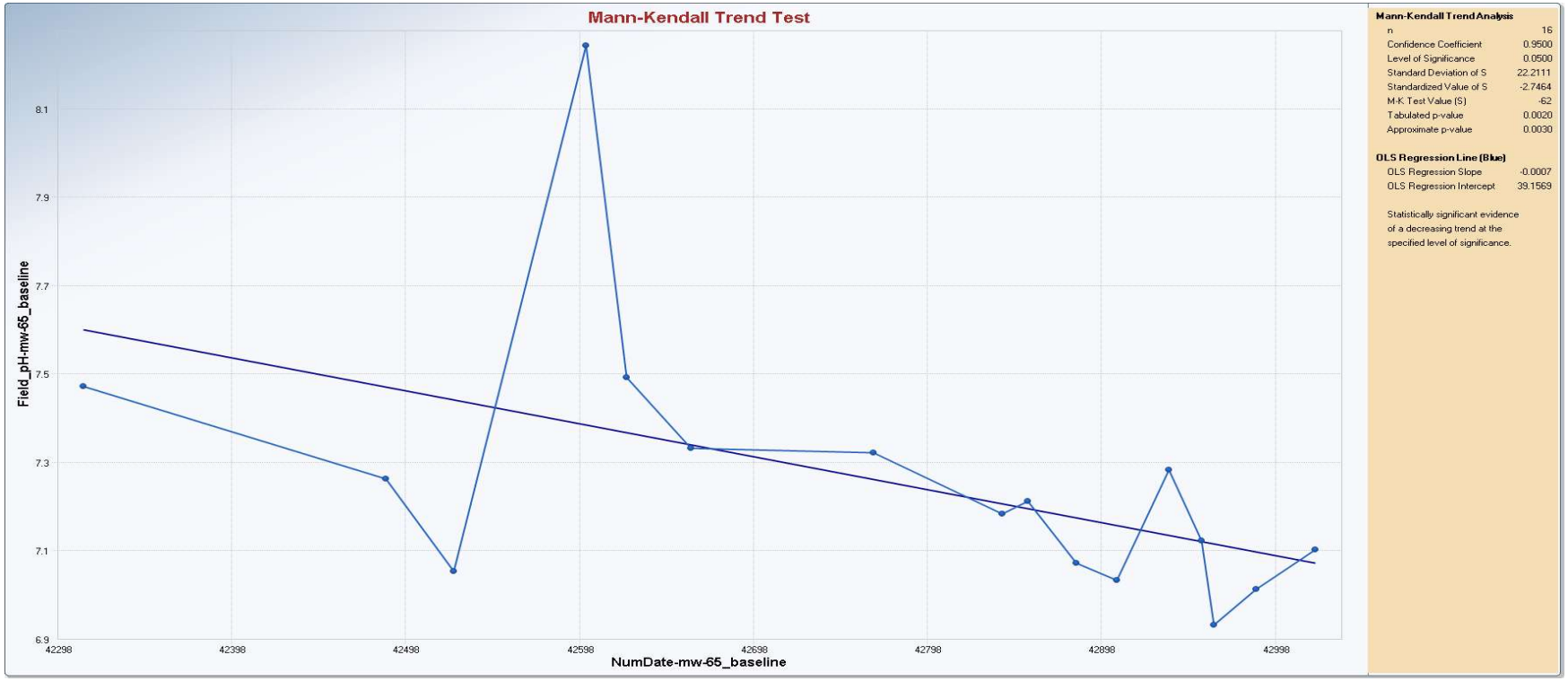
Appendix C
Intrawell Mann-Kendall Trend Test



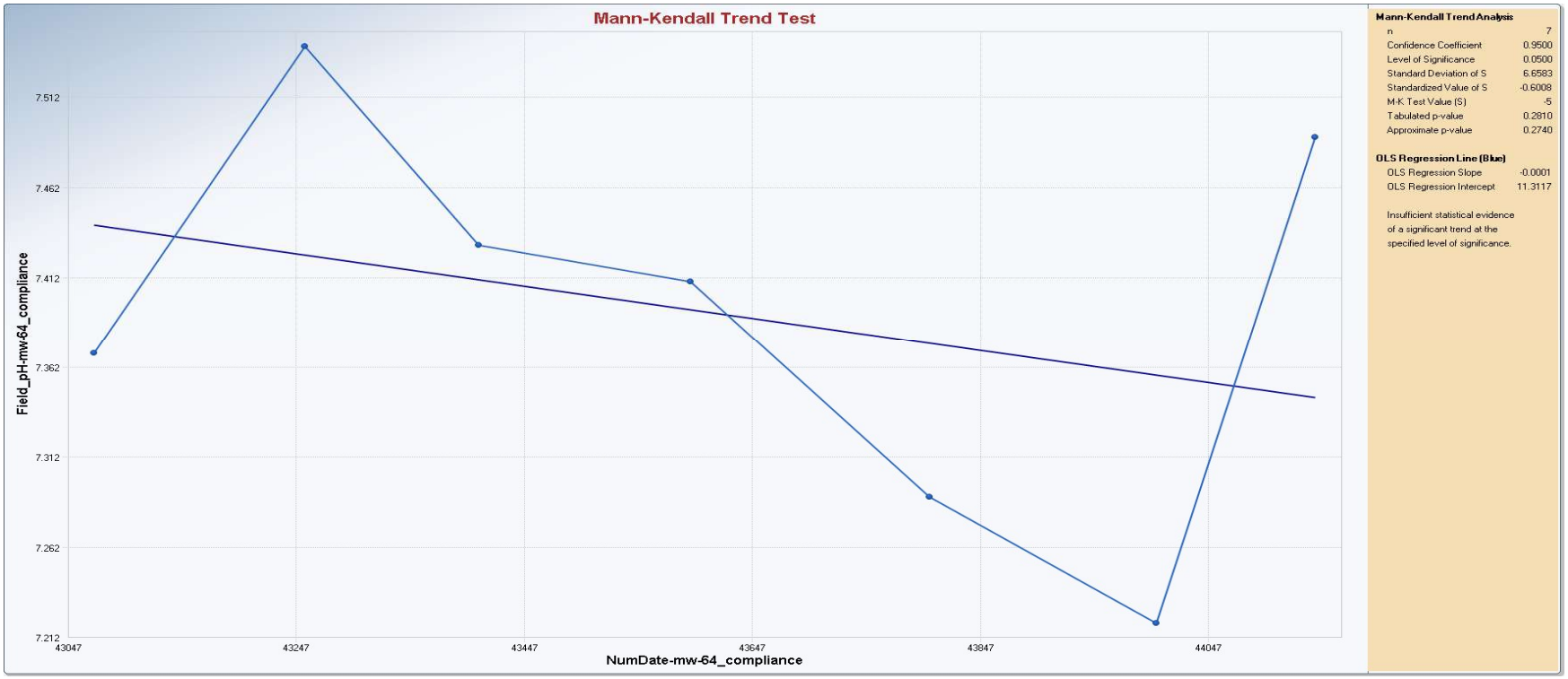
Appendix C
Intrawell Mann-Kendall Trend Test



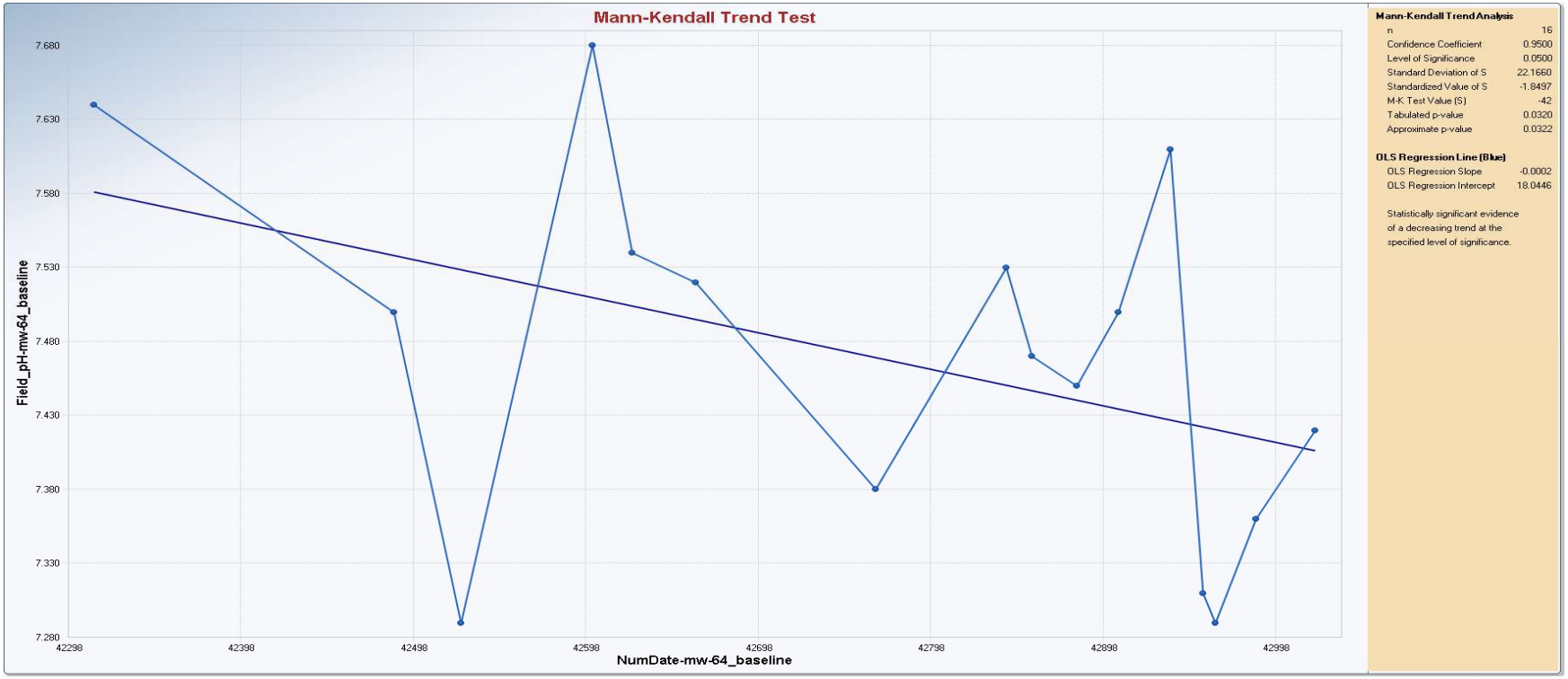
Appendix C
Intrawell Mann-Kendall Trend Test



Appendix C
Intrawell Mann-Kendall Trend Test



Appendix C
Intrawell Mann-Kendall Trend Test



Appendix C
Intrawell Time SeriesStatistics

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.13/14/2021 6:08:29 PM
From File	CWTP_StatsAnalysis_DataFile_Jan2021_20210302v1.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Field_pH-mw-64_baseline

General Statistics	
Number of Events Reported (m)	16
Number of Missing Events	0
Number or Reported Events Used	16
Number Values Reported (n)	16
Minimum	7.29
Maximum	7.68
Mean	7.468
Geometric Mean	7.467
Median	7.485
Standard Deviation	0.121
Coefficient of Variation	0.0162

Mann-Kendall Test	
M-K Test Value (S)	-42
Tabulated p-value	0.032
Standard Deviation of S	22.17
Standardized Value of S	-1.85
Approximate p-value	0.0322

Statistically significant evidence of a decreasing trend at the specified level of significance.

Field_pH-mw-64_compliance

General Statistics	
Number of Events Reported (m)	7
Number of Missing Events	0
Number or Reported Events Used	7
Number Values Reported (n)	7
Minimum	7.22

Appendix C
Intrawell Time SeriesStatistics

Maximum	7.54
Mean	7.393
Geometric Mean	7.392
Median	7.41
Standard Deviation	0.111
Coefficient of Variation	0.015
Mann-Kendall Test	
M-K Test Value (S)	-5
Tabulated p-value	0.281
Standard Deviation of S	6.658
Standardized Value of S	-0.601
Approximate p-value	0.274
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Field_pH-mw-65_baseline	
General Statistics	
Number of Events Reported (m)	16
Number of Missing Events	0
Number or Reported Events Used	16
Number Values Reported (n)	16
Minimum	6.96
Maximum	8.27
Mean	7.286
Geometric Mean	7.28
Median	7.225
Standard Deviation	0.308
Coefficient of Variation	0.0423
Mann-Kendall Test	
M-K Test Value (S)	-62
Tabulated p-value	0.002
Standard Deviation of S	22.21
Standardized Value of S	-2.746
Approximate p-value	0.00301
Statistically significant evidence of a decreasing	

Appendix C
Intrawell Time SeriesStatistics

trend at the specified level of significance.	
Field_pH-mw-65_compliance	
General Statistics	
Number of Events Reported (m)	7
Number of Missing Events	0
Number or Reported Events Used	7
Number Values Reported (n)	7
Minimum	7.1
Maximum	7.36
Mean	7.197
Geometric Mean	7.197
Median	7.18
Standard Deviation	0.0834
Coefficient of Variation	0.0116
Mann-Kendall Test	
M-K Test Value (S)	-2
Tabulated p-value	0.386
Standard Deviation of S	6.583
Standardized Value of S	-0.152
Approximate p-value	0.44
Insufficient evidence to identify a significant	
trend at the specified level of significance.	

Appendix H

CCR Groundwater Detection Monitoring Statistical Analysis and Results for the CWTP Appendix III Constituent Data Collected Through July 2021

Technical Memorandum

To:	Arizona Public Service Company	**File No:**	14-2021-2005
From:	Mari Wuollet	**Reviewed by:**	Maren Henley, PE
Date:	October 13, 2021		

Subject: **CCR GROUNDWATER DETECTION MONITORING**
STATISTICAL ANALYSIS AND RESULTS FOR THE CWTP
APPENDIX III CONSTITUENT DATA COLLECTED THROUGH JULY 2021
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 Wood Environment and Infrastructure Solutions Inc. (Wood) 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 CWTP is a Site CCR unit that is currently in the detection monitoring program. The CCR Rule requires evaluation on an ongoing semiannual basis of Appendix III constituent data collected from CWTP downgradient wells to determine if a statistically significant increase (SSI) over background threshold values (BTVs) has occurred. The statistical evaluation documented herein incorporates Appendix III constituent data collected from CWTP downgradient compliance wells MW-62, MW-63, MW-64, and MW-65 and CWTP background wells MW-71, MW-72, and MW-73 during the April 2021 semiannual sampling event and a July 2021 resampling event.

To address an initial exceedance of the boron BTV at MW-62 and fluoride BTV at MW-64 and MW-65 in November 2020, the previous statistical evaluation for the CWTP recommended implementing a 1 of 3 resampling strategy to determine if the initial boron and fluoride exceedances were statistically significant (Wood 2020b). The April 2021 sampling event constitutes the first resampling event practicable in the 1 of 3 resampling strategy. The results of the April 2021 sampling event nullified the initial November 2020 MW-62 boron and MW-64 and MW-65 fluoride exceedances, with details of the detection results presented in Section 2.0.

To address an initial exceedance of the field pH BTV at MW-63 and boron BTV at MW-65 in April 2021, in accordance with the *Statistical Data Analysis Workplan* (SDAWP) developed for the Site and the US EPA's Unified Guidance (Wood, 2020c; US EPA 2009), a 1 of 2 resampling strategy was implemented in July 2021. The July 2021 resampling event confirmed that the initial April 2021 MW-63 field pH exceedance and the

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MW-65 boron exceedance were statistically significant, with details of the detection results presented in Section 2.0.

2.0 STATISTICAL EVALUATION RESULTS

Attachment A presents the statistical evaluation performed by Geosciences Consulting. The results of the evaluation are summarized as follows:

- In November 2020 boron was detected at 2.1 mg/L at MW-62 over the boron BTV of 2.0 mg/L but was detected at 1.9 mg/L in April 2021; this resampling nullifies the 0.1 ppm initial exceedance from sampling conducted in late 2020.

- In November 2020 fluoride was detected at 1.6 mg/L at MW-64 over the fluoride BTV of 1.5 mg/L but was detected at 1.4 mg/L in April 2021; this resampling nullifies the 0.1 ppm initial exceedance from sampling conducted in late 2020.

- In November 2020 fluoride was detected at 2.1 mg/L at MW-65 over the fluoride BTV of 2.0 mg/L but was detected at 1.5 mg/L in April 2021; this resampling nullifies the 0.1 ppm initial exceedance from sampling conducted in late 2020.

- In April 2021 an initial field pH detection of 7.07 standard units (SU) exceeded the upper field pH BTV of 6.93 SU at MW-63; this exceedance triggered a 1 of 2 resampling strategy for this constituent and monitoring location. Resampling of MW-63 in July 2021 confirmed the initial exceedance with a detection of 7.21 SU; this confirmation results in declaration of an SSI in field pH at this location.

- In April 2021 an initial boron detection of 0.78 mg/L exceeded the boron BTV of 0.70 mg/L at MW-65; this exceedance triggered a 1 of 2 resampling strategy for this constituent and monitoring location. Resampling of MW-65 in July 2021 confirmed the initial exceedance with a detection of 0.87 mg/L; this confirmation results in declaration of an SSI in boron at this location.

- A statistically significant decreasing temporal trend is evident for TDS at MW-62; chloride at MW-63; boron, field pH and TDS at MW-64; and boron and TDS at MW-65. A statistically significant increasing temporal trend is evident for calcium at MW-63. The statistically significant decreasing temporal trend that was previously evident for field pH at MW-63 has shifted to borderline statistically significant.

- The previously recommended intrawell BTV updates per USA EPA Unified Guidance are pending upon the status of the CWTP within the detection monitoring program (Wood 2020b; U.S. EPA, 2009).

3.0 RECOMMENDATIONS

Based on the statistical evaluation presented in Attachment A there is sufficient evidence at this time to declare an SSI in boron and field pH concentrations over respective BTV values for the first 2021 semiannual evaluation period. Pursuant to the CCR Rule, this declaration triggers either initiation into the assessment monitoring program or performing a successful Alternative Source Demonstration (ASD) to the CWTP as cause of the boron and field pH BTV exceedances. As noted in Attachment A, there is reasonable doubt to automatically conclude these SSI declarations are directly attributable to a release from the CWTP; therefore, Wood recommends performing an ASD for the CWTP due to several lines of evidence:

- The April and July 2021 exceedances for both field pH and boron at MW-63 and MW-65 respectively, while statistically significant, are not statistical outliers. This suggests the exceedances are representative of samples at respective locations since 2015 and can be expected.

- CWTP wells MW-64 and MW-73 also show relative increases in field pH to MW-63 since 2019. This suggests a more regional change in groundwater conditions around the CWTP.

- Both MW-65 boron detections in 2021 fall within the 50th and 90th percentiles of boron concentrations sampled since 2015 and therefore do not reflect historical local maximum concentrations.

- The CWTP has a history of exceedance declarations and two successful past ASDs; one for boron, calcium, fluoride, and pH in July 2019 and another for calcium in July 2020 (Wood 2019; Wood 2020a). Further review in an ASD for field pH and boron with a focus on the current Conceptual Site Model, changes in the operation of the CWTP and subsequent effects on the groundwater level and gradient patterns is warranted.

Wood also recommends continued trend testing after each monitoring event and updates to the statistical method selection and BTVs after 1-2 years of future sampling events pending the status evaluation of the CWTP in the detection monitoring program.

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 April 17, 2015 with Amendments*.

United States Environmental Protection Agency (U.S. 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.

Wood Environment & Infrastructure Solutions, Inc. (Wood), 2019. *Alternative Source Demonstration for Boron, Calcium, Fluoride, and pH at the CWTP*. Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico. Technical Memorandum dated July 15, 2019.

Wood, 2020a. *Alternative Source Demonstration for Calcium at the CWTP*. Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico. Technical Memorandum dated July 12, 2020.

Wood, 2020b. *CCR Groundwater Detection Monitoring Statistical Analysis and Results for the CWTP Appendix III Constituent Data Collected Through November 2020*. Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico. Technical Memorandum dated April 12, 2021.

Wood, 2020c. *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. June 2020.

ATTACHMENT A

Technical Memorandum

To: Maren Henley, PE
Mari Wuollet
Wood Environment & Infrastructure Solutions, Inc.

From: Carla Landrum, PhD
Geoscience Consulting Strategies LLC

Date: September 30, 2021

Subject: **CCR Groundwater Detection Monitoring**
Statistical Evaluation of April 2021 & Preceding CWTP Data
Arizona Public Service Company Four Corners Power Plant – Fruitland, New Mexico

1.0 INTRODUCTION

This Technical Memorandum (Tech Memo) documents the ongoing statistical evaluation of detection monitoring (i.e., Appendix III 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 routine 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, 2018; Wood Environment & Infrastructure Solutions, Inc. [Wood], 2020a).

The April 2021 CWTP groundwater sampling event resulted in initial exceedances for field pH (at monitoring well MW-63) and boron (at monitoring well MW-65) over their respective Appendix III Background Threshold Values (BTVs). The initial exceedances triggered a resampling event, that was completed in July 2021 by Wood, to determine if the respective April 2021 boron and field pH initial exceedances were statistically significant ($p<0.05$). The July 2021 resampling event confirmed the initial exceedances for boron and field pH were statistically significant, thereby triggering a statistically significant increase (SSI) declaration for the CWTP.

The CWTP historically underwent two Alternative Source Demonstration (ASD) in 2019 and 2020 in response to multiple declarations of statistically significant increases (SSI) over respective Appendix III Background Threshold Values (BTVs) for fluoride (at monitoring wells MW-62, MW-63, MW-64 and MW-65), field pH (at monitoring wells MW-64 and MW-65), boron (at monitoring wells MW-62 and MW-63) and calcium (at monitoring wells MW-62 and MW-63) (Wood, 2019a; Wood 2020b). The ASDs concluded that the exceedances were not due to a release from the CWTP but were attributed to the following:

- The varying presence of fill materials at the compliance and background monitoring locations for fluoride;
- Surface-groundwater interactions for pH; and
- Spatial and temporal heterogeneity in the compliance and background well sample concentrations of boron and calcium.

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Tel: 918-809-2634

This Tech Memo summarizes exploratory data analysis (EDA) of detection monitoring groundwater data to assess the April 2021 SSI declarations. 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 CWTP detection monitoring program performs statistical evaluations semiannually. The period of evaluation for this subject analysis ranges from November 2015 through April 2021 and includes:

1) the minimum of eight initial, or baseline, sampling rounds required by the CCR Rule and five subsequent sampling rounds of detection monitoring that occur on a semi-annual frequency; and
2) a July 2021 resampling event that confirmed the April 2021 initial exceedance declarations for boron and field pH (see Table 1).

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).

This statistical data evaluation includes 22 to 26 sample results for boron, calcium, chloride, fluoride, sulfate, total dissolved solids (TDS), and pH at each compliance monitoring well. The first, second, third, fourth, fifth, sixth, seventh and eighth rounds of detection monitoring at the CWTP were conducted in November 2017, June 2018, November 2018, May 2019, December 2019, June 2020, November 2020 and April 2021 respectively; all Appendix III constituents were evaluated in collected samples during these monitoring events except for chloride and sulfate in May 2019 due to the inadvertent exclusion of these analytes on the Chain of Custody in the field.

Appendix A contains the contents of the ProUCL data upload tables for the subject analysis. Data inputs for this statistical analysis were prepared, and provided by, Wood. The Appendix III analytes are listed by name or chemical symbol as column headers in the ProUCL data upload table. By ProUCL convention (US EPA, 2015), 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." The detection frequency is 100% for all compliance well sample data listed in Appendix A.

3.0 METHODS

The statistical methods and approach, including EDA, to complete the subject analysis are documented in the SDAWP (Wood, 2020a).
the subject statistical analysis consists of comparing the April 2021 sample concentrations to corresponding not-to-exceed BTVs in Table 1. If an exceedance exists, the statistical significance of this exceedance is assessed through the prescribed resampling strategy. For this statistical analysis, the July 2021 resampling event fulfills the 1 of 2 resampling strategy for boron at monitoring location MW-65 and field pH at monitoring location MW-63 (see Table 1).

4.0 **RESULTS**

Table 2 summarizes: 1) which Appendix III constituents exhibit exceedances above their respective BTVs for each compliance well and 2) which constituents exhibit statistically significant ($p<0.05$) temporal trends. Appendix B includes the EDA results.

This statistical analysis results in the following:

Monitoring Well MW-62. The precursor November 2020 sampling event demonstrated an initial exceedance for boron, where the sample concentration exceeded the respective BTV by only 0.1 ppm (Wood, 2021). The initial exceedance triggered a 1 of 3 resampling strategy to determine if this initial exceedance was statistically significant ($p<0.05$). The resampling event was not completed. However, the subsequent semiannual groundwater sampling event (i.e., April 2021) shows a boron concentration below its respective BTV at this location. There is insufficient evidence at this time to conclude the November 2020 boron initial exceedance warrants an SSI declaration. The remaining Appendix III sample concentrations for calcium, chloride, fluoride, field pH, sulfate and TDS are below their respective BTVs for the April 2021 sampling event.

There is a persistent and statistically significant ($p<0.05$) decreasing trend for TDS at this monitoring location (Table 2).

Monitoring Well MW-63. The April 2021 sampling event resulted in an initial exceedance for field pH at this monitoring location, thereby triggering a 1 of 2 resampling strategy (Table 1). The July 2021 resampling event confirmed the initial exceedance is statistically significant ($p<0.05$) that results in an SSI declaration for the CWTP. The remaining Appendix III sample concentrations for boron, calcium, chloride, fluoride, sulfate and TDS are below their respective BTVs for the April 2021 sampling event.

EDA results indicate the following with regards to the SSI declaration for field pH at this monitoring location:

- The April 2021 and the July 2021 exceedances are not recognized as statistical outliers ($p<0.05$). This suggests the declared exceedances are representative of sample concentrations collected since 2015 at this monitoring location and, therefore, albeit relatively high, can be expected.

- The most recent groundwater sampling events (i.e., last 2 -3 sampling events) at the CWTP show relative increases in field pH for both compliance and background wells; these increases are most notable for MW-63, MW-64 and MW-73. This shared temporal pattern among wells throughout the monitoring network suggest there might be regional changes in groundwater conditions that are impacting field pH near the CWTP, rather than these changes being specific or localized to the CWTP.

There is a statistically significant ($p<0.05$) decreasing trend for chloride and a statistically significant ($p<0.05$) increasing trend for calcium at this monitoring location. The trends have been persistent over time. The historically statistically significant ($p<0.05$) decreasing trend in field pH shifts to borderline statistically significant ($p=0.05$), suggesting the most recent sampling events constitute a departure from historical trends in this monitoring well. Trend behaviors should be considered when investigating the SSI declaration for field pH.

Monitoring Well MW-64. The precursor November 2020 sampling event demonstrated an initial exceedance for fluoride at this monitoring location, where the sample concentration exceeds the respective BTV by only 0.1 ppm. The resampling event was not completed for this constituent. However, the April 2021 sampling event shows a fluoride concentration below its respective BTV at this location. There is insufficient evidence at this time to conclude the November 2020 fluoride exceedance warrants an SSI declaration.

The April 2021 sampling event shows Appendix III constituent concentrations below their respective BTVs for this monitoring location.

The statistically significant ($p<0.05$) decreasing trends for boron, field pH and TDS remain constant at this monitoring location.

Monitoring Well MW-65. The November 2020 sampling event demonstrated an initial exceedance for fluoride, where the sample concentration exceeds the respective BTV by only 0.1 ppm (Wood, 2021). This initial exceedance triggered a 1 of 3 resampling strategy to determine of this initial exceedance is statistically significant ($p<0.05$). The resampling event was not completed for this constituent. However, the April 2021 sampling event shows a fluoride concentration below its respective BTV at this location. There is insufficient evidence at this time to conclude the November 2020 fluoride exceedance warrants an SSI declaration.

The April 2021 sampling event resulted in an initial exceedance for boron at this monitoring location, thereby triggering a 1 of 2 resampling strategy (Table 1). The July 2021 resampling event confirms the initial exceedance is statistically significant ($p<0.05$) and results in an SSI declaration for this sampling location. The remaining Appendix III sample concentrations for calcium, chloride, fluoride, sulfate, field pH and TDS are below their respective BTVs for the April 2021 sampling event.

EDA results indicate the following with regards to the boron SSI declaration at this monitoring location:

- The April 2021 and the July 2021 exceedances are not recognized as statistical outliers ($p<0.05$). This suggests the declared exceedances are representative of sample concentrations collected since 2015 at this monitoring location and, albeit relatively high, can be expected.

- The exceedances fall between the 50th and 90th percentiles of boron concentrations sampled between November 2015 and July 2021; meaning the 2021 exceedances do not reflect historical maximum concentrations at this sampling location.

- The temporal trend for boron at this sampling location is decreasing over time, suggesting the recent exceedances are likely interim.

There are statistically significant ($p<0.05$) decreasing trends for TDS and boron at this sampling location; the previous statistically significant trends for calcium, chloride and field pH become insignificant in April 2021. Trend behaviors should be considered when investigating the SSI declaration for boron.

5.0 CONCLUSIONS

This statistical analysis results in the following conclusions for the CWTP detection monitoring statistical analysis:

- There is sufficient evidence to declare statistically significant increases in Appendix III constituent concentrations over respective BTVs for boron at monitoring well MW-65 and field pH at monitoring well MW-63 for the April 2021 sampling event.

- The CWTP has a history of exceedance declarations, where constituent concentrations either hover just outside their respective BTVs, therefore, making them inconsistent and insignificant, or have been investigated thoroughly and determined that the CWTP is not the source to the BTV exceedance (Wood, 2019a Wood 2020b). The EDA results herein present reasonable doubt in automatically concluding the 2021 SSI declarations result from a release from the CWTP.

- The EDA findings warrant further review and should be vetted against the project's conceptual site model with specific reference to: 1) notable changes in recent weather patterns (e.g., drought conditions), 2) recent shifts (e.g., since 2019) in groundwater levels and gradients, 3) changes to how the CWTP is operated and 4) sampling protocol departures, especially when sampling groundwater field parameters, including field pH.

- Previously recommended intrawell BTV updates are pending the status of the CWTP Detection Monitoring program (Wood, 2021).

6.0 REFERENCES

Federal Register, 2018. 40 Code of Federal Regulations Part 257 – Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule promulgated April 17, 2015 with Amendments to the National Minimum Criteria (Phase One, Part One) effective August 29, 2018.

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.

U.S. EPA, 2015. ProUCL (Version 5.1.1) User Guide, Statistical Software for Environmental Applications for Data Sets with and without Nondetect Observations. EPA/600/R-07/041. Washington D.C. October 2015.

Wood, 2019a. *Alternative Source Demonstration for Boron, Calcium, Fluoride and pH at the CWTP*. Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico. Technical Memorandum dated July 15, 2019.

Wood, 2019b. CCR Groundwater Detection Monitoring Evaluation of May 2019 Data Collected from the CWTP. Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico. Technical Memorandum dated, October 15, 2019.

Wood, 2020a. *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. June 2020.

Wood, 2020b. *Alternative Source Demonstration for Calcium at the CWTP*. Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico. Technical Memorandum dated July 12, 2020.

Wood, 2020c. CCR Groundwater Detection Monitoring Statistical Evaluation of June 2020 & Preceding CWTP Data. Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico. Technical Memorandum, October 5, 2020.

Wood, 2021. CCR Groundwater Detection Monitoring Evaluation of November 2020 Data Collected from the CWTP. Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico. Technical Memorandum dated, March 31, 2021.

ATTACHMENTS

Table 1 – Interwell and Intrawell BTVs 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
Interwell and Intrawell BTVs for the Four Corners CWTP
Appendix III Statistical Analysis

Background Wells	Dates Corresponding to Data Used to Derive UPL	Constituent	Interwell (BTV Calculation Method)	Units	Resampling Strategy[1]
MW-71 and MW-72	3/5/2016-11/5/2020	Boron	0.70 (NP-UPL)[2]	mg/L	1 of 2
MW-73	2/2/2017-11/5/2020	Boron	2.0 (NP-UPL)[3]	mg/L	1 of 3
MW-71 and MW-72	3/5/2016-11/05/2020	Calcium	500 (NP-UPL)[2]	mg/L	1 of 2
MW-73	3/5/2016-11/05/2020	Calcium	551 (P-UPL)[3]	mg/L	1 of 2
MW-71, MW-72, and MW-73	3/5/2016-11/05/2020	Chloride	634 (P-UPL)	mg/L	1 of 2
MW-71, MW-72, and MW-73	3/5/2016-11/05/2020	pH (upper limit)	6.93 (P-UPL)[3]	SU	1 of 2
MW-71, MW-72, and MW-73	3/5/2016-11/05/2020	pH (lower limit)	6.48 (P-LPL)[3]	SU	1 of 2
MW-71, MW-72, and MW-73	3/5/2016-11/05/2020	Sulfate	13,000 (NP-UPL)	mg/L	1 of 3
MW-71, MW-72, and MW-73	3/5/2016-11/05/2020	TDS	20,000 (NP-UPL)	mg/L	1 of 3

Compliance Well	Dates Corresponding to Data Used to Derive UPL	Constituent	Intrawell UPL (BTV Calculation Method[1])	Units	Resampling Strategy[1]
MW-62	11/9/2015-10/13/2017	Fluoride	1.6 (NP-UPL)	mg/L	1 of 3
MW-63	11/4/2015-10/13/2017	Fluoride	2.3 (P-UPL)	mg/L	1 of 3
MW-64	11/5/2015-10/13/2017	Fluoride	1.5 (NP-UPL)	mg/L	1 of 3
MW-64	11/5/2015-10/13/2017	pH	7.68 (P-UPL)	SU	1 of 2
MW-64	11/5/2015-10/13/2017	pH	7.25 (P-LPL)	SU	1 of 2
MW-65	11/5/2015-10/13/2017	Fluoride	2.0 (NP-UPL)	mg/L	1 of 3
MW-65	11/5/2015-10/13/2017	pH	8.27 (NP-UPL)	SU	1 of 3
MW-65	11/5/2015-10/13/2017	pH	6.96 (NP-LPL)	SU	1 of 3

Notes:

BTV = background threshold value
CWTP = Combined Waste Treatment Pond
LPL = Lower Prediction Limit
mg/L = milligrams per liter
NP = Non Parametric
P = Parametric
SU = standard units
UPL = Upper Prediction Limit

[1] A 1 of 2 resampling strategy is in place for parametric prediction limits. If a 1 of 3 resampling strategy is in place for a non-parametric prediction limit, the limit represents the second ranked (e.g. second order statistic) concentration value of the data set. If a 1 of 2 resampling strategy is in place for a non-parametric prediction limit, the limit represents the first ranked (e.g., maximum order statistic) concentration value of the data set.

[2] Only applicable to MW-64 and MW-65

[3] Only applicable to MW-62 and MW-63

Table 2
Four Corners CWTP Downgradient Sample Data Summary
Appendix III Statistical Analysis

Well	Sample_ID	SampleDate	Constituent Concentration						
			Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
MW-62	FC-CCR-MW62-110915	11/9/2015	*2.1*	*520*	*150*	*1.6*	*6.63*	*3600*	*6700*
MW-62	FC-CCR-MW-62-042716	4/27/2016	*2.0*	*530*	*150*	*1.6*	*6.77*	*3200*	*6100*
MW-62	FC-CCR-MW62-616	6/5/2016	*2.0*	*510*	*140*	*1.5*	*6.50*	*3300*	*5900*
MW-62	FC-CCR-MW62-816	8/20/2016	*2.3*	*530*	*120*	*1.5*	*7.40*	*3300*	*5800*
MW-62	FC-CCR-MW62-916	9/12/2016	*2.5*	*570*	*130*	*1.5*	*6.73*	*3300*	*2400*
MW-62	FC-CCR-MW62-1016	10/19/2016	*2.2*	*480*	*120*	*1.2*	*6.57*	*3300*	*6000*
MW-62	FC-CCR-MW62-117	2/1/2017	*2.1*	*510*	*110*		*6.68*	*3400*	*5600*
MW-62	FC-CCR-MW62-41617	4/16/2017	*1.9*	*500*	*120*	*1.2*	*6.64*	*3300*	*5900*
MW-62	FC-CCR-MW62-5117	5/1/2017	*1.9*	*520*	*110*	*3.3*	*6.64*	*3800*	*5800*
MW-62	FC-CCR-MW62-52917	5/29/2017	*1.9*	*570*	*120*	*1.2*	*6.50*	*3500*	*5500*
MW-62	FC-CCR-MW62-62117	6/21/2017	*1.9*	*520*	*120*	*1.4*	*6.54*	*3600*	*5700*
MW-62	FC-CCR-MW62-72117	07/21/2017	*2.1*	*540*	*99*	*1.5*	*6.69*	*3300*	*5400*
MW-62	FC-CCR-MW62-8917	08/09/2017	*2.2*	*540*	*110*	*1.4*	*6.41*	*3400*	*5400*
MW-62	FC-CCR-MW62-81617	08/16/2017	*2.1*	*590*	*110*	*1.6*	*6.36*	*3200*	*5400*
MW-62	FC-CCR-MW62-9917	09/09/2017	*2.3*	*570*	*120*	*1.5*	*6.41*	*3300*	*5500*
MW-62	FC-CCR-MW62-101317	10/13/2017	*2.2*	*520*	*130*	*1.5*	*6.46*	*3300*	*5600*
MW-62	FC-CCR-MW62-113017	11/30/2017	2.3	570	130	1.4	6.43	3400	5900
MW-62	FC-CCR-MW62-4618	04/06/2018	2.1	520	--	--	6.70	--	--
MW-62	FC-CCR-MW-62-6318	06/03/2018	1.8	490	120	1.6	6.59	3500	5900
MW-62	FC-CCR-MW62-11218	11/02/2018	2.4	550	110	1.5	6.46	3300	5600
MW-62	FC-CCR-MW62-5719-01	05/07/2019	1.8	540	--	1.4	6.65	--	5800
MW-62	FC-CCR-MW62-120319	12/03/2019	2.1	530	--	1.5	6.37	--	5000
MW-62	FC-CCR-MW62-0620	06/19/2020	1.9	490	82	**1.8**	**7**	2800	4700
MW-62	FC-CCR-MW62-011421	11/05/2020	**2.1**	510	130	**1.8**	6.57	3500	5300
MW-62	FC-CCR-MW62-011421	01/14/2021	--	--	--	1.2	--	--	--
MW-62	FC-CCR-MW62-0421	04/22/2021	1.9	530	130	1.5	6.91	3400	5700
		Units:	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*SU*	*mg/L*	*mg/L*
		BTV or Intrawell UPL [1,2]:	***2.0***	***551***	***634***	***1.6***	***6.93/6.48***	***13,000***	***20,000***
		Temporal Trend [3]:	*None*	*None*	*None*	*None*	*None*	*None*	*Decreasing*

Table 2
Four Corners CWTP Downgradient Sample Data Summary
Appendix III Statistical Analysis

Well	Sample_ID	SampleDate	Constituent Concentration						
			Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
MW-63	FC-CCR-MW63-110415	11/4/2015	*1.6*	*420*	*77*	*2.4*	*6.86*	*2800*	*4100*
MW-63	FC-CCR-MW-63-042716	4/27/2016	*1.3*	*500*	*100*	*2.0*	*6.88*	*2300*	*4300*
MW-63	FC-CCR-MW63-616	6/5/2016	*1.4*	*500*	*110*	*1.9*	*6.70*	*2500*	*4400*
MW-63	FC-CCR-MW63-816	8/20/2016	*1.9*	*530*	*98*	*1.9*	*6.92*	*2800*	*4700*
MW-63	FC-CCR-MW63-916	9/12/2016	*2.0*	*550*	*110*	*2.1*	*7.03*	*2800*	*4700*
MW-63	FC-CCR-MW63-1016	10/19/2016	*1.7*	*470*	*100*	*1.8*	*6.82*	*2700*	*4500*
MW-63	FC-CCR-MW63-117	1/31/2017	*1.4*	*510*	*95*	*2.0*	*6.67*	*2600*	*4200*
MW-63	FC-CCR-MW63-41717	4/17/2017	*1.4*	*520*	*98*	*1.6*	*6.78*	*2600*	*4400*
MW-63	FC-CCR-MW63-5217	5/2/2017	*1.4*	*510*	*92*	*2.5*	*6.79*	*4300*	*4300*
MW-63	FC-CCR-MW63-52817	5/28/2017	*1.5*	*550*	*98*	*1.6*	*6.80*	*2700*	*4300*
MW-63	FC-CCR-MW63-62117	6/21/2017	*1.6*	*520*	*100*	*1.9*	*6.78*	*2900*	*4400*
MW-63	FC-CCR-MW63-72117	7/21/2017	*1.8*	*530*	*98*	*2.0*	*6.87*	*2900*	*4600*
MW-63	FC-CCR-MW63-8917	8/9/2017	*1.9*	*530*	*97*	*1.9*	*6.56*	*2900*	*4500*
MW-63	FC-CCR-MW63-81617	8/16/2017	*1.8*	*580*	*100*	*2.1*	*6.53*	*2700*	*4500*
MW-63	FC-CCR-MW63-9917	9/9/2017	*2.0*	*540*	*97*	*2.0*	*6.83*	*2700*	*4300*
MW-63	FC-CCR-MW63-101317	10/13/2017	*1.8*	*500*	*90*	*2.0*	*6.69*	*2700*	*4300*
MW-63	FC-CCR-MW63-113017	11/30/2017	1.7	560	91	1.8	6.72	2700	4500
MW-63	FC-CCR-MW63-4618	4/6/2018	1.3	530	--	--	6.75	--	--
MW-63	FC-CCR-MW-63-6318	6/3/2018	1.4	510	90	1.7	6.76	2600	4500
MW-63	FC-CCR-MW63-112818	11/2/2018	1.9	550	88	1.9	6.66	2800	4300
MW-63	FC-CCR-MW63-5719-02	5/7/2019	1.3	540	--	1.6	6.63	--	4400
MW-63	FC-CCR-MW63-120319	12/3/2019	1.6	550	--	1.8	6.58	--	4300
MW-63	FC-CCR-MW63-0620	06/19/2020	1.5	540	77	2.1	6.53	2400	4200
MW-63	FC-CCR-MW63-1120	11/05/2020	1.7	550	85	2.2	6.72	2800	4200
MW-63	FC-CCR-MW63-0421	04/22/2021	0.93	400	88	2	**7.07**	1900	3200
MW-63	FC-CCR-MW63-0721	07/08/2021	--	--	--	--	**7.21**	--	--
		Units:	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*SU*	*mg/L*	*mg/L*
		BTV or Intrawell UPL [1,2]:	***2.0***	***551***	***634***	***2.3***	***6.93/6.48***	***13,000***	***20,000***
		Temporal Trend [3]:	*None*	*Increasing*	*Decreasing*	*None*	*Decreasing*	*None*	*None*

Table 2
Four Corners CWTP Downgradient Sample Data Summary
Appendix III Statistical Analysis

Well	Sample_ID	SampleDate	Constituent Concentration						
			Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
MW-64	FC-CCR-MW64-110515	11/5/2015	*0.6*	*87*	*49*	*1.5*	*7.64*	*320*	*780*
MW-64	FC-CCR-MW-64-042716	4/27/2016	*0.62*	*90*	*53*	*1.4*	*7.50*	*340*	*810*
MW-64	FC-CCR-MW64-616	6/5/2016	*0.58*	*86*	*52*	*1.4*	*7.29*	*350*	*800*
MW-64	FC-CCR-MW64-816	8/20/2016	*0.65*	*89*	*46*	*1.3*	*7.68*	*330*	*790*
MW-64	FC-CCR-MW64-916	9/12/2016	*0.67*	*90*	*52*	*1.5*	*7.54*	*320*	*790*
MW-64	FC-CCR-MW64-1016	10/19/2016	*0.64*	*83*	*53*	*1.5*	*7.52*	*330*	*790*
MW-64	FC-CCR-MW64-117	1/31/2017	*0.61*	*85*	*48*	*1.4*	*7.38*	*340*	*800*
MW-64	FC-CCR-MW64-41717	4/17/2017	*0.58*	*85*	*51*	*1.4*	*7.53*	*870*	*800*
MW-64	FC-CCR-MW64-5217	5/2/2017	*0.55*	*86*	*44*	*1.3*	*7.47*	*340*	*780*
MW-64	FC-CCR-MW64-52817	5/28/2017	*0.55*	*93*	*51*	*1.5*	*7.45*	*380*	*780*
MW-64	FC-CCR-MW64-62117	6/21/2017	*0.55*	*86*	*51*	*1.4*	*7.50*	*390*	*770*
MW-64	FC-CCR-MW64-72117	7/21/2017	*0.59*	*88*	*52*	*1.5*	*7.61*	*370*	*790*
MW-64	FC-CCR-MW64-8917	8/9/2017	*0.61*	*89*	*52*	*1.5*	*7.31*	*380*	*890*
MW-64	FC-CCR-MW64-81617	8/16/2017	*0.58*	*89*	*53*	*1.5*	*7.29*	*360*	*790*
MW-64	FC-CCR-MW64-9917	9/9/2017	*0.67*	*90*	*53*	*1.5*	*7.36*	*350*	*810*
MW-64	FC-CCR-MW64-101317	10/13/2017	*0.62*	*82*	*52*	*1.4*	*7.42*	*360*	*790*
MW-64	FC-CCR-MW64-113017	11/30/2017	0.64	90	52	1.4	7.37	350	780
MW-64	FC-CCR-MW-64-6318	6/3/2018	0.48	85	50	1.4	7.54	390	800
MW-64	FC-CCR-MW64-11218	11/2/2018	0.64	88	50	1.4	7.43	350	760
MW-64	FC-CCR-MW64-5719-03	5/7/2019	0.49	89	--	1.4	7.41	--	790
MW-64	FC-CCR-MW64-120319	12/3/2019	0.56	82	--	1.5	7.29	--	720
MW-64	FC-CCR-MW64-0620	06/19/2020	0.47	77	49	1.3	7.22	300	790
MW-64	FC-CCR-MW64-1120	11/05/2020	0.51	73	53	**1.6**	7.49	270	720
MW-64	FC-CCR-MW64-0421	04/22/2021	0.5	89	52	1.4	7.60	300	660
	Units:		*mg/L*	*mg/L*	*mg/L*	*mg/L*	*SU*	*mg/L*	*mg/L*
	BTV or Intrawell UPL [1,2]:		***0.7***	***500***	***634***	***1.5***	***7.68/7.25***	***13,000***	***20,000***
	Temporal Trend [3]:		*Decreasing*	*None*	*None*	*None*	*Decreasing*	*None*	*Decreasing*

Table 2
Four Corners CWTP Downgradient Sample Data Summary
Appendix III Statistical Analysis

Well	Sample_ID	SampleDate	Constituent Concentration						
			Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
MW-65	FC-CCR-MW65-110515	11/5/2015	*0.86*	*100*	*52*	*2.0*	*7.50*	*440*	*1000*
MW-65	FC-CCR-MW-65-042716	4/27/2016	*0.76*	*110*	*55*	*1.8*	*7.29*	*460*	*1100*
MW-65	FC-CCR-MW65-616	6/5/2016	*0.75*	*100*	*54*	*2.0*	*7.08*	*460*	*1100*
MW-65	FC-CCR-MW65-816	8/20/2016	*0.79*	*100*	*52*	*1.7*	*8.27*	*450*	*1000*
MW-65	FC-CCR-MW65-916	9/12/2016	*0.83*	*110*	*54*	*2.0*	*7.52*	*480*	*1100*
MW-65	FC-CCR-MW65-1016	10/19/2016	*0.77*	*95*	*54*	*2.0*	*7.36*	*450*	*1000*
MW-65	FC-CCR-MW65-117	2/1/2017	*0.76*	*96*	*51*	*1.8*	*7.35*	*410*	*970*
MW-65	FC-CCR-MW65-41617	4/16/2017	*0.83*	*120*	*60*	*1.8*	*7.21*	*490*	*1300*
MW-65	FC-CCR-MW65-5117	5/1/2017	*0.79*	*110*	*58*	*1.6*	*7.24*	*500*	*1100*
MW-65	FC-CCR-MW65-52917	5/29/2017	*0.98*	*160*	*77*	*1.8*	*7.10*	*790*	*1500*
MW-65	FC-CCR-MW65-62117	6/21/2017	*0.92*	*140*	*68*	*1.9*	*7.06*	*710*	*1400*
MW-65	FC-CCR-MW65-72117	7/21/2017	*0.76*	*110*	*53*	*2.0*	*7.31*	*470*	*1000*
MW-65	FC-CCR-MW65-8917	8/9/2017	*0.76*	*110*	*53*	*2.0*	*7.15*	*500*	*1000*
MW-65	FC-CCR-MW65-81617	8/16/2017	*0.75*	*110*	*53*	*2.0*	*6.96*	*500*	*1000*
MW-65	FC-CCR-MW65-9917	9/9/2017	*0.80*	*110*	*53*	*2.0*	*7.04*	*450*	*1000*
MW-65	FC-CCR-MW65-101317	10/13/2017	*0.75*	*92*	*52*	*1.9*	*7.13*	*400*	*960*
MW-65	FC-CCR-MW65-113017	11/30/2017	0.79	100	53	2.0	7.21	410	990
MW-65	FC-CCR-MW-65-6318	6/3/2018	0.62	98	52	1.9	7.22	480	1000
MW-65	FC-CCR-MW65-11218	11/2/2018	0.77	100	51	1.9	7.18	420	940
MW-65	FC-CCR-MW65-5719-05	5/7/2019	0.60	100	--	1.7	7.13	--	970
MW-65	FC-CCR-MW65-120319	12/3/2019	0.65	89	--	1.9	7.10	--	850
MW-65	FC-CCR-MW65-0620	06/19/2020	0.57	88	48	1.7	7.18	380	940
MW-65	FC-CCR-MW65-1120	11/05/2020	0.61	82	52	**2.1**	7.36	350	780
MW-65	FC-CCR-MW65-0421	04/22/2021	**0.78**	170	71	1.5	7.19	740	540
MW-65	FC-CCR-MW65-0721	07/08/2021	**0.87**	--	--	--	7.40	--	--
		Units:	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*SU*	*mg/L*	*mg/L*
		BTV or Intrawell UPL [1,2]:	***0.7***	***500***	***634***	***2***	***8.27/6.96***	***13,000***	***20,000***
		Temporal Trend [3]:	*Decreasing*	*None*	*None*	*None*	*None*	*None*	*Decreasing*

Table 2
Four Corners CWTP Downgradient Sample Data Summary
Appendix III Statistical Analysis

Well	Sample_ID	SampleDate	Constituent Concentration						
			Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS

Notes:

BTV = background threshold value

mg/L = milligrams per liter

TDS = total dissolved solids

UPL = upper prediction limit

SU = standard units

0.75	Value from baseline monitoring period (November 2015 thru October 2017)
	Reported value in current sampling round (May 2019) exceeds the BTV or UPL
	Statistically significant increasing trend present
	Statistically significant decreasing trend present
None	Insufficient evidence to identify a trend

[1] See Table 1 for relevant BTV and Intrawell UPL information

[2] For pH, values presented refer to the Upper Prediction Limit/Lower Prediction Limit, respectively

[3] Temporal trends evaluated with Mann-Kendall trend tests ($p<0.05$); tied values (sequential sample concentrations that are equal overtime) can cause misleading trend results.

APPENDIX A

PROUCL DATA UPLOAD TABLE

Appendix A - PROUCL DATA UPLOAD TABLE

StationName	QC_SampleID	SampDate	NumDate	Boron	D_Boron	Calcium	D_Calcium	Chloride	D_Chloride	Fluoride	D_Fluoride	Sulfate	D_Sulfate	DissolvedSolids	D_DissolvedSolids	Field_pH	D_Field_pH
MW-62	FC-CCR-MW62-110915	11/09/2015	11/9/2015	2.1	1	520	1	150	1	1.6	1	3600	1	6700	1	6.63	1
MW-62	FC-CCR-MW-62-042716	04/27/2016	4/27/2016	2	1	530	1	150	1	1.6	1	3200	1	6100	1	6.77	1
MW-62	FC-CCR-MW62-616	06/05/2016	6/5/2016	2	1	510	1	140	1	1.5	1	3300	1	5900	1	6.50	1
MW-62	FC-CCR-MW62-816	08/20/2016	8/20/2016	2.3	1	530	1	120	1	1.5	1	3300	1	5800	1	7.40	1
MW-62	FC-CCR-MW62-916	09/12/2016	9/12/2016	2.5	1	570	1	130	1	1.5	1	3300	1	2400	1	6.73	1
MW-62	FC-CCR-MW62-1016	10/19/2016	10/19/2016	2.2	1	480	1	120	1	1.2	1	3300	1	6000	1	6.57	1
MW-62	FC-CCR-MW62-117	02/01/2017	2/1/2017	2.1	1	510	1	110	1	1.4	1	3400	1	5600	1	6.68	1
MW-62	FC-CCR-MW62-41617	04/16/2017	4/16/2017	1.9	1	500	1	120	1	1.2	1	3300	1	5900	1	6.64	1
MW-62	FC-CCR-MW62-5117	05/01/2017	5/1/2017	1.9	1	520	1	110	1	3.3	1	3800	1	5800	1	6.64	1
MW-62	FC-CCR-MW62-52917	05/29/2017	5/29/2017	1.9	1	570	1	120	1	1.2	1	3500	1	5500	1	6.50	1
MW-62	FC-CCR-MW62-62117	06/21/2017	6/21/2017	1.9	1	520	1	120	1	1.4	1	3600	1	5700	1	6.54	1
MW-62	FC-CCR-MW62-72117	07/21/2017	7/21/2017	2.1	1	540	1	99	1	1.5	1	3300	1	5400	1	6.69	1
MW-62	FC-CCR-MW62-8917	08/09/2017	8/9/2017	2.2	1	540	1	110	1	1.4	1	3400	1	5400	1	6.41	1
MW-62	FC-CCR-MW62-81617	08/16/2017	8/16/2017	2.1	1	590	1	110	1	1.6	1	3200	1	5400	1	6.36	1
MW-62	FC-CCR-MW62-9917	09/09/2017	9/9/2017	2.3	1	570	1	120	1	1.5	1	3300	1	5500	1	6.41	1
MW-62	FC-CCR-MW62-101317	10/13/2017	10/13/2017	2.2	1	520	1	130	1	1.5	1	3300	1	5600	1	6.46	1
MW-62	FC-CCR-MW62-113017	11/30/2017	11/30/2017	2.3	1	570	1	130	1	1.4	1	3400	1	5900	1	6.43	1
MW-62	FC-CCR-MW62-4618	04/06/2018	4/6/2018	2.1	1	520	1	--	--	--	--	--	--	--	--	6.70	1
MW-62	FC-CCR-MW-62-6318	06/03/2018	6/3/2018	1.8	1	490	1	120	1	1.6	1	3500	1	5900	1	6.59	1
MW-62	FC-CCR-MW62-11218	11/02/2018	11/2/2018	2.4	1	550	1	110	1	1.5	1	3300	1	5600	1	6.46	1
MW-62	FC-CCR-MW62-5719-01	05/07/2019	5/7/2019	1.8	1	540	1	--	--	1.4	1	--	--	5800	1	6.65	1
MW-62	FC-CCR-MW62-120319	12/03/2019	12/3/2019	2.1	1	530	1	NA	0	1.5	1	NA	0	5000	1	6.37	1
MW-62	FC-CCR-MW62-0620	06/19/2020	6/19/2020	1.9	1	490	1	82	1	1.8	1	2800	1	4700	1	6.90	1
MW-62	FC-CCR-MW62-1120	11/05/2020	11/5/2020	2.1	1	510	1	130	1	1.8	1	3500	1	5300	1	6.57	1
MW-62	FC-CCR-MW62-011421	01/14/2021	1/14/2021	--	--	--	--	--	--	1.2	1	--	--	--	--	--	--
MW-62	FC-CCR-MW62-0421	04/22/2021	4/22/2021	1.9	1	530	1	130	1	1.5	1	3400	1	5700	1	6.91	1
MW-63	FC-CCR-MW63-110415	11/04/2015	11/4/2015	1.6	1	420	1	77	1	2.4	1	2800	1	4100	1	6.86	1
MW-63	FC-CCR-MW-63-042716	04/27/2016	4/27/2016	1.3	1	500	1	100	1	2	1	2300	1	4300	1	6.88	1
MW-63	FC-CCR-MW63-616	06/05/2016	6/5/2016	1.4	1	500	1	110	1	1.9	1	2500	1	4400	1	6.70	1
MW-63	FC-CCR-MW63-816	08/20/2016	8/20/2016	1.9	1	530	1	98	1	1.9	1	2800	1	4700	1	6.92	1
MW-63	FC-CCR-MW63-916	09/12/2016	9/12/2016	2	1	550	1	110	1	2.1	1	2800	1	4700	1	7.03	1
MW-63	FC-CCR-MW63-1016	10/19/2016	10/19/2016	1.7	1	470	1	100	1	1.8	1	2700	1	4500	1	6.82	1
MW-63	FC-CCR-MW63-117	01/31/2017	1/31/2017	1.4	1	510	1	95	1	2	1	2600	1	4200	1	6.67	1
MW-63	FC-CCR-MW63-41717	04/17/2017	4/17/2017	1.4	1	520	1	98	1	1.6	1	2600	1	4400	1	6.78	1
MW-63	FC-CCR-MW63-5217	05/02/2017	5/2/2017	1.4	1	510	1	92	1	2.5	1	4300	1	4300	1	6.79	1
MW-63	FC-CCR-MW63-52817	05/28/2017	5/28/2017	1.5	1	550	1	98	1	1.6	1	2700	1	4300	1	6.80	1
MW-63	FC-CCR-MW63-62117	06/21/2017	6/21/2017	1.6	1	520	1	100	1	1.9	1	2900	1	4400	1	6.78	1
MW-63	FC-CCR-MW63-72117	07/21/2017	7/21/2017	1.8	1	530	1	98	1	2	1	2900	1	4600	1	6.87	1
MW-63	FC-CCR-MW63-8917	08/09/2017	8/9/2017	1.9	1	530	1	97	1	1.9	1	2900	1	4500	1	6.56	1
MW-63	FC-CCR-MW63-81617	08/16/2017	8/16/2017	1.8	1	580	1	100	1	2.1	1	2700	1	4500	1	6.53	1
MW-63	FC-CCR-MW63-9917	09/09/2017	9/9/2017	2	1	540	1	97	1	2	1	2700	1	4300	1	6.83	1
MW-63	FC-CCR-MW63-101317	10/13/2017	10/13/2017	1.8	1	500	1	90	1	2	1	2700	1	4300	1	6.69	1
MW-63	FC-CCR-MW63-113017	11/30/2017	11/30/2017	1.7	1	560	1	91	1	1.8	1	2700	1	4500	1	6.72	1

Appendix A - PROUCL DATA UPLOAD TABLE

StationName	QC_SampleID	SampDate	NumDate	Boron	D_Boron	Calcium	D_Calcium	Chloride	D_Chloride	Fluoride	D_Fluoride	Sulfate	D_Sulfate	DissolvedSolids	D_DissolvedSolids	Field_pH	D_Field_pH
MW-63	FC-CCR-MW63-4618	04/06/2018	4/6/2018	1.3	1	530	1	--	--	--	--	--	--	--	--	6.75	1
MW-63	FC-CCR-MW-63-6318	06/03/2018	6/3/2018	1.4	1	510	1	90	1	1.7	1	2600	1	4500	1	6.76	1
MW-63	FC-CCR-MW63-112818	11/02/2018	11/2/2018	1.9	1	550	1	88	1	1.9	1	2800	1	4300	1	6.66	1
MW-63	FC-CCR-MW63-5719-02	05/07/2019	5/7/2019	1.3	1	540	1	--	--	1.6	1	--	--	4400	1	6.63	1
MW-63	FC-CCR-MW63-120319	12/03/2019	12/3/2019	1.5	1	550	1	NA	0	1.8	1	NA	0	4300	1	6.58	1
MW-63	FC-CCR-MW63-0620	06/19/2020	6/19/2020	1.5	1	540	1	77	1	2.1	1	2400	1	4200	1	6.53	1
MW-63	FC-CCR-MW63-1120	11/05/2020	11/5/2020	1.7	1	550	1	85	1	2.2	1	2800	1	4200	1	6.72	1
MW-63	FC-CCR-MW63-0421	04/22/2021	4/22/2021	0.93	1	400	1	88	1	2	1	1900	1	3200	1	7.07	1
MW-63	FC-CCR-MW63-0721	07/08/2021	7/8/2021	--	--	--	--	--	--	--	--	--	--	--	--	7.21	1
MW-64	FC-CCR-MW64-110515	11/05/2015	11/5/2015	0.64	1	87	1	49	1	1.5	1	320	1	780	1	7.64	1
MW-64	FC-CCR-MW-64-042716	04/27/2016	4/27/2016	0.62	1	90	1	53	1	1.4	1	340	1	810	1	7.50	1
MW-64	FC-CCR-MW64-616	06/05/2016	6/5/2016	0.58	1	86	1	52	1	1.4	1	350	1	800	1	7.29	1
MW-64	FC-CCR-MW64-816	08/20/2016	8/20/2016	0.65	1	89	1	46	1	1.3	1	330	1	790	1	7.68	1
MW-64	FC-CCR-MW64-916	09/12/2016	9/12/2016	0.67	1	90	1	52	1	1.5	1	320	1	790	1	7.54	1
MW-64	FC-CCR-MW64-1016	10/19/2016	10/19/2016	0.64	1	83	1	53	1	1.5	1	330	1	790	1	7.52	1
MW-64	FC-CCR-MW64-117	01/31/2017	1/31/2017	0.61	1	85	1	48	1	1.4	1	340	1	800	1	7.38	1
MW-64	FC-CCR-MW64-41717	04/17/2017	4/17/2017	0.58	1	85	1	51	1	1.4	1	870	1	800	1	7.53	1
MW-64	FC-CCR-MW64-5217	05/02/2017	5/2/2017	0.55	1	86	1	44	1	1.3	1	340	1	780	1	7.47	1
MW-64	FC-CCR-MW64-52817	05/28/2017	5/28/2017	0.55	1	93	1	51	1	1.5	1	380	1	780	1	7.45	1
MW-64	FC-CCR-MW64-62117	06/21/2017	6/21/2017	0.55	1	86	1	51	1	1.4	1	390	1	770	1	7.50	1
MW-64	FC-CCR-MW64-72117	07/21/2017	7/21/2017	0.59	1	88	1	52	1	1.5	1	370	1	790	1	7.61	1
MW-64	FC-CCR-MW64-8917	08/09/2017	8/9/2017	0.61	1	89	1	52	1	1.5	1	380	1	890	1	7.31	1
MW-64	FC-CCR-MW64-81617	08/16/2017	8/16/2017	0.58	1	89	1	53	1	1.5	1	360	1	790	1	7.29	1
MW-64	FC-CCR-MW64-9917	09/09/2017	9/9/2017	0.67	1	90	1	53	1	1.5	1	350	1	810	1	7.36	1
MW-64	FC-CCR-MW64-101317	10/13/2017	10/13/2017	0.62	1	82	1	52	1	1.4	1	360	1	790	1	7.42	1
MW-64	FC-CCR-MW64-113017	11/30/2017	11/30/2017	0.64	1	90	1	52	1	1.4	1	350	1	780	1	7.37	1
MW-64	FC-CCR-MW-64-6318	06/03/2018	6/3/2018	0.48	1	85	1	50	1	1.4	1	390	1	800	1	7.54	1
MW-64	FC-CCR-MW64-11218	11/02/2018	11/2/2018	0.64	1	88	1	50	1	1.4	1	350	1	760	1	7.43	1
MW-64	FC-CCR-MW64-5719-03	05/07/2019	5/7/2019	0.49	1	89	1	--	--	1.4	1	--	--	790	1	7.41	1
MW-64	FC-CCR-MW64-120319	12/03/2019	12/3/2019	0.56	1	82	1	NA	0	1.5	1	NA	0	720	1	7.29	1
MW-64	FC-CCR-MW64-0620	06/19/2020	6/19/2020	0.47	1	77	1	49	1	1.3	1	300	1	790	1	7.22	1
MW-64	FC-CCR-MW64-1120	11/05/2020	11/5/2020	0.51	1	73	1	53	1	1.6	1	270	1	720	1	7.49	1
MW-64	FC-CCR-MW64-0421	04/22/2021	4/22/2021	0.5	1	89	1	52	1	1.4	1	300	1	660	1	7.60	1
MW-65	FC-CCR-MW65-110515	11/05/2015	11/5/2015	0.86	1	100	1	52	1	2	1	440	1	1000	1	7.50	1
MW-65	FC-CCR-MW-65-042716	04/27/2016	4/27/2016	0.76	1	110	1	55	1	1.8	1	460	1	1100	1	7.29	1
MW-65	FC-CCR-MW65-616	06/05/2016	6/5/2016	0.75	1	100	1	54	1	2	1	460	1	1100	1	7.08	1
MW-65	FC-CCR-MW65-816	08/20/2016	8/20/2016	0.79	1	100	1	52	1	1.7	1	450	1	1000	1	8.27	1
MW-65	FC-CCR-MW65-916	09/12/2016	9/12/2016	0.83	1	110	1	54	1	2	1	480	1	1100	1	7.52	1
MW-65	FC-CCR-MW65-1016	10/19/2016	10/19/2016	0.77	1	95	1	54	1	2	1	450	1	1000	1	7.36	1
MW-65	FC-CCR-MW65-117	02/01/2017	2/1/2017	0.76	1	96	1	51	1	1.8	1	410	1	970	1	7.35	1
MW-65	FC-CCR-MW65-41617	04/16/2017	4/16/2017	0.83	1	120	1	60	1	1.8	1	490	1	1300	1	7.21	1
MW-65	FC-CCR-MW65-5117	05/01/2017	5/1/2017	0.79	1	110	1	58	1	1.6	1	500	1	1100	1	7.24	1
MW-65	FC-CCR-MW65-52917	05/29/2017	5/29/2017	0.98	1	160	1	77	1	1.8	1	790	1	1500	1	7.10	1

Appendix A - PROUCL DATA UPLOAD TABLE

StationName	QC_SampleID	SampDate	NumDate	Boron	D_Boron	Calcium	D_Calcium	Chloride	D_Chloride	Fluoride	D_Fluoride	Sulfate	D_Sulfate	DissolvedSolids	D_DissolvedSolids	Field_pH	D_Field_pH
MW-65	FC-CCR-MW65-62117	06/21/2017	6/21/2017	0.92	1	140	1	68	1	1.9	1	710	1	1400	1	7.06	1
MW-65	FC-CCR-MW65-72117	07/21/2017	7/21/2017	0.76	1	110	1	53	1	2	1	470	1	1000	1	7.31	1
MW-65	FC-CCR-MW65-8917	08/09/2017	8/9/2017	0.76	1	110	1	53	1	2	1	500	1	1000	1	7.15	1
MW-65	FC-CCR-MW65-81617	08/16/2017	8/16/2017	0.75	1	110	1	53	1	2	1	500	1	1000	1	6.96	1
MW-65	FC-CCR-MW65-9917	09/09/2017	9/9/2017	0.8	1	110	1	53	1	2	1	450	1	1000	1	7.04	1
MW-65	FC-CCR-MW65-101317	10/13/2017	10/13/2017	0.75	1	92	1	52	1	1.9	1	400	1	960	1	7.13	1
MW-65	FC-CCR-MW65-113017	11/30/2017	11/30/2017	0.79	1	100	1	53	1	2	1	410	1	990	1	7.21	1
MW-65	FC-CCR-MW-65-6318	06/03/2018	6/3/2018	0.62	1	98	1	52	1	1.9	1	480	1	1000	1	7.22	1
MW-65	FC-CCR-MW65-11218	11/02/2018	11/2/2018	0.77	1	100	1	51	1	1.9	1	420	1	940	1	7.18	1
MW-65	FC-CCR-MW65-5719-05	05/07/2019	5/7/2019	0.6	1	100	1	--	--	1.7	1	--	--	970	1	7.13	1
MW-65	FC-CCR-MW65-120319	12/03/2019	12/3/2019	0.65	1	89	1	NA	0	1.9	1	NA	0	850	1	7.10	1
MW-65	FC-CCR-MW65-0620	06/19/2020	6/19/2020	0.57	1	88	1	48	1	1.7	1	380	1	940	1	7.18	1
MW-65	FC-CCR-MW65-1120	11/05/2020	11/5/2020	0.61	1	82	1	52	1	2.1	1	350	1	780	1	7.36	1
MW-65	FC-CCR-MW65-0421	04/22/2021	4/22/2021	0.78	1	170	1	71	1	1.5	1	740	1	540	1	7.19	1
MW-65	FC-CCR-MW65-0721	07/08/2021	7/8/2021	0.87	1	--	--	--	--	--	--	--	--	--	--	7.40	1
MW-71	FC-CCR-MW-71-030516	03/05/2016	3/5/2016	0.44	1	450	1	660	1	0.05	0	8500	1	13000	1	7.73	1
MW-71	FC-CCR-MW-71-042616	04/26/2016	4/26/2016	0.69	1	470	1	670	1	2	0	13000	1	21000	1	6.58	1
MW-71	FC-CCR-MW71-616	06/06/2016	6/6/2016	0.7	1	460	1	750	1	0.4	0	13000	1	20000	1	6.47	1
MW-71	FC-CCR-MW71-816	08/21/2016	8/21/2016	0.56	1	450	1	590	1	0.8	0	8400	1	14000	1	7.04	1
MW-71	FC-CCR-MW71-916	09/12/2016	9/12/2016	0.58	1	460	1	570	1	0.4	0	9300	1	16000	1	6.86	1
MW-71	FC-CCR-MW71-1016	10/20/2016	10/20/2016	0.55	1	410	1	580	1	0.4	0	9100	1	15000	1	6.90	1
MW-71	FC-CCR-MW71-117	02/02/2017	2/2/2017	0.62	1	440	1	610	1	0.4	0	14000	1	17000	1	6.64	1
MW-71	FC-CCR-MW71-41717	04/17/2017	4/17/2017	0.52	1	400	1	550	1	2	0	9400	1	15000	1	6.81	1
MW-71	FC-CCR-MW71-5217	05/02/2017	5/2/2017	0.58	1	450	1	560	1	2	0	11000	1	15000	1	6.86	1
MW-71	FC-CCR-MW71-52917	05/29/2017	5/29/2017	0.58	1	460	1	580	1	2	0	9900	1	14000	1	6.76	1
MW-71	FC-CCR-MW71-62217	06/22/2017	6/22/2017	0.6	1	460	1	620	1	2	0	4600	1	17000	1	6.79	1
MW-71	FC-CCR-MW71-72117	07/21/2017	7/21/2017	0.55	1	450	1	590	1	2	0	10000	1	15000	1	7.00	1
MW-71	FC-CCR-MW71-81017	08/10/2017	8/10/2017	0.55	1	450	1	560	1	2	0	10000	1	15000	1	6.59	1
MW-71	FC-CCR-MW71-81717	08/17/2017	8/17/2017	0.56	1	480	1	570	1	2	0	9500	1	15000	1	6.62	1
MW-71	FC-CCR-MW71-91117	09/11/2017	9/11/2017	0.55	1	470	1	570	1	2	0	9900	1	15000	1	6.56	1
MW-71	FC-CCR-MW71-101317	10/13/2017	10/13/2017	0.54	1	420	1	570	1	2	0	10000	1	15000	1	6.79	1
MW-71	FC-CCR-MW71-113017	11/30/2017	11/30/2017	0.56	1	490	1	540	1	2	0	10000	1	15000	1	6.71	1
MW-71	FC-CCR-MW-71-6218	06/02/2018	6/2/2018	0.55	1	420	1	520	1	0.8	0	10000	1	15000	1	6.85	1
MW-71	FC-CCR-MW71-11318	11/03/2018	11/3/2018	0.56	1	470	1	520	1	0.8	0	11000	1	16000	1	6.81	1
MW-71	FC-CCR-MW71-031819	03/18/2019	3/18/2019	--	--	--	--	--	--	0.8	0	--	--	--	--	6.68	1
MW-71	FC-CCR-MW71-5719	05/06/2019	5/6/2019	0.5	1	400	1	--	--	0.8	0	--	--	16000	1	6.66	1
MW-71	FC-CCR-MW71-120219	12/02/2019	12/2/2019	0.50	1	440	1	500	1	0.8	0	10000	1	16000	1	6.66	1
MW-71	FC-CCR-MW71-0620	06/20/2020	6/20/2020	0.59	1	450	1	480	1	0.8	0	9900	1	15000	1	6.71	1
MW-71	FC-CCR-MW71-1120	11/05/2020	11/5/2020	0.59	1	460	1	490	1	0.4	0	10000	1	16000	1	6.78	1
MW-71	FC-CCR-MW71-0421	04/22/2021	4/22/2021	0.73	1	510	1	560	1	3.8	1	14000	1	19000	1	6.83	1
MW-72	FC-CCR-MW72-030716	03/07/2016	3/7/2016	0.16	1	480	1	490	1	0.05	0	12000	1	17000	1	7.71	1
MW-72	FC-CCR-MW-72-042616	04/26/2016	4/26/2016	0.22	1	470	1	430	1	2	0	11000	1	19000	1	6.87	1
MW-72	FC-CCR-MW72-616	06/06/2016	6/6/2016	0.25	1	570	1	530	1	0.4	0	4500	1	9500	1	6.56	1

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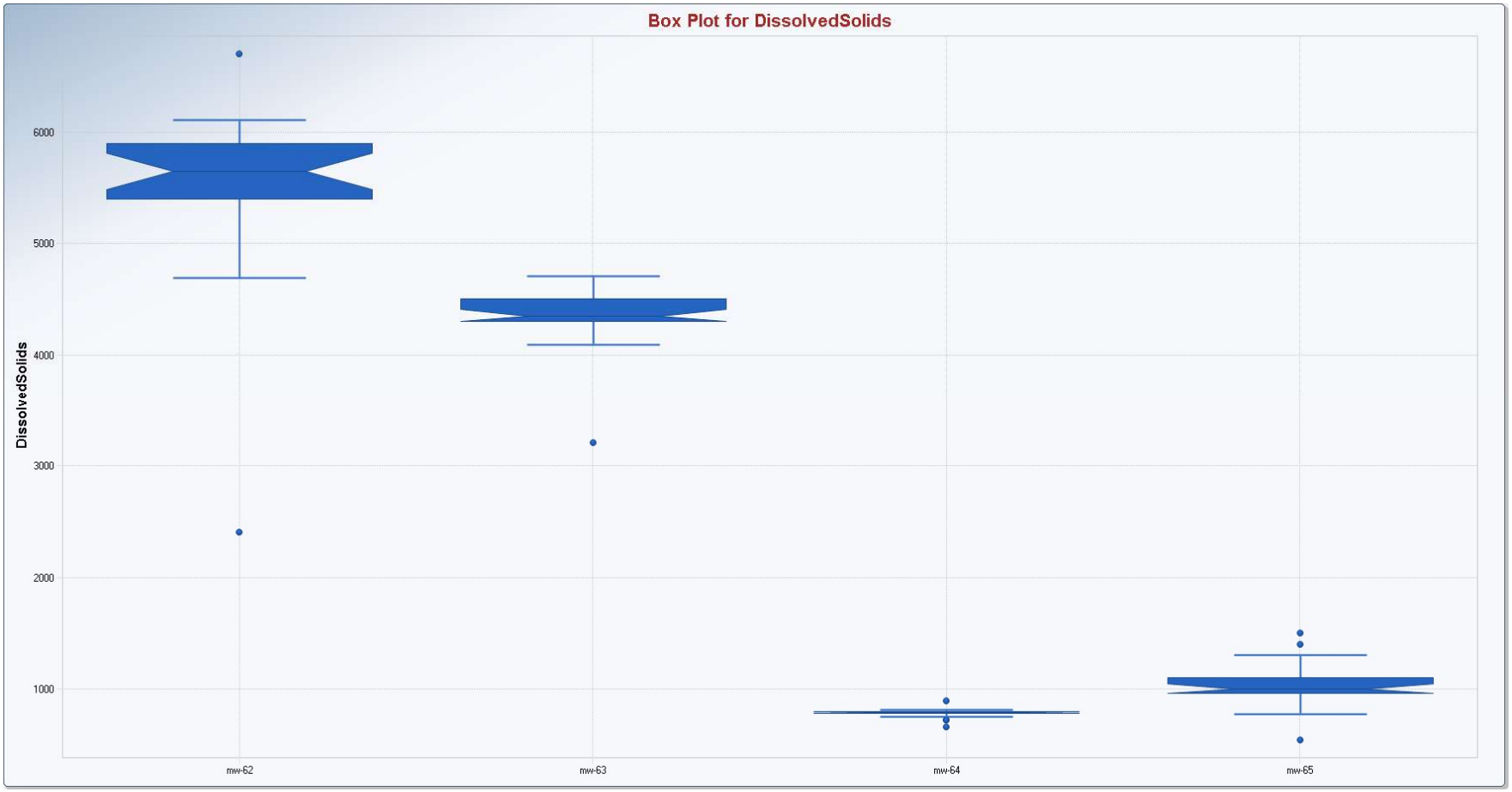
StationName	QC_SampleID	SampDate	NumDate	Boron	D_Boron	Calcium	D_Calcium	Chloride	D_Chloride	Fluoride	D_Fluoride	Sulfate	D_Sulfate	DissolvedSolids	D_DissolvedSolids	Field_pH	D_Field_pH
MW-72	FC-CCR-MW72-816	08/21/2016	8/21/2016	0.23	1	450	1	440	1	0.4	0	10000	1	17000	1	6.72	1
MW-72	FC-CCR-MW72-916	09/13/2016	9/13/2016	0.24	1	470	1	450	1	0.4	0	10000	1	17000	1	6.17	1
MW-72	FC-CCR-MW72-1016	10/20/2016	10/20/2016	0.23	1	400	1	480	1	0.4	0	11000	1	17000	1	6.84	1
MW-72	FC-CCR-MW72-117	02/02/2017	2/2/2017	0.23	1	420	1	430	1	0.4	0	11000	1	16000	1	6.63	1
MW-72	FC-CCR-MW72-41717	04/17/2017	4/17/2017	0.2	1	440	1	450	1	2	0	610	1	17000	1	6.73	1
MW-72	FC-CCR-MW72-5217	05/02/2017	5/2/2017	0.25	1	430	1	450	1	2	0	11000	1	16000	1	6.83	1
MW-72	FC-CCR-MW72-52917	05/29/2017	5/29/2017	0.25	1	470	1	460	1	2	0	11000	1	15000	1	6.68	1
MW-72	FC-CCR-MW72-62217	06/22/2017	6/22/2017	0.23	1	450	1	450	1	2	0	11000	1	17000	1	6.65	1
MW-72	FC-CCR-MW72-72117	07/21/2017	7/21/2017	0.23	1	450	1	460	1	2	0	11000	1	17000	1	6.93	1
MW-72	FC-CCR-MW72-81017	08/10/2017	8/10/2017	0.21	1	450	1	460	1	2	0	11000	1	17000	1	6.47	1
MW-72	FC-CCR-MW72-81717	08/17/2017	8/17/2017	0.26	1	490	1	450	1	2	0	11000	1	17000	1	6.18	1
MW-72	FC-CCR-MW72-91017	09/10/2017	9/10/2017	0.21	1	470	1	460	1	2	0	11000	1	17000	1	6.61	1
MW-72	FC-CCR-MW72-101317	10/13/2017	10/13/2017	0.22	1	430	1	450	1	2	0	11000	1	16000	1	6.65	1
MW-72	FC-CCR-MW72-113017	11/30/2017	11/30/2017	0.22	1	500	1	450	1	2	0	10000	1	16000	1	6.63	1
MW-72	FC-CCR-MW-72-6218	06/02/2018	6/2/2018	0.21	1	410	1	450	1	0.8	0	11000	1	16000	1	6.75	1
MW-72	FC-CCR-MW72-11318	11/03/2018	11/3/2018	0.22	1	470	1	450	1	0.8	0	11000	1	16000	1	6.75	1
MW-72	FC-CCR-MW72-031719	03/17/2019	3/17/2019	--	--	--	--	--	--	0.8	0	--	--	--	--	6.68	1
MW-72	FC-CCR-MW72-5719	05/06/2019	5/6/2019	0.22	1	400	1	--	--	0.8	0	--	--	16000	1	6.85	1
MW-72	FC-CCR-MW72-120219	12/02/2019	12/2/2019	0.19	1	430	1	430	1	0.8	0	11000	1	16000	1	6.62	1
MW-72	FC-CCR-MW72-0620	06/19/2020	6/19/2020	0.23	1	440	1	400	1	0.8	0	11000	1	16000	1	6.65	1
MW-72	FC-CCR-MW72-1120	11/05/2020	11/5/2020	0.24	1	470	1	430	1	0.4	0	10000	1	16000	1	6.70	1
MW-72	FC-CCR-MW72-0421	04/22/2021	4/22/2021	0.25	1	480	1	400	1	0.8	0	10000	1	16000	1	6.89	1
MW-73	FC-CCR-MW73-117	02/02/2017	2/2/2017	1.6	1	480	1	380	1	0.4	0	5400	1	8800	1	6.65	1
MW-73	FC-CCR-MW73-41817	04/18/2017	4/18/2017	1.6	1	450	1	340	1	0.8	0	5700	1	9200	1	6.70	1
MW-73	FC-CCR-MW73-5217	05/02/2017	5/2/2017	1.6	1	470	1	570	1	0.8	0	6900	1	11000	1	6.70	1
MW-73	FC-CCR-MW73-52917	05/29/2017	5/29/2017	1.8	1	510	1	290	1	0.8	0	4300	1	6100	1	6.70	1
MW-73	FC-CCR-MW73-62217	06/22/2017	6/22/2017	1.6	1	490	1	450	1	0.8	0	6700	1	11000	1	6.74	1
MW-73	FC-CCR-MW73-72217	07/22/2017	7/22/2017	1.6	1	490	1	520	1	0.8	0	8000	1	12000	1	6.83	1
MW-73	FC-CCR-MW73-81017	08/10/2017	8/10/2017	1.7	1	500	1	540	1	0.8	0	7700	1	12000	1	6.45	1
MW-73	FC-CCR-MW73-81717	08/17/2017	8/17/2017	1.7	1	540	1	550	1	0.8	0	7600	1	11000	1	6.50	1
MW-73	FC-CCR-MW73-91017	09/10/2017	9/10/2017	1.9	1	520	1	470	1	0.8	0	6000	1	9900	1	6.62	1
MW-73	FC-CCR-MW73-101217	10/12/2017	10/12/2017	2	1	510	1	310	1	0.8	0	3900	1	6600	1	6.64	1
MW-73	FC-CCR-MW73-113017	11/30/2017	11/30/2017	1.8	1	550	1	420	1	0.8	0	5600	1	8900	1	6.61	1
MW-73	FC-CCR-MW-73-6218	06/02/2018	6/2/2018	1.6	1	460	1	550	1	0.8	0	7100	1	12000	1	6.67	1
MW-73	FC-CCR-MW73-11318	11/03/2018	11/3/2018	1.7	1	480	1	660	1	0.8	0	7500	1	12000	1	6.64	1
MW-73	FC-CCR-MW73-031819	03/18/2019	3/18/2019	--	--	--	--	--	--	0.8	0	--	--	--	--	6.95	1
MW-73	FC-CCR-MW73-5619	05/06/2019	5/6/2019	1.6	1	420	1	--	--	0.8	0	--	--	13000	1	6.51	1
MW-73	FC-CCR-MW73-120219	12/02/2019	12/2/2019	1.6	1	460	1	520	1	0.8	0	7100	1	11000	1	6.49	1
MW-73	FC-CCR-MW73-0620	06/20/2020	6/20/2020	1.7	1	450	1	520	1	0.8	0	7200	1	12000	1	6.53	1
MW-73	FC-CCR-MW73-1120	11/05/2020	11/5/2020	1.6	1	480	1	530	1	0.063	1	7100	1	12000	1	6.65	1

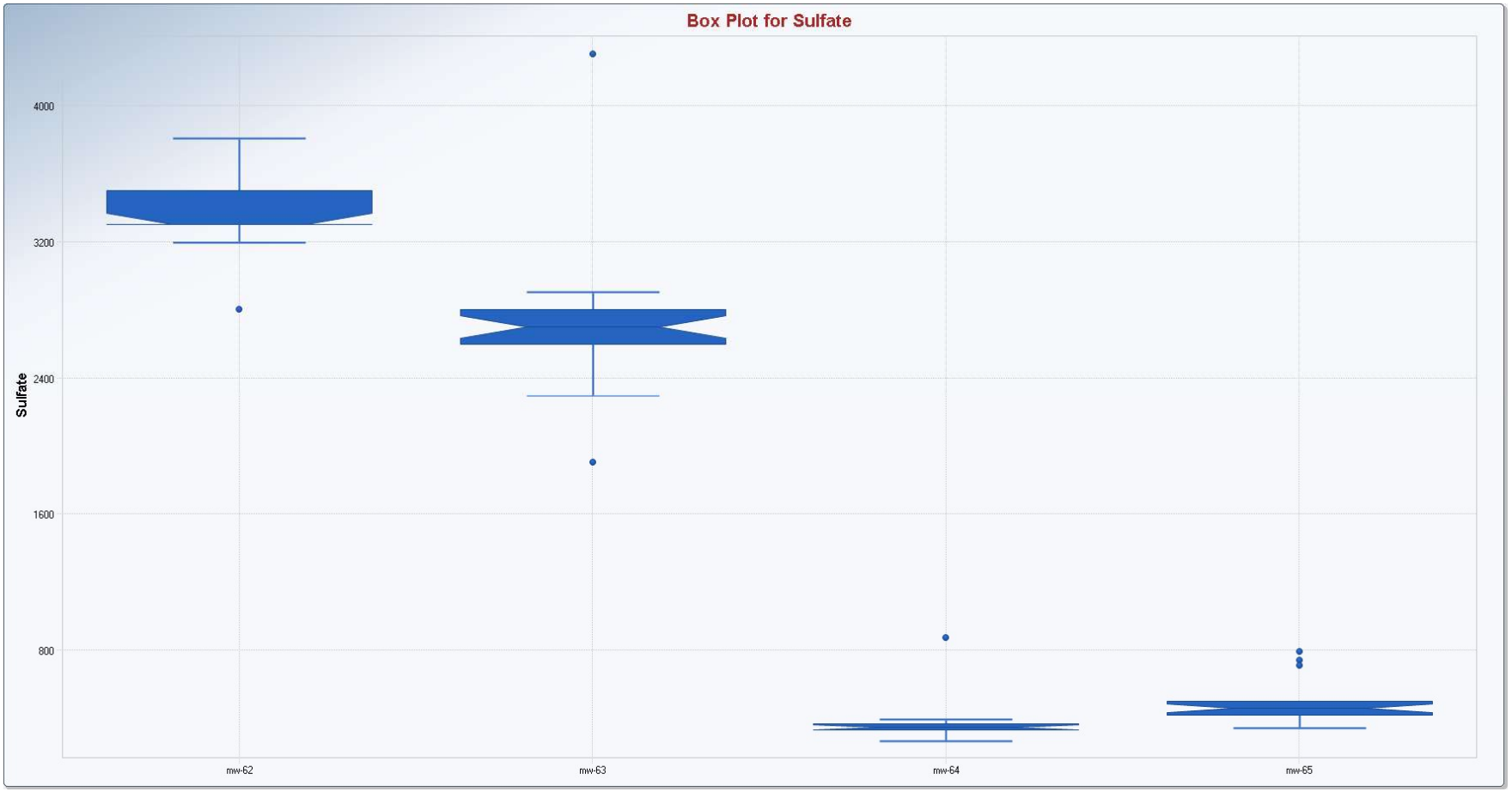
APPENDIX B

PROUCL EDA OUTPUT FILES

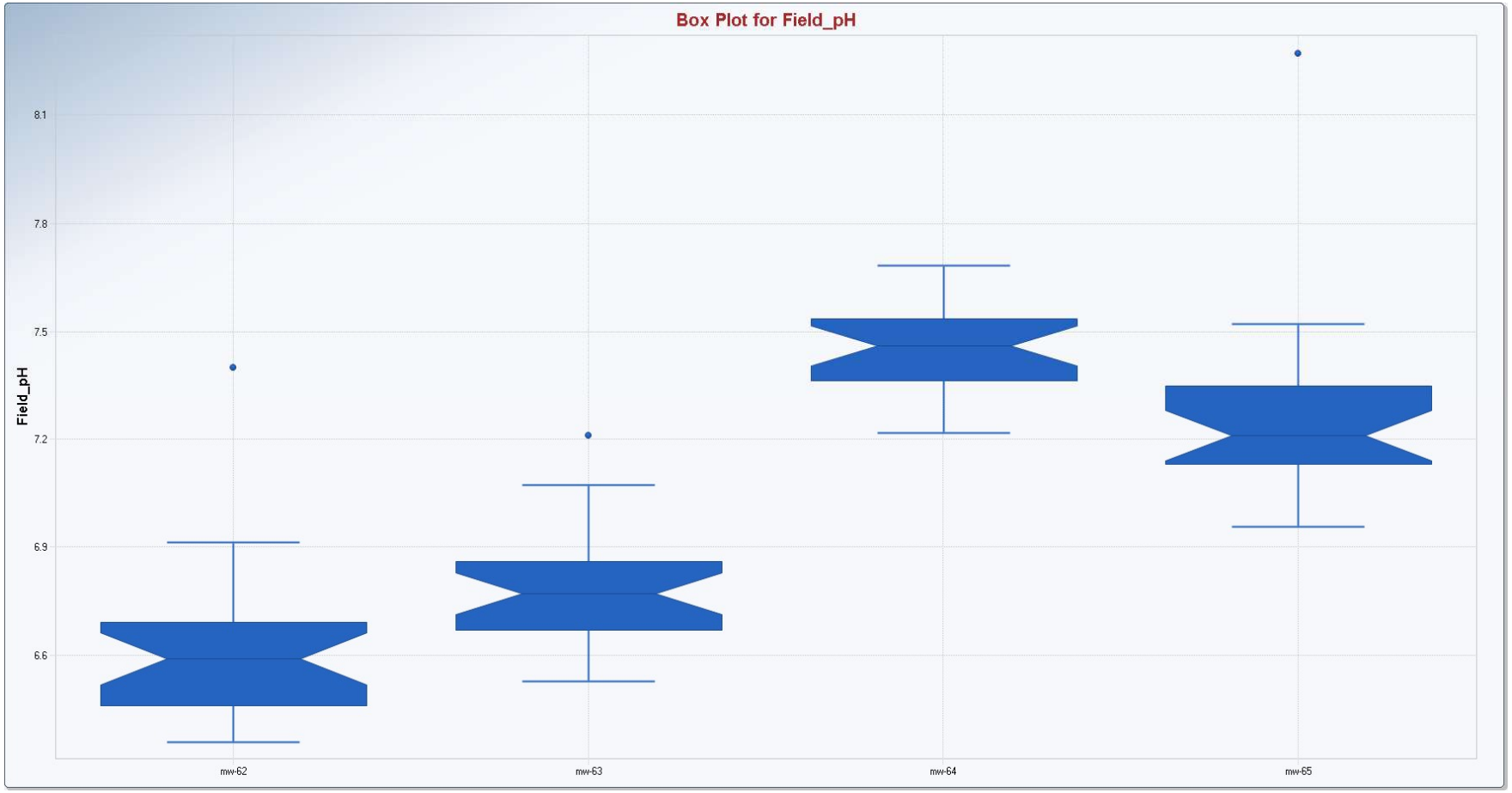
Appendix B
Box and Whisker Plots



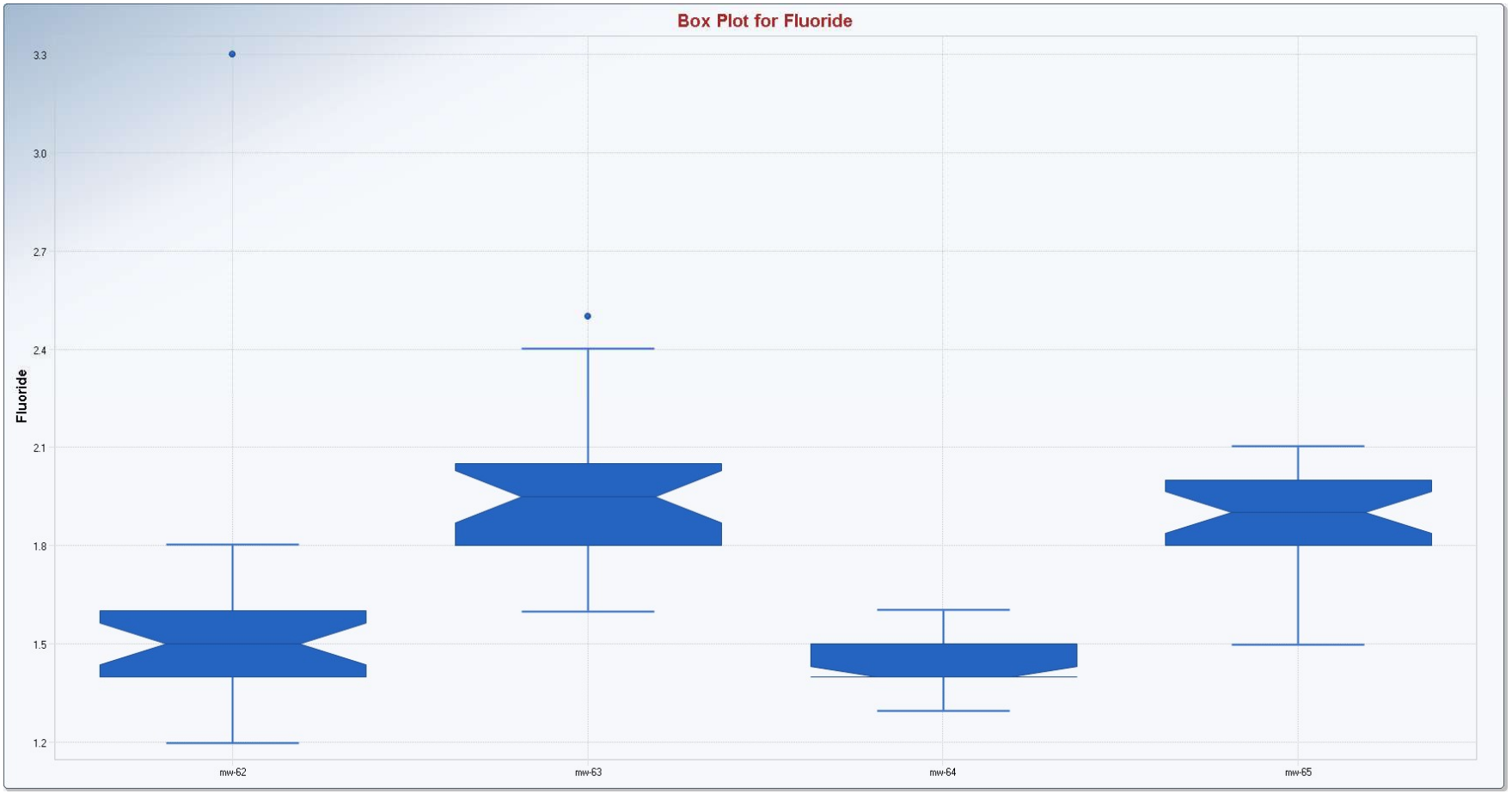
Appendix B
Box and Whisker Plots



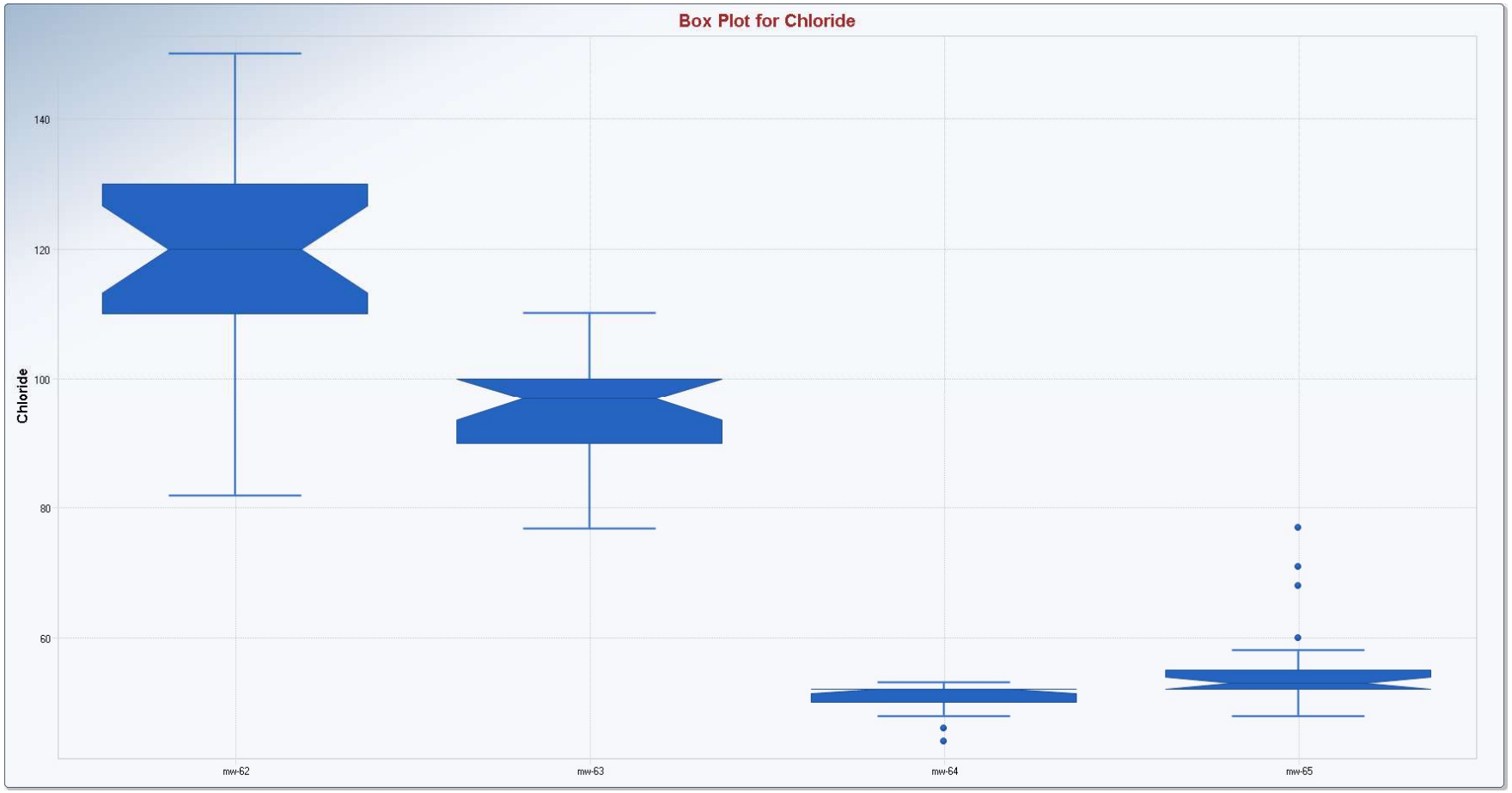
Appendix B
Box and Whisker Plots



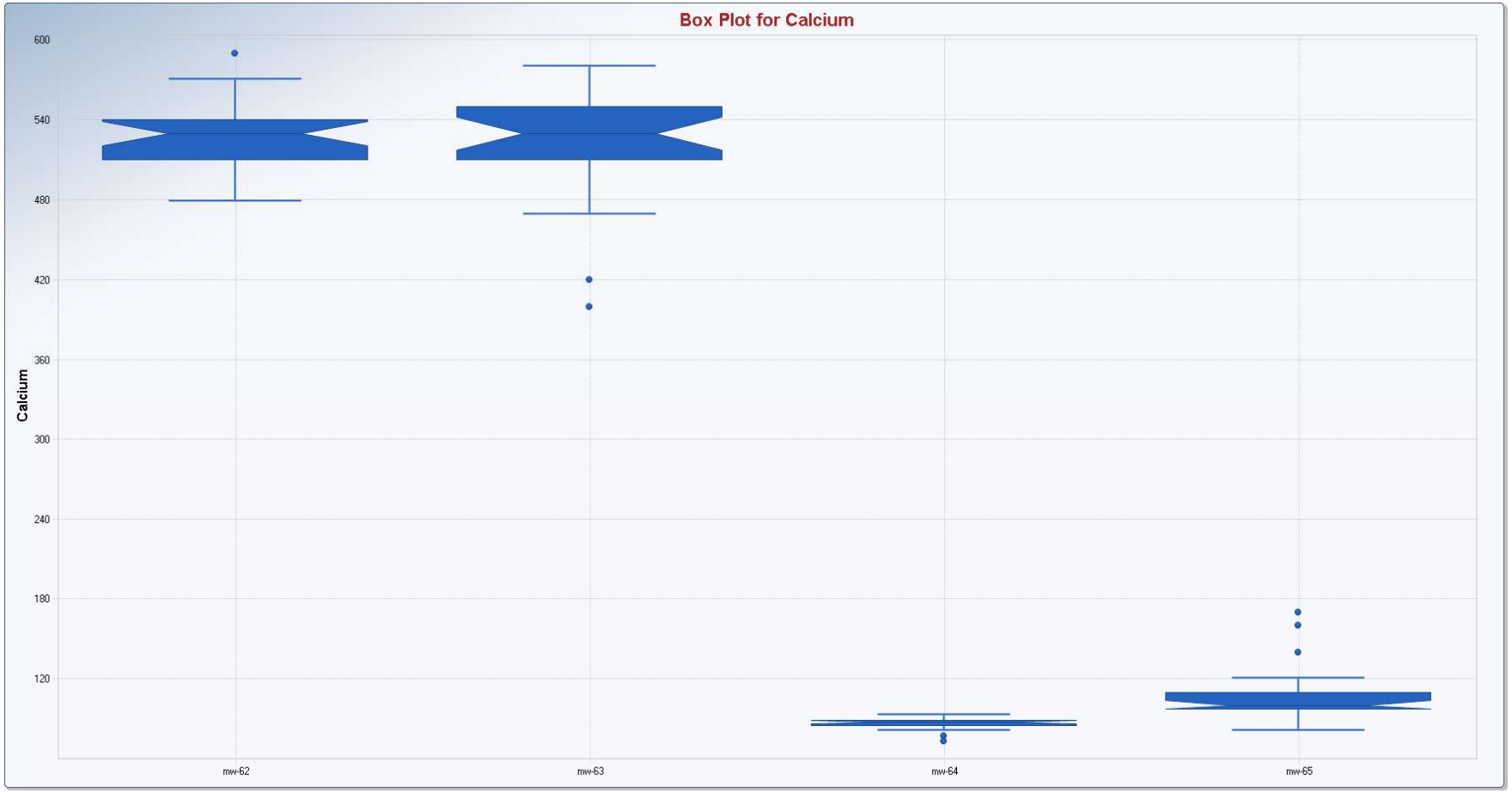
Appendix B
Box and Whisker Plots



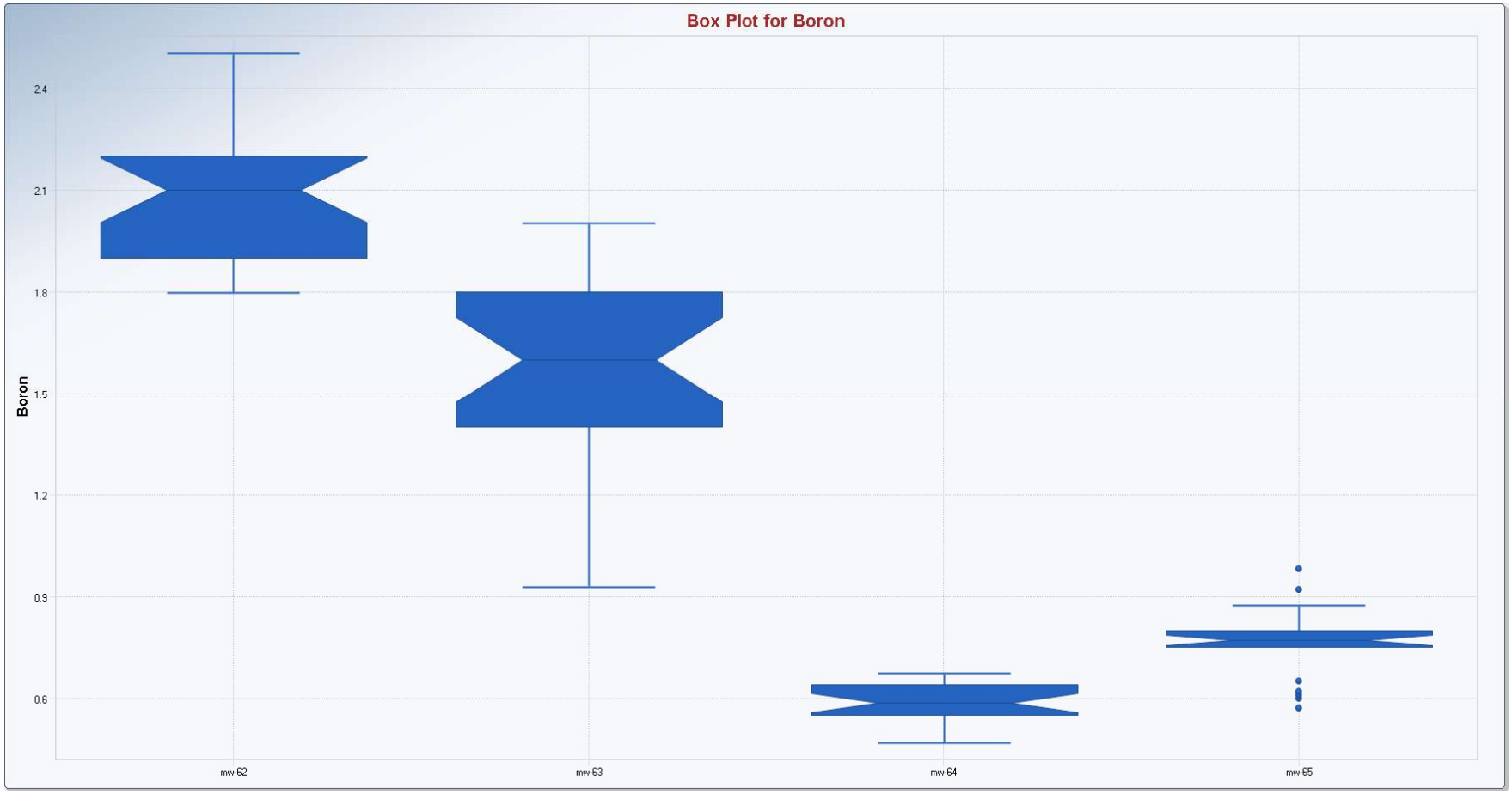
Appendix B
Box and Whisker Plots



Appendix B
Box and Whisker Plots



Appendix B
Box and Whisker Plots



Appendix B
Goodness of Fit Statistics

	Goodness-of-Fit Test Statistics for Data Sets with Non-Detects
User Selected Options	
Date/Time of Computation	ProUCL 5.19/4/2021 2:49:48 PM
From File	CWTP_StatsAnalysis_DataFile_Jul2021.xls
Full Precision	OFF
Confidence Coefficient	0.95

Boron (mw-62)

Raw Statistics	
Number of Valid Observations	25
Number of Missing Observations	1
Number of Distinct Observations	8
Minimum	1.8
Maximum	2.5
Mean of Raw Data	2.084
Standard Deviation of Raw Data	0.186
Khat	132
Theta hat	0.0158
Kstar	116.2
Theta star	0.0179
Mean of Log Transformed Data	0.73
Standard Deviation of Log Transformed Data	0.0887

Normal GOF Test Results	
Correlation Coefficient R	0.975
Shapiro Wilk Test Statistic	0.943
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	0.185
Lilliefors Test Statistic	0.158
Lilliefors Critical (0.05) Value	0.173

Data appear Normal at (0.05) Significance Level

Gamma GOF Test Results	
Correlation Coefficient R	0.978
A-D Test Statistic	0.591
A-D Critical (0.05) Value	0.742

Appendix B
Goodness of Fit Statistics

K-S Test Statistic	0.165
K-S Critical(0.05) Value	0.174
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.977
Shapiro Wilk Test Statistic	0.947
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	0.225
Lilliefors Test Statistic	0.161
Lilliefors Critical (0.05) Value	0.173
Data appear Lognormal at (0.05) Significance Level	
Boron (mw-63)	
Raw Statistics	
Number of Valid Observations	25
Number of Missing Observations	1
Number of Distinct Observations	9
Minimum	0.93
Maximum	2
Mean of Raw Data	1.589
Standard Deviation of Raw Data	0.265
Khat	34.85
Theta hat	0.0456
Kstar	30.7
Theta star	0.0518
Mean of Log Transformed Data	0.449
Standard Deviation of Log Transformed Data	0.177
Normal GOF Test Results	
Correlation Coefficient R	0.975
Shapiro Wilk Test Statistic	0.949
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	0.261
Lilliefors Test Statistic	0.122
Lilliefors Critical (0.05) Value	0.173

Appendix B
Goodness of Fit Statistics

Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.967
A-D Test Statistic	0.487
A-D Critical (0.05) Value	0.743
K-S Test Statistic	0.117
K-S Critical(0.05) Value	0.174
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.957
Shapiro Wilk Test Statistic	0.921
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	0.0563
Lilliefors Test Statistic	0.118
Lilliefors Critical (0.05) Value	0.173
Data appear Lognormal at (0.05) Significance Level	
Boron (mw-64)	
Raw Statistics	
Number of Valid Observations	24
Number of Distinct Observations	14
Minimum	0.47
Maximum	0.67
Mean of Raw Data	0.583
Standard Deviation of Raw Data	0.0608
Khat	92.75
Theta hat	0.00629
Kstar	81.18
Theta star	0.00719
Mean of Log Transformed Data	-0.544
Standard Deviation of Log Transformed Data	0.107
Normal GOF Test Results	

Appendix B
Goodness of Fit Statistics

Correlation Coefficient R	0.976
Shapiro Wilk Test Statistic	0.937
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.148
Lilliefors Test Statistic	0.128
Lilliefors Critical (0.05) Value	0.177
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.968
A-D Test Statistic	0.581
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.139
K-S Critical(0.05) Value	0.177
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.97
Shapiro Wilk Test Statistic	0.926
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.0812
Lilliefors Test Statistic	0.138
Lilliefors Critical (0.05) Value	0.177
Data appear Lognormal at (0.05) Significance Level	
Boron (mw-65)	
Raw Statistics	
Number of Valid Observations	25
Number of Distinct Observations	16
Minimum	0.57
Maximum	0.98
Mean of Raw Data	0.765
Standard Deviation of Raw Data	0.0971
Khat	62.31
Theta hat	0.0123
Kstar	54.86

Appendix B
Goodness of Fit Statistics

Theta star	0.0139
Mean of Log Transformed Data	-0.276
Standard Deviation of Log Transformed Data	0.131
Normal GOF Test Results	
Correlation Coefficient R	0.964
Shapiro Wilk Test Statistic	0.932
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	0.102
Lilliefors Test Statistic	0.239
Lilliefors Critical (0.05) Value	0.173
Data appear Approximate Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.962
A-D Test Statistic	1.034
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.256
K-S Critical(0.05) Value	0.174
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.955
Shapiro Wilk Test Statistic	0.915
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	0.0397
Lilliefors Test Statistic	0.265
Lilliefors Critical (0.05) Value	0.173
Data not Lognormal at (0.05) Significance Level	
Calcium (mw-62)	
Raw Statistics	
Number of Valid Observations	25
Number of Missing Observations	1
Number of Distinct Observations	10

Appendix B
Goodness of Fit Statistics

Minimum	480
Maximum	590
Mean of Raw Data	530
Standard Deviation of Raw Data	28.14
Khat	372.8
Theta hat	1.422
Kstar	328.1
Theta star	1.615
Mean of Log Transformed Data	6.272
Standard Deviation of Log Transformed Data	0.0528
Normal GOF Test Results	
Correlation Coefficient R	0.98
Shapiro Wilk Test Statistic	0.956
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	0.359
Lilliefors Test Statistic	0.14
Lilliefors Critical (0.05) Value	0.173
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.981
A-D Test Statistic	0.462
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.133
K-S Critical(0.05) Value	0.174
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.983
Shapiro Wilk Test Statistic	0.961
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	0.453
Lilliefors Test Statistic	0.13
Lilliefors Critical (0.05) Value	0.173
Data appear Lognormal at (0.05) Significance Level	

Appendix B
Goodness of Fit Statistics

Calcium (mw-63)

Raw Statistics	
Number of Valid Observations	25
Number of Missing Observations	1
Number of Distinct Observations	11
Minimum	400
Maximum	580
Mean of Raw Data	519.6
Standard Deviation of Raw Data	40.67
Khat	155.4
Theta hat	3.344
Kstar	136.7
Theta star	3.8
Mean of Log Transformed Data	6.25
Standard Deviation of Log Transformed Data	0.0839
Normal GOF Test Results	
Correlation Coefficient R	0.914
Shapiro Wilk Test Statistic	0.847
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	0.00116
Lilliefors Test Statistic	0.195
Lilliefors Critical (0.05) Value	0.173

Data not Normal at (0.05) Significance Level

Gamma GOF Test Results	
Correlation Coefficient R	0.905
A-D Test Statistic	1.493
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.207
K-S Critical(0.05) Value	0.174

Data not Gamma Distributed at (0.05) Significance Level

Lognormal GOF Test Results

Appendix B
Goodness of Fit Statistics

Correlation Coefficient R	0.893
Shapiro Wilk Test Statistic	0.809
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	1.9414E-4
Lilliefors Test Statistic	0.217
Lilliefors Critical (0.05) Value	0.173
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	
Calcium (mw-64)	
Raw Statistics	
Number of Valid Observations	24
Number of Distinct Observations	11
Minimum	73
Maximum	93
Mean of Raw Data	86.29
Standard Deviation of Raw Data	4.467
Khat	370
Theta hat	0.233
Kstar	323.7
Theta star	0.267
Mean of Log Transformed Data	4.456
Standard Deviation of Log Transformed Data	0.0538
Normal GOF Test Results	
Correlation Coefficient R	0.928
Shapiro Wilk Test Statistic	0.872
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.00496
Lilliefors Test Statistic	0.178
Lilliefors Critical (0.05) Value	0.177
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	

Appendix B
Goodness of Fit Statistics

Correlation Coefficient R	0.922
A-D Test Statistic	1.143
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.184
K-S Critical(0.05) Value	0.177

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	0.916
Approximate Shapiro Wilk P Value	0.00174
Lilliefors Test Statistic	0.191
Lilliefors Critical (0.05) Value	0.177

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

Calcium (mw-65)

Raw Statistics

Number of Valid Observations	24
Number of Missing Observations	1
Number of Distinct Observations	13
Minimum	82
Maximum	170
Mean of Raw Data	108.3
Standard Deviation of Raw Data	21.09
Khat	32.34
Theta hat	3.35
Kstar	28.33
Theta star	3.824
Mean of Log Transformed Data	4.67
Standard Deviation of Log Transformed Data	0.174

Appendix B
Goodness of Fit Statistics

Normal GOF Test Results	
Correlation Coefficient R	0.883
Shapiro Wilk Test Statistic	0.788
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	1.0365E-4
Lilliefors Test Statistic	0.302
Lilliefors Critical (0.05) Value	0.177
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.911
A-D Test Statistic	1.519
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.275
K-S Critical(0.05) Value	0.177
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.923
Shapiro Wilk Test Statistic	0.859
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.0026
Lilliefors Test Statistic	0.263
Lilliefors Critical (0.05) Value	0.177
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	
Chloride (mw-62)	
Raw Statistics	
Number of Valid Observations	22
Number of Missing Observations	4
Number of Distinct Observations	7

Appendix B
Goodness of Fit Statistics

Minimum	82
Maximum	150
Mean of Raw Data	121
Standard Deviation of Raw Data	15.53
Khat	60.65
Theta hat	1.994
Kstar	52.41
Theta star	2.308
Mean of Log Transformed Data	4.787
Standard Deviation of Log Transformed Data	0.134
Normal GOF Test Results	
Correlation Coefficient R	0.963
Shapiro Wilk Test Statistic	0.937
Shapiro Wilk Critical (0.05) Value	0.911
Approximate Shapiro Wilk P Value	0.166
Lilliefors Test Statistic	0.161
Lilliefors Critical (0.05) Value	0.184
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.962
A-D Test Statistic	0.672
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.174
K-S Critical(0.05) Value	0.185
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.95
Shapiro Wilk Test Statistic	0.914
Shapiro Wilk Critical (0.05) Value	0.911
Approximate Shapiro Wilk P Value	0.0557
Lilliefors Test Statistic	0.183
Lilliefors Critical (0.05) Value	0.184
Data appear Lognormal at (0.05) Significance Level	

Appendix B
Goodness of Fit Statistics

Chloride (mw-63)

Raw Statistics	
Number of Valid Observations	22
Number of Missing Observations	4
Number of Distinct Observations	11
Minimum	77
Maximum	110
Mean of Raw Data	94.5
Standard Deviation of Raw Data	8.478
Khat	126.3
Theta hat	0.748
Kstar	109.1
Theta star	0.866
Mean of Log Transformed Data	4.545
Standard Deviation of Log Transformed Data	0.0919

Normal GOF Test Results	
Correlation Coefficient R	0.967
Shapiro Wilk Test Statistic	0.934
Shapiro Wilk Critical (0.05) Value	0.911
Approximate Shapiro Wilk P Value	0.147
Lilliefors Test Statistic	0.167
Lilliefors Critical (0.05) Value	0.184

Data appear Normal at (0.05) Significance Level

Gamma GOF Test Results	
Correlation Coefficient R	0.963
A-D Test Statistic	0.654
A-D Critical (0.05) Value	0.741
K-S Test Statistic	0.173
K-S Critical(0.05) Value	0.185

Data appear Gamma Distributed at (0.05) Significance Level

Lognormal GOF Test Results

Appendix B
Goodness of Fit Statistics

Correlation Coefficient R	0.96
Shapiro Wilk Test Statistic	0.922
Shapiro Wilk Critical (0.05) Value	0.911
Approximate Shapiro Wilk P Value	0.0796
Lilliefors Test Statistic	0.174
Lilliefors Critical (0.05) Value	0.184
Data appear Lognormal at (0.05) Significance Level	
Chloride (mw-64)	
Raw Statistics	
Number of Valid Observations	22
Number of Missing Observations	2
Number of Distinct Observations	8
Minimum	44
Maximum	53
Mean of Raw Data	50.82
Standard Deviation of Raw Data	2.383
Khat	454.1
Theta hat	0.112
Kstar	392.2
Theta star	0.13
Mean of Log Transformed Data	3.927
Standard Deviation of Log Transformed Data	0.0486
Normal GOF Test Results	
Correlation Coefficient R	0.905
Shapiro Wilk Test Statistic	0.82
Shapiro Wilk Critical (0.05) Value	0.911
Approximate Shapiro Wilk P Value	6.8290E-4
Lilliefors Test Statistic	0.235
Lilliefors Critical (0.05) Value	0.184
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.897
A-D Test Statistic	1.457

Appendix B
Goodness of Fit Statistics

A-D Critical (0.05) Value	0.741
K-S Test Statistic	0.24
K-S Critical(0.05) Value	0.185
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.896
Shapiro Wilk Test Statistic	0.805
Shapiro Wilk Critical (0.05) Value	0.911
Approximate Shapiro Wilk P Value	3.6525E-4
Lilliefors Test Statistic	0.235
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	
Chloride (mw-65)	
Raw Statistics	
Number of Valid Observations	22
Number of Missing Observations	3
Number of Distinct Observations	11
Minimum	48
Maximum	77
Mean of Raw Data	55.73
Standard Deviation of Raw Data	7.173
Khat	72.19
Theta hat	0.772
Kstar	62.37
Theta star	0.893
Mean of Log Transformed Data	4.014
Standard Deviation of Log Transformed Data	0.117
Normal GOF Test Results	
Correlation Coefficient R	0.835

Appendix B
Goodness of Fit Statistics

Shapiro Wilk Test Statistic	0.708
Shapiro Wilk Critical (0.05) Value	0.911
Approximate Shapiro Wilk P Value	8.5088E-6
Lilliefors Test Statistic	0.322
Lilliefors Critical (0.05) Value	0.184
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.86
A-D Test Statistic	2.596
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.317
K-S Critical(0.05) Value	0.185
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.858
Shapiro Wilk Test Statistic	0.745
Shapiro Wilk Critical (0.05) Value	0.911
Approximate Shapiro Wilk P Value	3.3062E-5
Lilliefors Test Statistic	0.31
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	
Fluoride (mw-62)	
Raw Statistics	
Number of Valid Observations	25
Number of Missing Observations	1
Number of Distinct Observations	6
Minimum	1.2
Maximum	3.3
Mean of Raw Data	1.544

Appendix B
Goodness of Fit Statistics

Standard Deviation of Raw Data	0.399
Khat	22.93
Theta hat	0.0673
Kstar	20.21
Theta star	0.0764
Mean of Log Transformed Data	0.412
Standard Deviation of Log Transformed Data	0.196
Normal GOF Test Results	
Correlation Coefficient R	0.73
Shapiro Wilk Test Statistic	0.564
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	1.8569E-8
Lilliefors Test Statistic	0.324
Lilliefors Critical (0.05) Value	0.173
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.772
A-D Test Statistic	2.426
A-D Critical (0.05) Value	0.743
K-S Test Statistic	0.285
K-S Critical(0.05) Value	0.174
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.83
Shapiro Wilk Test Statistic	0.716
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	3.8786E-6
Lilliefors Test Statistic	0.265
Lilliefors Critical (0.05) Value	0.173
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-63)	
Raw Statistics	
Number of Valid Observations	24
Number of Missing Observations	2
Number of Distinct Observations	9
Minimum	1.6
Maximum	2.5
Mean of Raw Data	1.95
Standard Deviation of Raw Data	0.225
Khat	80.31
Theta hat	0.0243
Kstar	70.3
Theta star	0.0277
Mean of Log Transformed Data	0.662
Standard Deviation of Log Transformed Data	0.114
Normal GOF Test Results	
Correlation Coefficient R	0.969
Shapiro Wilk Test Statistic	0.938
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.15
Lilliefors Test Statistic	0.162
Lilliefors Critical (0.05) Value	0.177
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.974
A-D Test Statistic	0.507
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.146
K-S Critical(0.05) Value	0.177
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	

Appendix B
Goodness of Fit Statistics

Correlation Coefficient R	0.975
Shapiro Wilk Test Statistic	0.948
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.247
Lilliefors Test Statistic	0.141
Lilliefors Critical (0.05) Value	0.177
Data appear Lognormal at (0.05) Significance Level	
Fluoride (mw-64)	
Raw Statistics	
Number of Valid Observations	24
Number of Distinct Observations	4
Minimum	1.3
Maximum	1.6
Mean of Raw Data	1.433
Standard Deviation of Raw Data	0.0761
Khat	368.4
Theta hat	0.00389
Kstar	322.4
Theta star	0.00445
Mean of Log Transformed Data	0.359
Standard Deviation of Log Transformed Data	0.0533
Normal GOF Test Results	
Correlation Coefficient R	0.925
Shapiro Wilk Test Statistic	0.856
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.00231
Lilliefors Test Statistic	0.253
Lilliefors Critical (0.05) Value	0.177
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.925
A-D Test Statistic	1.789

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Goodness of Fit Statistics

A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.251
K-S Critical(0.05) Value	0.177
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.924
Shapiro Wilk Test Statistic	0.855
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.00213
Lilliefors Test Statistic	0.245
Lilliefors Critical (0.05) Value	0.177
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)	
Raw Statistics	
Number of Valid Observations	24
Number of Missing Observations	1
Number of Distinct Observations	7
Minimum	1.5
Maximum	2.1
Mean of Raw Data	1.875
Standard Deviation of Raw Data	0.151
Khat	152.9
Theta hat	0.0123
Kstar	133.8
Theta star	0.014
Mean of Log Transformed Data	0.625
Standard Deviation of Log Transformed Data	0.0838
Normal GOF Test Results	
Correlation Coefficient R	0.944

Appendix B
Goodness of Fit Statistics

Shapiro Wilk Test Statistic	0.892
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.0139
Lilliefors Test Statistic	0.213
Lilliefors Critical (0.05) Value	0.177
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.935
A-D Test Statistic	1.177
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.214
K-S Critical(0.05) Value	0.177
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.936
Shapiro Wilk Test Statistic	0.878
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.00674
Lilliefors Test Statistic	0.208
Lilliefors Critical (0.05) Value	0.177
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	
Sulfate (mw-62)	
Raw Statistics	
Number of Valid Observations	22
Number of Missing Observations	4
Number of Distinct Observations	7
Minimum	2800
Maximum	3800
Mean of Raw Data	3364

Appendix B
Goodness of Fit Statistics

Standard Deviation of Raw Data	191.6
Khat	314.3
Theta hat	10.7
Kstar	271.5
Theta star	12.39
Mean of Log Transformed Data	8.119
Standard Deviation of Log Transformed Data	0.0582
Normal GOF Test Results	
Correlation Coefficient R	0.926
Shapiro Wilk Test Statistic	0.883
Shapiro Wilk Critical (0.05) Value	0.911
Approximate Shapiro Wilk P Value	0.012
Lilliefors Test Statistic	0.234
Lilliefors Critical (0.05) Value	0.184
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.929
A-D Test Statistic	1.095
A-D Critical (0.05) Value	0.741
K-S Test Statistic	0.239
K-S Critical(0.05) Value	0.185
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.915
Shapiro Wilk Test Statistic	0.865
Shapiro Wilk Critical (0.05) Value	0.911
Approximate Shapiro Wilk P Value	0.00512
Lilliefors Test Statistic	0.245
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	
Sulfate (mw-63)	
Raw Statistics	
Number of Valid Observations	22
Number of Missing Observations	4
Number of Distinct Observations	9
Minimum	1900
Maximum	4300
Mean of Raw Data	2732
Standard Deviation of Raw Data	417.9
Khat	51.12
Theta hat	53.44
Kstar	44.18
Theta star	61.83
Mean of Log Transformed Data	7.903
Standard Deviation of Log Transformed Data	0.14
Normal GOF Test Results	
Correlation Coefficient R	0.815
Shapiro Wilk Test Statistic	0.704
Shapiro Wilk Critical (0.05) Value	0.911
Approximate Shapiro Wilk P Value	7.4298E-6
Lilliefors Test Statistic	0.298
Lilliefors Critical (0.05) Value	0.184
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.832
A-D Test Statistic	1.935
A-D Critical (0.05) Value	0.743
K-S Test Statistic	0.271
K-S Critical(0.05) Value	0.185
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	

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Goodness of Fit Statistics

Correlation Coefficient R	0.86
Shapiro Wilk Test Statistic	0.778
Shapiro Wilk Critical (0.05) Value	0.911
Approximate Shapiro Wilk P Value	1.2302E-4
Lilliefors Test Statistic	0.264
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

Sulfate (mw-64)

Raw Statistics

Number of Valid Observations	22
Number of Missing Observations	2
Number of Distinct Observations	11
Minimum	270
Maximum	870
Mean of Raw Data	367.7
Standard Deviation of Raw Data	116.2
Khat	17.48
Theta hat	21.04
Kstar	15.13
Theta star	24.31
Mean of Log Transformed Data	5.878
Standard Deviation of Log Transformed Data	0.218

Normal GOF Test Results

Correlation Coefficient R	0.656
Shapiro Wilk Test Statistic	0.463
Shapiro Wilk Critical (0.05) Value	0.911
Approximate Shapiro Wilk P Value	4.5277E-9
Lilliefors Test Statistic	0.379
Lilliefors Critical (0.05) Value	0.184

Data not Normal at (0.05) Significance Level

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Goodness of Fit Statistics

Gamma GOF Test Results	
Correlation Coefficient R	0.708
A-D Test Statistic	3.041
A-D Critical (0.05) Value	0.741
K-S Test Statistic	0.326
K-S Critical(0.05) Value	0.185
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.766
Shapiro Wilk Test Statistic	0.621
Shapiro Wilk Critical (0.05) Value	0.911
Approximate Shapiro Wilk P Value	4.5161E-7
Lilliefors Test Statistic	0.299
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	
Sulfate (mw-65)	
Raw Statistics	
Number of Valid Observations	22
Number of Missing Observations	3
Number of Distinct Observations	15
Minimum	350
Maximum	790
Mean of Raw Data	488.2
Standard Deviation of Raw Data	113
Khat	23.39
Theta hat	20.87
Kstar	20.23
Theta star	24.13
Mean of Log Transformed Data	6.169

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Goodness of Fit Statistics

Standard Deviation of Log Transformed Data	0.204
Normal GOF Test Results	
Correlation Coefficient R	0.871
Shapiro Wilk Test Statistic	0.764
Shapiro Wilk Critical (0.05) Value	0.911
Approximate Shapiro Wilk P Value	6.9666E-5
Lilliefors Test Statistic	0.322
Lilliefors Critical (0.05) Value	0.184
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.901
A-D Test Statistic	1.679
A-D Critical (0.05) Value	0.741
K-S Test Statistic	0.29
K-S Critical(0.05) Value	0.185
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.915
Shapiro Wilk Test Statistic	0.842
Shapiro Wilk Critical (0.05) Value	0.911
Approximate Shapiro Wilk P Value	0.00183
Lilliefors Test Statistic	0.275
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	
DissolvedSolids (mw-62)	
Raw Statistics	
Number of Valid Observations	24

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Goodness of Fit Statistics

Number of Missing Observations	2
Number of Distinct Observations	13
Minimum	2400
Maximum	6700
Mean of Raw Data	5525
Standard Deviation of Raw Data	769.7
Khat	36.62
Theta hat	150.9
Kstar	32.07
Theta star	172.3
Mean of Log Transformed Data	8.603
Standard Deviation of Log Transformed Data	0.188
Normal GOF Test Results	
Correlation Coefficient R	0.803
Shapiro Wilk Test Statistic	0.681
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	1.5222E-6
Lilliefors Test Statistic	0.269
Lilliefors Critical (0.05) Value	0.177
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.781
A-D Test Statistic	3.14
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.3
K-S Critical(0.05) Value	0.177
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.713
Shapiro Wilk Test Statistic	0.544
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	1.6055E-8
Lilliefors Test Statistic	0.316

Appendix B
Goodness of Fit Statistics

Lilliefors Critical (0.05) Value	0.177
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	
DissolvedSolids (mw-63)	
Raw Statistics	
Number of Valid Observations	24
Number of Missing Observations	2
Number of Distinct Observations	8
Minimum	3200
Maximum	4700
Mean of Raw Data	4338
Standard Deviation of Raw Data	287.1
Khat	209
Theta hat	20.76
Kstar	182.9
Theta star	23.72
Mean of Log Transformed Data	8.373
Standard Deviation of Log Transformed Data	0.0732
Normal GOF Test Results	
Correlation Coefficient R	0.835
Shapiro Wilk Test Statistic	0.726
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	8.0812E-6
Lilliefors Test Statistic	0.24
Lilliefors Critical (0.05) Value	0.177
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.83
A-D Test Statistic	2.008
A-D Critical (0.05) Value	0.742

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Goodness of Fit Statistics

K-S Test Statistic	0.251
K-S Critical(0.05) Value	0.177
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.798
Shapiro Wilk Test Statistic	0.667
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	9.2853E-7
Lilliefors Test Statistic	0.258
Lilliefors Critical (0.05) Value	0.177
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	
DissolvedSolids (mw-64)	
Raw Statistics	
Number of Valid Observations	24
Number of Distinct Observations	9
Minimum	660
Maximum	890
Mean of Raw Data	782.5
Standard Deviation of Raw Data	40.78
Khat	372.5
Theta hat	2.101
Kstar	326
Theta star	2.4
Mean of Log Transformed Data	6.661
Standard Deviation of Log Transformed Data	0.0534
Normal GOF Test Results	
Correlation Coefficient R	0.878
Shapiro Wilk Test Statistic	0.805
Shapiro Wilk Critical (0.05) Value	0.916

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Goodness of Fit Statistics

Approximate Shapiro Wilk P Value	2.1480E-4
Lilliefors Test Statistic	0.267
Lilliefors Critical (0.05) Value	0.177
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.879
A-D Test Statistic	2.188
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.274
K-S Critical(0.05) Value	0.177
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.871
Shapiro Wilk Test Statistic	0.793
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	1.2536E-4
Lilliefors Test Statistic	0.278
Lilliefors Critical (0.05) Value	0.177
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	
DissolvedSolids (mw-65)	
Raw Statistics	
Number of Valid Observations	24
Number of Missing Observations	1
Number of Distinct Observations	12
Minimum	540
Maximum	1500
Mean of Raw Data	1023
Standard Deviation of Raw Data	188.9
Khat	29.35

Appendix B
Goodness of Fit Statistics

Theta hat	34.84
Kstar	25.71
Theta star	39.77
Mean of Log Transformed Data	6.913
Standard Deviation of Log Transformed Data	0.194
Normal GOF Test Results	
Correlation Coefficient R	0.918
Shapiro Wilk Test Statistic	0.865
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.00346
Lilliefors Test Statistic	0.256
Lilliefors Critical (0.05) Value	0.177
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.926
A-D Test Statistic	1.587
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.232
K-S Critical(0.05) Value	0.177
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.902
Shapiro Wilk Test Statistic	0.841
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.00108
Lilliefors Test Statistic	0.24
Lilliefors Critical (0.05) Value	0.177
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	

Appendix B
Goodness of Fit Statistics

Field_pH (mw-62)	
Raw Statistics	
Number of Valid Observations	25
Number of Missing Observations	1
Number of Distinct Observations	20
Minimum	6.36
Maximum	7.4
Mean of Raw Data	6.62
Standard Deviation of Raw Data	0.221
Khat	972.1
Theta hat	0.00681
Kstar	855.5
Theta star	0.00774
Mean of Log Transformed Data	1.89
Standard Deviation of Log Transformed Data	0.0324
Normal GOF Test Results	
Correlation Coefficient R	0.91
Shapiro Wilk Test Statistic	0.843
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	9.9856E-4
Lilliefors Test Statistic	0.159
Lilliefors Critical (0.05) Value	0.173
Data appear Approximate Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.917
A-D Test Statistic	0.807
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.15
K-S Critical(0.05) Value	0.174
Data follow Appr. Gamma Distribution at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.92

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Goodness of Fit Statistics

Shapiro Wilk Test Statistic	0.861
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	0.00241
Lilliefors Test Statistic	0.15
Lilliefors Critical (0.05) Value	0.173
Data appear Approximate_Lognormal at (0.05) Significance Level	
Field_pH (mw-63)	
Raw Statistics	
Number of Valid Observations	26
Number of Distinct Observations	23
Minimum	6.53
Maximum	7.21
Mean of Raw Data	6.775
Standard Deviation of Raw Data	0.163
Khat	1814
Theta hat	0.00373
Kstar	1605
Theta star	0.00422
Mean of Log Transformed Data	1.913
Standard Deviation of Log Transformed Data	0.0239
Normal GOF Test Results	
Correlation Coefficient R	0.975
Shapiro Wilk Test Statistic	0.952
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.271
Lilliefors Test Statistic	0.105
Lilliefors Critical (0.05) Value	0.17
Data appear Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.978
A-D Test Statistic	0.329
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.0986

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Goodness of Fit Statistics

K-S Critical(0.05) Value	0.171
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.978
Shapiro Wilk Test Statistic	0.957
Shapiro Wilk Critical (0.05) Value	0.92
Approximate Shapiro Wilk P Value	0.349
Lilliefors Test Statistic	0.101
Lilliefors Critical (0.05) Value	0.17
Data appear Lognormal at (0.05) Significance Level	
Field_pH (mw-64)	
Raw Statistics	
Number of Valid Observations	24
Number of Distinct Observations	20
Minimum	7.22
Maximum	7.68
Mean of Raw Data	7.452
Standard Deviation of Raw Data	0.122
Khat	3881
Theta hat	0.00192
Kstar	3396
Theta star	0.00219
Mean of Log Transformed Data	2.008
Standard Deviation of Log Transformed Data	0.0164
Normal GOF Test Results	
Correlation Coefficient R	0.993
Shapiro Wilk Test Statistic	0.978
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.852
Lilliefors Test Statistic	0.0853
Lilliefors Critical (0.05) Value	0.177
Data appear Normal at (0.05) Significance Level	

Appendix B
Goodness of Fit Statistics

Gamma GOF Test Results	
Correlation Coefficient R	0.992
A-D Test Statistic	0.242
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.0932
K-S Critical(0.05) Value	0.177
Data appear Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.993
Shapiro Wilk Test Statistic	0.978
Shapiro Wilk Critical (0.05) Value	0.916
Approximate Shapiro Wilk P Value	0.846
Lilliefors Test Statistic	0.0858
Lilliefors Critical (0.05) Value	0.177
Data appear Lognormal at (0.05) Significance Level	
Field_pH (mw-65)	
Raw Statistics	
Number of Valid Observations	25
Number of Distinct Observations	20
Minimum	6.96
Maximum	8.27
Mean of Raw Data	7.262
Standard Deviation of Raw Data	0.252
Khat	911.3
Theta hat	0.00797
Kstar	802
Theta star	0.00905
Mean of Log Transformed Data	1.982
Standard Deviation of Log Transformed Data	0.0334
Normal GOF Test Results	
Correlation Coefficient R	0.843
Shapiro Wilk Test Statistic	0.738

Appendix B
Goodness of Fit Statistics

Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	9.5474E-6
Lilliefors Test Statistic	0.188
Lilliefors Critical (0.05) Value	0.173
Data not Normal at (0.05) Significance Level	
Gamma GOF Test Results	
Correlation Coefficient R	0.853
A-D Test Statistic	1.501
A-D Critical (0.05) Value	0.742
K-S Test Statistic	0.178
K-S Critical(0.05) Value	0.174
Data not Gamma Distributed at (0.05) Significance Level	
Lognormal GOF Test Results	
Correlation Coefficient R	0.859
Shapiro Wilk Test Statistic	0.764
Shapiro Wilk Critical (0.05) Value	0.918
Approximate Shapiro Wilk P Value	2.7436E-5
Lilliefors Test Statistic	0.177
Lilliefors Critical (0.05) Value	0.173
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	

Appendix B
Outlier Statistics

Outlier Tests for Selected Uncensored Variables

User Selected Options	
Date/Time of Computation	ProUCL 5.19/4/2021 3:18:53 PM
From File	CWTP_StatsAnalysis_DataFile_Jul2021.xls
Full Precision	OFF

Rosner's Outlier Test for Boron (mw-62)

Mean	**2.084**
Standard Deviation	**0.186**
Number of data	**25**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	2.084	0.183	2.5	5	2.278	2.82	3.14

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Boron (mw-63)

Mean	**1.589**
Standard Deviation	**0.265**
Number of data	**25**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	1.589	0.26	0.93	25	2.538	2.82	3.14

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Appendix B
Outlier Statistics

Dixon's Outlier Test for Boron (mw-64)

Number of Observations = 24
10% critical value: 0.367
5% critical value: 0.413
1% critical value: 0.497

1. Observation Value 0.67 is a Potential Outlier (Upper Tail)?

Test Statistic: 0.111

For 10% significance level, 0.67 is not an outlier.
For 5% significance level, 0.67 is not an outlier.
For 1% significance level, 0.67 is not an outlier.

2. Observation Value 0.47 is a Potential Outlier (Lower Tail)?

Test Statistic: 0.111

For 10% significance level, 0.47 is not an outlier.
For 5% significance level, 0.47 is not an outlier.
For 1% significance level, 0.47 is not an outlier.

Rosner's Outlier Test for Boron (mw-65)

Mean	**0.765**
Standard Deviation	**0.0971**
Number of data	**25**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	0.765	0.0952	0.98	10	2.261	2.82	3.14

For 5% Significance Level, there is no Potential Outlier

Appendix B
Outlier Statistics

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Calcium (mw-62)

Mean	**530**
Standard Deviation	**28.14**
Number of data	**25**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	530	27.57	590	14	2.176	2.82	3.14

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Rosner's Outlier Test for Calcium (mw-63)

Mean	**519.6**
Standard Deviation	**40.67**
Number of data	**25**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	519.6	39.85	400	25	3.001	2.82	3.14

For 5% Significance Level, there is 1 Potential Outlier

Potential outliers is: 400

For 1% Significance Level, there is no Potential Outlier

Dixon's Outlier Test for Calcium (mw-64)

Appendix B
Outlier Statistics

Number of Observations = 24
10% critical value: 0.367
5% critical value: 0.413
1% critical value: 0.497
1. Observation Value 93 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.273
For 10% significance level, 93 is not an outlier.
For 5% significance level, 93 is not an outlier.
For 1% significance level, 93 is not an outlier.
2. Observation Value 73 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.529
For 10% significance level, 73 is an outlier.
For 5% significance level, 73 is an outlier.
For 1% significance level, 73 is an outlier.
Dixon's Outlier Test for Calcium (mw-65)
Number of Observations = 24
10% critical value: 0.367
5% critical value: 0.413
1% critical value: 0.497
1. Observation Value 170 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.370
For 10% significance level, 170 is an outlier.
For 5% significance level, 170 is not an outlier.
For 1% significance level, 170 is not an outlier.
2. Observation Value 82 is a Potential Outlier (Lower Tail)?

Appendix B
Outlier Statistics

Test Statistic: 0.121
For 10% significance level, 82 is not an outlier.
For 5% significance level, 82 is not an outlier.
For 1% significance level, 82 is not an outlier.
Dixon's Outlier Test for Chloride (mw-62)
Number of Observations = 22
10% critical value: 0.382
5% critical value: 0.43
1% critical value: 0.514
1. Observation Value 150 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.250
For 10% significance level, 150 is not an outlier.
For 5% significance level, 150 is not an outlier.
For 1% significance level, 150 is not an outlier.
2. Observation Value 82 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.483
For 10% significance level, 82 is an outlier.
For 5% significance level, 82 is an outlier.
For 1% significance level, 82 is not an outlier.
Dixon's Outlier Test for Chloride (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

1. Observation Value 110 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.400
For 10% significance level, 110 is an outlier.
For 5% significance level, 110 is not an outlier.
For 1% significance level, 110 is not an outlier.
2. Observation Value 77 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.348
For 10% significance level, 77 is not an outlier.
For 5% significance level, 77 is not an outlier.
For 1% significance level, 77 is not an outlier.
Dixon's Outlier Test for Chloride (mw-64)
Number of Observations = 22
10% critical value: 0.382
5% critical value: 0.43
1% critical value: 0.514
1. Observation Value 53 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.000
For 10% significance level, 53 is not an outlier.
For 5% significance level, 53 is not an outlier.
For 1% significance level, 53 is not an outlier.
2. Observation Value 44 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.444
For 10% significance level, 44 is an outlier.
For 5% significance level, 44 is an outlier.
For 1% significance level, 44 is not an outlier.

Appendix B
Outlier Statistics

Dixon's Outlier Test for Chloride (mw-65)

Number of Observations = 22
10% critical value: 0.382
5% critical value: 0.43
1% critical value: 0.514

1. Observation Value 77 is a Potential Outlier (Upper Tail)?

Test Statistic: 0.346

For 10% significance level, 77 is not an outlier.
For 5% significance level, 77 is not an outlier.
For 1% significance level, 77 is not an outlier.

2. Observation Value 48 is a Potential Outlier (Lower Tail)?

Test Statistic: 0.150

For 10% significance level, 48 is not an outlier.
For 5% significance level, 48 is not an outlier.
For 1% significance level, 48 is not an outlier.

Rosner's Outlier Test for Fluoride (mw-62)

Mean	**1.544**
Standard Deviation	**0.399**
Number of data	**25**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	1.544	0.391	3.3	9	4.491	2.82	3.14

For 5% Significance Level, there is 1 Potential Outlier

Appendix B
Outlier Statistics

Potential outliers is: 3.3
For 1% Significance Level, there is 1 Potential Outlier
Potential outliers is: 3.3
Dixon's Outlier Test for Fluoride (mw-63)
Number of Observations = 24
10% critical value: 0.367
5% critical value: 0.413
1% critical value: 0.497
1. Observation Value 2.5 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.333
For 10% significance level, 2.5 is not an outlier.
For 5% significance level, 2.5 is not an outlier.
For 1% significance level, 2.5 is not an outlier.
2. Observation Value 1.6 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.000
For 10% significance level, 1.6 is not an outlier.
For 5% significance level, 1.6 is not an outlier.
For 1% significance level, 1.6 is not an outlier.
Dixon's Outlier Test for Fluoride (mw-64)
Number of Observations = 24
10% critical value: 0.367
5% critical value: 0.413
1% critical value: 0.497
1. Observation Value 1.6 is a Potential Outlier (Upper Tail)?

Appendix B
Outlier Statistics

Test Statistic: 0.333							
For 10% significance level, 1.6 is not an outlier.							
For 5% significance level, 1.6 is not an outlier.							
For 1% significance level, 1.6 is not an outlier.							
2. Observation Value 1.3 is a Potential Outlier (Lower Tail)?							
Test Statistic: 0.000							
For 10% significance level, 1.3 is not an outlier.							
For 5% significance level, 1.3 is not an outlier.							
For 1% significance level, 1.3 is not an outlier.							
Dixon's Outlier Test for Fluoride (mw-65)							
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: 0.250							
For 10% significance level, 2.1 is not an outlier.							
For 5% significance level, 2.1 is not an outlier.							
For 1% significance level, 2.1 is not an outlier.							
2. Observation Value 1.5 is a Potential Outlier (Lower Tail)?							
Test Statistic: 0.400							
For 10% significance level, 1.5 is an outlier.							
For 5% significance level, 1.5 is not an outlier.							
For 1% significance level, 1.5 is not an outlier.							

Appendix B
Outlier Statistics

Dixon's Outlier Test for Sulfate (mw-62)
Number of Observations = 22
10% critical value: 0.382
5% critical value: 0.43
1% critical value: 0.514
1. Observation Value 3800 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.333
For 10% significance level, 3800 is not an outlier.
For 5% significance level, 3800 is not an outlier.
For 1% significance level, 3800 is not an outlier.
2. Observation Value 2800 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.500
For 10% significance level, 2800 is an outlier.
For 5% significance level, 2800 is an outlier.
For 1% significance level, 2800 is not an outlier.
Dixon's Outlier Test for Sulfate (mw-63)
Number of Observations = 22
10% critical value: 0.382
5% critical value: 0.43
1% critical value: 0.514
1. Observation Value 4300 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.737
For 10% significance level, 4300 is an outlier.
For 5% significance level, 4300 is an outlier.
For 1% significance level, 4300 is an outlier.

Appendix B
Outlier Statistics

2. Observation Value 1900 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.500
For 10% significance level, 1900 is an outlier.
For 5% significance level, 1900 is an outlier.
For 1% significance level, 1900 is not an outlier.
Dixon's Outlier Test for Sulfate (mw-64)
Number of Observations = 22
10% critical value: 0.382
5% critical value: 0.43
1% critical value: 0.514
1. Observation Value 870 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.842
For 10% significance level, 870 is an outlier.
For 5% significance level, 870 is an outlier.
For 1% significance level, 870 is an outlier.
2. Observation Value 270 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.250
For 10% significance level, 270 is not an outlier.
For 5% significance level, 270 is not an outlier.
For 1% significance level, 270 is not an outlier.
Dixon's Outlier Test for Sulfate (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

1. Observation Value 790 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.205
For 10% significance level, 790 is not an outlier.
For 5% significance level, 790 is not an outlier.
For 1% significance level, 790 is not an outlier.
2. Observation Value 350 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.139
For 10% significance level, 350 is not an outlier.
For 5% significance level, 350 is not an outlier.
For 1% significance level, 350 is not an outlier.
Dixon's Outlier Test for DissolvedSolids (mw-62)
Number of Observations = 24
10% critical value: 0.367
5% critical value: 0.413
1% critical value: 0.497
1. Observation Value 6700 is a Potential Outlier (Upper Tail)?
Test Statistic: 0.412
For 10% significance level, 6700 is an outlier.
For 5% significance level, 6700 is not an outlier.
For 1% significance level, 6700 is not an outlier.
2. Observation Value 2400 is a Potential Outlier (Lower Tail)?
Test Statistic: 0.722
For 10% significance level, 2400 is an outlier.
For 5% significance level, 2400 is an outlier.

Appendix B
Outlier Statistics

For 1% significance level, 2400 is an outlier.							
Dixon's Outlier Test for DissolvedSolids (mw-63)							
Number of Observations = 24							
10% critical value: 0.367							
5% critical value: 0.413							
1% critical value: 0.497							
1. Observation Value 4700 is a Potential Outlier (Upper Tail)?							
Test Statistic: 0.200							
For 10% significance level, 4700 is not an outlier.							
For 5% significance level, 4700 is not an outlier.							
For 1% significance level, 4700 is not an outlier.							
2. Observation Value 3200 is a Potential Outlier (Lower Tail)?							
Test Statistic: 0.714							
For 10% significance level, 3200 is an outlier.							
For 5% significance level, 3200 is an outlier.							
For 1% significance level, 3200 is an outlier.							
Dixon's Outlier Test for DissolvedSolids (mw-64)							
Number of Observations = 24							
10% critical value: 0.367							
5% critical value: 0.413							
1% critical value: 0.497							
1. Observation Value 890 is a Potential Outlier (Upper Tail)?							
Test Statistic: 0.471							
For 10% significance level, 890 is an outlier.							

Appendix B
Outlier Statistics

For 5% significance level, 890 is an outlier.							
For 1% significance level, 890 is not an outlier.							
2. Observation Value 660 is a Potential Outlier (Lower Tail)?							
Test Statistic: 0.400							
For 10% significance level, 660 is an outlier.							
For 5% significance level, 660 is not an outlier.							
For 1% significance level, 660 is not an outlier.							
Dixon's Outlier Test for DissolvedSolids (mw-65)							
Number of Observations = 24							
10% critical value: 0.367							
5% critical value: 0.413							
1% critical value: 0.497							
1. Observation Value 1500 is a Potential Outlier (Upper Tail)?							
Test Statistic: 0.308							
For 10% significance level, 1500 is not an outlier.							
For 5% significance level, 1500 is not an outlier.							
For 1% significance level, 1500 is not an outlier.							
2. Observation Value 540 is a Potential Outlier (Lower Tail)?							
Test Statistic: 0.408							
For 10% significance level, 540 is an outlier.							
For 5% significance level, 540 is not an outlier.							
For 1% significance level, 540 is not an outlier.							
Rosner's Outlier Test for Field_pH (mw-62)							

Appendix B
Outlier Statistics

Mean	**6.62**
Standard Deviation	**0.221**
Number of data	**25**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	6.62	0.216	7.4	4	3.605	2.82	3.14

For 5% Significance Level, there is 1 Potential Outlier
Potential outliers is: 7.4

For 1% Significance Level, there is 1 Potential Outlier
Potential outliers is: 7.4

Rosner's Outlier Test for Field_pH (mw-63)

Mean	**6.775**
Standard Deviation	**0.163**
Number of data	**26**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	6.775	0.16	7.21	26	2.723	2.84	3.16

For 5% Significance Level, there is no Potential Outlier

For 1% Significance Level, there is no Potential Outlier

Dixon's Outlier Test for Field_pH (mw-64)

Number of Observations = 24
10% critical value: 0.367
5% critical value: 0.413
1% critical value: 0.497

Appendix B
Outlier Statistics

1. Observation Value 7.68 is a Potential Outlier (Upper Tail)?

Test Statistic: 0.179

For 10% significance level, 7.68 is not an outlier.
For 5% significance level, 7.68 is not an outlier.
For 1% significance level, 7.68 is not an outlier.

2. Observation Value 7.22 is a Potential Outlier (Lower Tail)?

Test Statistic: 0.179

For 10% significance level, 7.22 is not an outlier.
For 5% significance level, 7.22 is not an outlier.
For 1% significance level, 7.22 is not an outlier.

Rosner's Outlier Test for Field_pH (mw-65)

Mean	**7.262**
Standard Deviation	**0.252**
Number of data	**25**
Number of suspected outliers	**1**

#	Mean	sd	Potential outlier	Obs. Number	Test value	Critical value (5%)	Critical value (1%)
1	7.262	0.247	8.27	4	4.078	2.82	3.14

For 5% Significance Level, there is 1 Potential Outlier
Potential outliers is: 8.27

For 1% Significance Level, there is 1 Potential Outlier
Potential outliers is: 8.27

Appendix B
Summary Statistics

General Statistics on Uncensored Data

Date/Time of Computation ProUCL 5.19/4/2021 11:43:26 AM

User Selected Options

From File CWTP_StatsAnalysis_DataFile_Jul2021.xls

Full Precision OFF

From File: CWTP_StatsAnalysis_DataFile_Jul2021.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
Boron (mw-62)	25	1	25	0	0.00%	N/A	N/A	2.084	0.0347	0.186	0.0894
Boron (mw-63)	25	1	25	0	0.00%	N/A	N/A	1.589	0.0702	0.265	0.167
Boron (mw-64)	24	0	24	0	0.00%	N/A	N/A	0.583	0.00369	0.0608	0.104
Boron (mw-65)	25	0	25	0	0.00%	N/A	N/A	0.765	0.00943	0.0971	0.127
Calcium (mw-62)	25	1	25	0	0.00%	N/A	N/A	530	791.7	28.14	0.0531
Calcium (mw-63)	25	1	25	0	0.00%	N/A	N/A	519.6	1654	40.67	0.0783
Calcium (mw-64)	24	0	24	0	0.00%	N/A	N/A	86.29	19.95	4.467	0.0518
Calcium (mw-65)	24	1	24	0	0.00%	N/A	N/A	108.3	444.8	21.09	0.195
Chloride (mw-62)	22	4	22	0	0.00%	N/A	N/A	121	241.2	15.53	0.128
Chloride (mw-63)	22	4	22	0	0.00%	N/A	N/A	94.5	71.88	8.478	0.0897
Chloride (mw-64)	22	2	22	0	0.00%	N/A	N/A	50.82	5.68	2.383	0.0469
Chloride (mw-65)	22	3	22	0	0.00%	N/A	N/A	55.73	51.45	7.173	0.129
Fluoride (mw-62)	25	1	25	0	0.00%	N/A	N/A	1.544	0.159	0.399	0.258
Fluoride (mw-63)	24	2	24	0	0.00%	N/A	N/A	1.95	0.0504	0.225	0.115
Fluoride (mw-64)	24	0	24	0	0.00%	N/A	N/A	1.433	0.0058	0.0761	0.0531
Fluoride (mw-65)	24	1	24	0	0.00%	N/A	N/A	1.875	0.0228	0.151	0.0806
Sulfate (mw-62)	22	4	22	0	0.00%	N/A	N/A	3364	36710	191.6	0.057
Sulfate (mw-63)	22	4	22	0	0.00%	N/A	N/A	2732	174654	417.9	0.153
Sulfate (mw-64)	22	2	22	0	0.00%	N/A	N/A	367.7	13495	116.2	0.316
Sulfate (mw-65)	22	3	22	0	0.00%	N/A	N/A	488.2	12777	113	0.232
DissolvedSolids (mw-62)	24	2	24	0	0.00%	N/A	N/A	5525	592391	769.7	0.139
DissolvedSolids (mw-63)	24	2	24	0	0.00%	N/A	N/A	4338	82446	287.1	0.0662
DissolvedSolids (mw-64)	24	0	24	0	0.00%	N/A	N/A	782.5	1663	40.78	0.0521
DissolvedSolids (mw-65)	24	1	24	0	0.00%	N/A	N/A	1023	35698	188.9	0.185
Field_pH (mw-62)	25	1	25	0	0.00%	N/A	N/A	6.62	0.0487	0.221	0.0333

Appendix B
Summary Statistics

User Selected Options

Field_pH (mw-63)	26	0	26	0	0.00%	N/A	N/A	6.775	0.0266	0.163	0.0241
Field_pH (mw-64)	24	0	24	0	0.00%	N/A	N/A	7.452	0.0149	0.122	0.0164
Field_pH (mw-65)	25	0	25	0	0.00%	N/A	N/A	7.262	0.0637	0.252	0.0348

General Statistics for Raw Data Sets using Detected Data Only

Variable	NumObs	# Missing	Minimum	Maximum	Mean	Median	Var	SD	MAD/0.675	Skewness	CV
Boron (mw-62)	25	1	1.8	2.5	2.084	2.1	0.0347	0.186	0.297	0.379	0.0894
Boron (mw-63)	25	1	0.93	2	1.589	1.6	0.0702	0.265	0.297	-0.326	0.167
Boron (mw-64)	24	0	0.47	0.67	0.583	0.585	0.00369	0.0608	0.0667	-0.424	0.104
Boron (mw-65)	25	0	0.57	0.98	0.765	0.77	0.00943	0.0971	0.0297	-0.186	0.127
Calcium (mw-62)	25	1	480	590	530	530	791.7	28.14	29.65	0.354	0.0531
Calcium (mw-63)	25	1	400	580	519.6	530	1654	40.67	29.65	-1.609	0.0783
Calcium (mw-64)	24	0	73	93	86.29	87.5	19.95	4.467	3.706	-1.455	0.0518
Calcium (mw-65)	24	1	82	170	108.3	100	444.8	21.09	14.83	1.814	0.195
Chloride (mw-62)	22	4	82	150	121	120	241.2	15.53	14.83	-0.233	0.128
Chloride (mw-63)	22	4	77	110	94.5	97	71.88	8.478	5.93	-0.348	0.0897
Chloride (mw-64)	22	2	44	53	50.82	52	5.68	2.383	1.483	-1.551	0.0469
Chloride (mw-65)	22	3	48	77	55.73	53	51.45	7.173	1.483	1.998	0.129
Fluoride (mw-62)	25	1	1.2	3.3	1.544	1.5	0.159	0.399	0.148	3.757	0.258
Fluoride (mw-63)	24	2	1.6	2.5	1.95	1.95	0.0504	0.225	0.222	0.54	0.115
Fluoride (mw-64)	24	0	1.3	1.6	1.433	1.4	0.0058	0.0761	0.148	-0.0239	0.0531
Fluoride (mw-65)	24	1	1.5	2.1	1.875	1.9	0.0228	0.151	0.148	-0.856	0.0806
Sulfate (mw-62)	22	4	2800	3800	3364	3300	36710	191.6	148.3	-0.542	0.057
Sulfate (mw-63)	22	4	1900	4300	2732	2700	174654	417.9	148.3	2.268	0.153
Sulfate (mw-64)	22	2	270	870	367.7	350	13495	116.2	29.65	4.169	0.316
Sulfate (mw-65)	22	3	350	790	488.2	460	12777	113	59.3	1.748	0.232
DissolvedSolids (mw-62)	24	2	2400	6700	5525	5650	592391	769.7	370.6	-3.021	0.139
DissolvedSolids (mw-63)	24	2	3200	4700	4338	4350	82446	287.1	222.4	-2.72	0.0662
DissolvedSolids (mw-64)	24	0	660	890	782.5	790	1663	40.78	14.83	-0.721	0.0521
DissolvedSolids (mw-65)	24	1	540	1500	1023	1000	35698	188.9	74.13	0.368	0.185
Field_pH (mw-62)	25	1	6.36	7.4	6.62	6.59	0.0487	0.221	0.163	1.914	0.0333
Field_pH (mw-63)	26	0	6.53	7.21	6.775	6.77	0.0266	0.163	0.141	0.773	0.0241
Field_pH (mw-64)	24	0	7.22	7.68	7.452	7.46	0.0149	0.122	0.119	-0.0382	0.0164
Field_pH (mw-65)	25	0	6.96	8.27	7.262	7.21	0.0637	0.252	0.163	2.797	0.0348

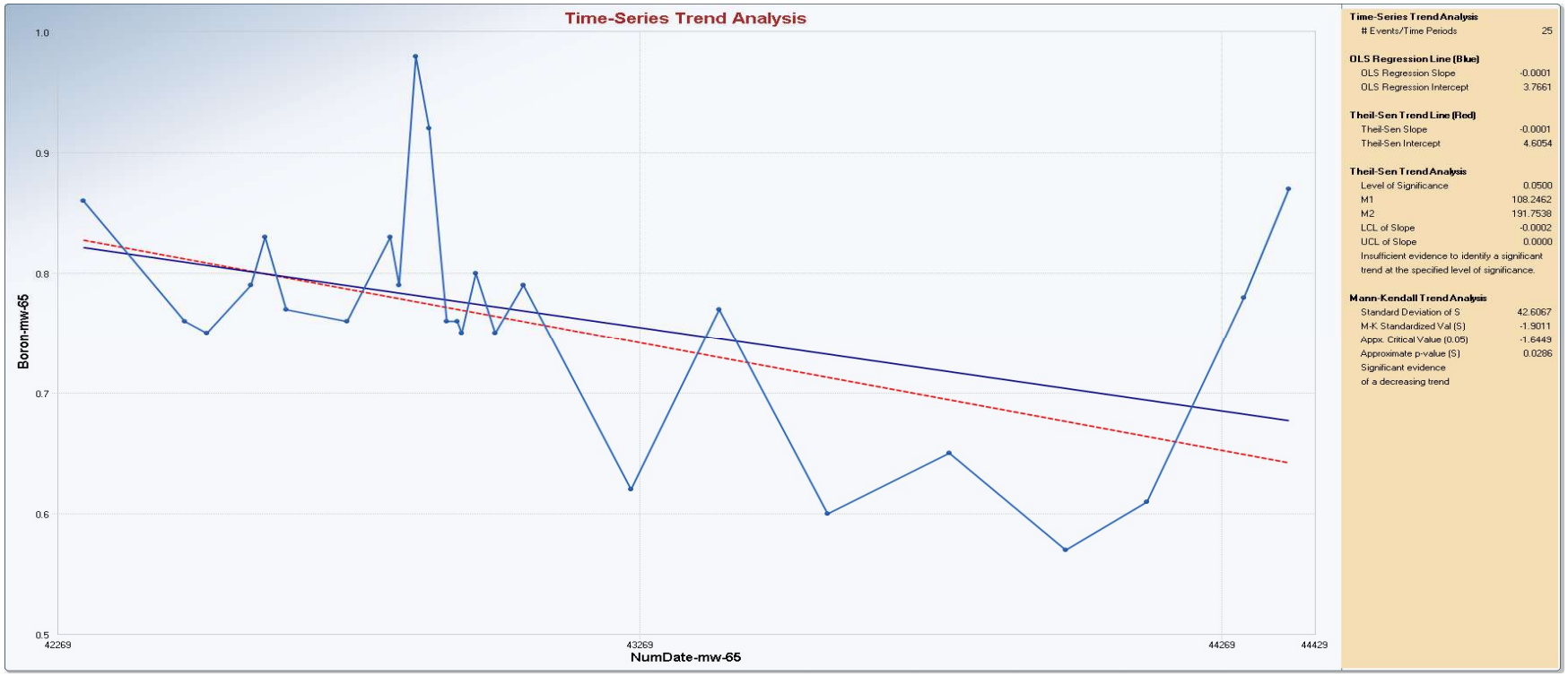
Appendix B
Summary Statistics

User Selected Options

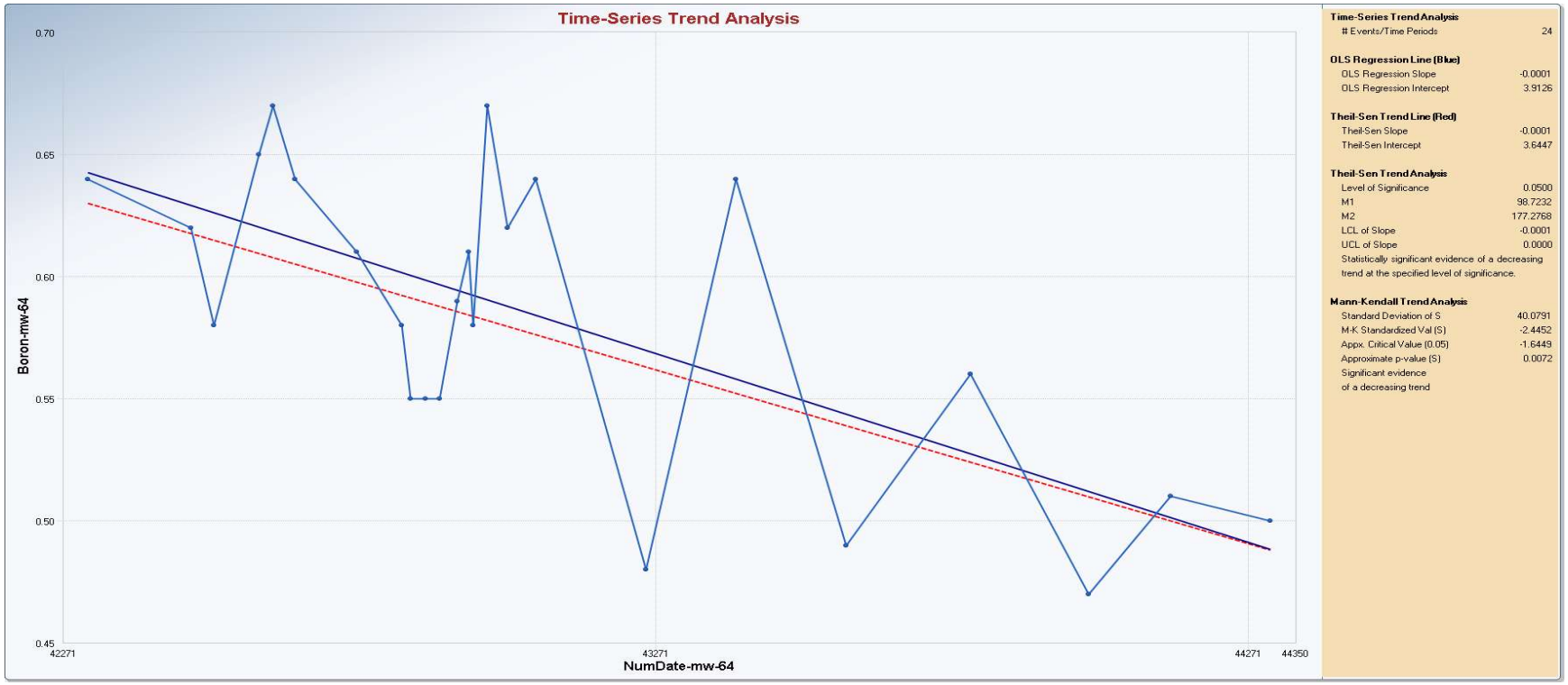
Percentiles using all Detects (Ds) and Non-Detects (NDs)

Variable	NumObs	# Missing	10%ile	20%ile	25%ile(Q1)	50%ile(Q2)	75%ile(Q3)	80%ile	90%ile	95%ile	99%ile
Boron (mw-62)	25	1	1.9	1.9	1.9	2.1	2.2	2.22	2.3	2.38	2.476
Boron (mw-63)	25	1	1.3	1.4	1.4	1.6	1.8	1.82	1.9	1.98	2
Boron (mw-64)	24	0	0.493	0.534	0.55	0.585	0.64	0.64	0.647	0.667	0.67
Boron (mw-65)	25	0	0.614	0.73	0.75	0.77	0.8	0.83	0.866	0.91	0.966
Calcium (mw-62)	25	1	494	510	510	530	540	554	570	570	585.2
Calcium (mw-63)	25	1	482	500	510	530	550	550	550	558	575.2
Calcium (mw-64)	24	0	82	84.2	85	87.5	89	89.4	90	90	92.31
Calcium (mw-65)	24	1	89.9	95.6	97.5	100	110	110	134	157	167.7
Chloride (mw-62)	22	4	110	110	110	120	130	130	139	149.5	150
Chloride (mw-63)	22	4	85.3	88.4	90	97	99.5	100	100	109.5	110
Chloride (mw-64)	22	2	48.1	49.2	50	52	52	52.8	53	53	53
Chloride (mw-65)	22	3	51.1	52	52	53	54.75	57.4	67.2	70.85	75.74
Fluoride (mw-62)	25	1	1.2	1.4	1.4	1.5	1.6	1.6	1.72	1.8	2.94
Fluoride (mw-63)	24	2	1.63	1.8	1.8	1.95	2.025	2.1	2.17	2.37	2.477
Fluoride (mw-64)	24	0	1.33	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.577
Fluoride (mw-65)	24	1	1.7	1.76	1.8	1.9	2	2	2	2	2.077
Sulfate (mw-62)	22	4	3210	3300	3300	3300	3475	3500	3590	3600	3758
Sulfate (mw-63)	22	4	2410	2600	2600	2700	2800	2800	2900	2900	4006
Sulfate (mw-64)	22	2	302	322	330	350	367.5	378	389	390	769.2
Sulfate (mw-65)	22	3	401	412	425	460	497.5	500	689	738.5	779.5
DissolvedSolids (mw-62)	24	2	5090	5400	5400	5650	5900	5900	5970	6085	6562
DissolvedSolids (mw-63)	24	2	4200	4260	4300	4350	4500	4500	4570	4685	4700
DissolvedSolids (mw-64)	24	0	732	776	780	790	800	800	807	810	871.6
DissolvedSolids (mw-65)	24	1	877	952	967.5	1000	1100	1100	1240	1385	1477
Field_pH (mw-62)	25	1	6.41	6.454	6.46	6.59	6.69	6.706	6.848	6.908	7.282
Field_pH (mw-63)	26	0	6.57	6.66	6.675	6.77	6.853	6.87	6.975	7.06	7.175
Field_pH (mw-64)	24	0	7.29	7.34	7.368	7.46	7.533	7.54	7.607	7.636	7.671
Field_pH (mw-65)	25	0	7.068	7.1	7.13	7.21	7.35	7.36	7.46	7.516	8.09

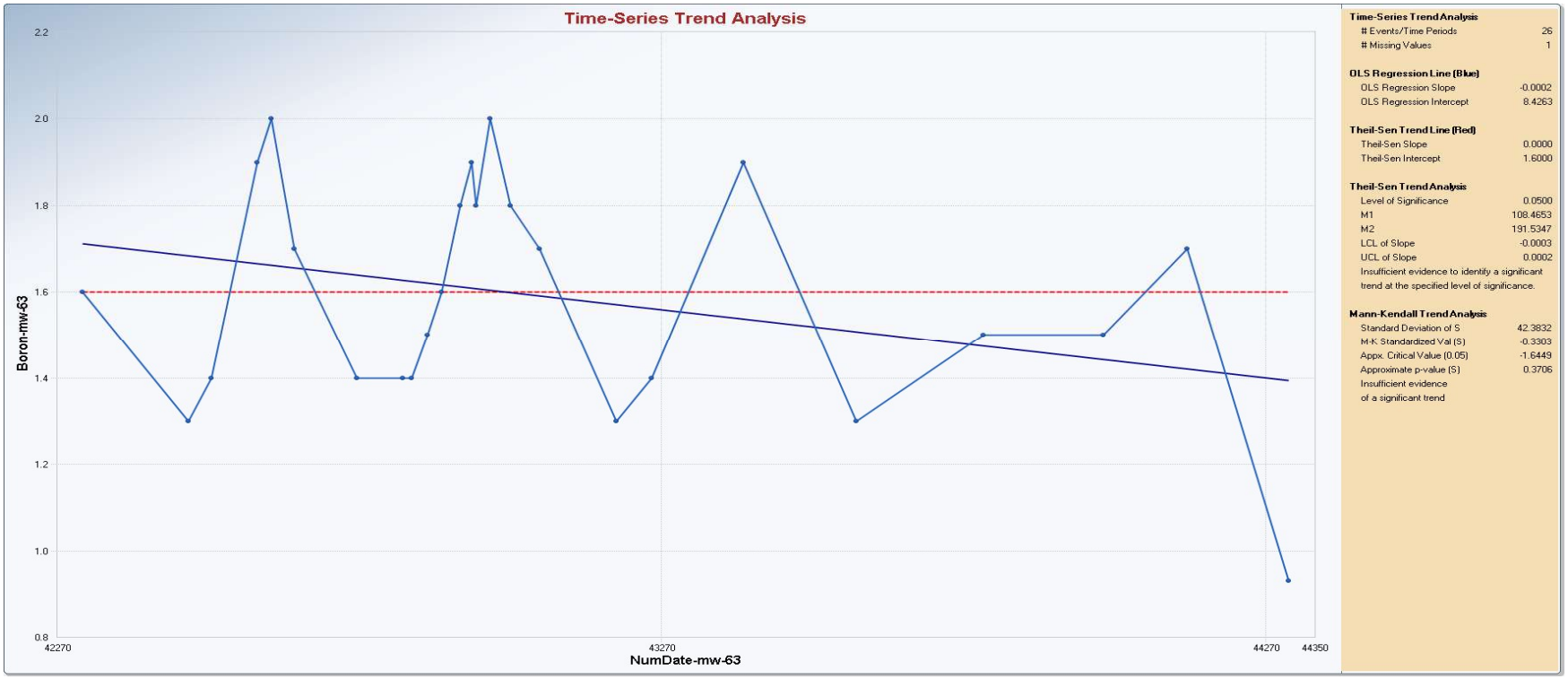
Appendix B
Mann-Kendall Trend Test



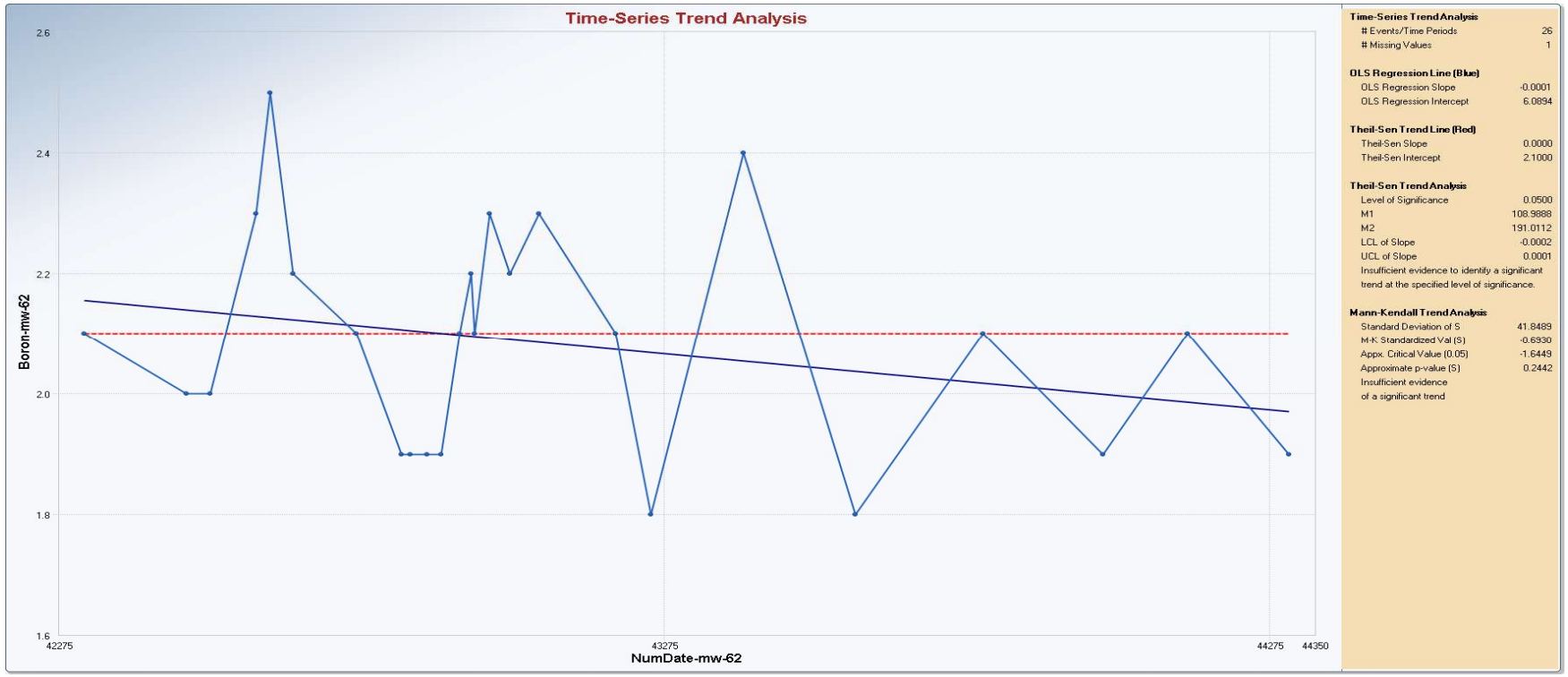
Appendix B
Mann-Kendall Trend Test



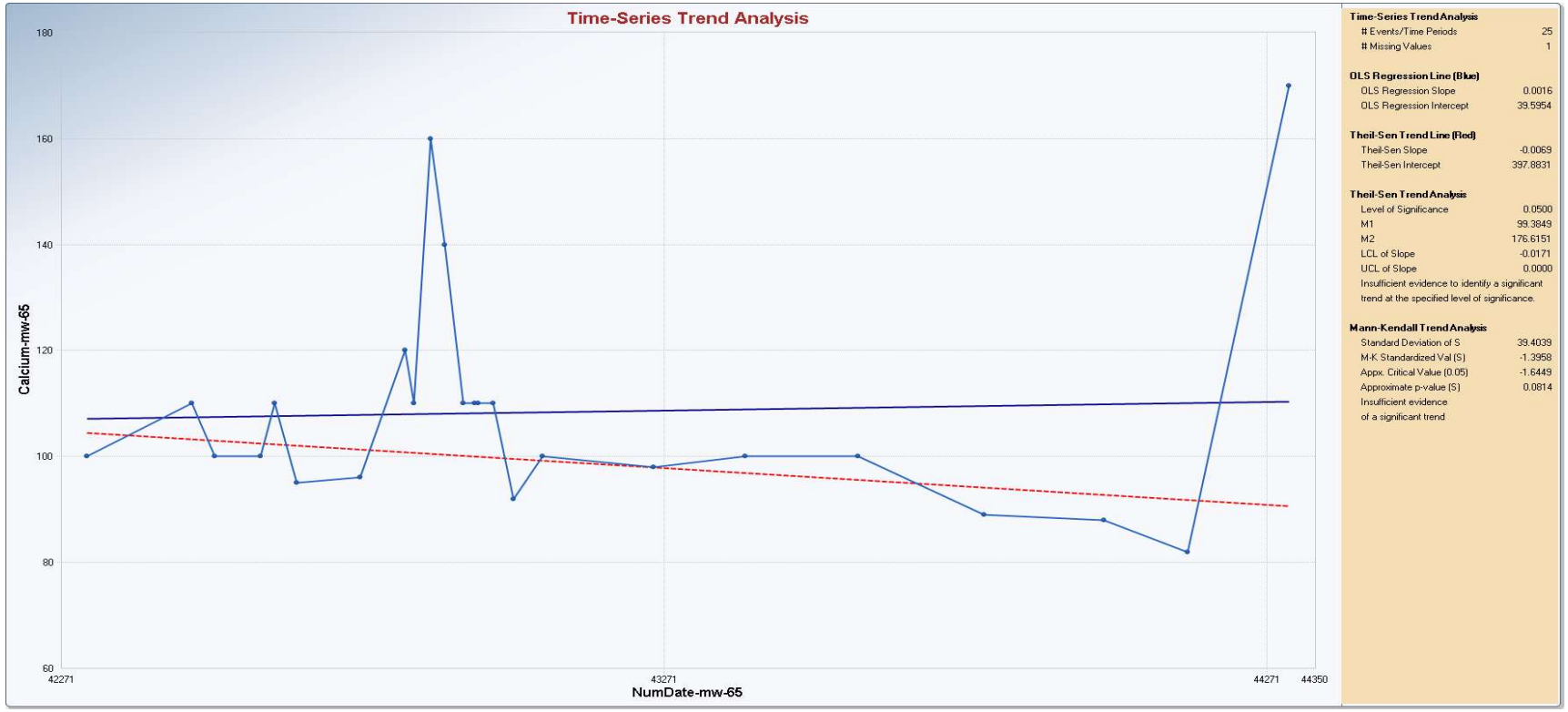
Appendix B
Mann-Kendall Trend Test



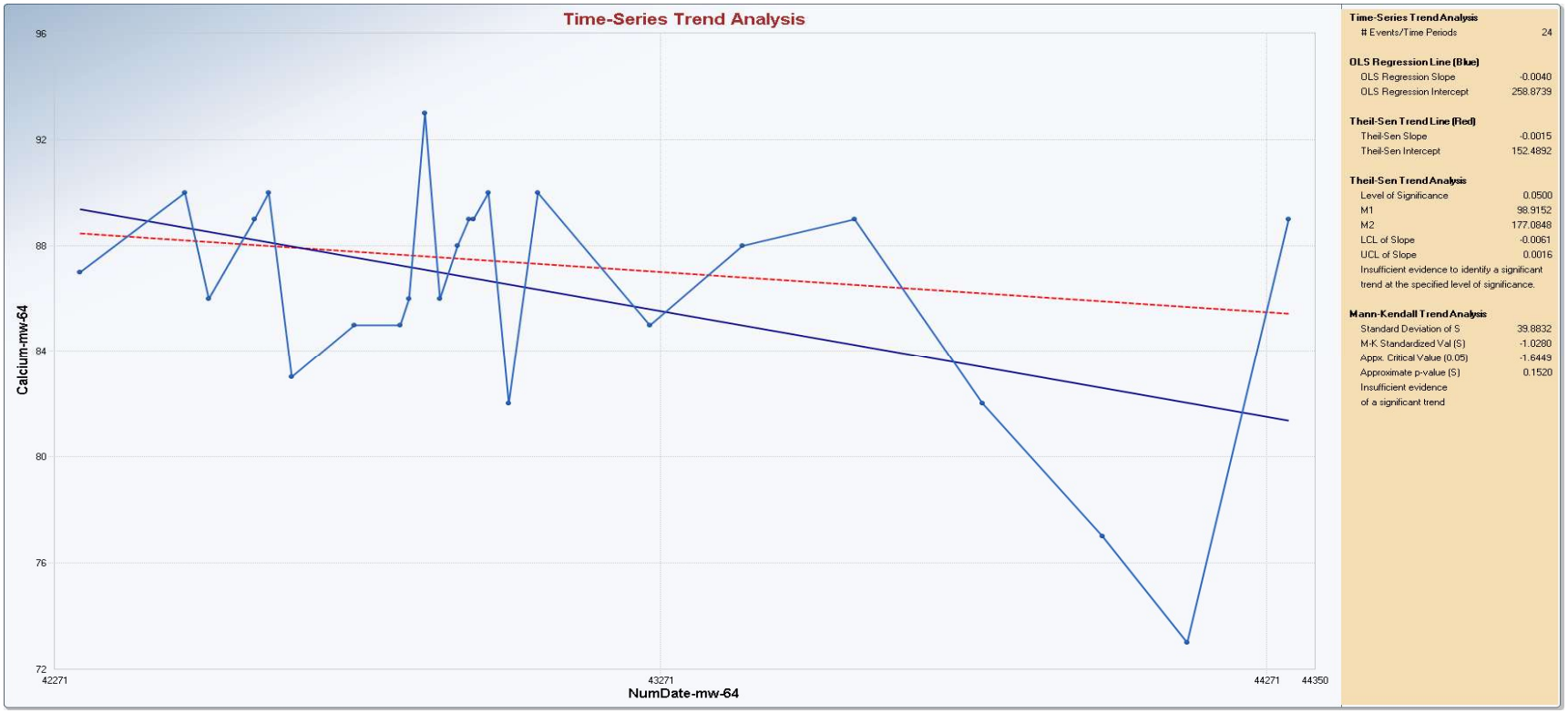
Appendix B
Mann-Kendall Trend Test



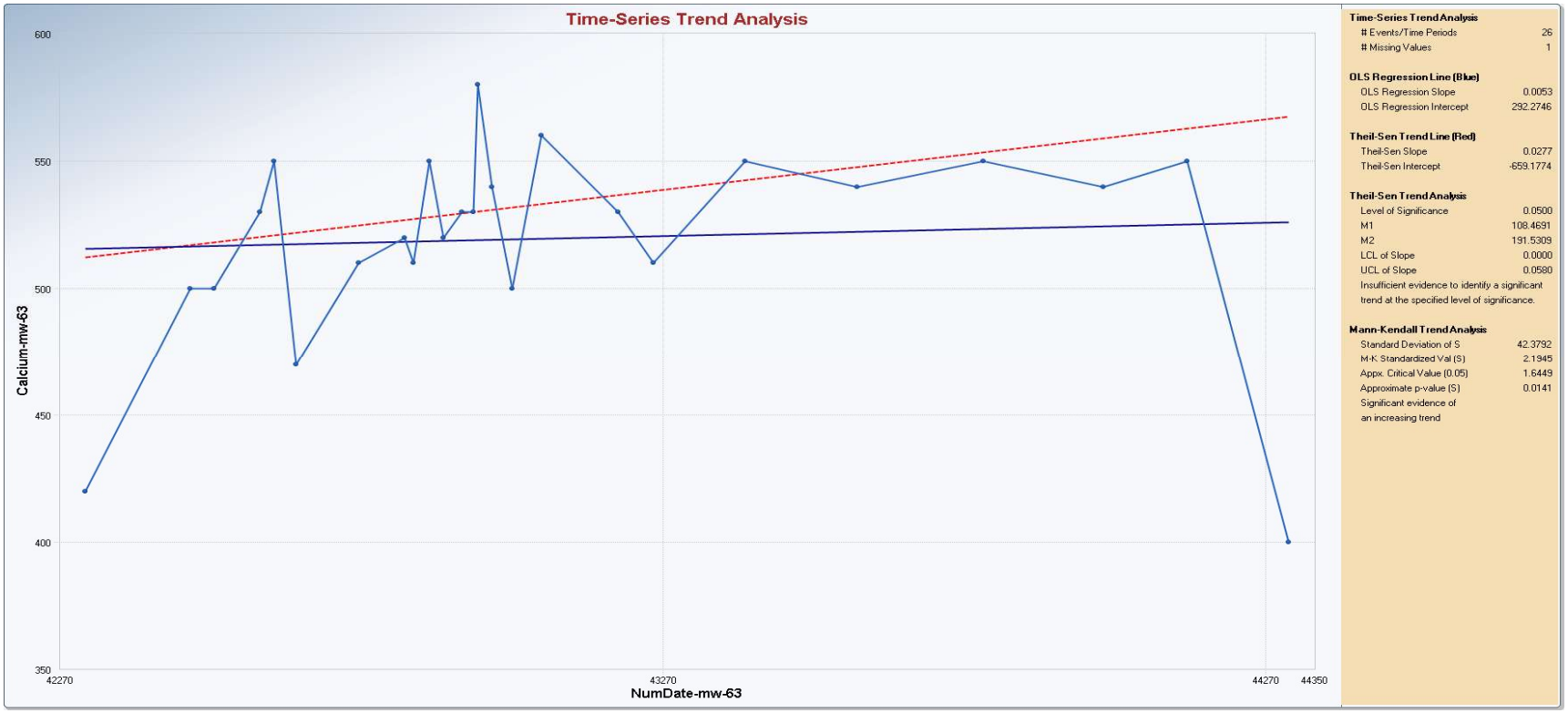
Appendix B
Mann-Kendall Trend Test



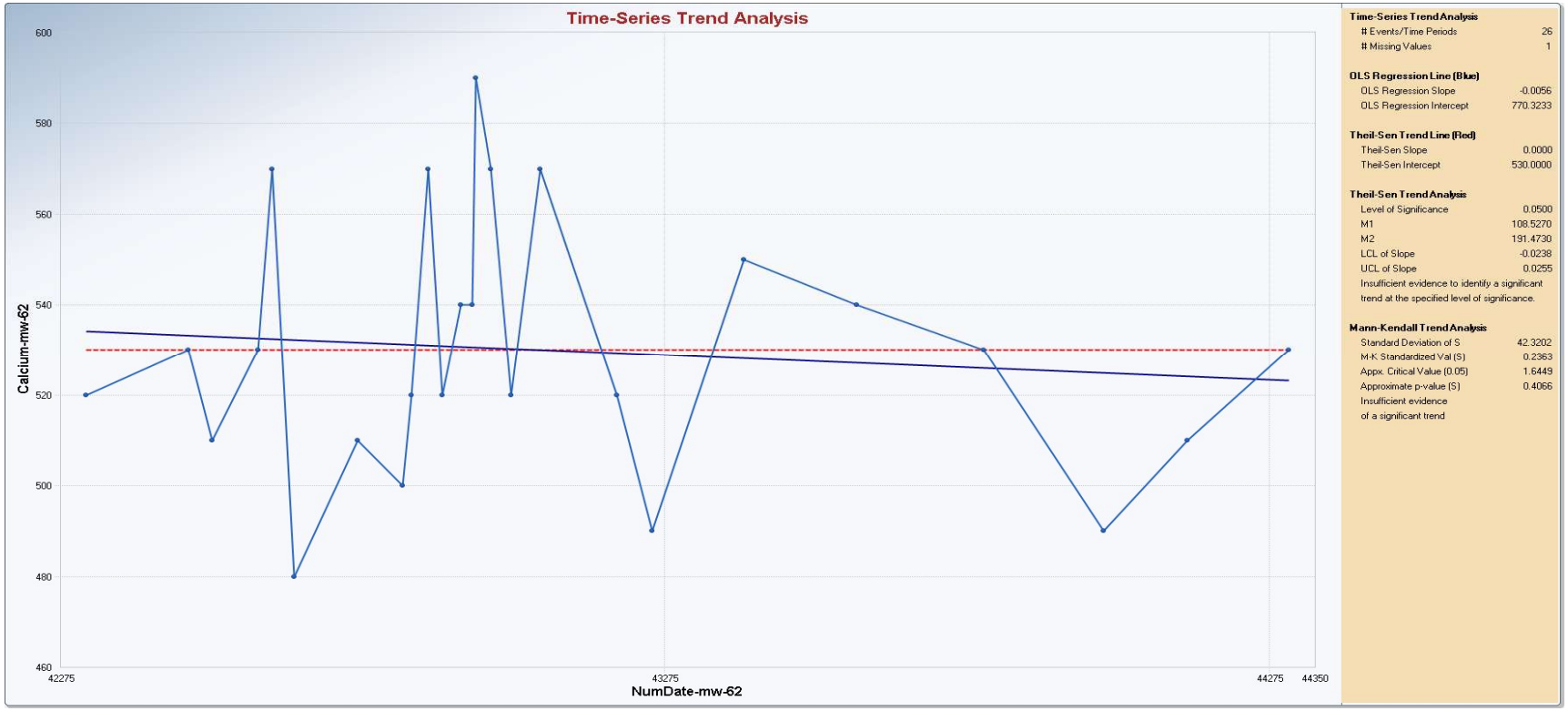
Appendix B
Mann-Kendall Trend Test



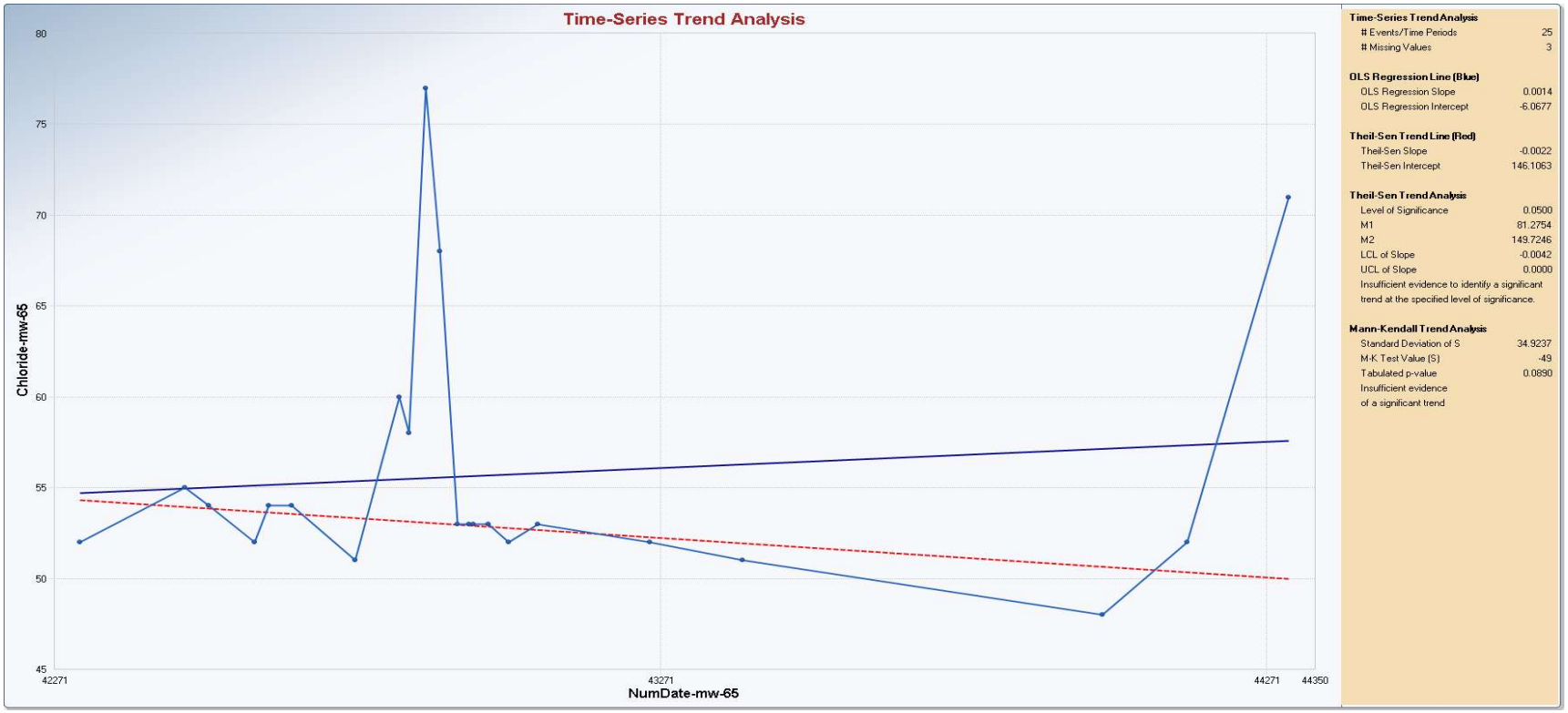
Appendix B
Mann-Kendall Trend Test



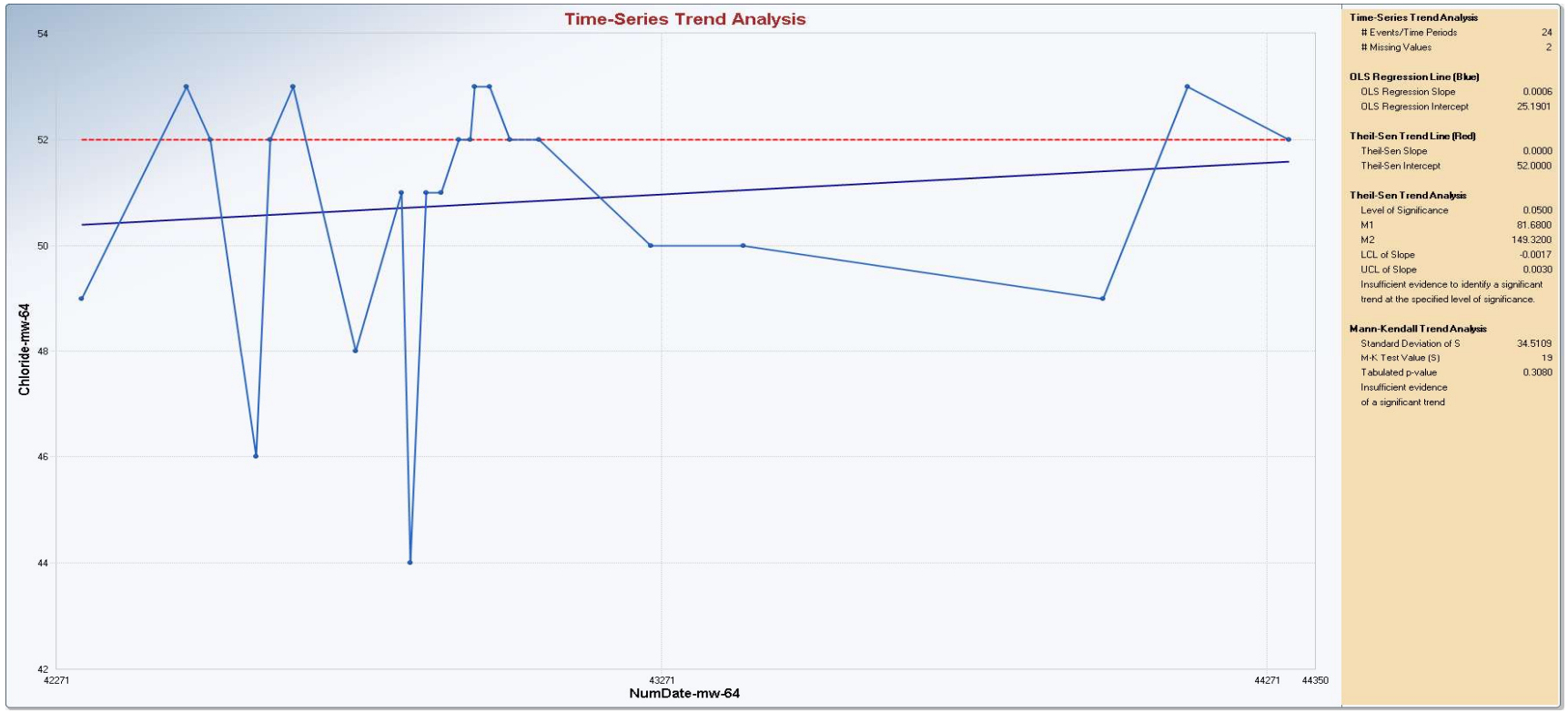
Appendix B
Mann-Kendall Trend Test



Appendix B
Mann-Kendall Trend Test

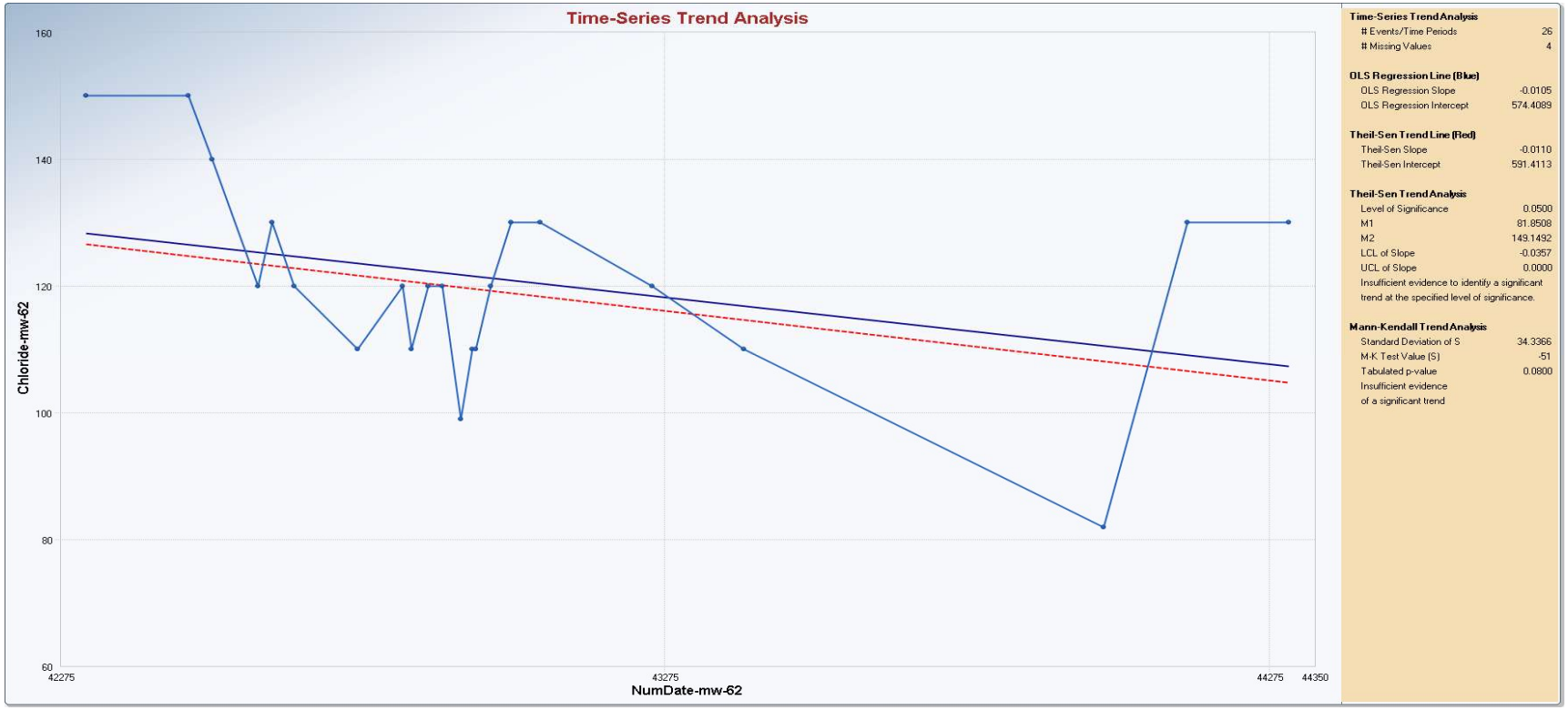


Appendix B
Mann-Kendall Trend Test

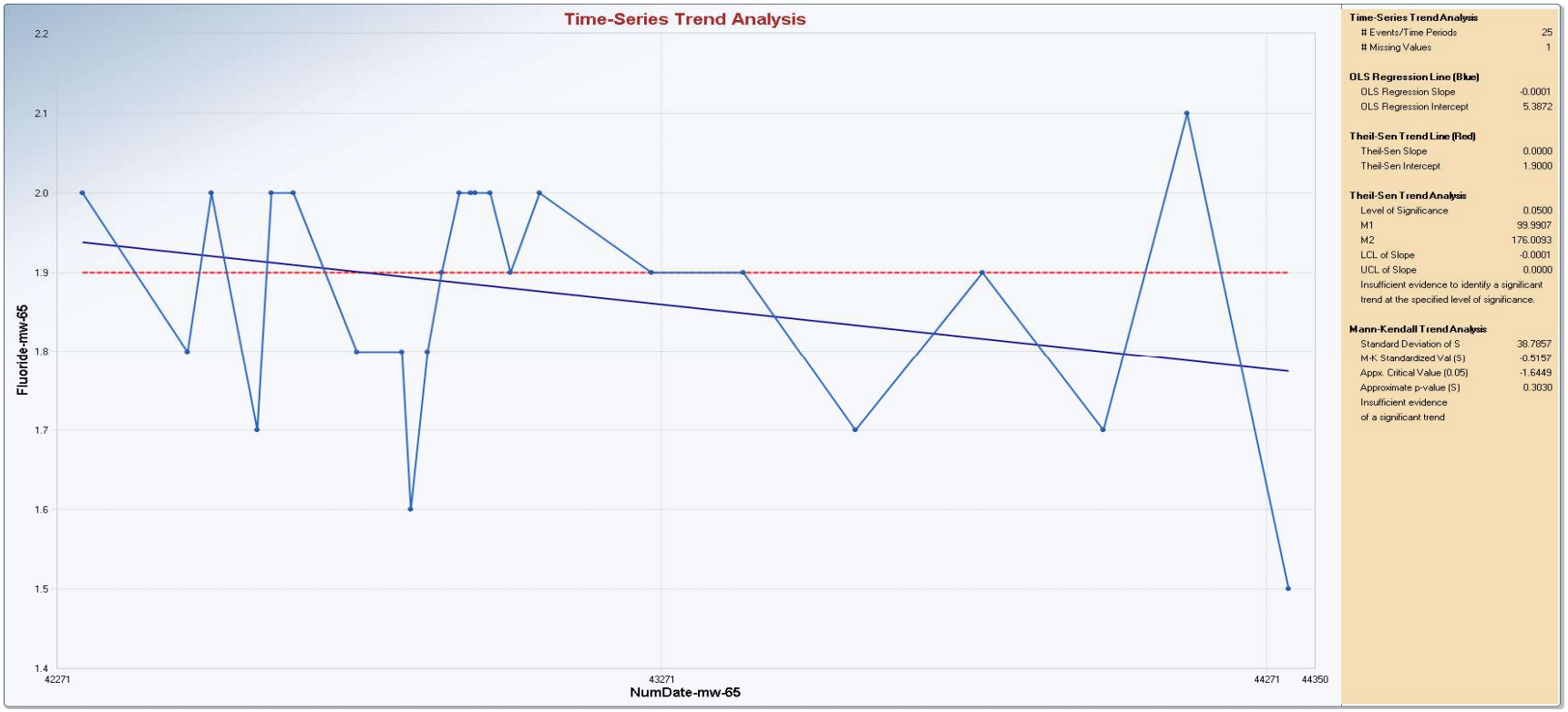


Appendix B
Mann-Kendall Trend Test

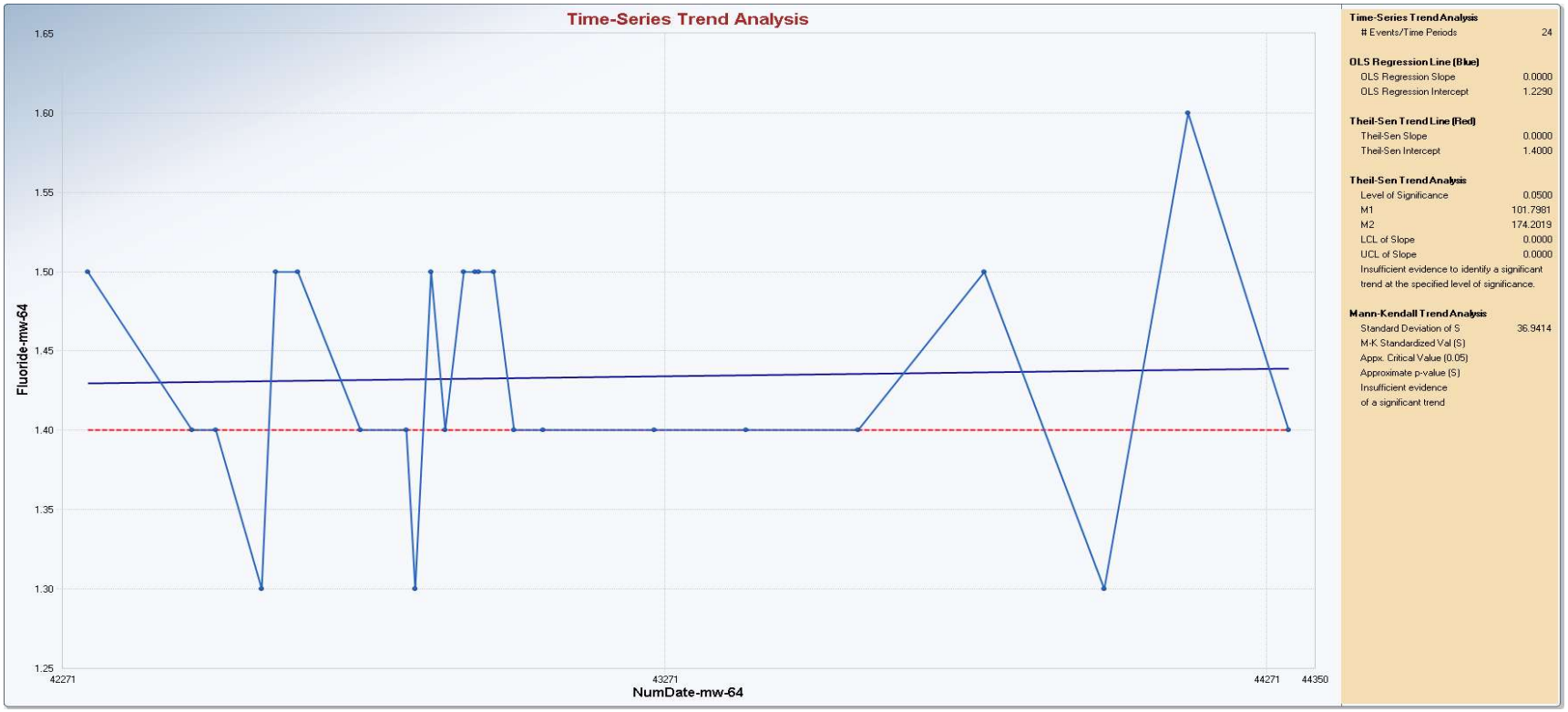
Appendix B
Mann-Kendall Trend Test



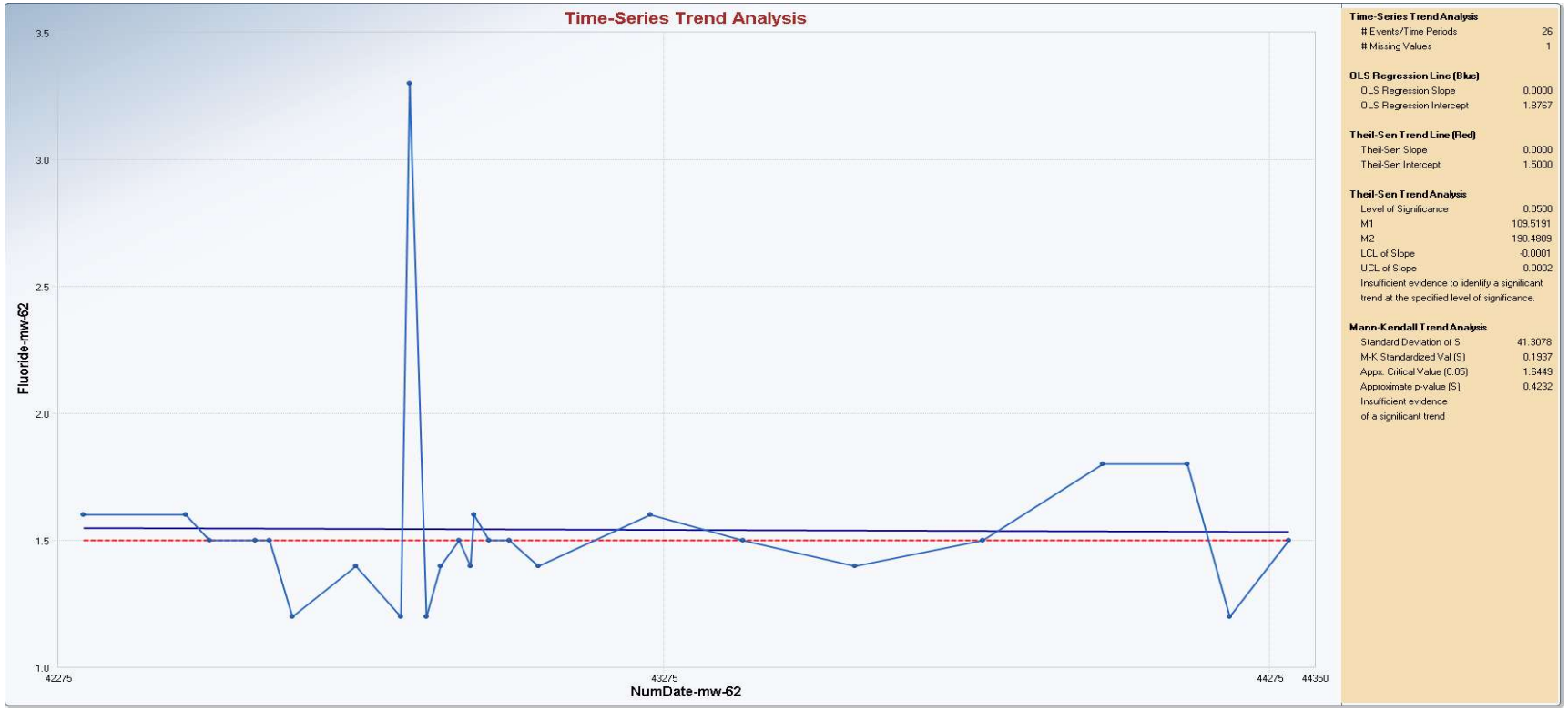
Appendix B
Mann-Kendall Trend Test



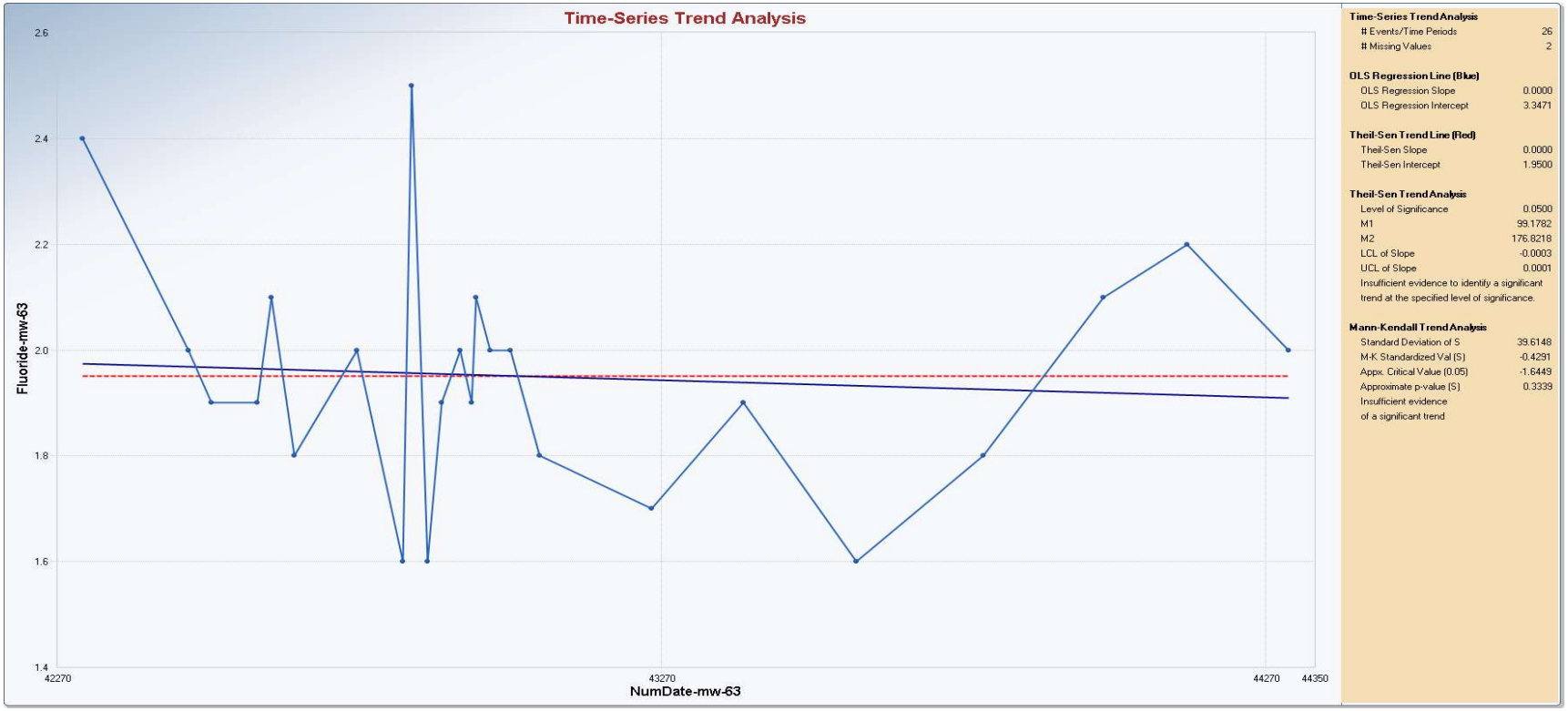
Appendix B
Mann-Kendall Trend Test



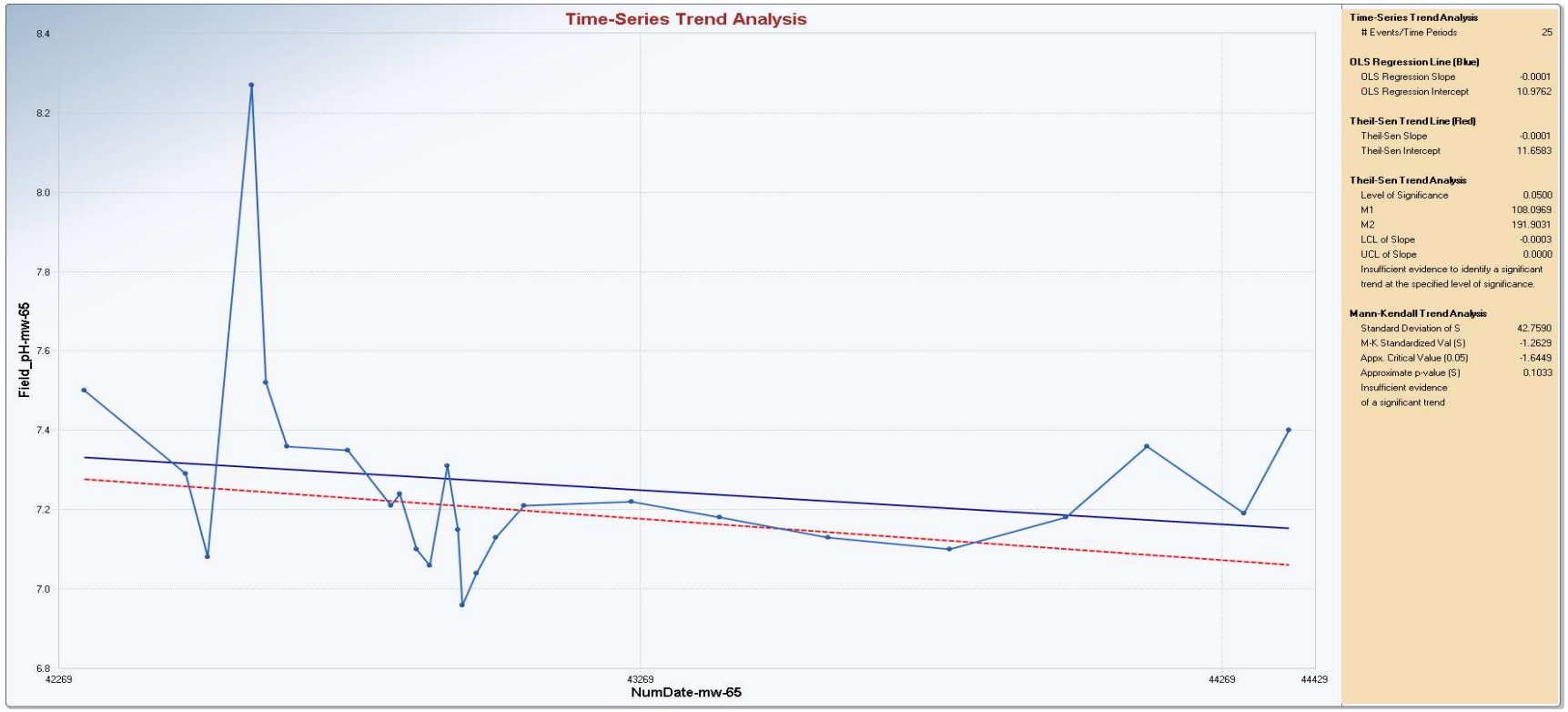
Appendix B
Mann-Kendall Trend Test



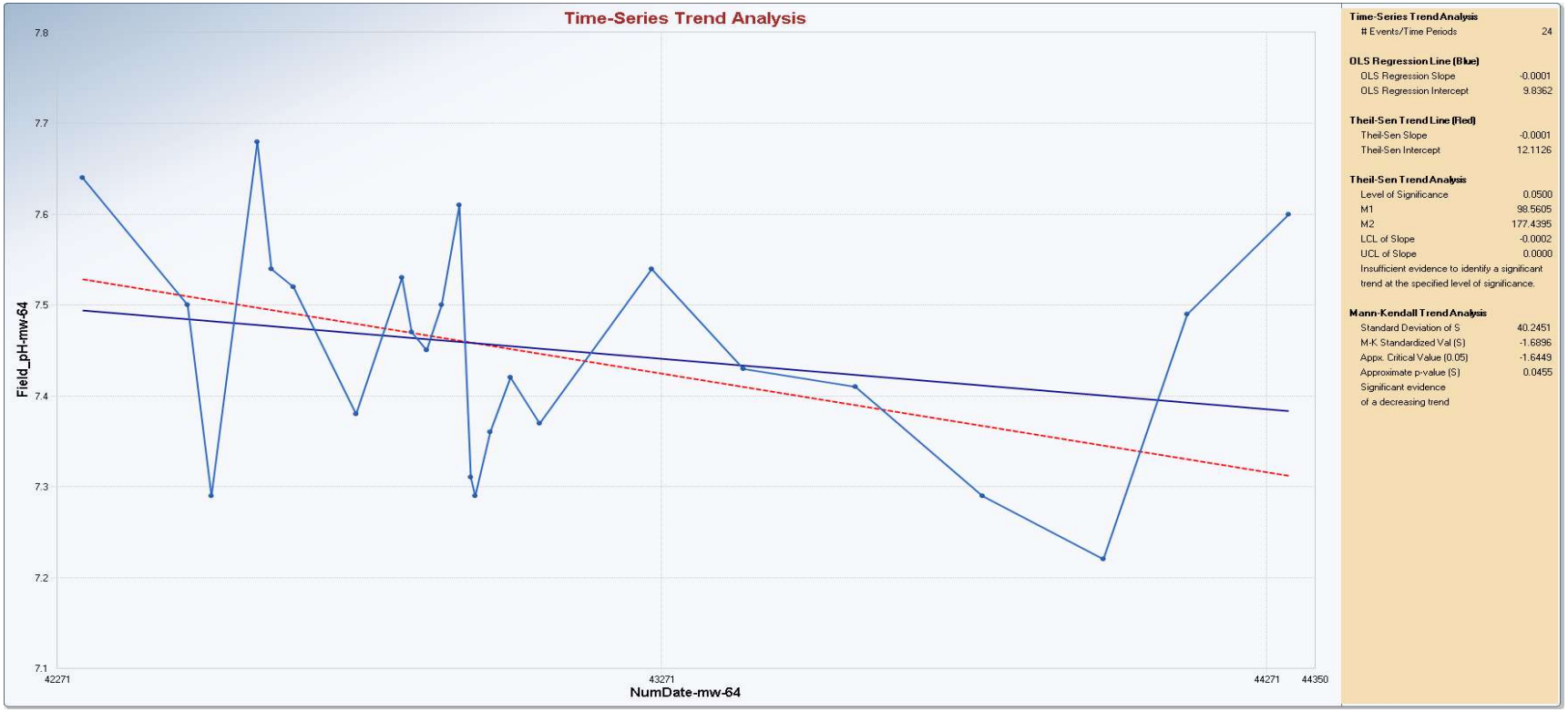
Appendix B
Mann-Kendall Trend Test



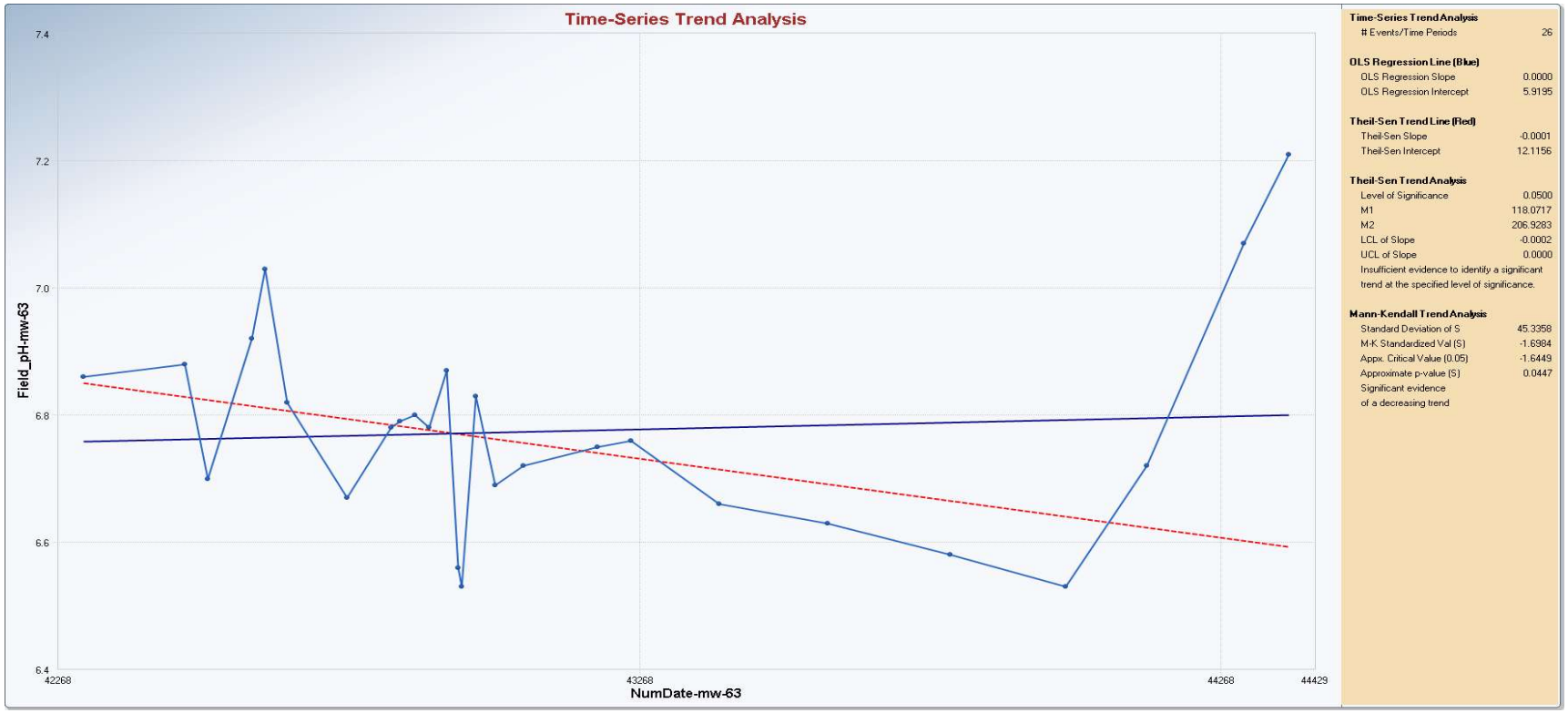
Appendix B
Mann-Kendall Trend Test



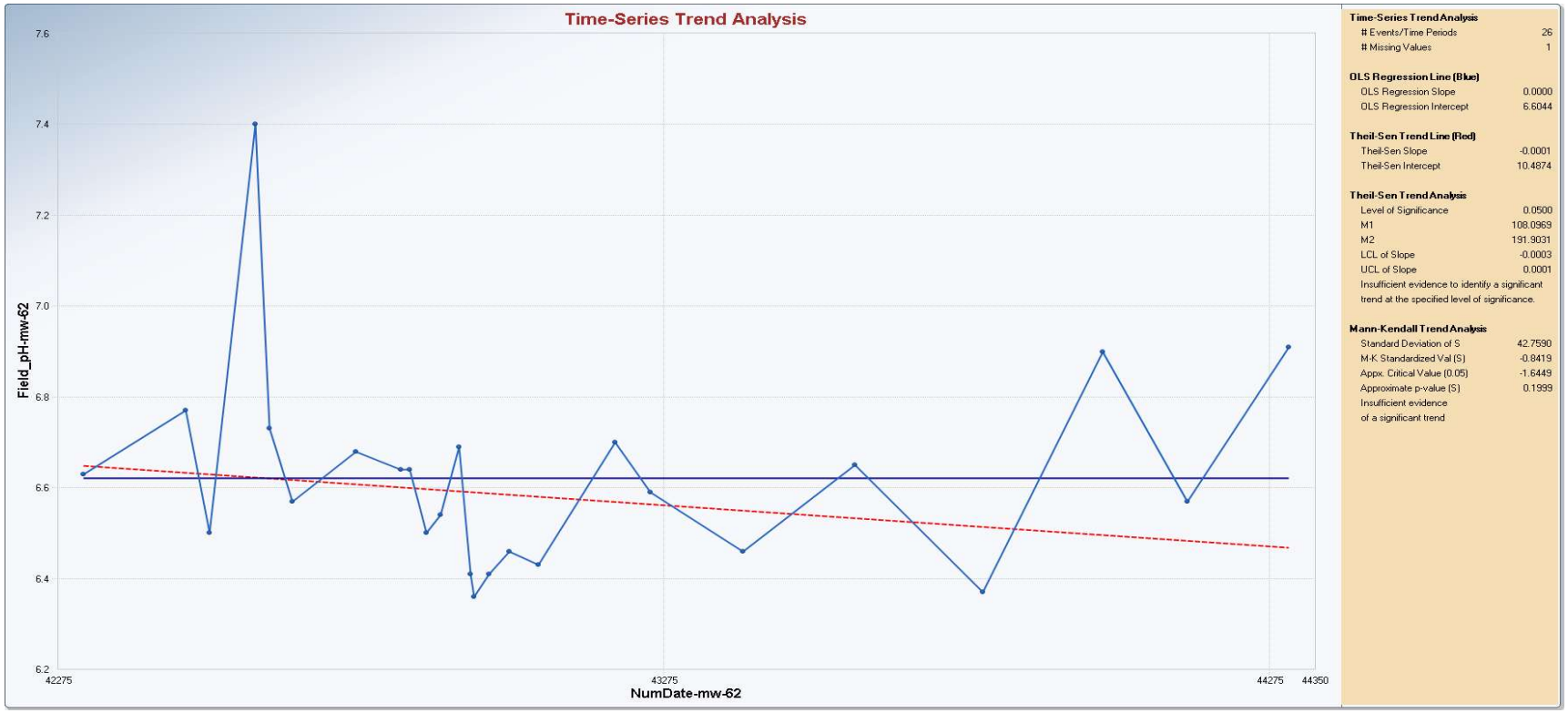
Appendix B
Mann-Kendall Trend Test



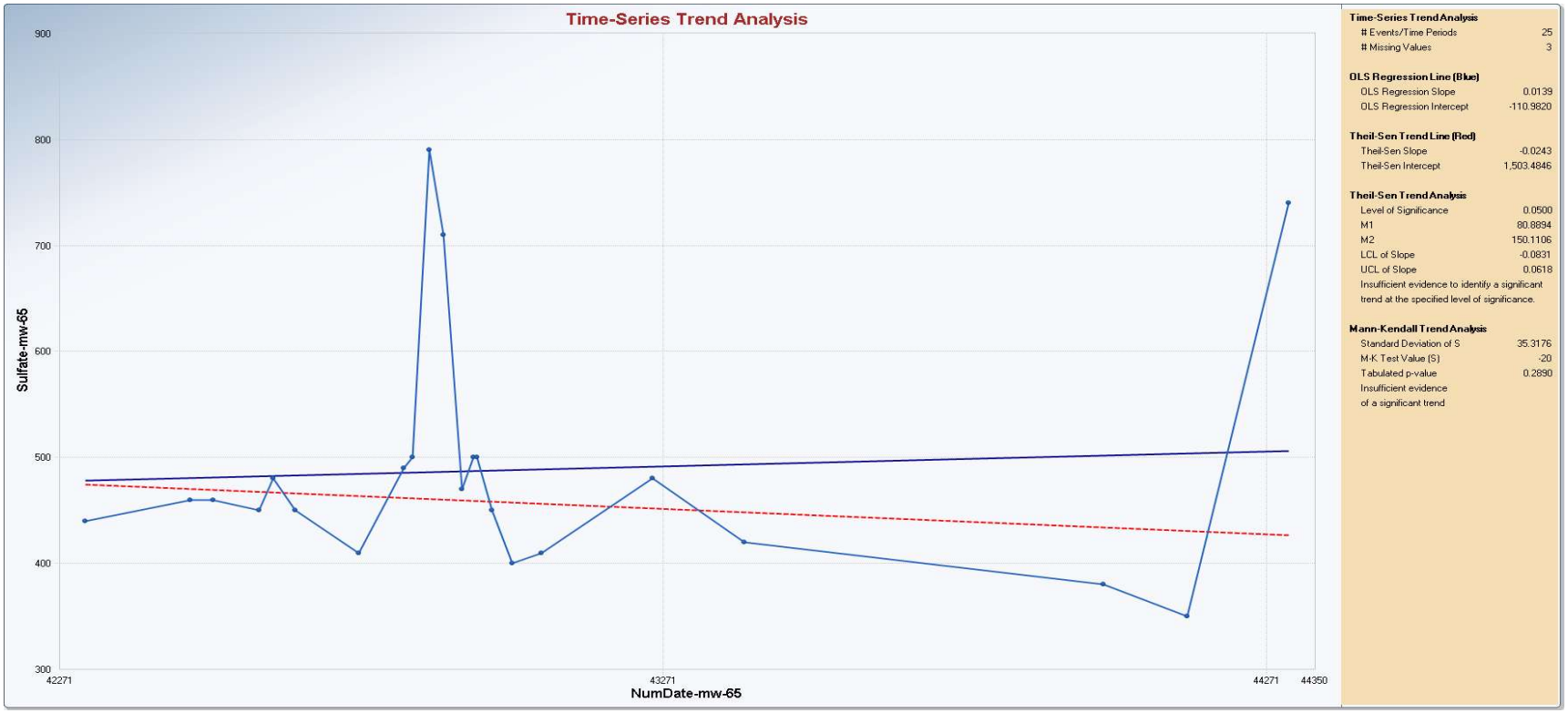
Appendix B
Mann-Kendall Trend Test



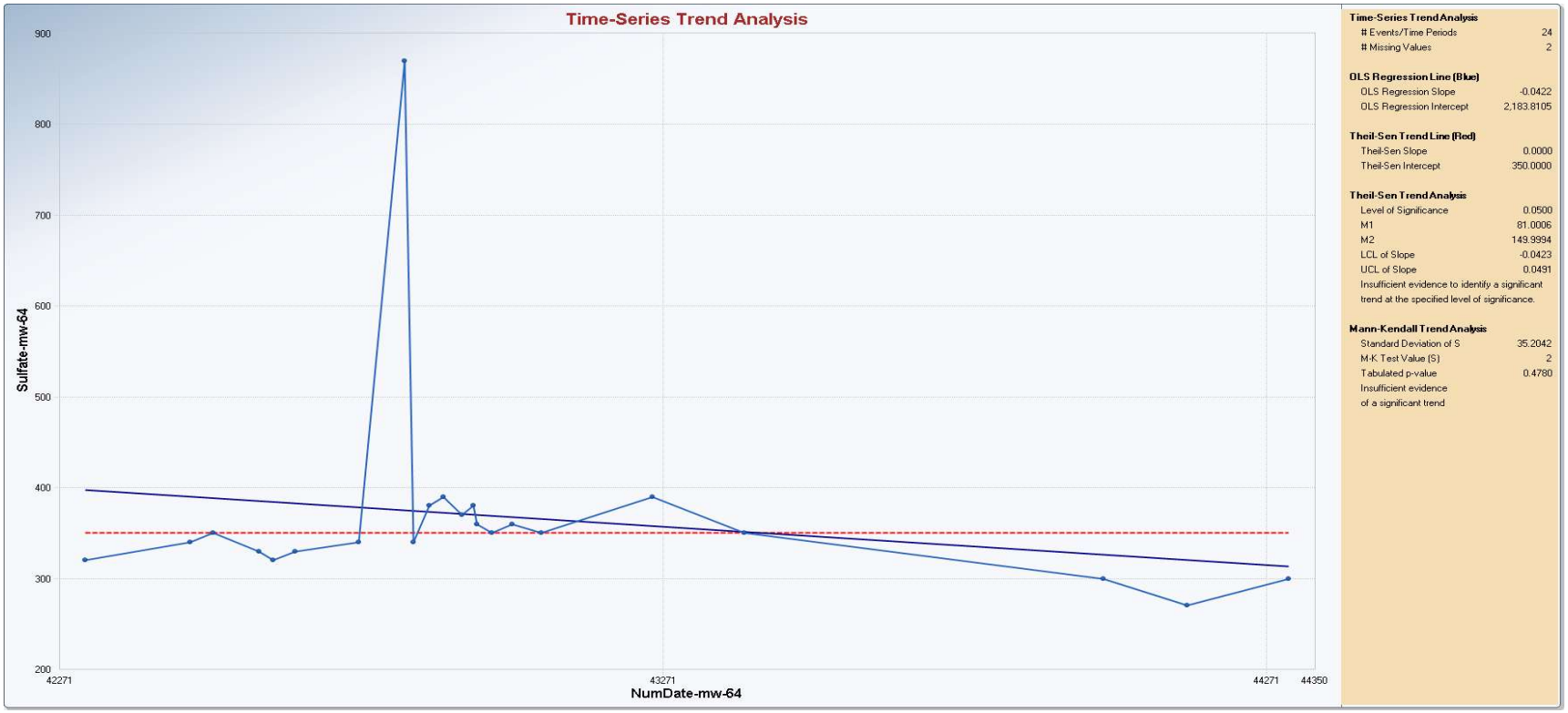
Appendix B
Mann-Kendall Trend Test



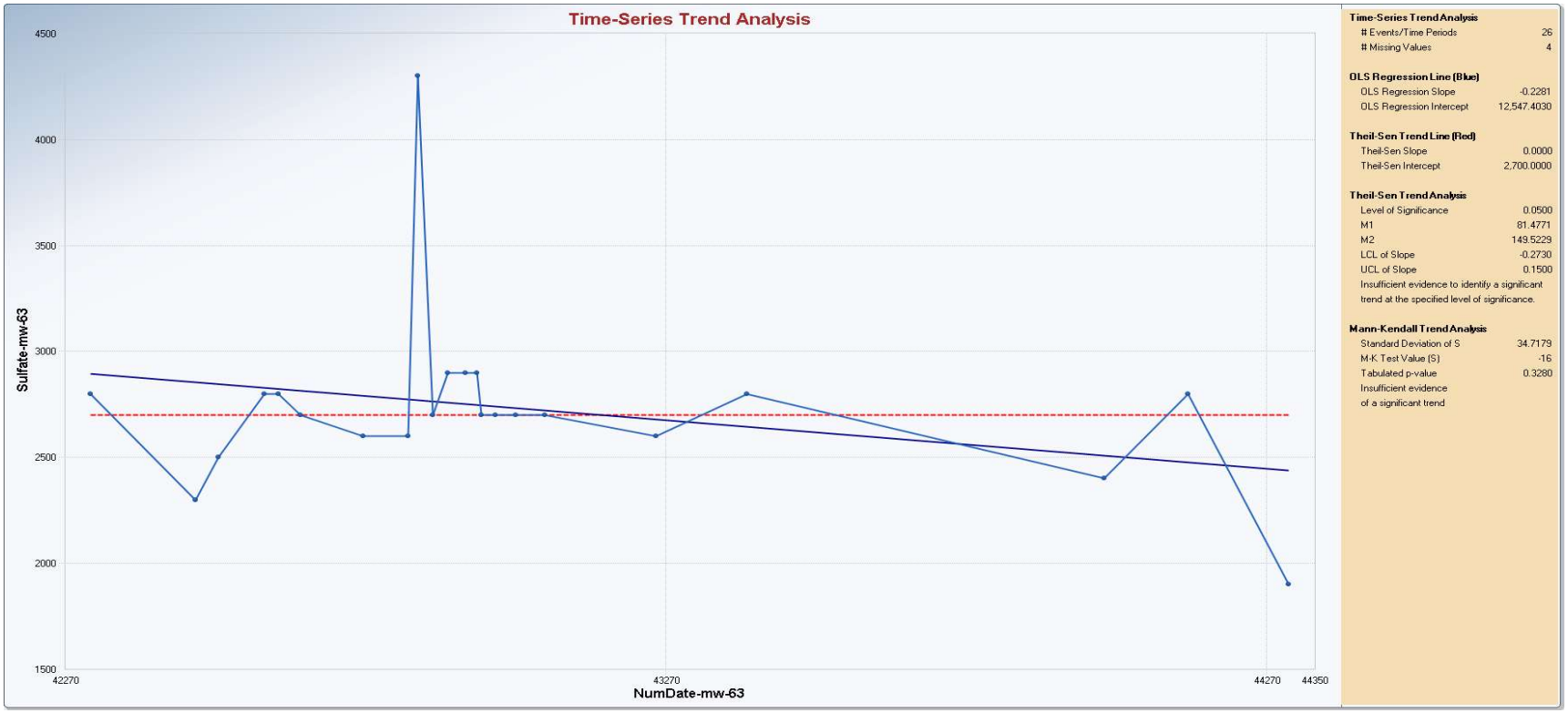
Appendix B
Mann-Kendall Trend Test



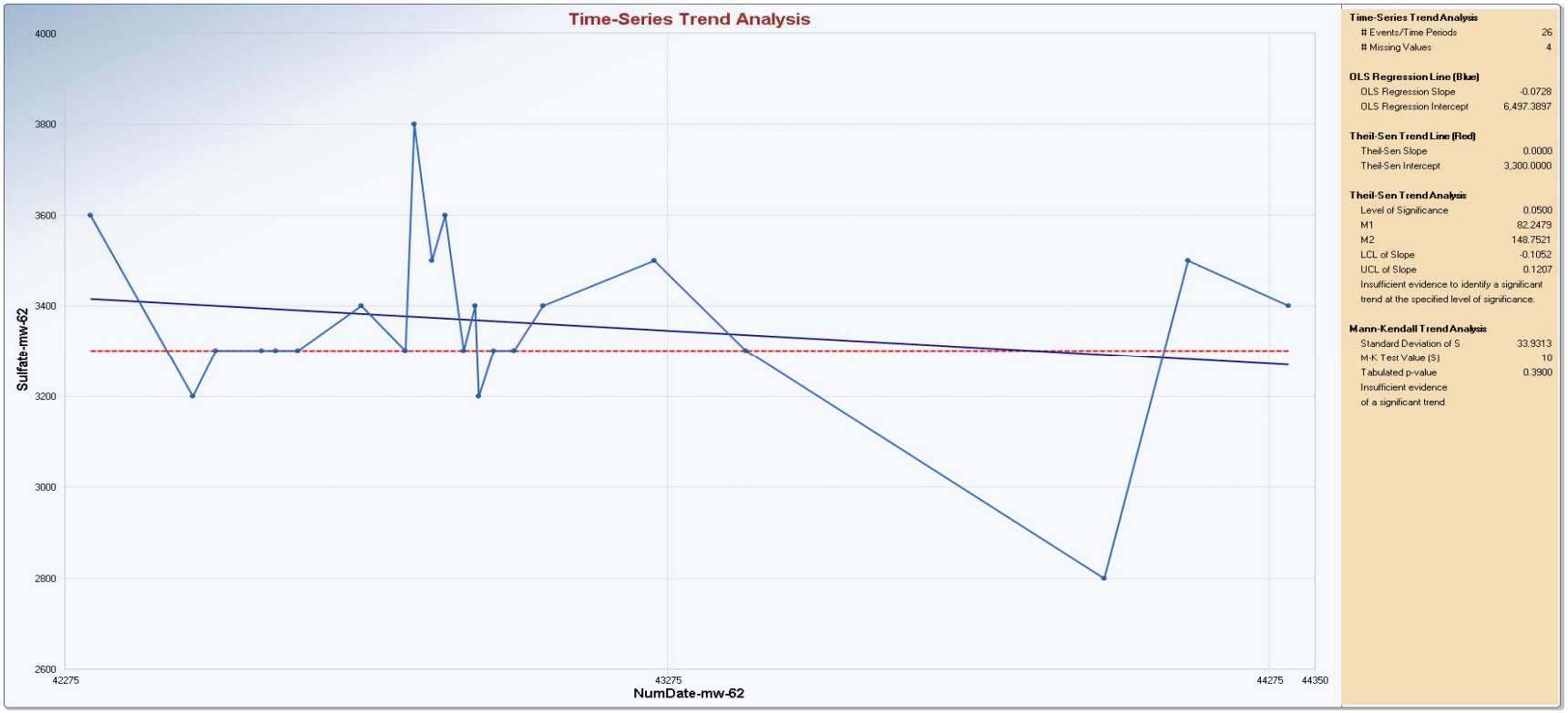
Appendix B
Mann-Kendall Trend Test



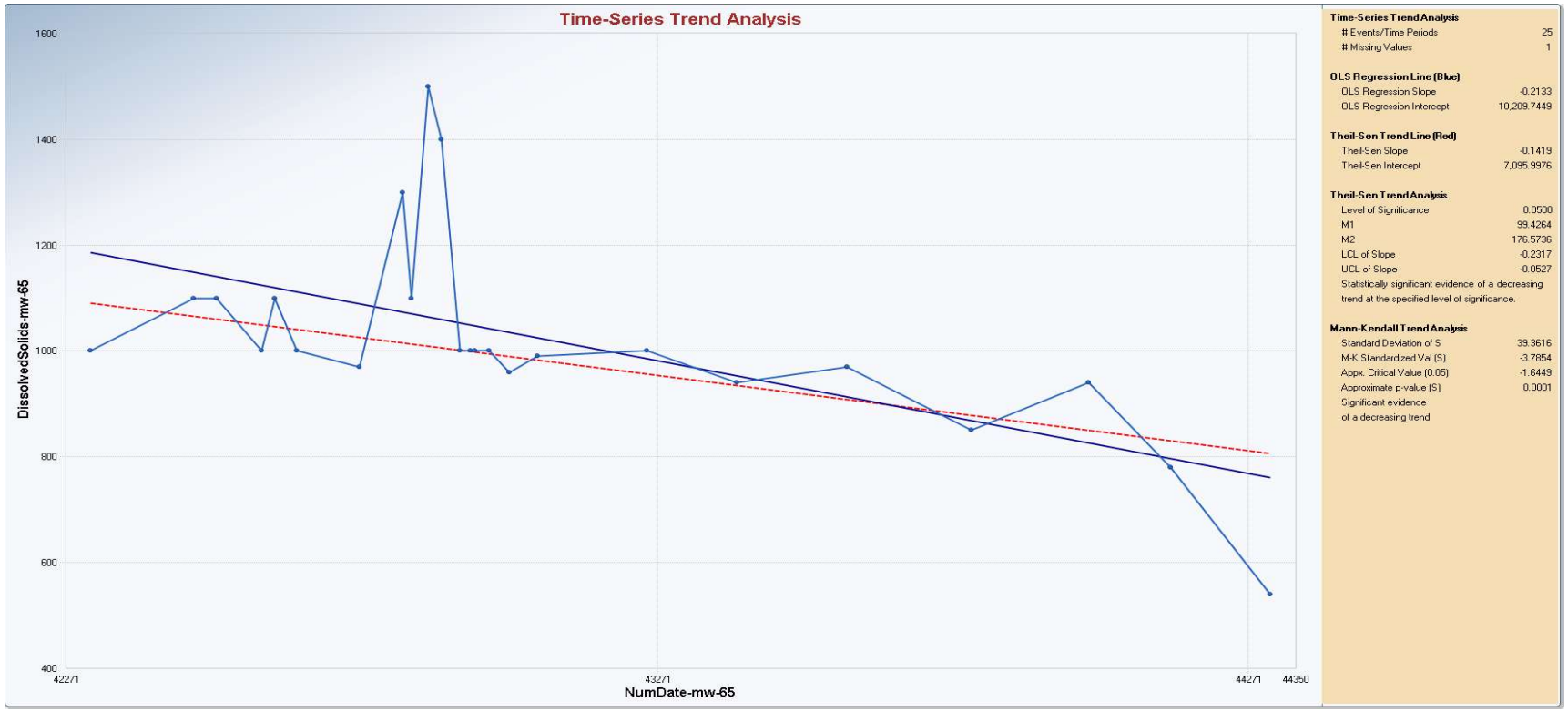
Appendix B
Mann-Kendall Trend Test



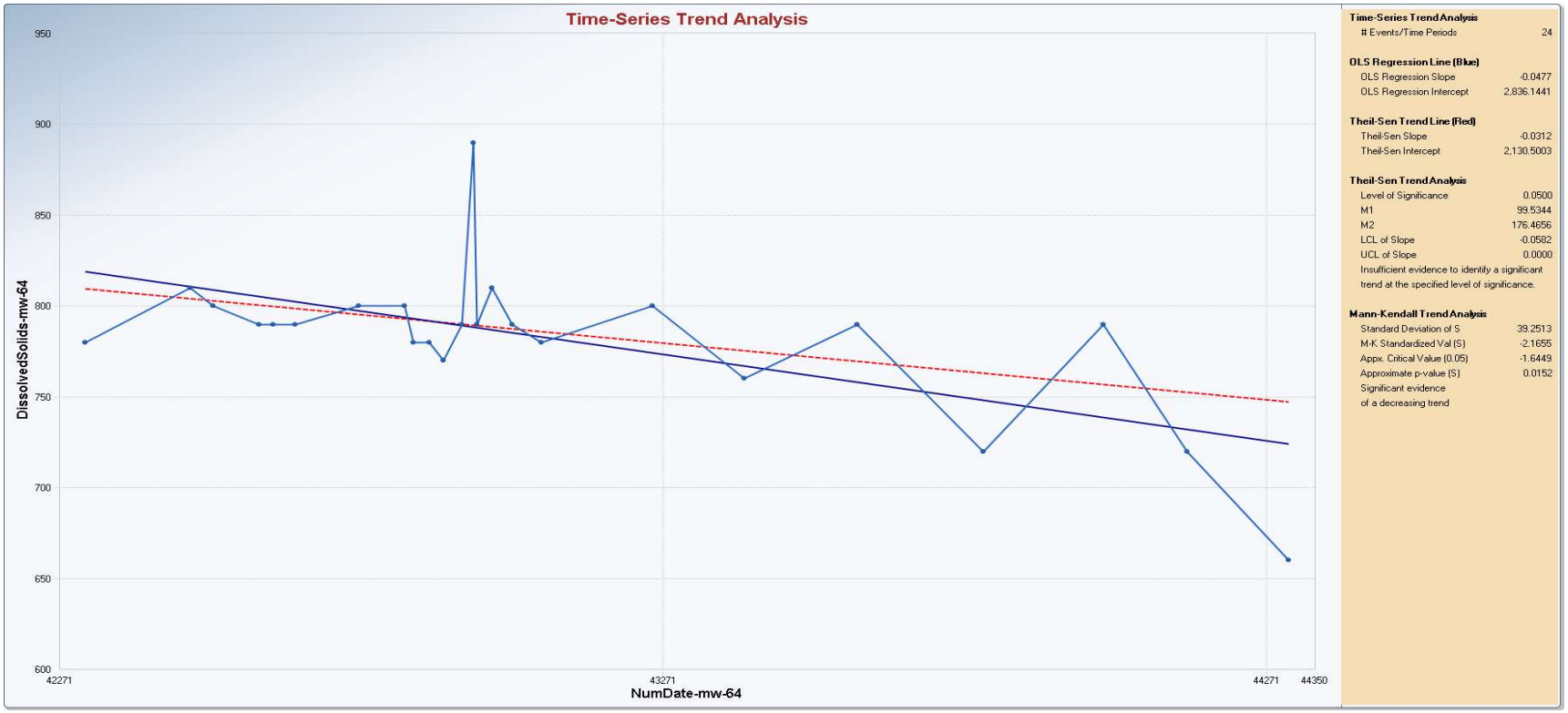
Appendix B
Mann-Kendall Trend Test



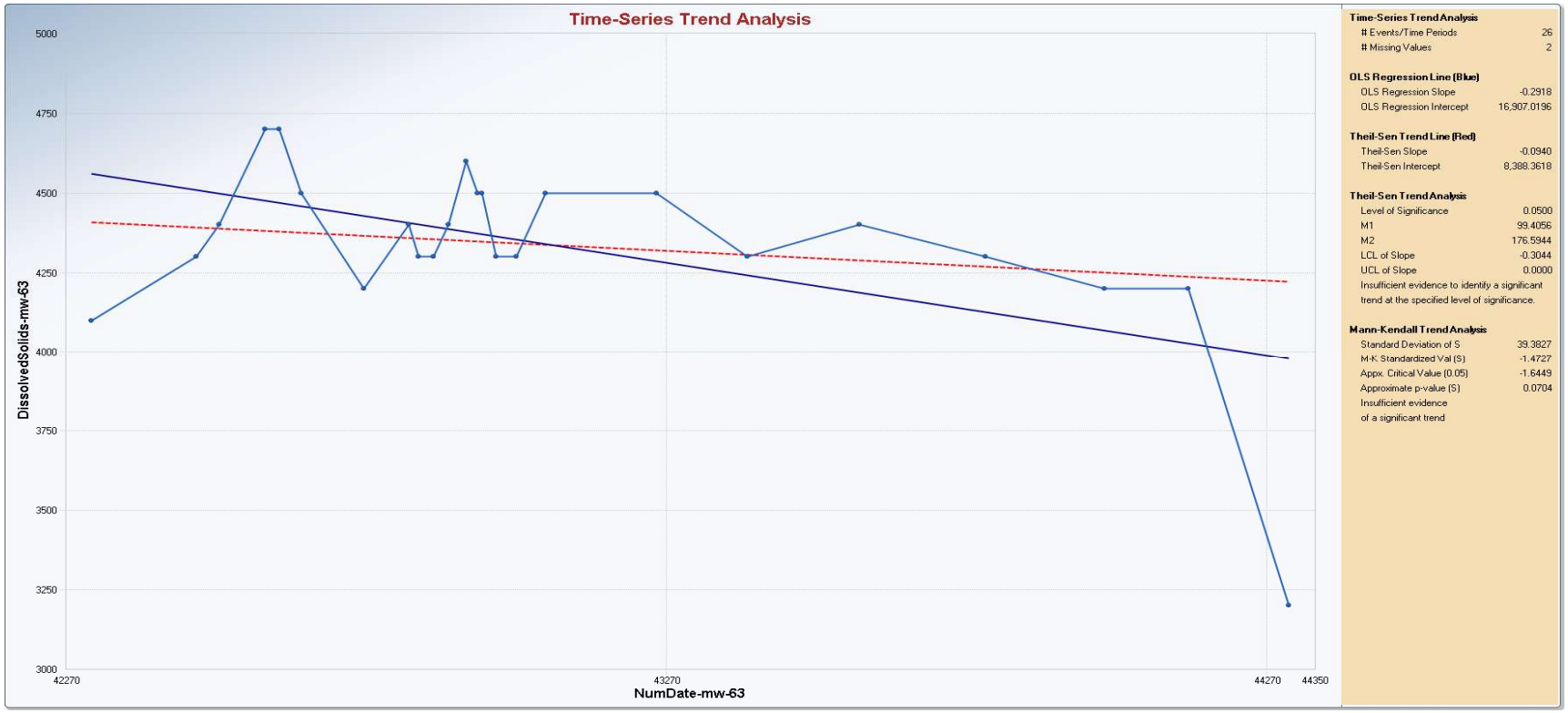
Appendix B
Mann-Kendall Trend Test



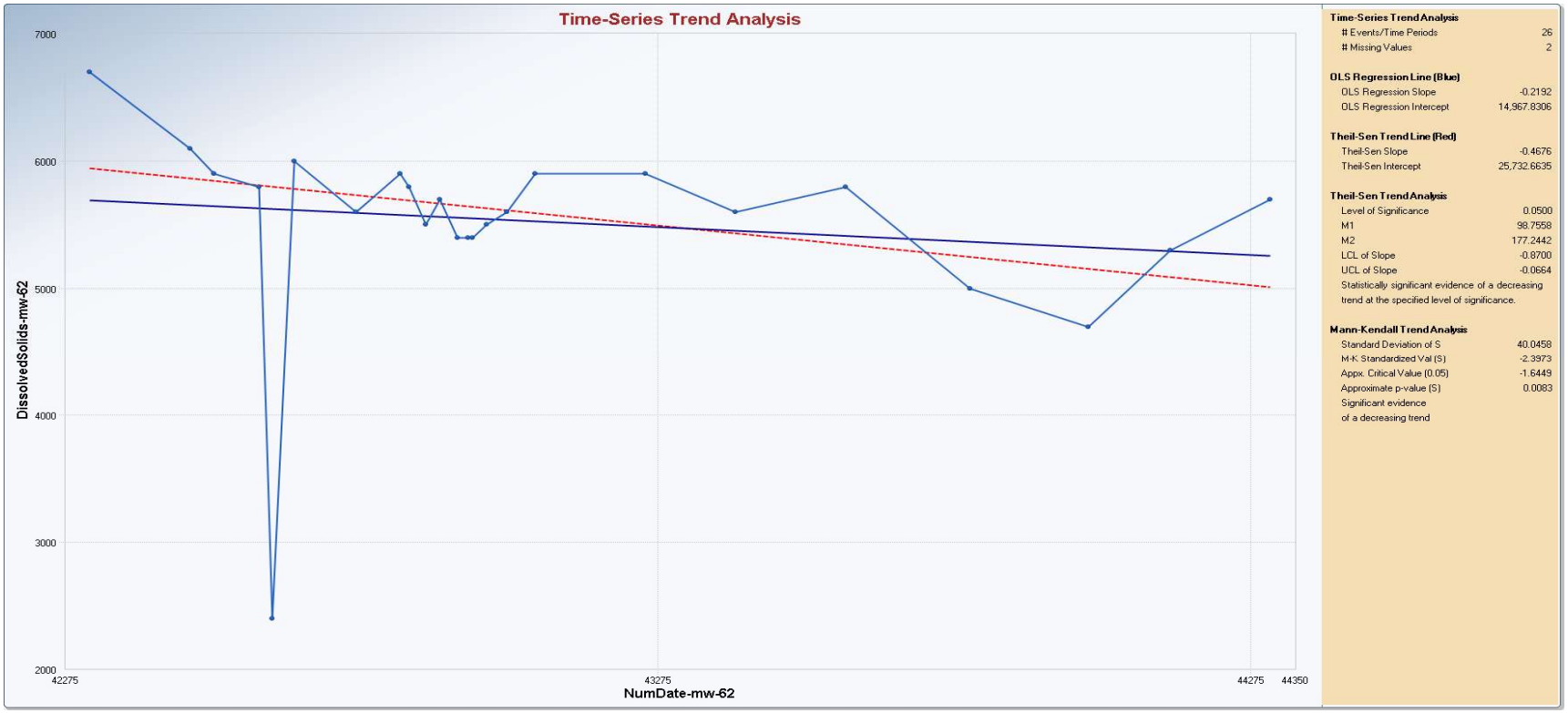
Appendix B
Mann-Kendall Trend Test



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 5.19/9/2021 6:08:54 AM
From File	CWTP_StatsAnalysis_DataFile_Jul2021.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Boron-mw-62

General Statistics	
Number of Events Reported (m)	26
Number of Missing Events	1
Number or Reported Events Used	25
Number Values Reported (n)	26
Number Values Missing	1
Number Values Used	25
Minimum	1.8
Maximum	2.5
Mean	2.084
Geometric Mean	2.076
Median	2.1
Standard Deviation	0.186
Coefficient of Variation	0.0894

Mann-Kendall Test	
M-K Test Value (S)	-30
Critical Value (0.05)	-1.645
Standard Deviation of S	41.85
Standardized Value of S	-0.693
Approximate p-value	0.244

Insufficient evidence to identify a significant trend at the specified level of significance.

Boron-mw-63

General Statistics	
Number of Events Reported (m)	26
Number of Missing Events	1
Number or Reported Events Used	25

Appendix B
Time Series Statistics

Number Values Reported (n)	26
Number Values Missing	1
Number Values Used	25
Minimum	0.93
Maximum	2
Mean	1.589
Geometric Mean	1.566
Median	1.6
Standard Deviation	0.265
Coefficient of Variation	0.167
Mann-Kendall Test	
M-K Test Value (S)	-15
Critical Value (0.05)	-1.645
Standard Deviation of S	42.38
Standardized Value of S	-0.33
Approximate p-value	0.371
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Boron-mw-64	
General Statistics	
Number of Events Reported (m)	24
Number of Missing Events	0
Number or Reported Events Used	24
Number Values Reported (n)	24
Minimum	0.47
Maximum	0.67
Mean	0.583
Geometric Mean	0.58
Median	0.585
Standard Deviation	0.0608
Coefficient of Variation	0.104
Mann-Kendall Test	
M-K Test Value (S)	-99
Critical Value (0.05)	-1.645
Standard Deviation of S	40.08

Appendix B
Time Series Statistics

Standardized Value of S	-2.445
Approximate p-value	0.00724

Statistically significant evidence of a decreasing trend at the specified level of significance.

Boron-mw-65

General Statistics	
Number of Events Reported (m)	25
Number of Missing Events	0
Number or Reported Events Used	25
Number Values Reported (n)	25
Minimum	0.57
Maximum	0.98
Mean	0.765
Geometric Mean	0.759
Median	0.77
Standard Deviation	0.0971
Coefficient of Variation	0.127

Mann-Kendall Test	
M-K Test Value (S)	-82
Critical Value (0.05)	-1.645
Standard Deviation of S	42.61
Standardized Value of S	-1.901
Approximate p-value	0.0286

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 5.19/9/2021 6:15:50 AM
From File	CWTP_StatsAnalysis_DataFile_Jul2021.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Calcium-mw-62

Appendix B
Time Series Statistics

General Statistics	
Number of Events Reported (m)	26
Number of Missing Events	1
Number or Reported Events Used	25
Number Values Reported (n)	26
Number Values Missing	1
Number Values Used	25
Minimum	480
Maximum	590
Mean	530
Geometric Mean	529.3
Median	530
Standard Deviation	28.14
Coefficient of Variation	0.0531
Mann-Kendall Test	
M-K Test Value (S)	11
Critical Value (0.05)	1.645
Standard Deviation of S	42.32
Standardized Value of S	0.236
Approximate p-value	0.407
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Calcium-mw-63	
General Statistics	
Number of Events Reported (m)	26
Number of Missing Events	1
Number or Reported Events Used	25
Number Values Reported (n)	26
Number Values Missing	1
Number Values Used	25
Minimum	400
Maximum	580
Mean	519.6
Geometric Mean	517.9
Median	530

Appendix B
Time Series Statistics

Standard Deviation	40.67
Coefficient of Variation	0.0783
Mann-Kendall Test	
M-K Test Value (S)	94
Critical Value (0.05)	1.645
Standard Deviation of S	42.38
Standardized Value of S	2.194
Approximate p-value	0.0141
Statistically significant evidence of an increasing	
trend at the specified level of significance.	
Calcium-mw-64	
General Statistics	
Number of Events Reported (m)	24
Number of Missing Events	0
Number or Reported Events Used	24
Number Values Reported (n)	24
Minimum	73
Maximum	93
Mean	86.29
Geometric Mean	86.18
Median	87.5
Standard Deviation	4.467
Coefficient of Variation	0.0518
Mann-Kendall Test	
M-K Test Value (S)	-42
Critical Value (0.05)	-1.645
Standard Deviation of S	39.88
Standardized Value of S	-1.028
Approximate p-value	0.152
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Calcium-mw-65	
General Statistics	

Appendix B
Time Series Statistics

Number of Events Reported (m)	25
Number of Missing Events	1
Number or Reported Events Used	24
Number Values Reported (n)	25
Number Values Missing	1
Number Values Used	24
Minimum	82
Maximum	170
Mean	108.3
Geometric Mean	106.7
Median	100
Standard Deviation	21.09
Coefficient of Variation	0.195

Mann-Kendall Test

M-K Test Value (S)	-56
Critical Value (0.05)	-1.645
Standard Deviation of S	39.4
Standardized Value of S	-1.396
Approximate p-value	0.0814

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 5.19/9/2021 6:44:55 AM
From File	CWTP_StatsAnalysis_DataFile_Jul2021.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Chloride-mw-62

General Statistics

Number of Events Reported (m)	26
Number of Missing Events	4
Number or Reported Events Used	22
Number Values Reported (n)	26

Appendix B
Time Series Statistics

Number Values Missing	4
Number Values Used	22
Minimum	82
Maximum	150
Mean	121
Geometric Mean	120
Median	120
Standard Deviation	15.53
Coefficient of Variation	0.128
Mann-Kendall Test	
M-K Test Value (S)	-51
Tabulated p-value	0.08
Standard Deviation of S	34.34
Standardized Value of S	-1.456
Approximate p-value	0.0727
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Chloride-mw-63	
General Statistics	
Number of Events Reported (m)	26
Number of Missing Events	4
Number or Reported Events Used	22
Number Values Reported (n)	26
Number Values Missing	4
Number Values Used	22
Minimum	77
Maximum	110
Mean	94.5
Geometric Mean	94.13
Median	97
Standard Deviation	8.478
Coefficient of Variation	0.0897
Mann-Kendall Test	
M-K Test Value (S)	-116
Tabulated p-value	0

Appendix B
Time Series Statistics

Standard Deviation of S	35.15
Standardized Value of S	-3.272
Approximate p-value	5.3406E-4
Statistically significant evidence of a decreasing trend at the specified level of significance.	
Chloride-mw-64	
General Statistics	
Number of Events Reported (m)	24
Number of Missing Events	2
Number or Reported Events Used	22
Number Values Reported (n)	24
Number Values Missing	2
Number Values Used	22
Minimum	44
Maximum	53
Mean	50.82
Geometric Mean	50.76
Median	52
Standard Deviation	2.383
Coefficient of Variation	0.0469
Mann-Kendall Test	
M-K Test Value (S)	19
Tabulated p-value	0.308
Standard Deviation of S	34.51
Standardized Value of S	0.522
Approximate p-value	0.301
Insufficient evidence to identify a significant trend at the specified level of significance.	
Chloride-mw-65	
General Statistics	
Number of Events Reported (m)	25
Number of Missing Events	3
Number or Reported Events Used	22
Number Values Reported (n)	25

Appendix B
Time Series Statistics

Number Values Missing	3
Number Values Used	22
Minimum	48
Maximum	77
Mean	55.73
Geometric Mean	55.34
Median	53
Standard Deviation	7.173
Coefficient of Variation	0.129
Mann-Kendall Test	
M-K Test Value (S)	-49
Tabulated p-value	0.089
Standard Deviation of S	34.92
Standardized Value of S	-1.374
Approximate p-value	0.0847
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 5.19/9/2021 6:54:32 AM
From File	CWTP_StatsAnalysis_DataFile_Jul2021.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Field_pH-mw-62	
General Statistics	
Number of Events Reported (m)	26
Number of Missing Events	1
Number or Reported Events Used	25
Number Values Reported (n)	26
Number Values Missing	1
Number Values Used	25
Minimum	6.36
Maximum	7.4

Appendix B
Time Series Statistics

Mean	6.62
Geometric Mean	6.617
Median	6.59
Standard Deviation	0.221
Coefficient of Variation	0.0333
Mann-Kendall Test	
M-K Test Value (S)	-37
Critical Value (0.05)	-1.645
Standard Deviation of S	42.76
Standardized Value of S	-0.842
Approximate p-value	0.2
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Field_pH-mw-63	
General Statistics	
Number of Events Reported (m)	26
Number of Missing Events	0
Number or Reported Events Used	26
Number Values Reported (n)	26
Minimum	6.53
Maximum	7.21
Mean	6.775
Geometric Mean	6.773
Median	6.77
Standard Deviation	0.163
Coefficient of Variation	0.0241
Mann-Kendall Test	
M-K Test Value (S)	-78
Critical Value (0.05)	-1.645
Standard Deviation of S	45.34
Standardized Value of S	-1.698
Approximate p-value	0.0447
Statistically significant evidence of a decreasing	
trend at the specified level of significance.	

Appendix B
Time Series Statistics

Field_pH-mw-64	
General Statistics	
Number of Events Reported (m)	24
Number of Missing Events	0
Number or Reported Events Used	24
Number Values Reported (n)	24
Minimum	7.22
Maximum	7.68
Mean	7.452
Geometric Mean	7.451
Median	7.46
Standard Deviation	0.122
Coefficient of Variation	0.0164
Mann-Kendall Test	
M-K Test Value (S)	-69
Critical Value (0.05)	-1.645
Standard Deviation of S	40.25
Standardized Value of S	-1.69
Approximate p-value	0.0455
Statistically significant evidence of a decreasing trend at the specified level of significance.	
Field_pH-mw-65	
General Statistics	
Number of Events Reported (m)	25
Number of Missing Events	0
Number or Reported Events Used	25
Number Values Reported (n)	25
Minimum	6.96
Maximum	8.27
Mean	7.262
Geometric Mean	7.258
Median	7.21
Standard Deviation	0.252
Coefficient of Variation	0.0348

Appendix B
Time Series Statistics

Mann-Kendall Test	
M-K Test Value (S)	-55
Critical Value (0.05)	-1.645
Standard Deviation of S	42.76
Standardized Value of S	-1.263
Approximate p-value	0.103
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 5.19/9/2021 6:49:02 AM
From File	CWTP_StatsAnalysis_DataFile_Jul2021.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Sulfate-mw-62	
General Statistics	
Number of Events Reported (m)	26
Number of Missing Events	4
Number or Reported Events Used	22
Number Values Reported (n)	26
Number Values Missing	4
Number Values Used	22
Minimum	2800
Maximum	3800
Mean	3364
Geometric Mean	3358
Median	3300
Standard Deviation	191.6
Coefficient of Variation	0.057
Mann-Kendall Test	
M-K Test Value (S)	10
Tabulated p-value	0.39
Standard Deviation of S	33.93

Appendix B
Time Series Statistics

Standardized Value of S	0.265
Approximate p-value	0.395
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Sulfate-mw-63	
General Statistics	
Number of Events Reported (m)	26
Number of Missing Events	4
Number or Reported Events Used	22
Number Values Reported (n)	26
Number Values Missing	4
Number Values Used	22
Minimum	1900
Maximum	4300
Mean	2732
Geometric Mean	2705
Median	2700
Standard Deviation	417.9
Coefficient of Variation	0.153
Mann-Kendall Test	
M-K Test Value (S)	-16
Tabulated p-value	0.328
Standard Deviation of S	34.72
Standardized Value of S	-0.432
Approximate p-value	0.333
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Sulfate-mw-64	
General Statistics	
Number of Events Reported (m)	24
Number of Missing Events	2
Number or Reported Events Used	22
Number Values Reported (n)	24
Number Values Missing	2

Appendix B
Time Series Statistics

Number Values Used	22
Minimum	270
Maximum	870
Mean	367.7
Geometric Mean	357.3
Median	350
Standard Deviation	116.2
Coefficient of Variation	0.316
Mann-Kendall Test	
M-K Test Value (S)	2
Tabulated p-value	0.478
Standard Deviation of S	35.2
Standardized Value of S	0.0284
Approximate p-value	0.489
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Sulfate-mw-65	
General Statistics	
Number of Events Reported (m)	25
Number of Missing Events	3
Number or Reported Events Used	22
Number Values Reported (n)	25
Number Values Missing	3
Number Values Used	22
Minimum	350
Maximum	790
Mean	488.2
Geometric Mean	477.8
Median	460
Standard Deviation	113
Coefficient of Variation	0.232
Mann-Kendall Test	
M-K Test Value (S)	-20
Tabulated p-value	0.289
Standard Deviation of S	35.32

Appendix B
Time Series Statistics

Standardized Value of S	-0.538
Approximate p-value	0.295

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 5.19/9/2021 6:51:19 AM
From File	CWTP_StatsAnalysis_DataFile_Jul2021.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

DissolvedSolids-mw-62

General Statistics

Number of Events Reported (m)	26
Number of Missing Events	2
Number or Reported Events Used	24
Number Values Reported (n)	26
Number Values Missing	2
Number Values Used	24
Minimum	2400
Maximum	6700
Mean	5525
Geometric Mean	5450
Median	5650
Standard Deviation	769.7
Coefficient of Variation	0.139

Mann-Kendall Test

M-K Test Value (S)	-97
Critical Value (0.05)	-1.645
Standard Deviation of S	40.05
Standardized Value of S	-2.397
Approximate p-value	0.00826

Appendix B
Time Series Statistics

Statistically significant evidence of a decreasing	
trend at the specified level of significance.	
DissolvedSolids-mw-63	
General Statistics	
Number of Events Reported (m)	26
Number of Missing Events	2
Number or Reported Events Used	24
Number Values Reported (n)	26
Number Values Missing	2
Number Values Used	24
Minimum	3200
Maximum	4700
Mean	4338
Geometric Mean	4327
Median	4350
Standard Deviation	287.1
Coefficient of Variation	0.0662
Mann-Kendall Test	
M-K Test Value (S)	-59
Critical Value (0.05)	-1.645
Standard Deviation of S	39.38
Standardized Value of S	-1.473
Approximate p-value	0.0704
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
DissolvedSolids-mw-64	
General Statistics	
Number of Events Reported (m)	24
Number of Missing Events	0
Number or Reported Events Used	24
Number Values Reported (n)	24
Minimum	660
Maximum	890
Mean	782.5
Geometric Mean	781.4

Appendix B
Time Series Statistics

Median	790
Standard Deviation	40.78
Coefficient of Variation	0.0521
Mann-Kendall Test	
M-K Test Value (S)	-86
Critical Value (0.05)	-1.645
Standard Deviation of S	39.25
Standardized Value of S	-2.166
Approximate p-value	0.0152
Statistically significant evidence of a decreasing trend at the specified level of significance.	
DissolvedSolids-mw-65	
General Statistics	
Number of Events Reported (m)	25
Number of Missing Events	1
Number or Reported Events Used	24
Number Values Reported (n)	25
Number Values Missing	1
Number Values Used	24
Minimum	540
Maximum	1500
Mean	1023
Geometric Mean	1005
Median	1000
Standard Deviation	188.9
Coefficient of Variation	0.185
Mann-Kendall Test	
M-K Test Value (S)	-150
Critical Value (0.05)	-1.645
Standard Deviation of S	39.36
Standardized Value of S	-3.785
Approximate p-value	7.6725E-5
Statistically significant evidence of a decreasing trend at the specified level of significance.	

Appendix B
Time Series Statistics

	Mann-Kendall Trend Test Analysis
User Selected Options	
Date/Time of Computation	ProUCL 5.19/9/2021 7:18:54 AM
From File	CWTP_StatsAnalysis_DataFile_Jul2021.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

Fluoride-mw-62

General Statistics	
Number of Events Reported (m)	26
Number of Missing Events	1
Number or Reported Events Used	25
Number Values Reported (n)	26
Number Values Missing	1
Number Values Used	25
Minimum	1.2
Maximum	3.3
Mean	1.544
Geometric Mean	1.51
Median	1.5
Standard Deviation	0.399
Coefficient of Variation	0.258

Mann-Kendall Test	
M-K Test Value (S)	9
Critical Value (0.05)	1.645
Standard Deviation of S	41.31
Standardized Value of S	0.194
Approximate p-value	0.423

Insufficient evidence to identify a significant trend at the specified level of significance.

Fluoride-mw-63

General Statistics	
Number of Events Reported (m)	26

Appendix B
Time Series Statistics

Number of Missing Events	2
Number or Reported Events Used	24
Number Values Reported (n)	26
Number Values Missing	2
Number Values Used	24
Minimum	1.6
Maximum	2.5
Mean	1.95
Geometric Mean	1.938
Median	1.95
Standard Deviation	0.225
Coefficient of Variation	0.115
Mann-Kendall Test	
M-K Test Value (S)	-18
Critical Value (0.05)	-1.645
Standard Deviation of S	39.61
Standardized Value of S	-0.429
Approximate p-value	0.334
Insufficient evidence to identify a significant trend at the specified level of significance.	
Fluoride-mw-64	
General Statistics	
Number of Events Reported (m)	24
Number of Missing Events	0
Number or Reported Events Used	24
Number Values Reported (n)	24
Minimum	1.3
Maximum	1.6
Mean	1.433
Geometric Mean	1.431
Median	1.4
Standard Deviation	0.0761
Coefficient of Variation	0.0531
Mann-Kendall Test	
M-K Test Value (S)	0

Appendix B
Time Series Statistics

Critical Value (0.05)	N/A
Standard Deviation of S	36.94
Standardized Value of S	N/A
Approximate p-value	N/A
Insufficient evidence to identify a significant	
trend at the specified level of significance.	
Fluoride-mw-65	
General Statistics	
Number of Events Reported (m)	25
Number of Missing Events	1
Number or Reported Events Used	24
Number Values Reported (n)	25
Number Values Missing	1
Number Values Used	24
Minimum	1.5
Maximum	2.1
Mean	1.875
Geometric Mean	1.869
Median	1.9
Standard Deviation	0.151
Coefficient of Variation	0.0806
Mann-Kendall Test	
M-K Test Value (S)	-21
Critical Value (0.05)	-1.645
Standard Deviation of S	38.79
Standardized Value of S	-0.516
Approximate p-value	0.303
Insufficient evidence to identify a significant	
trend at the specified level of significance.	

Appendix I

Technical Memorandum for Installation of Extraction Wells EW-16 and EW-17

Technical Memorandum

To:	Arizona Public Service Company	**File No:**	14-2018-2068
From:	Brenden Enos	**Reviewed by:**	Becky Weaver, PE
Date:	June 11, 2021		

Subject: **INSTALLATION OF EXTRACTION WELLS EW-16 AND EW-17**
Arizona Public Service Four Corners Power Plant – Fruitland, New Mexico

1.0 INTRODUCTION

This Technical Memorandum was prepared by Wood Environment and Infrastructure Solutions, Inc. (Wood) to document the installation of extraction wells EW-16 and EW-17 at the Arizona Public Service Company (APS) Four Corners Power Plant (the Site) in Fruitland, New Mexico. The extraction wells were installed to capture potentially impacted groundwater near the Northern Intercept Trench (NIT). The following sections detail the site background and basis for well installation, description of the well installation activities, and analytical water quality sampling results.

1.1 Basis for Well Installation

A detailed description of the site and background information is provided in the A*nnual Groundwater Monitoring and Corrective Action Report for 2020* (Wood, 2021). The new extraction wells (EW-16 and EW-17) were installed near the NIT, a 1.5-mile intercept trench constructed by APS to capture potentially impacted groundwater before it migrates off site. Groundwater near the NIT generally flows from east to west within the Weathered Lewis Shale. Underlying the Weathered Lewis Shale is the Unweathered Lewis Shale, which forms an aquitard beneath the site. The NIT is constructed such that the bottom of the trench is completed one to two feet into the Unweathered Lewis Shale. The trench is comprised of geotextile and geo-composite layers which intercept and direct groundwater to one of several collection sumps installed along its length.

Water levels in monitoring wells downgradient of the NIT are generally at or below its invert elevation, indicating the trench is generating a reduction in hydraulic head as groundwater is intercepted (Figure 1). However, the presence of water in monitoring wells downgradient of the trench suggests groundwater is bypassing the NIT. Additionally, it is possible that in certain locations the base of NIT may not extend fully into the underlying Unweathered Lewis Shale. During construction of the NIT, the Unweathered Lewis Shale was discovered to be deeper in the vicinity of monitoring well MW-32 and Sump 8 (Figure 1). To achieve a barrier to groundwater flow in this area, the Weathered Lewis Shale was excavated and replaced with controlled low strength material (CLSM). This has been identified as an area where groundwater may be bypassing the NIT.

To improve the capture of potentially impacted groundwater near the NIT, APS directed Wood to install two new extraction wells upgradient and downgradient of the NIT (Figure 1). The following sections detail the well locations, drilling and well installation, well development, water quality sampling and conclusions.

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2.0 WELL INSTALLATION ACTIVITIES

2.1 Well Siting

The new extraction wells were sited in locations to meet the intended goal of improving groundwater capture at the NIT. EW-16 was installed downgradient of the trench near monitoring wells MW-79S and DMX-01 to capture groundwater that may be flowing beneath the bottom of the NIT where the CLSM is present. EW-17 was installed upgradient of the trench in a historical retention basin near MW-82S, which was converted into an extraction well in 2020. EW-17 was installed at this location to reduce the amount of groundwater entering the NIT. Pumping tests conducted at MW-82S suggested relatively high groundwater production rates in this area, potentially due to the fact the well is located upgradient of the NIT, and potentially due to increased weathering of the Lewis Shale caused by infiltration of surface water in the historical retention basin.

2.2 Pre-Drilling Activities

Prior to the start of field work, Wood updated the existing Health and Safety Plan (HASP) for the Site and ensured all subcontractors and Wood field personnel received APS Fossil Generation Contractor Safety Training. Wood provided a copy of the HASP during field operations and ensured it was reviewed and signed by all relevant field personnel.

Utility clearance was performed on October 5, 2020 by ELM Locating and Utility Services and overseen by a Wood representative. During inspection at EW-17, a small obstruction was detected 4 feet (ft) below ground surface (bgs) and the well location was moved to a cleared area approximately 10 ft to the west. Hydro excavation was performed on October 5, 2020 by Riley Industrial Services, Inc. and overseen by a Wood representative. At both sites, potholes were hydro-excavated to a diameter of 10 inches and a depth of 6 ft bgs using a GapVax excavator. Pictures of the hydro-excavation activities are included in Appendix B - Photograph Log.

2.3 Drilling and Well Installation

Drilling and well installation was performed by Boart Longyear under direct contract to Wood. The EW-16 and EW-17 borings were each drilled to a 10-inch (in) diameter using the sonic drilling method between October 6 and 8, 2020. The drilling and installation activities were overseen and documented by a Wood field geologist, and continuous formation samples and water content were logged by the Wood field geologist at 2.5-ft intervals. A complete description of the formation samples is included in Appendix A, and photographs of the formation samples are presented in Appendix B.

Lithologies encountered during drilling include alluvium, the Weathered Lewis Shale, and the Unweathered Lewis Shale. A description of lithologies and water content observed at each well is summarized below.

- EW-16 – The Weathered Lewis Shale was encountered from 6 to 19 ft bgs and the Unweathered Lewis Shale was encountered from 19 to 50 ft bgs. Moisture was encountered throughout the Weathered Lewis Shale, and a significant increase in moisture was observed in a 1-ft interval directly above the Unweathered Lewis Shale from approximately 18 to 19 ft bgs. Moisture was also observed intermittently within the Unweathered Lewis Shale in approximately 3-in. zones of high plasticity clay between strongly cemented dry layers of unweathered shale; however, the observed moisture is likely due to the addition of water to the borehole while drilling through the hard and competent Unweathered Lewis Shale.

- EW-17 – Alluvium was encountered from 6 to 14 ft bgs, the Weathered Lewis Shale was encountered from 14 to 31.5 ft bgs, and the underlying Unweathered Lewis Shale was encountered from 31.5 to 50 ft bgs. Moisture was observed throughout the Weathered Lewis Shale with an increased zone of moisture near the contact with the underlying Unweathered Lewis Shale (28 to 31.5 ft bgs). Similar to the EW-16 boring, moisture was observed intermittently within the Unweathered Lewis Shale, though the moisture was likely caused by water added to the borehole while drilling through the Unweathered Lewis Shale.

Well construction took place on October 6 and 7, 2020. The wells are each constructed of a 6-inch nominal diameter Schedule (SCH) 40 polyvinyl chloride (PVC) blank casing with a 6-inch nominal diameter SCH 40 PVC screen with 0.020-inch slot screen and a 10-ft sump placed below the screened interval. Filter pack material consists of 12-20 silica sand, and a transition seal of 20-40 silica sand was placed above the filter pack. A bentonite seal was installed above the transition sand, and neat cement was installed above the bentonite seal to ground surface. During well construction, the depth to the annular materials was continuously checked by the Wood field geologist using a weighted tape measure. Well construction details are presented in Table 1 and Appendix A.

The EW-16 and EW-17 screened intervals were each installed from 20 to 40 ft bgs. Placement of the well screens was based on moisture observed during drilling, recent depths to water recorded in June 2020 at nearby monitoring wells (20.1 ft bgs at MW-79S and 16.2 ft bgs at MW-82S), and the depth to the base of the NIT (according to design drawings provided by APS, the base of the NIT is estimated to be 27 ft bgs near EW-16 and 35 ft bgs near EW-17).

Water levels measured following the installation of each well are summarized in Table 2 below.

Table 2 – Water Level Measurements

Well	Date (Time)	Water Level (ft bgs)	Notes
EW-16	10/7/2020 (18:24)	DRY (measured well bottom at 50)	Water level after installation
	10/8/2020 (07:22)	48.0	---
	10/8/2020 (15:02)	47.1	---
EW-17	10/8/2020 (14:55)	35.9	Water level after installation
	10/9/2020 (06:52)	21.2	Water level prior to starting development
	10/9/2020 (17:21)	23.9	Water level 4 hours after development

2.4 Well Development

Well development occurred on October 8 and 9, 2020. Development techniques varied based on the productivity of each well. The development activities are summarized in Table 3.

As indicated in Table 2, EW-16 was dry after its installation and only recovered 2.8 ft over a period of almost 21 hours. Due to poor water production, water was added to the well to facilitate swab and bail development. The water added for development was obtained onsite and was sampled for analysis of several water quality constituents (Section 3.0). After adding the water, EW-16 was swabbed and bailed until the well went dry. The well was left to recover overnight and was again bailed dry on the morning of October 9, 2020.

Development of EW-17 occurred on October 9, 2020. Development began with swabbing and bailing the well until the sand content was reduced to trace amounts. Development pumping was then performed using a 2-in. nominal diameter Proactive Mega-Monsoon pump. The pump intake was set at approximately 45 ft bgs, and pumping began at an initial flow rate of 0.5 gallons per minute (gpm). The flow rate was gradually increased over 26 minutes to a maximum of 1.7 gpm, at which point drawdown had not stabilized and the pumping water level was 39.7 ft bgs. The pump was shut off after 26 minutes to prevent the water level from falling below the bottom of the screened interval. Nine minutes after shutting off the pump, the water level had recovered to 37.5 ft bgs, and the pump was restarted. Development pumping continued for an additional 134 minutes at rates ranging from 0.3 to 0.8 gpm, with relatively stable drawdown occurring at a pumping rate of 0.3 gpm. Towards the end of development, field parameters including temperature, pH, and electrical conductivity stabilized to within 10 relative percent difference between consecutive readings, and water turbidity was reduced to less than 5 Nephelometric Turbidity Units. A water quality sample was collected at the end of development. The analytical results of the sample are discussed in Section 3.0.

2.5 Investigation Derived Waste

Investigation derived waste produced during the well installation activities included disposable personal protective equipment (PPE), decontamination fluids, drill cuttings, and groundwater. Used PPE was containerized and disposed off-site as municipal waste. The drill cuttings were spread on the ground surface near the wells. Groundwater produced during drilling and well development was pumped on to the ground surface near the wells.

2.6 Well Survey

The location, surface elevation, and top of casing elevation of the completed wells were surveyed by Wood in December 2020. Figure 1 presents the surveyed location of the wells, and Table 1 summarizes the survey data.

3.0 WATER QUALITY SAMPLING

The water quality samples collected during well development were submitted to Eurofins TestAmerica, Inc., an Arizona Department of Health Services-licensed laboratory (AZ0728) for analysis of boron, cobalt, molybdenum, and major water quality ions. Cobalt and molybdenum are two constituents regulated under the Coal Combustion Residuals Rule Appendix IV list (Federal Register, 2018). These constituents have been detected in site monitoring wells at concentrations exceeding the groundwater protection standards (GWPS) established for Multiunit 1. The analytical results are summarized in Table 4, and the laboratory analytical report is included as Appendix C.

Analytical results for the sample of water injected into EW-16 indicate concentrations of cobalt and molybdenum below respective GWPSs. For the groundwater sample collected from EW-17, the detected

cobalt concentration exceeds the cobalt GWPS, while the molybdenum concentration is below the molybdenum GWPS.

4.0 SUMMARY

Extraction wells EW-16 and EW-17 were installed within the Weathered and Unweathered Lewis Shale at depths that intersect the base of the NIT. Observations made during well development indicate relatively poor water production at EW-16, likely because EW-16 is located downgradient of the NIT. EW-17 proved to sustain stable drawdown at a pumping rate of 0.3 gpm. In December 2020, Wood installed a pump in EW-17. It was determined that EW-16 was not producing enough flow to warrant the installation of a pump. The pump in EW-17 is a Grundfos 5SQE05-90 pump, with a ½-hp motor, and the CU300 controller, capable of operating at an average of 5 gpm at a total dynamic head (TDH) of 100 feet. This pump was installed at a depth of approximately 41 ft bgs.

5.0 REFERENCES

Federal Register, 2018. *40 Code of Federal Regulations Part 257 – Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule promulgated April 17, 2015 with Amendments to the National Minimum Criteria (Phase One, Part One) effective August 29, 2018*.

Wood, 2021. *Annual Groundwater Monitoring and Corrective Action Report for 2020*. Coal Combustion Residuals Rule Groundwater Monitoring System Compliance. Four Corners Power Plant, Fruitland, New Mexico. Prepared on behalf of APS. January 31, 2021

TABLES

Table 1
NIT Extraction Well Construction Summary

Well	Date Installed	Borehole Depth (ft bgs)	Northing	Easting	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)
EW-16	10/6/2020	50	2071808.15	2521983.58	5,086.16	5,084.17	20	40	20	5,064.17	5,044.17	5,034.17
EW-17	10/8/2020	50	2071282.53	2522352.29	5,097.55	5,095.73	20	40	20	5,075.73	5,055.73	5,045.73

Notes:

Horizontal Coordinate System: New Mexico West State Plane (ft), North American Datum 1983

Vertical datum is North American Vertical Datum 1988

Abbreviations:

amsl - above mean sea level

bgs - below ground surface

ft - feet

NIT - Northern Intercept Trench

Table 2
NIT Extraction Well Development Summary

Development Date	Well ID	Approximate Development Pumping Rates (gpm)	Total Volume Purged (gal)	Water Turbidity (NTU)	Comments
10/08/2020 - 10/09/2020	EW-16	N/A	75.00	Turbid	Slow recovery rates. Well bailed dry before pumping could occur.
10/09/2020	EW-17	0.50	138.68	3.12	Water cleared to 3.12 NTUs and parameters stabalized before pumping stopped.

Abbreviations:

gal - gallons

gpm - gallons per minute

N/A - not applicable

NIT - Northern Intercept Trench

NTU - nephelometric turbidity units

Table 4
Water Quality Sampling Results

Sample Description (Sample Identification)			EW-16 Development Water Sample (EW 16-INJ-10082020)	EW-17 Groundwater Sample (EW 17-DEV-10092020)
Sample Date			**10/8/2020**	**10/9/2020**
Constituent	**Units**	**GWPS**		
Alkalinity as CaCO3	mg/L	---	120	420
Boron	mg/L	---	0.25	44
Calcium	mg/L	---	72	480
Chloride	mg/L	---	83	840
Cobalt	mg/L	0.01	<0.00050	**0.054**
Fluoride	mg/L	---	0.55	<0.40
Magnesium	mg/L	---	27	930
Molybdenum	mg/L	0.1	0.0063	0.0019
Potassium	mg/L	---	6.8	35
Sodium	mg/L	---	130	1,900
Sulfate	mg/L	---	310	7,800
Total Dissolved Solids	mg/L	---	720	11,000
pH	su	---	8	7.4

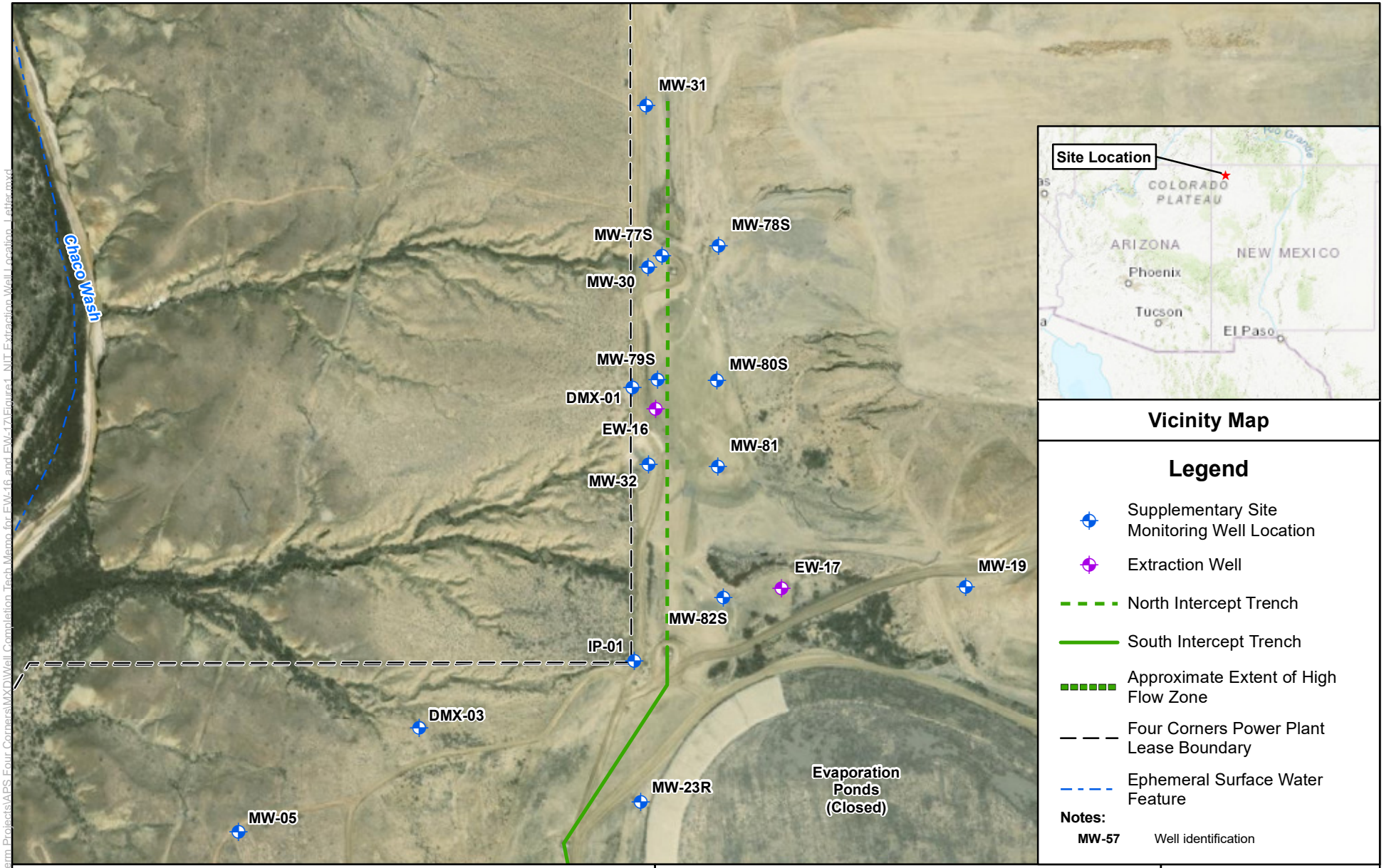
Notes:

Concentrations exceeding the GWPS are bolded

Abbreviations:

GWPS - groundwater protection standard
mg/L- miligrams per Liter
su = standard units

FIGURES



Vicinity Map

Legend

- Supplementary Site Monitoring Well Location
- Extraction Well
- North Intercept Trench
- South Intercept Trench
- Approximate Extent of High Flow Zone
- Four Corners Power Plant Lease Boundary
- Ephemeral Surface Water Feature

Notes:

MW-57 Well identification

0 200 400 800 Feet

Job No.	14-2020-2015
PM:	MBH
Date:	2/10/2021
Scale:	1" = 400'

N

The map shown here has been created with all due and reasonable care and is strictly for use with Wood Environment & Infrastructure Solutions, Inc. Project Number 14-2020-2015. 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. Wood Environment & Infrastructure Solutions, Inc. assumes no liability, direct or indirect, whatsoever for any such third party or unintended use.

Arizona Public Service
Four Corners Power Plant
Fruitland, New Mexico

NIT Extraction Well Location Map

FIGURE 1

wood.

Path: X:\Projects\20-London\Projects\APS Four Corners\MXD\Well Completion Tech Memo for EW-16 and EW-17\Figure1_NIT Extraction Well Location_Letter.mxd

APPENDIX A

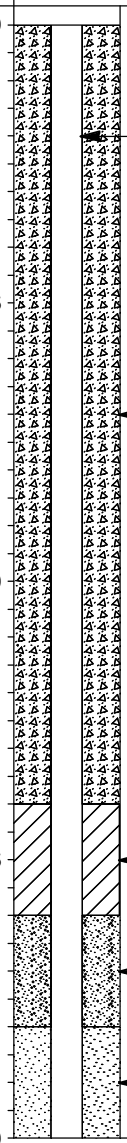
LITHOLOGIC LOGS AND WELL CONSTRUCTION DIAGRAMS

wood.
Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: EW-16

PROJECT:	APS Four Corners		**PROJECT LOCATION:**	APS Four Corners Plant, Fruitland, NM	
PROJECT MANAGER:	Maren Henley		**PROJECT FEATURE:**	Northern Intercept Trench	
LOGGED BY:	B. Enos		**WOOD PROJECT #:**	14-2018-2068	
DRILLER:	G. Cardenas		**ADWR REG. #:**	N/A	
DRILLER FIRM:	Boart Longyear		**COORDINATES:**	N2071808.15, E2521983.58	
RIG I.D.:	N/A		**COORDINATE SYS:**	New Mexico West State Plane NAD83	
RIG TYPE:	Sonic		**SURFACE ELEV. (FT):**	5,084.17	
BORING TYPE:	N/A	**BORING DIA.:** 10"	**MEAS. PT. ELEV (FT):**	5,086.16	
ORIENTATION:	90°		**VERTICAL DATUM:**	NAVD88	
HAMMER TYPE:	N/A		**START DATE:**	10/06/2020	**START TIME:** 10:18
HAMMER CALIBRATION-ENERGY TRANSFER RATIO:	N/A		**COMPLETION DATE:**	10/06/2020	**COMPLETION TIME:** 14:15

Elevation in Feet	Depth in Feet	Graphical Log	Sample ID. or Date (Time)	PID Meter Reading (ppm)	Unified Soil Classification	VISUAL CLASSIFICATION (Color, Moist, % by wt., Plasticity, Dilatancy, Toughness, Dry Strength, Consistency)
5084.2	0					Hydro-excavated from 0 to 6'
5079.2	5					
						WEATHERED LEWIS SHALE, fine grained, moderately cemented, medium plasticity, light reddish brown, moist, no odor, no staining
5074.2	10					note: from 10' to 12', increase in moisture and weathering. Small Ca stringer at 10'
5069.2	15					note: increase in sand content at 14'. Decrease in moisture (slightly moist), low plasticity, and an abundance of small Ca stringers
						note: 1" highly plastic and wet lense at 17'
						note: small Ca striner (1")
5064.2	20					**UNWEATHERED LEWIS SHALE,** very fine grained, weakly cemented, low



WELL INFORMATION
(Construction Details and/or Drilling Remarks)

(Continued Next Page)

GROUNDWATER

	DEPTH(ft bgs)	HOUR	DATE
▽	Dry	18:24	10/07/2020
▼	48.0	07:22	10/08/2020
▼	47.1	15:02	10/08/2020
▼			

METHOD _____

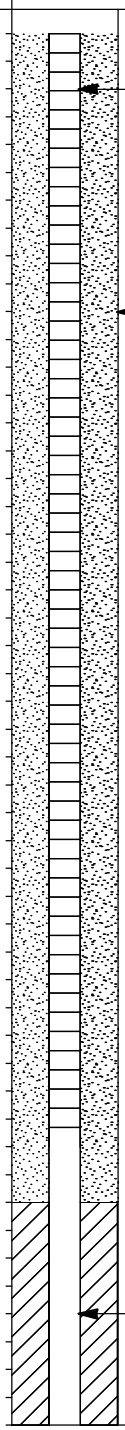
aps	UNIT	DISC.	TYPE	SYS	NUMBER	SHEET	WELL

wood.
Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: EW-16

PROJECT:	APS Four Corners	**PROJECT LOCATION:**	APS Four Corners Plant, Fruitland, NM
ADWR REG. #:	N/A	**PROJECT FEATURE:**	Northern Intercept Trench

Elevation in Feet	Depth in Feet	Graphical Log	Sample ID. or Date (Time)	PID Meter Reading (ppm)	Unified Soil Classification	VISUAL CLASSIFICATION (Color, Moist, % by wt., Plasticity, Dilatancy, Toughness, Dry Strength, Consistency)
5064.2	20					plasticity, no moisture, uncemented zones (4" thick) with strongly cemented layers (3' thick), purple-dark gray in color
						note: from 23' to 25', wet and highly plastic zone, strongly cemented clasts throughout (3" diameter)
5059.2	25					note: from 25' to 26', slightly wet, weakly cemented lense
						note: from 26' to 28', wet, uncemented, highly plastic lenses (3" thick) interbedded with stringly cemented, dry lenses, water was added during drilling here but moisture penetrates entire sample
						note: from 29' to 31', dry, uncemented, medium plasticity
5054.2	30					
						note: from 31' to 34', interbedded moist, highly plastic zones (3") with strongly cemented dry zones (3")
						note: from 34' to 36', wet, highly plastic zone
5049.2	35					
						note: from 36' to 37', dry, strongly cemented zone
						note: from 37' to 38', moist, medium plastic zone with small cemented clasts
						note: from 38' to 46', alternating layers of strongly cemented, dry layers (3") with dry, medium plastic, uncemented layers
5044.2	40					
5039.2	45					



WELL INFORMATION
(Construction Details and/or Drilling Remarks)

(continued)

From 20' to 40'
6" Nominal Diameter
Schedule 40 PVC
Screen (Slots 0.020")

From 18' to 41'
Filter Pack
(12-20 Silica Sand)

From 40' to 50'
6" Nominal Diameter
Schedule 40 PVC
Casing

(Continued Next Page)

GROUNDWATER

	DEPTH(ft bgs)	HOUR	DATE
▽	Dry	18:24	10/07/2020
▼	48.0	07:22	10/08/2020
▼	47.1	15:02	10/08/2020
▼			

METHOD _____

aps	UNIT	DISC.	TYPE	SYS	NUMBER	SHEET	WELL

wood.
Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: EW-16

PROJECT:	APS Four Corners	**PROJECT LOCATION:**	APS Four Corners Plant, Fruitland, NM
ADWR REG. #:	N/A	**PROJECT FEATURE:**	Northern Intercept Trench

Elevation in Feet	Depth in Feet	Graphical Log	Sample ID. or Date (Time)	PID Meter Reading (ppm)	Unified Soil Classification	VISUAL CLASSIFICATION (Color, Moist, % by wt., Plasticity, Dilatancy, Toughness, Dry Strength, Consistency)
5039.2	45					**UNWEATHERED LEWIS SHALE,** continued note: from 46' to 50', wet. highly plastic, uncemented; water possibly added during drilling
5034.2	50					Total Depth = 50'
5029.2	55					
5024.2	60					
5019.2	65					
5014.2	70					

Depth in Feet	WELL INFORMATION (Construction Details and/or Drilling Remarks)
45	(continued) From 41' to 50' Bentonite Seal From 40' to 50' 6" Nominal Diameter Schedule 40 PVC Casing
50	Total Depth = 50'
55	
60	
65	
70	

GROUNDWATER

	DEPTH(ft bgs)	HOUR	DATE
▽	Dry	18:24	10/07/2020
▼	48.0	07:22	10/08/2020
▼	47.1	15:02	10/08/2020
▼			

METHOD _____

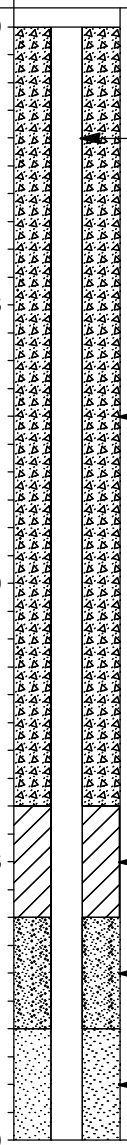
aps	UNIT	DISC.	TYPE	SYS	NUMBER	SHEET	WELL

wood.
Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: EW-17

PROJECT:	APS Four Corners		**PROJECT LOCATION:**	APS Four Corners Plant, Fruitland, NM	
PROJECT MANAGER:	Maren Henley		**PROJECT FEATURE:**	Northern Intercept Trench	
LOGGED BY:	B. Enos		**WOOD PROJECT #:**	14-2018-2068	
DRILLER:	G. Cardenas		**ADWR REG. #:**	N/A	
DRILLER FIRM:	Boart Longyear		**COORDINATES:**	N2071282.53, E2522352.29	
RIG I.D.:	N/A		**COORDINATE SYS:**	New Mexico West State Plane NAD83	
RIG TYPE:	Sonic		**SURFACE ELEV. (FT):**	5,095.73	
BORING TYPE:	N/A	**BORING DIA.:** 10"	**MEAS. PT. ELEV (FT):**	5,097.55	
ORIENTATION:	90°		**VERTICAL DATUM:**	NAVD88	
HAMMER TYPE:	N/A		**START DATE:**	10/07/2020	**START TIME:** 15:05
HAMMER CALIBRATION-ENERGY TRANSFER RATIO:	N/A		**COMPLETION DATE:**	10/08/2020	**COMPLETION TIME:** 09:36

Elevation in Feet	Depth in Feet	Graphical Log	Sample ID. or Date (Time)	PID Meter Reading (ppm)	Unified Soil Classification	VISUAL CLASSIFICATION (Color, Moist, % by wt., Plasticity, Dilatancy, Toughness, Dry Strength, Consistency)
5095.7	0					Hydro-excavated from 0 to 6'
5090.7	5					
					SM	**SILTY SAND WITH CLAY,B** 85% fine, subrounded sand, 10%silt, poorly graded, light brown, uncemented, nonplastic, no odor, no staining note: small clay seem at 7' (3")
5085.7	10					note: small clay seem (8") high plasticity, dry, non cemented
5080.7	15					**WEATHERED LEWIS SHALE,** highly weathered, blocky shale with small CaCO3 stringers throughout, dark brown, plastic, weakly cemented, and slightly moist note: small uncemented, nonplastic, and dry sand layer (9") at 16' note: small uncemented, nonplastic silt layers throughout silt layers are about 3" thick
5075.7	20					



Depth in Feet	WELL INFORMATION (Construction Details and/or Drilling Remarks)
0	From +2.5' to 20' 6" Nominal Diameter Schedule 40 PVC casing
5	
10	From 0 to 14' Neat Cement
15	From 14' to 16' Bentonite Seal
	From 16' to 18' Transition Sand (20-40 Silica Sand)
20	From 18' to 41' Filter Pack (12-20 Silica Sand)

(Continued Next Page)

GROUNDWATER

	DEPTH(ft bgs)	HOUR	DATE
▽	35.9	14:55	10/08/2020
▼	21.2	06:52	10/09/2020
▼			
▼			

METHOD _____

aps	UNIT	DISC.	TYPE	SYS	NUMBER	SHEET	WELL

wood.
Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: EW-17

PROJECT:	APS Four Corners	**PROJECT LOCATION:**	APS Four Corners Plant, Fruitland, NM
ADWR REG. #:	N/A	**PROJECT FEATURE:**	Northern Intercept Trench

Elevation in Feet	Depth in Feet	Graphical Log	Sample ID. or Date (Time)	PID Meter Reading (ppm)	Unified Soil Classification	VISUAL CLASSIFICATION (Color, Moist, % by wt., Plasticity, Dilatancy, Toughness, Dry Strength, Consistency)
5075.7	20					
						note: small layers of strongly cemented shale rich with CaCO3
5070.7	25					
						note: increase in moisture and plasticity, CaCO3 present throughout
5065.7	30					note: CaCO3 layer (1")
						UNWEATHERED LEWIS SHALE, alternating layers of strongly cemented, nonplastic shale (3") with uncemented, highly plastic layers (3") give the shale a stratified texture, dark purple-gray, slightly moist, no odor, no staining note: from 33' to 35', wet zone, possibly from driller
5060.7	35					note: from 36' to 37', slightly moist, weakly cemented, nonplastic zone, CaCO3 present, shale is more friable note: from 37' to 39', wet zone, large cemented clasts layered throughout
						note: from 39' to 40', dry, strongly cemented, nonplastic
5055.7	40					note: from 40' to 44', wet zone, large (3"), strongly cemented clasts layered with uncemented, plastic layers 93"0, moisture could possibly be from the drilling process
						note: decrease in moisture at 44'
5050.7	45					

Depth in Feet	WELL INFORMATION (Construction Details and/or Drilling Remarks)
20	(continued)
	From 20' to 40' 6" Nominal Diameter Schedule 40 PVC Screen (Slots 0.020")
25	From 18' to 41' Filter Pack (12-20 Silica Sand)
30	
35	
40	From 40' to 50' 6" Nominal Diameter Schedule 40 PVC Casing
45	

(Continued Next Page)

GROUNDWATER

	DEPTH(ft bgs)	HOUR	DATE
▽	35.9	14:55	10/08/2020
▼	21.2	06:52	10/09/2020
▼			
▼			

METHOD _____

aps	UNIT	DISC.	TYPE	SYS	NUMBER	SHEET	WELL

wood.
Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

BORING LOG I.D.: EW-17

PROJECT:	APS Four Corners	**PROJECT LOCATION:**	APS Four Corners Plant, Fruitland, NM
ADWR REG. #:	N/A	**PROJECT FEATURE:**	Northern Intercept Trench

Elevation in Feet	Depth in Feet	Graphical Log	Sample ID. or Date (Time)	PID Meter Reading (ppm)	Unified Soil Classification	VISUAL CLASSIFICATION (Color, Moist, % by wt., Plasticity, Dilatancy, Toughness, Dry Strength, Consistency)
5050.7	45					**UNWEATHERED LEWIS SHALE,** continued note: from 47' to 48.5', strongly cemented, nonplastic, dry, blocky in texture note: from 48.5' to 50', increase in moisture and plasticity, strongly cemented shale layered throughout (3")
5045.7	50					Total Depth = 50'
5040.7	55					
5035.7	60					
5030.7	65					
5025.7	70					

Depth in Feet	WELL INFORMATION (Construction Details and/or Drilling Remarks)
45	(continued) From 41' to 50' Bentonite Seal From 40' to 50' 6" Nominal Diameter Schedule 40 PVC Casing
50	Total Depth = 50'
55	
60	
65	
70	

GROUNDWATER

	DEPTH(ft bgs)	HOUR	DATE
▽	35.9	14:55	10/08/2020
▼	21.2	06:52	10/09/2020
▼			
▼			

METHOD _____

aps	UNIT	DISC.	TYPE	SYS	NUMBER	SHEET	WELL

APPENDIX B

PHOTOGRAPHIC LOG

Installation of Extraction Wells EW-16 and EW-17
Photographic Log

Photograph 1 Hydro-excavation of EW-16 on 10/05/2020.	
Photograph 2 Hydro-excavation of EW-17 on 10/05/2020.	

Photograph 3 6 to 8 ft bgs formation samples from EW-16.	

Photograph 4 8 to 10 ft bgs formation samples from EW-16.	

Photograph 5 10 to 12 ft bgs formation samples from EW-16.	

Photograph 6 12 to 14 ft bgs formation samples from EW-16.	

Photograph 7 14 to 16 ft bgs formation samples from EW-16	

Photograph 8 16 to 18 ft bgs formation samples from EW-16	

Photograph 9 18 to 20 ft bgs formation samples from EW-16.	

Photograph 10 20 to 22 ft bgs formation samples from EW-16.	

Photograph 11 22 to 24 ft bgs formation samples from EW-16.		

Photograph 12 24 to 26 ft bgs formation samples from EW-16.		

Photograph 13 26 to 28 ft bgs formation samples from EW-16.	

Photograph 14 28 to 30 ft bgs formation samples from EW-16.	

Photograph 15 30 to 32 ft bgs formation samples from EW-16.	

Photograph 16 32 to 34 ft bgs formation samples from EW-16.	

Photograph 17 34 to 36 ft bgs formation samples from EW-16.	

Photograph 18 36 to 38 ft bgs formation samples from EW-16.	

Photograph 19 38 to 40 ft bgs formation samples from EW-16.	

Photograph 20 40 to 42 ft bgs formation samples from EW-16.	

Photograph 21 42 to 44 ft bgs formation samples from EW-16.		

Photograph 22 44 to 46 ft bgs formation samples from EW-16.		

Photograph 23 46 to 48 ft bgs formation samples from EW-16.	

Photograph 24 48 to 50 ft bgs formation samples from EW-16.	

Photograph 25 All formation samples from EW-16.	

Photograph 26 6 to 8 ft bgs formation samples from EW-17.	

Photograph 27 8 to 10 ft bgs formation samples from EW-17.	

Photograph 28 10 to 12 ft bgs formation samples from EW-17.	

Photograph 29 12 to 14 ft bgs formation samples from EW-17.	

Photograph 30 14 to 16 ft bgs formation samples from EW-17.	

Photograph 31 16 to 18 ft bgs formation samples from EW-17.	

Photograph 32 18 to 20 ft bgs formation samples from EW-17.	

Photograph 33 20 to 22 ft bgs formation samples from EW-17.	

Photograph 34 22 to 24 ft bgs formation samples from EW-17.	

Photograph 35 24 to 26 ft bgs formation samples from EW-17.	

Photograph 36 26 to 28 ft bgs formation samples from EW-17.	

Photograph 37 28 to 30 ft bgs formation samples from EW-17.	

Photograph 38 30 to 32 ft bgs formation samples from EW-17.	

Photograph 39 32 to 34 ft bgs formation samples from EW-17.	

Photograph 40 34 to 36 ft bgs formation samples from EW-17.	

Photograph 41 36 to 38 ft bgs formation samples from EW-17.	

Photograph 42 38 to 40 ft bgs formation samples from EW-17.	

Photograph 43 40 to 42 ft bgs formation samples from EW-17.		

Photograph 44 42 to 44 ft bgs formation samples from EW-17.		

Photograph 45 44 to 46 ft bgs formation samples from EW-17.	

Photograph 46 46 to 48 ft bgs formation samples from EW-17.	

Photograph 47 48 to 50 ft bgs formation samples from EW-17.		

Photograph 48 All formation samples from EW-17.		

Photograph 49 Surface completion at EW-16.	
Photograph 50 Surface completion at EW-17.	

APPENDIX C

ANALYTICAL REPORT

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

Laboratory Job ID: 550-150810-1
Client Project/Site: APS Four Corners NIT Extraction Well Installation

For:
Arizona Public Service Company
PO BOX 188, Ste. 4458
Joseph City, Arizona 86032

Attn: Natalie Chrisman

Authorized for release by:
10/23/2020 10:34:08 AM

Ken Baker, Project Manager II
(602)659-7624
Ken.Baker@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Method Summary 19
Chain of Custody 20
Receipt Checklists 21

Definitions/Glossary

Client: Arizona Public Service Company
Job ID: 550-150810-1
Project/Site: APS Four Corners NIT Extraction Well Installation

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
D2	Sample required dilution due to high concentration of analyte.
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
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.

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: 550-150810-1

Laboratory: Eurofins TestAmerica, Phoenix

Narrative

Job Narrative
550-150810-1

Comments
No additional comments.

Receipt
The samples were received on 10/12/2020 9:23 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.1º C.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Arizona Public Service Company
Job ID: 550-150810-1
Project/Site: APS Four Corners NIT Extraction Well Installation

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
550-150810-1	EW 16-INJ-10082020	Water	10/08/20 17:50	10/12/20 09:23	
550-150810-2	EW 17-DEV-10092020	Water	10/09/20 13:23	10/12/20 09:23	

Detection Summary

Client: Arizona Public Service Company
Job ID: 550-150810-1
Project/Site: APS Four Corners NIT Extraction Well Installation

Client Sample ID: EW 16-INJ-10082020 — Lab Sample ID: 550-150810-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloride	83	M3	2.0		mg/L	1		300.0	Total/NA
Fluoride	0.55		0.40		mg/L	1		300.0	Total/NA
Sulfate	310	D2	20		mg/L	10		300.0	Total/NA
Boron	0.25		0.050		mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	72		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	27		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	6.8		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	130	M3	0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Molybdenum	6.3		0.50		ug/L	1		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	720		20		mg/L	1		SM 2540C	Total/NA
pH	8.0	H5	1.7		SU	1		SM 4500 H+ B	Total/NA
Temperature	10.5	H5	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: EW 17-DEV-10092020 — Lab Sample ID: 550-150810-2

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	44		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
Magnesium	930		2.0		mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	35		0.50		mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	1900	D2	2.5		mg/L	5		200.7 Rev 4.4	Total/NA
Molybdenum	1.9		0.50		ug/L	1		200.8 LL	Total/NA
Cobalt	54		0.50		ug/L	1		200.8 LL	Total/NA
Alkalinity as CaCO3	420		6.0		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	420		6.0		mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	11000	D2	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	0.1		Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: EW 16-INJ-10082020
Lab Sample ID: 550-150810-1
Date Collected: 10/08/20 17:50
Matrix: Water
Date Received: 10/12/20 09:23

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**83**	**M3**	2.0		mg/L			10/13/20 14:12	1
Fluoride	**0.55**		0.40		mg/L			10/13/20 14:12	1
Sulfate	**310**	**D2**	20		mg/L			10/15/20 23:32	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.25**		0.050		mg/L		10/13/20 08:37	10/19/20 19:39	1
Calcium	**72**		2.0		mg/L		10/13/20 08:37	10/19/20 19:39	1
Magnesium	**27**		2.0		mg/L		10/13/20 08:37	10/19/20 19:39	1
Potassium	**6.8**		0.50		mg/L		10/13/20 08:37	10/19/20 19:39	1
Sodium	**130**	**M3**	0.50		mg/L		10/13/20 08:37	10/19/20 19:39	1

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	**6.3**		0.50		ug/L		10/14/20 12:34	10/20/20 18:01	1
Cobalt	ND		0.50		ug/L		10/14/20 12:34	10/20/20 18:01	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**120**		6.0		mg/L			10/17/20 16:20	1
Bicarbonate Alkalinity as CaCO3	**120**		6.0		mg/L			10/17/20 16:20	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			10/17/20 16:20	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			10/17/20 16:20	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			10/17/20 16:20	1
Total Dissolved Solids	**720**		20		mg/L			10/15/20 08:39	1
pH	**8.0**	**H5**	1.7		SU			10/21/20 16:15	1
Temperature	**10.5**	**H5**	0.1		Degrees C			10/21/20 16:15	1

Client Sample ID: EW 17-DEV-10092020
Lab Sample ID: 550-150810-2
Date Collected: 10/09/20 13:23
Matrix: Water
Date Received: 10/12/20 09:23

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**840**	**D2**	400		mg/L			10/13/20 15:25	200
Fluoride	ND		0.40		mg/L			10/13/20 15:07	1
Sulfate	**7800**	**D2**	400		mg/L			10/13/20 15:25	200

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**44**		0.050		mg/L		10/13/20 08:37	10/19/20 19:43	1
Calcium	**480**		2.0		mg/L		10/13/20 08:37	10/19/20 19:43	1
Magnesium	**930**		2.0		mg/L		10/13/20 08:37	10/19/20 19:43	1
Potassium	**35**		0.50		mg/L		10/13/20 08:37	10/19/20 19:43	1
Sodium	**1900**	**D2**	2.5		mg/L		10/13/20 08:37	10/20/20 23:32	5

Method: 200.8 LL - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	**1.9**		0.50		ug/L		10/14/20 12:34	10/20/20 17:59	1
Cobalt	**54**		0.50		ug/L		10/14/20 12:34	10/20/20 17:59	1

Client Sample Results

Client: Arizona Public Service Company
Job ID: 550-150810-1
Project/Site: APS Four Corners NIT Extraction Well Installation

Client Sample ID: EW 17-DEV-10092020
Lab Sample ID: 550-150810-2
Date Collected: 10/09/20 13:23
Matrix: Water
Date Received: 10/12/20 09:23

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**420**		6.0		mg/L			10/17/20 16:31	1
Bicarbonate Alkalinity as CaCO3	**420**		6.0		mg/L			10/17/20 16:31	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			10/17/20 16:31	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			10/17/20 16:31	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			10/17/20 16:31	1
Total Dissolved Solids	**11000**	**D2**	100		mg/L			10/15/20 08:39	1
pH	**7.4**	**H5**	1.7		SU			10/21/20 16:15	1
Temperature	**10.5**	**H5**	0.1		Degrees C			10/21/20 16:15	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-222644/2
Matrix: Water
Analysis Batch: 222644

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			10/13/20 12:40	1
Fluoride	ND		0.40		mg/L			10/13/20 12:40	1
Sulfate	ND		2.0		mg/L			10/13/20 12:40	1

Lab Sample ID: LCS 550-222644/5
Matrix: Water
Analysis Batch: 222644

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	21.6		mg/L		108	90 - 110		
Fluoride			4.00	4.13		mg/L		103	90 - 110		
Sulfate			20.0	20.7		mg/L		104	90 - 110		

Lab Sample ID: LCSD 550-222644/6
Matrix: Water
Analysis Batch: 222644

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	21.6		mg/L		108	90 - 110	0	20
Fluoride			4.00	4.12		mg/L		103	90 - 110	0	20
Sulfate			20.0	20.7		mg/L		104	90 - 110	0	20

Lab Sample ID: 550-150810-1 MS
Matrix: Water
Analysis Batch: 222644

Client Sample ID: EW 16-INJ-10082020
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	83	M3	20.0	99.8	M3	mg/L		84	80 - 120		
Fluoride	0.55		4.00	5.19		mg/L		116	80 - 120		

Lab Sample ID: 550-150810-1 MSD
Matrix: Water
Analysis Batch: 222644

Client Sample ID: EW 16-INJ-10082020
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	83	M3	20.0	98.5	M3	mg/L		78	80 - 120	1	20
Fluoride	0.55		4.00	4.81		mg/L		107	80 - 120	8	20

Lab Sample ID: MB 550-222890/2
Matrix: Water
Analysis Batch: 222890

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			10/15/20 10:10	1
Fluoride	ND		0.40		mg/L			10/15/20 10:10	1
Sulfate	ND		2.0		mg/L			10/15/20 10:10	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 550-222890/5
Matrix: Water
Analysis Batch: 222890

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	20.3		mg/L		102	90 - 110		
Fluoride			4.00	4.11		mg/L		103	90 - 110		
Sulfate			20.0	20.8		mg/L		104	90 - 110		

Lab Sample ID: LCSD 550-222890/6
Matrix: Water
Analysis Batch: 222890

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	20.2		mg/L		101	90 - 110	0	20
Fluoride			4.00	4.11		mg/L		103	90 - 110	0	20
Sulfate			20.0	20.7		mg/L		104	90 - 110	0	20

Lab Sample ID: 550-150988-C-2 MS
Matrix: Water
Analysis Batch: 222890

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	480	E2 M3	20.0	475	E2 M3	mg/L		-18	80 - 120		
Fluoride	1.1		4.00	5.22		mg/L		102	80 - 120		
Sulfate	790	E2 M3	20.0	783	E2 M3	mg/L		-60	80 - 120		

Lab Sample ID: 550-150988-C-2 MSD
Matrix: Water
Analysis Batch: 222890

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	480	E2 M3	20.0	475	E2 M3	mg/L		-18	80 - 120	0	20
Fluoride	1.1		4.00	5.27		mg/L		103	80 - 120	1	20
Sulfate	790	E2 M3	20.0	782	E2 M3	mg/L		-63	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-222563/1-A
Matrix: Water
Analysis Batch: 223173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 222563

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050		mg/L		10/13/20 08:37	10/19/20 19:21	1
Calcium	ND		2.0		mg/L		10/13/20 08:37	10/19/20 19:21	1
Magnesium	ND		2.0		mg/L		10/13/20 08:37	10/19/20 19:21	1
Potassium	ND		0.50		mg/L		10/13/20 08:37	10/19/20 19:21	1
Sodium	ND		0.50		mg/L		10/13/20 08:37	10/19/20 19:21	1

Lab Sample ID: LCS 550-222563/2-A
Matrix: Water
Analysis Batch: 223173

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 222563

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Boron			1.00	0.998		mg/L		100	85 - 115		

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 550-222563/2-A
Matrix: Water
Analysis Batch: 223173

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 222563

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	21.0	21.4		mg/L		102	85 - 115
Magnesium	21.0	21.3		mg/L		101	85 - 115
Potassium	20.0	20.0		mg/L		100	85 - 115
Sodium	20.0	20.2		mg/L		101	85 - 115

Lab Sample ID: LCSD 550-222563/3-A
Matrix: Water
Analysis Batch: 223173

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 222563

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	0.986		mg/L		99	85 - 115	1	20
Calcium	21.0	20.5		mg/L		97	85 - 115	5	20
Magnesium	21.0	20.3		mg/L		97	85 - 115	5	20
Potassium	20.0	19.1		mg/L		96	85 - 115	5	20
Sodium	20.0	19.4		mg/L		97	85 - 115	4	20

Lab Sample ID: 550-150810-1 MS
Matrix: Water
Analysis Batch: 223173

Client Sample ID: EW 16-INJ-10082020
Prep Type: Total/NA
Prep Batch: 222563

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.25		1.00	1.27		mg/L		102	70 - 130
Calcium	72		21.0	89.0		mg/L		81	70 - 130
Magnesium	27		21.0	47.6		mg/L		96	70 - 130
Potassium	6.8		20.0	27.1		mg/L		102	70 - 130
Sodium	130	M3	20.0	138	M3	mg/L		59	70 - 130

Lab Sample ID: 550-150810-1 MSD
Matrix: Water
Analysis Batch: 223173

Client Sample ID: EW 16-INJ-10082020
Prep Type: Total/NA
Prep Batch: 222563

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.25		1.00	1.28		mg/L		103	70 - 130	1	20
Calcium	72		21.0	90.4		mg/L		88	70 - 130	2	20
Magnesium	27		21.0	48.2		mg/L		99	70 - 130	1	20
Potassium	6.8		20.0	27.7		mg/L		104	70 - 130	2	20
Sodium	130	M3	20.0	140	M3	mg/L		72	70 - 130	2	20

Method: 200.8 LL - Metals (ICP/MS)

Lab Sample ID: MB 550-222719/1-A
Matrix: Water
Analysis Batch: 223309

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 222719

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		0.50		ug/L		10/14/20 12:34	10/20/20 17:40	1
Cobalt	ND		0.50		ug/L		10/14/20 12:34	10/20/20 17:40	1

Method: 200.8 LL - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 550-222719/2-A
Matrix: Water
Analysis Batch: 223309

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 222719

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Molybdenum			100	99.2		ug/L		99	85 - 115		
Cobalt			100	97.3		ug/L		97	85 - 115		

Lab Sample ID: LCSD 550-222719/3-A
Matrix: Water
Analysis Batch: 223309

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 222719

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Molybdenum			100	100		ug/L		100	85 - 115	1	20
Cobalt			100	101		ug/L		101	85 - 115	4	20

Lab Sample ID: 550-150531-N-1-B MS
Matrix: Water
Analysis Batch: 223309

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 222719

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Molybdenum	2.4		100	105		ug/L		102	70 - 130		
Cobalt	4.7		100	99.9		ug/L		95	70 - 130		

Lab Sample ID: 550-150531-N-1-C MSD
Matrix: Water
Analysis Batch: 223309

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 222719

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Molybdenum	2.4		100	104		ug/L		102	70 - 130	1	20
Cobalt	4.7		100	99.3		ug/L		95	70 - 130	1	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-223051/7
Matrix: Water
Analysis Batch: 223051

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			10/17/20 13:15	1
Bicarbonate Alkalinity as CaCO3	ND		6.0		mg/L			10/17/20 13:15	1
Carbonate Alkalinity as CaCO3	ND		6.0		mg/L			10/17/20 13:15	1
Alkalinity, Phenolphthalein	ND		6.0		mg/L			10/17/20 13:15	1
Hydroxide Alkalinity as CaCO3	ND		6.0		mg/L			10/17/20 13:15	1

Lab Sample ID: LCS 550-223051/6
Matrix: Water
Analysis Batch: 223051

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	260		mg/L		104	90 - 110		

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCSD 550-223051/20
Matrix: Water
Analysis Batch: 223051

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	260		mg/L		104	90 - 110	0	20

Lab Sample ID: 550-150996-E-1 DU
Matrix: Water
Analysis Batch: 223051

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	150			148		mg/L				0.6	20
Bicarbonate Alkalinity as CaCO3	150			148		mg/L				0.6	20
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 550-222827/1
Matrix: Water
Analysis Batch: 222827

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			10/15/20 08:39	1

Lab Sample ID: LCS 550-222827/2
Matrix: Water
Analysis Batch: 222827

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 550-222827/3
Matrix: Water
Analysis Batch: 222827

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	1050		mg/L		105	90 - 110	6	10

Lab Sample ID: 550-150310-C-7 DU
Matrix: Water
Analysis Batch: 222827

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	4000	D2		3800	D2	mg/L				6	10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCSSRM 550-223415/1
Matrix: Water
Analysis Batch: 223415

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 550-223415/12
Matrix: Water
Analysis Batch: 223415

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: 550-150587-A-1 DU
Matrix: Water
Analysis Batch: 223415

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.7	H5	7.8	H5	SU		0.4	5
Temperature	7.2	H5	7.5	H5	Degrees C		4	

QC Association Summary

Client: Arizona Public Service Company
Job ID: 550-150810-1
Project/Site: APS Four Corners NIT Extraction Well Installation

HPLC/IC

Analysis Batch: 222644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-150810-1	EW 16-INJ-10082020	Total/NA	Water	300.0	
550-150810-2	EW 17-DEV-10092020	Total/NA	Water	300.0	
550-150810-2	EW 17-DEV-10092020	Total/NA	Water	300.0	
MB 550-222644/2	Method Blank	Total/NA	Water	300.0	
LCS 550-222644/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-222644/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-150810-1 MS	EW 16-INJ-10082020	Total/NA	Water	300.0	
550-150810-1 MSD	EW 16-INJ-10082020	Total/NA	Water	300.0	

Analysis Batch: 222890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-150810-1	EW 16-INJ-10082020	Total/NA	Water	300.0	
MB 550-222890/2	Method Blank	Total/NA	Water	300.0	
LCS 550-222890/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-222890/6	Lab Control Sample Dup	Total/NA	Water	300.0	
550-150988-C-2 MS	Matrix Spike	Total/NA	Water	300.0	
550-150988-C-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 222563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-150810-1	EW 16-INJ-10082020	Total/NA	Water	200.7	
550-150810-2	EW 17-DEV-10092020	Total/NA	Water	200.7	
MB 550-222563/1-A	Method Blank	Total/NA	Water	200.7	
LCS 550-222563/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-222563/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
550-150810-1 MS	EW 16-INJ-10082020	Total/NA	Water	200.7	
550-150810-1 MSD	EW 16-INJ-10082020	Total/NA	Water	200.7	

Prep Batch: 222719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-150810-1	EW 16-INJ-10082020	Total/NA	Water	200.8	
550-150810-2	EW 17-DEV-10092020	Total/NA	Water	200.8	
MB 550-222719/1-A	Method Blank	Total/NA	Water	200.8	
LCS 550-222719/2-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 550-222719/3-A	Lab Control Sample Dup	Total/NA	Water	200.8	
550-150531-N-1-B MS	Matrix Spike	Total/NA	Water	200.8	
550-150531-N-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	

Analysis Batch: 223173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-150810-1	EW 16-INJ-10082020	Total/NA	Water	200.7 Rev 4.4	222563
550-150810-2	EW 17-DEV-10092020	Total/NA	Water	200.7 Rev 4.4	222563
MB 550-222563/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	222563
LCS 550-222563/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	222563
LCSD 550-222563/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	222563
550-150810-1 MS	EW 16-INJ-10082020	Total/NA	Water	200.7 Rev 4.4	222563
550-150810-1 MSD	EW 16-INJ-10082020	Total/NA	Water	200.7 Rev 4.4	222563

QC Association Summary

Client: Arizona Public Service Company
Job ID: 550-150810-1
Project/Site: APS Four Corners NIT Extraction Well Installation

Metals

Analysis Batch: 223309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-150810-1	EW 16-INJ-10082020	Total/NA	Water	200.8 LL	222719
550-150810-2	EW 17-DEV-10092020	Total/NA	Water	200.8 LL	222719
MB 550-222719/1-A	Method Blank	Total/NA	Water	200.8 LL	222719
LCS 550-222719/2-A	Lab Control Sample	Total/NA	Water	200.8 LL	222719
LCSD 550-222719/3-A	Lab Control Sample Dup	Total/NA	Water	200.8 LL	222719
550-150531-N-1-B MS	Matrix Spike	Total/NA	Water	200.8 LL	222719
550-150531-N-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.8 LL	222719

Analysis Batch: 223346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-150810-2	EW 17-DEV-10092020	Total/NA	Water	200.7 Rev 4.4	222563

General Chemistry

Analysis Batch: 222827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-150810-1	EW 16-INJ-10082020	Total/NA	Water	SM 2540C	
550-150810-2	EW 17-DEV-10092020	Total/NA	Water	SM 2540C	
MB 550-222827/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 550-222827/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 550-222827/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
550-150310-C-7 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 223051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-150810-1	EW 16-INJ-10082020	Total/NA	Water	SM 2320B	
550-150810-2	EW 17-DEV-10092020	Total/NA	Water	SM 2320B	
MB 550-223051/7	Method Blank	Total/NA	Water	SM 2320B	
LCS 550-223051/6	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-223051/20	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
550-150996-E-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 223415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-150810-1	EW 16-INJ-10082020	Total/NA	Water	SM 4500 H+ B	
550-150810-2	EW 17-DEV-10092020	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-223415/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
LCSSRM 550-223415/12	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
550-150587-A-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: Arizona Public Service Company
Job ID: 550-150810-1
Project/Site: APS Four Corners NIT Extraction Well Installation

Client Sample ID: EW 16-INJ-10082020
Lab Sample ID: 550-150810-1
Date Collected: 10/08/20 17:50
Matrix: Water
Date Received: 10/12/20 09:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	222644	10/13/20 14:12	RDC	TAL PHX
Total/NA	Analysis	300.0		10	222890	10/15/20 23:32	RDC	TAL PHX
Total/NA	Prep	200.7			222563	10/13/20 08:37	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	223173	10/19/20 19:39	MGM	TAL PHX
Total/NA	Prep	200.8			222719	10/14/20 12:34	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	223309	10/20/20 18:01	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	223051	10/17/20 16:20	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	222827		YET	TAL PHX
						(Start) 10/15/20 08:39		
						(End) 10/16/20 09:00		
Total/NA	Analysis	SM 4500 H+ B		1	223415	10/21/20 16:15	MRR	TAL PHX

Client Sample ID: EW 17-DEV-10092020
Lab Sample ID: 550-150810-2
Date Collected: 10/09/20 13:23
Matrix: Water
Date Received: 10/12/20 09:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	222644	10/13/20 15:07	RDC	TAL PHX
Total/NA	Analysis	300.0		200	222644	10/13/20 15:25	RDC	TAL PHX
Total/NA	Prep	200.7			222563	10/13/20 08:37	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	223173	10/19/20 19:43	MGM	TAL PHX
Total/NA	Prep	200.7			222563	10/13/20 08:37	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		5	223346	10/20/20 23:32	MGM	TAL PHX
Total/NA	Prep	200.8			222719	10/14/20 12:34	SXF	TAL PHX
Total/NA	Analysis	200.8 LL		1	223309	10/20/20 17:59	ARE	TAL PHX
Total/NA	Analysis	SM 2320B		1	223051	10/17/20 16:31	DGS	TAL PHX
Total/NA	Analysis	SM 2540C		1	222827		YET	TAL PHX
						(Start) 10/15/20 08:39		
						(End) 10/16/20 09:00		
Total/NA	Analysis	SM 4500 H+ B		1	223415	10/21/20 16:15	MRR	TAL PHX

Laboratory References:
TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Arizona Public Service Company
Job ID: 550-150810-1
Project/Site: APS Four Corners NIT Extraction Well Installation

Laboratory: Eurofins TestAmerica, 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	06-08-21

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 2320B		Water	Alkalinity, Phenolphthalein
SM 4500 H+ B		Water	Temperature

Method Summary

Client: Arizona Public Service Company
Job ID: 550-150810-1
Project/Site: APS Four Corners NIT Extraction Well Installation

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
200.8 LL	Metals (ICP/MS)	EPA	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PHX
SM 4500 H+ B	pH	SM	TAL PHX
200.7	Preparation, Total Metals	EPA	TAL PHX
200.8	Preparation, Total Metals	EPA	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL PHX = Eurofins TestAmerica, Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica Phoenix
4625 E Cotton Center Blvd #189
Phoenix, AZ, 85040
Phone (602) 437-3340

Chain of Custody Record 150810

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

10/23/2020

Client Information	Sampler: Brenden Enos	Lab PM: Ken Baker	Carrier Tracking No(s):	COC No:
Client Contact: Natalie Chrisman Lazarr	Phone: 480-258-3148	E-Mail:		Page: 1 of 1
Company: APS	Site Contact:			Job #:

Address:	Due Date Requested:
City:	TAT Requested (days): Normal
State, Zip:	
Phone: 602-316-1324	PO #:
Email: Natalie.ChrismanLazarr@aps.com	WO #:
Project Name: APS Four Corners NIT Extraction Well Installation	Project #: 1420182068.F020.0007
Site: APS Four Corners	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	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)	300.0-Cl, F, SO4	200.1-B, Ca, K, Mg, Na	200.8- Co, Mo	SM4500HB-pH	SM25403-TDS	SM2320B-Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:											
EW16-INJ-10082020	10/8/20	17:50	G	W	N	N	x	x	x	x	x	x	2	-01
EW17-DEV-10092020	10/9/20	13:23	G	W	N	N	x	x	x	x	x	x	2	-02
													0	
													0	
													0	
													0	

550-150810 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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)

Special Instructions/QC Requirements: There are 4 coolers that were shipped with this COC

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10/12/20 0923	Wood			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 10/12/20 9:23	Company TA-PHX

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: CO 2.1c

Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-150810-1

Login Number: 150810
List Number: 1
Creator: Gravlin, Andrea

List Source: Eurofins TestAmerica, 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.

Appendix J

Semiannual Report Documenting Progress in Remedy Selection Multiunit 1 and the Upper Retention Sump

Wood Environment & Infrastructure Solutions, Inc.
4600 E. Washington St, Suite 600
Phoenix, Arizona 85034
USA
T: 602-733-6000
www.woodplc.com

July 15, 2021
Wood Reference No: 1420182068

Arizona Public Service Company
400 N. 5th Street
Phoenix, Arizona 85004

Re: SEMIANNUAL REPORT DOCUMENTING PROGRESS IN REMEDY SELECTION MULTIUNIT 1 AND THE 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 and the Lined Decant Water Pond) and the Upper Retention Sump (URS). Semiannual progress reporting supporting remedy selection began on July 15, 2019. The most recent update was provided in the *Annual Groundwater Monitoring and Corrective Action Report for 2020*, dated January 31, 2021. This Semiannual Report serves as the fifth update on remedy selection progress at the site and documents activities completed to date in 2021.

1. Summary of Activities Completed in 2021

Activities completed by APS in the first half of 2021 in support of remedy selection for Multiunit 1 and the URS include the following:

- *Continued Groundwater Monitoring in the Multiunit 1 Ash Disposal Area*. Monitoring of supplementary wells and additional water quality constituents in the vicinity of Multiunit 1 began in 2020 during the semiannual CCR monitoring events. This monitoring has continued with sampling conducted for the first 2021 semiannual CCR monitoring event in April 2021. These sampling events and subsequent sampling events in 2021 are being conducted to evaluate groundwater conditions within the area of Multiunit 1 and the intercept trench system downgradient of Multiunit 1 to assess both spatially and temporally heterogenous concentrations in cobalt and molybdenum. The evaluation is expected to be summarized in the second half of 2021 and included in the Annual Groundwater Monitoring and Corrective Action Report for 2021 (2021 GMCAR).
- *Continued Evaluation of Constituent of Concern Exceedances at MW-87*. In January 2021 Wood Environment and Infrastructure Solutions, Inc. (Wood) completed a technical memorandum to address two potential causes of elevated cobalt and molybdenum at MW-87:
    - insufficient completion of well development of MW-87, and;

- potential interactions between groundwater at MW-87 and surface water in Chaco Wash, located approximately 150 feet away.

The technical memorandum was included in the 2020 GMCAR and recommended additional investigation by analyzing groundwater samples collected from supplementary wells near MW-87 during the November 2020 semiannual CCR monitoring event. The same locations were also monitored during the April 2021 semiannual CCR monitoring event and are anticipated to be monitored again during the second half of 2021. The evaluation of analytical data from these sample events is currently underway and is expected to be summarized in the second half of 2021 and included in the 2021 GMCAR. If the data proves inconclusive, collection of surface water samples from Chaco Wash may be warranted to evaluate the potential for the surface water to affect groundwater quality at MW-87 (see section 2 below).

2. Future Planned Activities

APS plans to perform the following activities in support of remedy selection during the second half of 2021 (and in upcoming years, as noted):

- *Installation of a Stream Gauging Station at Chaco Wash*. To further evaluate the possibility of hydraulic connection between Chaco Wash and nearby Multiunit 1 wells (particularly MW-87), Wood has proposed installation of a flow gauging station within Chaco Wash. The gauging station would not only provide comparisons between stream stage and nearby groundwater elevations, but also insights into seasonal flow patterns to inform ideal timeframes for collection of surface water samples from Chaco Wash. The planning for installation of the flow gauging station is anticipated to take place in the second half of 2021.

- *Pilot Seepage Extraction Study at URS Extraction Wells*. In 2019, APS installed four extraction test wells (CM-01, CM-02, CM-03, and CM-04) downgradient of the URS. To date, Wood has designed a pilot-scale seepage extraction system for CM-01 and CM-02 to convey extracted water to a sump that discharges into the new Upper Retention Tank. This system is considered a corrective measures pilot study to evaluate the effectiveness of targeted extraction on fluoride concentrations in groundwater downgradient of the URS. The extraction systems are anticipated to be installed and in operation during the second half of 2021. This pilot study will serve as an interim response measure and will inform potential remedy selection and design to address groundwater impacts at the URS. A Construction Completion Report will be prepared when the installation is complete and operational.

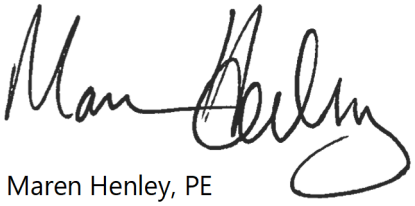
- *Public Meeting*. Pursuant to 40 CFR §257.96(e), APS will conduct a public meeting with interested and affected parties at least 30 days prior to selection of remedies for Multiunit 1 and the URS. As of the date of this Semiannual Report, the Navajo Nation (where the site is located) is permitting public gatherings of 25 persons or less within specific guidance as outlined in the Navajo Department of Health (NDOH) Public Health Emergency Order 2021-012, dated June 18, 2021, due to the COVID-19 pandemic. However, the assumption is a public meeting will need to accommodate significantly more people. If the COVID-19 pandemic continues to prevent an adequate in-person public meeting indefinitely, APS will explore alternative methods for conducting the public meeting while considering the communications infrastructure available for full accessibility and transparency in the process.

- *Remedy Selection Reports for Multiunit 1 and the URS*. After a public meeting to discuss the results of the corrective measures assessment occurs, APS will prepare a remedy selection report for each CCR unit which will document how the selected remedy will meet the requirements of 40 CFR §257.97(b).

Respectfully submitted,
Wood Environment & Infrastructure Solutions, Inc.

Mari Wuollet
Junior Hydrogeologist
mari.wuollet@woodplc.com

Reviewed by:



Maren Henley, PE
Project Manager
maren.henley@woodplc.com

Appendix K

Notification of Intent to Close for the LAI and LDWP (APS)

Arizona Public Service Company
CCR Program
Environmental Policy & Programs

PO Box 53999
Mail Station 9303
Phoenix, AZ 85072-3999

Telephone: 602-250-1000

April 10, 2021

CCR Program Documentation
Closure – Notification of Intent to Close
FC_ClosNOI_008_20210410

Subject: Closure – Notification of Intent to Close; Lined Ash Impoundment and North Toe Buttress - Four Corners Power Plant

Pursuant to 40 C.F.R. §§ 257.101(a)(1) and 257.101(a)(2), APS is providing notice of its intent to close the Lined Ash Impoundment and North Toe Buttress.

In accordance with 40 CFR 257.102(g), the unit will be closed in accordance with its Closure Plan and the provisions of 40 CFR 257.102(d).

If you have any questions about this or would like additional information, please consult the CCR information webpage located within APS.com or contact neal.brown@aps.com.

Per the September 8, 2015 letter to the Navajo Nation, this notification of intent to close should not be construed as a waiver of the covenant not to regulate contained in the site lease for the Four Corners Power Plant.

Arizona Public Service Company
CCR Program
Environmental Policy & Programs

PO Box 53999
Mail Station 9303
Phoenix, AZ 85072-3999

Telephone: 602-250-1000

April 10, 2021

CCR Program Documentation
Closure – Notification of Intent to Close
FC_ClosNOI_009_20210410

Subject: Closure – Notification of Intent to Close; Lined Decant Water Pond - Four Corners Power Plant

Pursuant to 40 C.F.R. §§ 257.101(a)(1) and 257.101(a)(2), APS is providing notice of its intent to close the Lined Decant Water Pond.

In accordance with 40 CFR 257.102(g), the unit will be closed in accordance with its Closure Plan and the provisions of 40 CFR 257.102(d).

If you have any questions about this or would like additional information, please consult the CCR information webpage located within APS.com or contact neal.brown@aps.com.

Per the September 8, 2015 letter to the Navajo Nation, this notification of intent to close should not be construed as a waiver of the covenant not to regulate contained in the site lease for the Four Corners Power Plant.